



Application Help | PUBLIC
SAP Multiresource Scheduling
2022-10-31

Application Help for SAP Multiresource Scheduling

Release 10, Support Package 10

Content

1	SAP Multiresource Scheduling.	11
2	Document History.	13
3	What's New in SAP Multiresource Scheduling 10.	16
3.1	Initial Release.	16
	What's New: Apps for SAP Multiresource Scheduling.	16
	What's New: Web-based Resource Management.	18
	What's New: Parts Availability Check.	18
	What's New: Relationships.	18
	What's New: Qualifications.	19
	What's New: Resource Planning in Projects.	19
	What's New: Capacity and Demand Planning.	20
	What's New: Resource Planning Using Technical Objects.	21
	What's New: Using Maps for Resource Planning.	21
	What's New: Scheduler Workplace (SAP GUI).	22
	What's New: Web-Based Planning Board.	22
	What's New: Documentation Enhancements.	24
3.2	Support Package 01.	25
	What's New: Planning Resources for Work Tickets.	25
	What's New: Travel Times.	26
	What's New: Optimizer.	26
	What's New: Customizing for Notification Integration.	27
	What's New: Documentation Enhancements.	27
	What's New: Apps for SAP Multiresource Scheduling.	28
3.3	Support Package 02.	29
	What's New: Documentation Enhancements.	29
	What's New: Customizing for the Integration of PM/CS Service Orders.	29
3.4	Support Package 03.	30
	What's New: Apps for SAP Multiresource Scheduling.	30
	What's New: Documentation Enhancements.	33
3.5	Support Package 04.	34
	What's New: Documentation Enhancements.	35
	What's New: Data Deletion.	37
	What's New: Data Protection.	37
	What's New: Automatic Planning Board Refresh.	38
	What's New: Automatic Assignment Creation for Demands from PM/CS.	39

3.6	Support Package 05.	40
	What's New: Documentation Enhancements.	40
	What's New: Note Management.	41
	What's New: Web-Based Resource Management.	41
3.7	Feature Package 06.	42
	What's New: Documentation Enhancements.	42
	What's New: Web-Based Planning Board.	43
3.8	Support Package 07.	43
	What's New: Capacity Leveling for Demands with Technical Objects.	44
	What's New: Capacity and Demand Overview.	45
	What's New: Documentation Enhancements.	46
3.9	Support Package 08.	48
	What's New: Information Retrieval.	49
3.10	Support Package 09.	50
	What's New: Implementation Guide Adjustment.	50
3.11	Support Package 10.	50
4	Master Data.	51
4.1	SAP Multiresource Scheduling Master Data.	53
	Resource Planning Structure.	54
	Qualification Catalog.	54
	Qualification Matrix.	61
	Employee Profile.	64
	Requirements Profile.	71
	Resource Addresses in SAP Multiresource Scheduling.	75
	Data Transfer.	76
5	Resource Planning with the SAP GUI.	82
5.1	Scheduler Workplace.	84
	Workplace Functions.	86
	User-Specific Configuration.	89
	Order Worklist.	91
	Item Worklist.	93
	Resource Planning Board.	100
	Alert Monitor.	118
5.2	Cross-Area Functions in Resource Planning.	120
	Calling Up the Scheduler Workplace.	120
	Planning Horizon.	123
	Undo or Redo Actions.	125
	Grouping of Demands.	126
	Data Consistency and Locks.	127
	Checks and Alerts.	129

	Saving the Planning Board.	133
	Cross-Resource Functions.	134
	Creating Addresses for Resources (SAP GUI).	142
	Assignment of Personnel Resources.	143
	Displaying the Utilization of Resources.	171
	Display of Dependencies Between Assignments.	173
5.3	Progress Monitoring.	174
6	Resource Planning with the Web-Based Planning Board.	176
6.1	Web-Based Planning Board.	178
	The UI5 Gantt Chart.	180
	Functions of the Web-Based Planning Board.	183
	Demand and Resource Selection.	196
	Addition of Resources and Demands.	198
	Filtering, Sorting, and Searching of the Resource List.	199
	Displaying Overlapping Bars in the UI5 Gantt Chart.	202
	Display of the Web-Based Planning Board in an Alternative Time Zone.	203
	Demand Document Printing in the Web-Based Planning Board.	204
	Creating User-Specific Hierarchies.	205
	Creating Addresses for Resources (Web).	206
6.2	Planning Horizon.	207
6.3	Day-Based Scheduling.	208
	Setting Up Day-Based Scheduling.	209
6.4	Data Consistency and Locks.	210
6.5	Checks.	212
6.6	Alert Monitor.	214
6.7	Assignments in the Web-Based Planning Board.	215
	Creating and Editing Assignments in the Web-Based Planning Board.	217
	Plan for Multiple Resources for a Demand.	219
	Capacitive Assignments.	220
	Stretched Assignments.	221
	Manual Splitting of Assignments.	223
	Assignment Copy.	223
	Cutting Out of Assignments.	224
	Detail View for Assignment.	225
	Time Allocations.	226
6.8	Changing Demands in the Web-Based Planning Board.	228
	Demand List.	229
	Navigating to the Source of a Demand.	232
	Setting Statuses for a Demand.	234
	Demand Split.	235
	Split History.	237

7	Resource Planning in Plant Maintenance (PM) and Customer Service (CS).	239
7.1	Resource Planning for Orders from Plant Maintenance (PM) and Customer Service (CS).	240
	Integration of Splits.	244
	Integrating Operation Data into SAP Multiresource Scheduling.	247
	Backward Integrating SAP Multiresource Scheduling Data to PM/CS.	249
	Automatic Assignment Creation.	250
	Utilization-Based Automatic Assignment Creation.	252
	Appointment Booking with a PM/CS Order.	254
7.2	Resource Planning for Notifications from Plant Maintenance (PM) and Customer Service (CS)	256
	Transfer of Notification Data Between SAP ERP and SAP Multiresource Scheduling.	258
8	Resource Planning in Projects.	261
8.1	Setting Up the Project System (PS) Integration.	265
8.2	Resource Planning in Projects: Contact Person Process.	267
	Processing of Remaining Demand.	269
	Contact Person Process with Remaining Demand Processing.	270
8.3	Resource Overview.	272
8.4	Status in the Resource Overview.	274
8.5	Long-Term Planning for Network Activities with Date Rules.	275
	Creation of Date Rules for Network Activities.	276
	Creation of Assignments for Demands with Date Rules.	277
9	Web-Based Resource Management in Project Systems.	279
9.1	Combined Use of Web-based RM UI and MRS Planning Board UI.	283
9.2	Setting Up Web-based Resource Management.	284
9.3	Using N.N. Resources in Web-based Resource Management.	286
9.4	Long-Term Planning with Time Rules in Web-Based Resource Management.	287
	Creating Time Rules for Roles using the Web Dynpro version of RM.	288
	Creating Time Rules for Roles Using RM Apps.	289
	Creation of Assignments for Demands with Time Rules.	290
	Creating Assignments for Demands with Time Rules (SAP GUI Planning Board).	291
	Creating Assignments for Demands with Time Rules (Web-Based Planning Board).	292
	Creating Assignments for Demands with Time Rules in Web-based RM (Web Dynpro).	293
	Creating Assignments for Demands with Time Rules in Web-Based RM (RM apps).	294
9.5	Apps for Web-based Resource Management.	294
	My Requests.	295
	Staffing Requests.	310
	Role Overview.	341
	Broadcasted Roles.	370
	RM Team Schedule.	395
	My Schedule.	409

	Published Roles.	419
	Alerts & Notifications.	426
	Create Multiple Bookings.	432
	Reassign Assignments.	438
9.6	Web-Based Resource Management Using the Web Dynpro Version.	442
	Requester Workplace.	443
	Web-Based Creation of a Resource Request.	444
	Status-Dependent Demand Processing in Requester Workplace.	446
	Request Management Workplace.	449
	Web-Based Request Management.	451
	Status-Dependent Request Processing in Request Management Workplace.	453
	Web-Based Candidate Search.	455
	Candidate Status.	458
	Web-Based Request Processing Using Searching Parties.	459
	Web-Based Resource Staffing.	460
	Availability Data Display	461
	Web-Based Creation of Assignments.	462
	Web-Based Creation of Time Allocations.	466
	Web-Based Postprocessing of Assignments.	467
	Reports for Web-Based Resource Management.	468
10	Resource Planning with SAP Portfolio and Project Management.	471
10.1	Creation of an SAP Multiresource Scheduling Demand in the Project.	473
	Process Variant Overview for Contact Person Process.	475
	Process Variant Overview for Resource Planner Process.	478
	Use of HR Qualifications in cProjects.	479
10.2	Long-Term Planning with Time Rules.	480
	Creation of Time Rules.	481
	Creation of Assignments for Demands with Time Rules.	482
10.3	Resource Proposal Processing in cProject.	484
10.4	Status Overview in cProjects.	485
10.5	Demand Closure in the Contact Person Process.	486
11	Resource Planning for SAP CRM Service Orders.	488
11.1	Data Integration in SAP Multiresource Scheduling and SAP CRM.	490
11.2	Setting Up Backward Integration of Data for SAP CRM Service Orders.	491
11.3	Setting Up Assignment Status Integration.	495
11.4	Use of Qualifications in CRM Service Orders.	496
11.5	Appointment Booking with SAP CRM Service Orders.	497
11.6	Resource Planning Using Mobile Devices with SAP CRM Service Manager.	501
12	Resource Planning for Work Tickets from SAP Cloud for Customer.	503

12.1	SAP Cloud for Customer Integration: Set-Up and Prerequisites.	504
	Creating a Status Profile for Work Tickets.	509
12.2	Functions Available for Demands from SAP Cloud for Customer.	511
13	Assignment-Based Resource Selection.	515
14	Resource Assignment List.	517
15	Bundling of Demands.	520
15.1	Prerequisites and Recommendations for the Bundling of Demands.	522
15.2	Creating Demand Bundles in the Scheduler Workplace.	524
15.3	Creating Demand Bundles in the Web-Based Planning Board.	525
16	Finding Suitable Employees and Demands.	526
16.1	Setting Up Qualifications in SAP Multiresource Scheduling.	530
16.2	Finding Suitable Employees.	533
	Finding Suitable Employees in the Scheduler Workplace (SAP GUI).	534
	Finding Suitable Employees in the Web-Based Planning Board.	547
16.3	Finding Suitable Demands for Employees (SAP GUI).	553
16.4	Displaying the Required Qualifications for a Demand.	555
16.5	Qualification Matching.	556
	Qualification Matching for Structured Qualifications.	556
	Qualification Matching for Unstructured Qualifications.	560
16.6	Qualification and Availability Matching at Team Level.	562
17	Travel Times.	565
18	Processing Times.	569
19	Teams.	571
19.1	Creating and Editing Teams in the Scheduler Workplace.	573
19.2	Creating and Editing Teams in the Web-Based Planning Board.	575
19.3	Qualification and Availability Matching at Team Level.	576
19.4	Person Responsible in the Team.	578
19.5	Team Maintenance Report.	579
20	N.N. Resources.	580
20.1	Creating N.N. Resources.	581
20.2	Deleting N.N. Resources.	584
21	Tools.	586
21.1	Using Tools in the Scheduler Workplace.	588
21.2	Using Tools in the Web-Based Planning Board.	589
22	Parts Availability Check.	592

22.1	Setting Up the Parts Availability Check.	595
22.2	Parts Availability Check for Multiple Demands.	597
22.3	Employee Search with Integrated Parts Availability Check.	598
23	Resource Planning Using Technical Objects.	600
23.1	What is a Technical Object?.	601
23.2	Setting Up the Use of Technical Object Resources.	603
23.3	Availability View.	605
23.4	Maintaining the Availability of Technical Object Resources.	607
24	Automatic Scheduling of Multiday Assignments.	610
24.1	Creation of Multiday Assignments.	611
24.2	Triggering the Automatic Scheduling in the Scheduler Workplace.	614
24.3	Triggering the Automatic Scheduling in the Web-Based Planning Board.	615
25	Optimizer for Resource Planning.	617
25.1	Starting Optimization Runs in the Scheduler Workplace.	621
25.2	Starting Optimization Runs in the Web-Based Planning Board.	623
25.3	Analyzing the Results of an Optimization Run.	624
25.4	Optimization in the Background.	625
26	Collisions.	627
26.1	Displaying and Editing Collisions in the Scheduler Workplace.	628
26.2	Displaying Collisions in the Web-Based Planning Board.	629
27	Using Maps for Resource Planning.	631
27.1	Best Practices for the Use of Geographic Information.	631
27.2	Using a Map in the Web-Based Planning Board.	636
	Setting Up Map Integration in the Web-Based Planning Board.	639
27.3	Using a Map in the Scheduler Workplace (SAP GUI).	652
	Setting Up Map Integration in the SAP GUI.	653
28	Capacity and Demand Planning.	657
28.1	Capacity and Demand Overview.	657
	Setting Up the Capacity and Demand Overview.	659
	Capacity and Demand Overview: Data Selection and Display.	663
	Specifying Demand Reserves.	669
28.2	Capacity and Demand Planning in the SAP GUI.	670
	Capacity View in the Scheduler Workplace (SAP GUI).	674
	Dispatching View (SAP GUI).	678
	Grouping of Demands.	680
	Displaying Text Boxes for Demands.	681
	Parallel Assignment and Demand Planning.	682
28.3	Capacity and Demand Planning in the Web-Based Planning Board.	684

	Demand List.	687
	Capacity View in the Web-Based Planning Board.	690
	Setting Statuses for a Demand.	693
28.4	Capacity Planning of Demands from Service and Project System.	694
	Setting Up Capacity Planning.	698
	Capacity Leveling: Shifting Demands at Work Center Level.	703
	Relationships.	714
	Changing the Dates of Multiple Demands.	720
29	Apps for SAP Multiresource Scheduling.	722
29.1	Installation and Implementation.	723
29.2	Global Demand Search.	726
	App Implementation: Global Demand Search.	728
	App Extensibility: Global Demand Search.	731
29.3	My Assignments.	733
	App Implementation: My Assignments.	735
	App Extensibility: My Assignments.	740
29.4	Find Expertise.	741
	Qualifications in the Find Expertise App.	743
	App Implementation: Find Expertise.	746
	App Extensibility: Find Expertise.	752
29.5	Apps for Web-based Resource Management.	754
	My Requests.	755
	Staffing Requests.	769
	Role Overview.	801
	Broadcasted Roles.	830
	RM Team Schedule.	855
	My Schedule.	869
	Published Roles.	879
	Alerts & Notifications.	886
	Create Multiple Bookings.	892
	Reassign Assignments.	898
30	Operations Information.	903
30.1	Monitoring and Analysis.	903
	Capacity Graphs.	903
	Monitoring Data Integration.	906
	Permanent Performance Monitoring.	910
	Logging the Read Access to Resource-Related Data.	913
30.2	Administration and Management.	914
	Operation of Web-Based Applications in SAP Multiresource Scheduling.	914
	Integrating Additional Data for Demands.	923

Appointment Booking.	928
Inbound Queue Processing in SAP Multiresource Scheduling.	948
Using SAP Multiresource Scheduling in a Multi-System Landscape.	958
Deletion of SAP Multiresource Scheduling Data.	963
Data Archiving in SAP Multiresource Scheduling.	972

1 SAP Multiresource Scheduling

SAP Multiresource Scheduling helps you to find suitable resources and assign them to demands. Demands are units of work from various areas, such as the following:

- Service orders from SAP CRM
- Service orders and notifications from Plant Maintenance (PM) and Customer Service (CS)
- Networks from Project System (PS)
- Projects from SAP cProject Suite or SAP Portfolio and Project Management (SAP PPM)
- Work tickets from SAP Cloud for Customer

SAP Multiresource Scheduling provides the following main functions:

- Graphical interfaces to plan resources and demands manually using information about open demands, the utilization of resources, and possible conflicts with the current resource planning situation
- Automatic support for resource planning based on availability, qualifications, and partner roles, as well as utilization-based automatic assignment creation and intelligent shifting of existing assignments
- Optimization of daily assignment planning, for example, to maximize utilization, minimize travel times, or adhere to SLAs
- Capacity and demand planning by shifting demands at work center level to slots with sufficient capacity
- Integration of geographic information systems to visualize travel routes and support the search for the nearest employee
- Integration with mobile devices to provide information to employees and track the status of assignments

i Note

In some parts of the documentation, the term “order” is used as a general term for sources of demand for resource planning.

Using SAP Multiresource Scheduling, you can plan different types of demands in parallel. For example, you can assign demands from Project System and Customer Service to one employee.

Implementation Considerations

SAP Multiresource Scheduling is based on SAP NetWeaver technology and enables resources to be planned across systems. You can implement SAP Multiresource Scheduling as an add-on based on SAP NetWeaver or as an add-on based on SAP ERP. For more information, see the *Administrator's Guide for SAP Multiresource Scheduling* available on SAP Help Portal at <http://help.sap.com/mrs>.

i Note

The *Administrator's Guide for SAP Multiresource Scheduling* is available in English only. To access this guide, you must first sign in to SAP Help Portal using an SAP ID.

Related Information

[Administrator's Guide for SAP Multiresource Scheduling](#)

2 Document History

See what changes have been made to this document since it was first released.

i Note

The latest version of this document is available on SAP Help Portal at <http://help.sap.com/mrs>.

For more detailed information about the new and changed functions and features included in a support package or feature package, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

Date	Change	More Information
April 3, 2023	Application help has not been changed	Support Package 10 released
April 4, 2022	Application help has not been changed	Support Package 9 released
May 17, 2021	Application help has not been changed	Support Package 8 released

Date	Change	More Information
March 9, 2020	Information added in various topics: • New settings to configure the use of technical objects in capacity planning • New settings for the configuration of the <i>Demand and Capacity Overview</i> report • Update of product name and a new recommendation for status configuration in an SAP Cloud for Customer integration scenario • Correction of authorization objects required for appointment booking for CRM service orders • Update of information about ICF service activation for Web-based applications • Minor correction of information about the intelligent shifting of assignments	With the release of Support Package 7, the following topics were updated: • Setting Up the Use of Technical Object Resources [page 603] • Using Capacity Leveling in the Web-Based Planning Board [page 712] • Setting Up the Capacity and Demand Overview [page 659] • SAP Cloud for Customer Integration: Set-Up and Prerequisites [page 504] • Creating a Status Profile for Work Tickets [page 509] • Appointment Booking with SAP CRM Service Orders [page 497] • Operation of Web-Based Applications in SAP Multiresource Scheduling [page 914] • Operation of the Web-Based Planning Board [page 918] • Activating ICF Services [page 916] • Setting Up the UI5 Gantt Chart [page 181] • Intelligent Shifting of Assignments [page 165]

Date	Change	More Information
March 31, 2019	Information added about using the UI5 Gantt chart instead of the JGantt chart for the Web-based planning board.	With the release of Feature Package 6, some new topics were created with information about the new UI5 Gantt chart: The UI5 Gantt Chart [page 180] Setting Up the UI5 Gantt Chart [page 181] Displaying Overlapping Bars in the UI5 Gantt Chart [page 202] Various topics were updated with information about the new UI5 Gantt chart, for example: Resource Planning with the Gantt Chart [page 187] Filtering, Sorting, and Searching of the Resource List [page 199] Creating and Editing Assignments in the Web-Based Planning Board [page 217] Travel Times [page 565] Capacity View in the Web-Based Planning Board [page 690]

3 What's New in SAP Multiresource Scheduling 10

The following sections tell you what is new in SAP Multiresource Scheduling 10 and what has changed since the last release.

i Note

Some of the information linked in the documents below is located in the [Administrator's Guide for SAP Multiresource Scheduling](#), which is available in English only. To access the administration guide, you must first sign in to SAP Help Portal using an SAP ID.

Related Information

[Initial Release \[page 16\]](#)
[Support Package 01 \[page 25\]](#)
[Support Package 02 \[page 29\]](#)
[Support Package 03 \[page 30\]](#)
[Support Package 04 \[page 34\]](#)
[Support Package 05 \[page 40\]](#)
[Feature Package 06 \[page 42\]](#)
[Support Package 07 \[page 43\]](#)
[Support Package 08 \[page 48\]](#)
[Support Package 09 \[page 50\]](#)
[Support Package 10 \[page 50\]](#)

3.1 Initial Release

The following sections tell you what is new in the initial release of SAP Multiresource Scheduling 10 and what has changed since the last release.

3.1.1 What's New: Apps for SAP Multiresource Scheduling

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Using apps in SAP Multiresource Scheduling	New	You can use several apps for SAP Multiresource Scheduling 10. These apps must be integrated into an existing SAP Fiori landscape.	Apps for SAP Multiresource Scheduling [page 722]
<i>My Assignments</i>	New	The <i>My Assignments</i> app helps employees obtain an overview of their assignments.	My Assignments [page 733]
<i>Find Expertise</i>	New	The <i>Find Expertise</i> app helps users find subject matter experts with a specific skill set.	Find Expertise [page 741]
Apps for Web-based Resource Management	New	You can use the apps for Web-based resource management to create requests, search for candidates and assign them to projects using a Web interface. You can use the apps as an alternative to the Web Dynpro version of Web-based resource management . The apps are targeted at users in different roles: As a requester, you create requests. As a resource manager you look for candidates, contact searching parties for help, and staff the requests. As an employee, you can check your availability, create assignments and apply for published roles. As a line manager you can check the availability of your team members and create assignments.	My Requests [page 295] Staffing Requests [page 310] Broadcasted Roles [page 370] Role Overview [page 341] Alerts and Notifications [page 426] RM Team Schedule [page 395] My Schedule [page 409] Published Roles [page 419] Web-Based Resource Management in Project System [page 279]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.2 What's New: Web-based Resource Management

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Apps for Web-based Resource Management	New	You can now use the apps for Web-based resource management to create requests, search for candidates and assign them to projects using a Web interface. You can use the apps as an alternative to the Web Dynpro version of Web-based resource management.	Web-Based Resource Management in Project System [page 279]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.3 What's New: Parts Availability Check

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Parts availability check	Enhanced	You can trigger the parts availability check in the Web-based planning board.	Parts Availability Check [page 592]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.4 What's New: Relationships

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Working with relationships in the Web-based planning board	New	You can show, create, and change relationships in the Web-based planning board.	Working with Relationships in the Web-Based Planning Board [page 718]

Function	Type of Change	Description	More Information
Shifting of demands with relationships	Enhanced	You can activate an enhanced logic for shifting demands. If you do so, the system takes into account not only finish-start relationships, but any type of relationship.	Capacity Leveling: Shifting Demands at Work Center Level [page 703]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.5 What's New: Qualifications

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Showing the required qualifications for a demand	Enhanced	You can now show the qualifications that are required for a demand in the Web-based planning board.	Displaying the Required Qualifications for a Demand [page 555]
Documentation on employee and demand search (including qualification matching)	Enhanced	The documentation has been restructured. In addition, a chapter on how to set up qualifications has been added.	Finding Suitable Employees and Demands [page 526]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.6 What's New: Resource Planning in Projects

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Capacity planning in the resource planner process variant	Enhanced	Within the resource planner process, you can now use both capacity planning and resource planning for demands from Project System.	Resource Planning in Projects [page 261] Capacity Planning of Demands from Service and Project System [page 694]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.7 What's New: Capacity and Demand Planning

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Using the capacity view	Enhanced	You can now use the table-based capacity view in the Scheduler Workplace (SAP GUI). In addition, you can use the capacity view in the Web-based planning board.	Capacity View in the Scheduler Workplace (SAP GUI) [page 674] Capacity View in the Web-Based Planning Board [page 690]
Capacity and demand planning in the Web-based planning board	New	You can now use various capacity and demand planning functions (such as capacity leveling) in the Web-based planning board.	Capacity and Demand Planning in the Web-Based Planning Board [page 684]
Working with relationships	Enhanced	You can now work with relationships in the Web-based planning board.	Relationships [page 714]
Capacity leveling	Enhanced	You can now use an enhanced leveling logic when shifting demands to free slots. You can perform capacity leveling in the Web-based planning board.	Capacity Leveling: Shifting Demands at Work Center Level [page 703]

Function	Type of Change	Description	More Information
Capacity planning of demands from Project System (PS)	Enhanced	Within the resource planner process variant, you can now use both capacity planning and resource planning for demands from Project System.	Resource Planning in Projects [page 261] Capacity Planning of Demands from Service and Project System [page 694]
Documentation on demand and capacity planning	Enhanced	The documentation on capacity and demand planning has been restructured. In addition, new sections (for example, about set-up activities) have been added.	Capacity and Demand Planning [page 657] Capacity Planning of Demands from Service and Project System [page 694]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.8 What's New: Resource Planning Using Technical Objects

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Using the availability view in the Web-based planning board	New	You can now use the availability view in the demand view of the Web-based planning board.	Resource Planning Using Technical Objects [page 600]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.9 What's New: Using Maps for Resource Planning

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Using a map in the Web-based planning board	New	You can now use a map in the Web-based planning board.	Using a Map in the Web-Based Planning Board [page 636]

Function	Type of Change	Description	More Information
Documentation on using maps for resource planning	Enhanced	The documentation on map integration has been updated and restructured.	Using Maps for Resource Planning [page 631]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.10 What's New: Scheduler Workplace (SAP GUI)

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Using the capacity view	Enhanced	You can now use the table-based capacity view in the demand planning layout of the Scheduler Workplace.	Table-Based Capacity View (SAP GUI) [page 676]
Displaying text boxes for demands	New	You can now display text boxes for demands in the demand Gantt chart.	Displaying Text Boxes for Demands [page 681]
Performing capacity leveling	Enhanced	You can now use an enhanced capacity leveling logic for shifting demands at work center level.	Capacity Leveling: Shifting Demands at Work Center Level [page 703]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.11 What's New: Web-Based Planning Board

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Function	Type of Change	Description	More Information
Displaying demand hierarchies	New	You can now display complex demands in the demand view of the Web-based planning board.	Capacity and Demand Planning in the Web-Based Planning Board [page 684]

Function	Type of Change	Description	More Information
Changing demands	New	You can now change demands in the demand view of the Web-based planning board.	Changing Demands in the Web-Based Planning Board [page 228]
Setting statuses for a demand	New	You can now set statuses for demands in the demand Gantt chart and in the demand list of the Web-based planning board.	Setting Statuses for a Demand [page 693]
Using the capacity view	New	You can now use the capacity view in the demand view of the Web-based planning board.	Capacity View in the Web-Based Planning Board [page 690]
Using a map	New	You can now use a map in the resource view of the Web-based planning board.	Using a Map in the Web-Based Planning Board [page 636]
Displaying the required qualifications for a demand	New	You can now display the required qualifications for a demand in the demand Gantt chart and the demand list.	Displaying the Required Qualifications for a Demand [page 555]
Resource planning using technical objects	New	You can now use the availability view in the demand view of the Web-based planning board.	Resource Planning Using Technical Objects [page 600]
Working with relationships	New	You can now display, edit, and create relationships in the demand view of the Web-based planning board.	Relationships [page 714]
Using the parts availability check	New	You can now trigger the parts availability check in the demand Gantt chart and the demand list of the Web-based planning board.	Parts Availability Check [page 592]
Using capacity leveling	New	You can now shift demands for the purpose of capacity leveling in the demand view of the Web-based planning board.	Capacity Leveling: Shifting Demands at Work Center Level [page 703]

Function	Type of Change	Description	More Information
Trigger the re-scheduling of demands	New	You can now trigger the re-scheduling of complex demands in the demand view of the Web-based planning board.	Capacity and Demand Planning in the Web-Based Planning Board [page 684] Capacity Planning of Demands from Service and Project System [page 694]

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.1.12 What's New: Documentation Enhancements

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10.

Documentation Area	Type of Change	Description	More Information
Finding suitable employees and demands (including qualification matching)	Enhanced	The documentation has been restructured and consolidated to cover both the Scheduler Workplace (SAP GUI) and the Web-based planning board. New sections, for example, on set-up activities, have been introduced.	Finding Suitable Employees and Demands [page 526]
Demand and capacity planning	Enhanced	The documentation has been restructured and consolidated to cover both the Scheduler Workplace (SAP GUI) and the Web-based planning board. New sections, for example, on set-up activities, have been introduced.	Capacity and Demand Planning [page 657]

Documentation Area	Type of Change	Description	More Information
Using maps for resource planning	Enhanced	The documentation has been restructured and consolidated to cover both the Scheduler Workplace (SAP GUI) and the Web-based planning board. New sections, for example, on set-up activities, have been introduced.	Using Maps for Resource Planning [page 631]
Overview of required software units	Removed	The overview of required software units has been removed from the application help.	See the administrator's guide at http://help.sap.com/mrs

For a complete list of changed and new features, see [What's New in SAP Multiresource Scheduling 10 \[page 16\]](#).

3.2 Support Package 01

This section of the application help shows you what is new and what has changed in Support Package 01 for SAP Multiresource Scheduling 10.

3.2.1 What's New: Planning Resources for Work Tickets

The following table shows you what is new and what has changed in Support Package 01 for SAP Multiresource Scheduling 10:

Function	Type of Change	Required Support Package (SP)	Description	More Information
Planning resources for work tickets from SAP Cloud for Customer	New	SP 01	You can use SAP Multiresource Scheduling to assign resources to work tickets from SAP Cloud for Customer.	Resource Planning for Tickets from SAP Cloud for Customer [page 503]

3.2.2 What's New: Travel Times

The following table shows you what is new and what has changed in Support Package 01 for SAP Multiresource Scheduling 10:

Function	Type of Change	Required Support Package (SP)	Description	More Information
Setting a travel time type	New	SP 01	In the user settings and the assignment details, you can now specify a travel time type. You can choose between concrete and stretched travel times. In Customizing, you can specify the default travel time type.	Travel Times [page 565] Optimizer for Resource Planning [page 617]

3.2.3 What's New: Optimizer

The following table shows you what is new and what has changed in Support Package 01 for SAP Multiresource Scheduling 10:

Function	Type of Change	Required Support Package (SP)	Description	More Information
Use of stretched travel times	New	SP 01	With the introduction of stretched travel times, the Optimizer automatically stretches travel times if this is required to optimize the planning situation.	Travel Times [page 565] Optimizer for Resource Planning [page 617]

3.2.4 What's New: Customizing for Notification Integration

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10:

Function	Type of Change	Required Support Package (SP)	Description	More Information
New Customizing activity for Notification Integration	New	SP 01	Using the new Customizing activity <i>Define Date Types for Notification Integration (ERP)</i> , you can now choose the type of notification dates that the system takes as earliest possible start date and latest possible end date for the demand.	Resource Planning for Notifications from Plant Maintenance (PM) [page 256] Transfer of Notification Data Between SAP ERP and SAP Multiresource Scheduling [page 258]

3.2.5 What's New: Documentation Enhancements

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10:

Documentation Topic	Type of Change	Required Support Package (SP)	Description	More Information
SAP CRM Integration	Enhanced	SP 01	We have introduced a new section about data integration in SAP Multiresource Scheduling and in SAP CRM. We have also enhanced the existing documentation.	Data Integration in SAP Multiresource Scheduling and SAP CRM [page 490] Setting Up Backward Integration of Data for SAP CRM Service Orders [page 491] Resource Planning for SAP CRM Service Orders [page 488] Appointment Booking with SAP CRM Service Orders [page 497]

Documentation Topic	Type of Change	Required Support Package (SP)	Description	More Information
Integrating additional data for demands	Enhanced	SP 01	We have introduced a new section about how to integrate additional data in custom fields for a demand. In addition, we have enhanced the existing documentation.	Integrating Additional Data for Demands [page 923] Configuring the Display of Custom Fields in the Demand Details [page 927]
Monitoring data integration	Enhanced	SP 01	We have enhanced the existing documentation on data integration monitoring. A new section on monitoring data integration for web service messages has been introduced.	Monitoring Data Integration [page 906] Monitoring Data Integration for qRFC [page 907] Monitoring Data Integration for Web Service Messages [page 909]

3.2.6 What's New: Apps for SAP Multiresource Scheduling

The following table shows you what is new and what has changed in Support Package 01 for SAP Multiresource Scheduling 10:

Function	Type of Change	Required Support Package (SP)	Description	More Information
Version of user interface add-on 1.0 for SAP NetWeaver	New	SP 01	As of SP 01 for SAP Multiresource Scheduling 10, the required front-end component is user interface add-on 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13.	Installation and Implementation [page 723]

3.3 Support Package 02

This section of the application help shows you what is new and what has changed in Support Package 02 for SAP Multiresource Scheduling 10.

3.3.1 What's New: Documentation Enhancements

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10:

Documentation Topic	Type of Change	Required Support Package (SP)	Description	More Information
Automatic splitting of assignments	Enhanced	SP 02	We have updated the documentation about automatic assignment splitting in the system and in the application help.	Automatic Assignment Split [page 154]

3.3.2 What's New: Customizing for the Integration of PM/CS Service Orders

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10:

Type of Change	Required Support Package (SP)	Description	More Information
Enhanced	SP 02	We have introduced a new option in the integration Customizing for demands that are based on service orders from SAP ERP Plant Maintenance and Customer Service.	Please see the documentation in the system (Under Sources of Demand PM/CS Orders Control Integration Between MRS and PM/CS (ERP) PM/CS (ERP) PM/CS (ERP) , check the field help for the Duration Logic field)

3.4 Support Package 03

This section of the application help shows you what is new and what has changed in Support Package 03 for SAP Multiresource Scheduling 10.

3.4.1 What's New: Apps for SAP Multiresource Scheduling

The following table shows you what is new and what has changed in Support Package 03 for SAP Multiresource Scheduling 10:

Function	Type of Change	Required Support Package (SP)	Description	More Information
New App: Global Demand Search	New	SP 03	Using this new app, you can find suitable demands for any employee within a period of your choice. You can use the app not only for Web-based Resource Management requests, but also for other demand types used in SAP Multiresource Scheduling.	Global Demand Search [page 726]
New app: Create Multiple Bookings	New	SP 03	Using this new app, you can create multiple other bookings for multiple resources at once.	Create Multiple Bookings [page 432]
New App: Reassign Assignments	New	SP 03	Using this new app, you can move assignments and time allocations from one resource to another.	Reassign Assignments [page 438]

Function	Type of Change	Required Support Package (SP)	Description	More Information
Automatic creation of RM candidates after assignment updates	New	SP 03	If you create an assignment using the Multi-resource Scheduling planning board UI, the system now adds the assigned resource as a candidate to the role in the RM Web UI.	Combined Use of Web-based RM UI and MRS Planning Board UI [page 283]
Send request information to e-mail recipients	New	SP 03	You can now generate e-mails with the request information from the apps <i>My Requests</i> , <i>Staffing Requests</i> , <i>Role Overview</i> , and <i>Broadcasted Roles</i> .	Sending Request Information Via E-Mail [page 309]
Define time rules	New	SP03	When you create a role, you can now create time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.	Long-Term Planning with Time Rules in Web-Based Resource Management [page 287]
Use time rules when creating assignments	New	SP03	When you create assignments for a role with time rules, you can let the system take the times rules into account.	Creation of Assignments for Demands with Time Rules [page 290]
Use time rules in candidate search	New	SP03	When searching for suitable candidates for a saved role, the system now takes time rules into account.	Adding Candidates to a Role as Resource Manager [page 331]
Display assignment list in the candidate calendar	New	SP 03	In the candidate calendar views of the RM apps, you can now display the assignments in a list.	Adding Candidates to a Role as Resource Manager [page 331]

Function	Type of Change	Required Support Package (SP)	Description	More Information
Define recurrence for other bookings	New	SP 03	When you create other bookings, you can now define a recurrence pattern.	Creating an Other Booking [page 340]
Use of N.N. Resources	New	SP 03	You can now use N.N. resources in the RM apps.	Using N.N. Resources in Web-based Resource Management [page 286]
Display enhanced candidate search results in the advanced candidate search	New	SP 03	In addition to the total matching result, you can now see separate results for the qualification matching for structured and unstructured qualifications and the availability. You can also export the results as CSV file.	Adding Candidates to a Role as Resource Manager [page 331]
Visualize overbooking in team schedule	New	SP 03	You can use the Customizing activity <i>Define Threshold for Overbooking</i> to define when the system is to visualize in red color if a resource is overbooked.	App Implementation: RM Team Schedule [page 398]
Calculation of remaining duration	New	SP 03	You can now see in the role worklists and in the request details how many hours or days of a role are not yet staffed with candidates.	Working in the Role Overview [page 357]
Candidate status change from single assignment	New	SP 03	In the assignment details of a single assignment, you can now change the candidate status.	Working in the Team Schedule [page 405]

Function	Type of Change	Required Support Package (SP)	Description	More Information
Candidate status mass change	New	SP 03	You can now simultaneously change the candidate status for all assignments that lie completely or partially within the currently displayed time frame of the team schedule.	Working in the Team Schedule [page 405]
Self-booking for existing requests	New	SP 03	You can now create self-bookings for existing requests.	Working in My Schedule [page 418]
Simulate assignments	New	SP 03	You can now display simulated assignments for a role when you call up a candidate's schedule from the role details or the advanced candidate search.	Simulated Assignments [page 333]

For more information, see the app history sections for the individual apps.

3.4.2 What's New: Documentation Enhancements

The following table shows you what is new and what has changed in SAP Multiresource Scheduling 10:

Documentation Topic	Type of Change	Required Support Package (SP)	Description	More Information
Long-term planning with time rules in Web-based resource management	Enhanced	SP 03	The documentation has been restructured and consolidated to cover both the RM apps and the Web Dyn-pro version of the application.	Long-Term Planning with Time Rules in Web-Based Resource Management [page 287]

Documentation Topic	Type of Change	Required Support Package (SP)	Description	More Information
App history	New	SP 03	For each app that has been changed for SP03, we have introduced new sections about the app history.	App History: My Requests [page 297] App History: Staffing Requests [page 311] App History: Role Overview [page 342] App History: Broadcasted Roles [page 371] App History: RM Team Schedule [page 396] App History: My Schedule [page 411]

3.5 Support Package 04

This section of the application help shows you what is new and what has changed in Support Package 04 for SAP Multiresource Scheduling 10.

3.5.1 What's New: Documentation Enhancements

The following table shows you what is new and what has changed with Support Package 04 for SAP Multiresource Scheduling 10:

Documentation Topic	Type of Change	Required Support Package	Description	More Information
Information about installation, upgrade, operations, and security	Enhanced	SP 04	The <i>Master Guide and Upgrade Information</i> document was re-named to <i>Administrator's Guide for SAP Multiresource Scheduling</i>. Several links have been updated and the structure has been revised. In addition, the guide now contains a chapter <i>Data Protection</i> section that explains how personal data is handled in SAP Multiresource Scheduling.	The guide is available in HTML5 and PDF format on SAP Help Portal at http://help.sap.com/mrs. To download the PDF version, open the HTML5 version and click the download icon.
Appointment booking using qualification categories	Enhanced	SP 04	The application help now includes more detailed information about how to set up qualification categories for appointment booking.	Setting Up Qualification Categories for Capacity Pots [page 941]
Item worklist in the Scheduler Workplace (SAP GUI)	Enhanced	SP 04	The application help now includes more information about how to filter the item worklist.	Filtering the Item Worklist [page 98]
Day-based scheduling	Enhanced	SP 04	The application help now includes more information about how to set up day-based scheduling.	Setting Up Day-Based Scheduling [page 115]

Documentation Topic	Type of Change	Required Support Package	Description	More Information
Using SAP Multire-source Scheduling in a multi-system landscape	Enhanced	SP 04	The operations information now includes more information about how to configure multi-system scenarios and when to use them.	Using SAP Multire-source Scheduling in a Multi-System Landscape [page 958]
Archiving PS Projects or RM Web Requests	New	SP 04	The application help now includes a topic about archiving PS projects or RM Web requests	Archiving PS Projects or RM Web Requests [page 978]
Display of change documents	Enhanced	SP 04	The application help now includes notes about how to display change documents for demands and assignments created with the Web-based planning board or Web-based Resource Management.	Resource Planning with the Web-Based Planning Board [page 176] Web-Based Resource Management Using the Web Dynpro Version [page 442] Apps for Web-based Resource Management [page 294]

3.5.2 What's New: Data Deletion

The following table shows you what is new and what has changed with Support Package 04 for SAP Multiresource Scheduling 10:

Topic	Type of Change	Required Support Package (SP)	Description	More Information
Data Deletion	Enhanced	SP 04	Additions concerning the deletion of data	Deletion of Employee Data from the TREX Search Engine [page 966] Deletion of RM Teams [page 968] Deletion of User Settings [page 970] Deletion of Web Dyn-pro User Variants [page 970]

3.5.3 What's New: Data Protection

The following table shows you what is new and what has changed with Support Package 04 for SAP Multiresource Scheduling 10:

Topic	Type of Change	Required Support Package (SP)	Description	More Information
Information about data protection and privacy	New	SP04	The <i>Administrator's Guide for SAP Multiresource Scheduling</i> now contains a chapter about data protection. This chapter includes information and further references related to the handling of personal data in SAP Multiresource Scheduling.	The guide is available in HTML5 and PDF format on SAP Help Portal at http://help.sap.com/mrs . To download the PDF version, open the HTML5 version and click the download icon.

Related Information

[Administrator's Guide for SAP Multiresource Scheduling](#)

3.5.4 What's New: Automatic Planning Board Refresh

The following table shows you what is new and what has changed with Support Package 04 for SAP Multiresource Scheduling 10:

Documentation Topic	Type of Change	Required Support Package (SP)	Description	More Information
Automatic refresh of the Scheduler Workplace (SAP GUI) and the Web-based planning board	Enhanced	SP 04	You can now specify in Customizing what data to update during the automatic refresh of the Scheduler Workplace and the Web-based planning board. In Customizing, the checkbox previously used for automatic refresh configuration has been changed to a drop-down field.	Workplace Refresh [page 88] Web-Based Planning Board Refresh [page 187]

3.5.5 What's New: Automatic Assignment Creation for Demands from PM/CS

The following table shows you what is new and what has changed with Support Package 04 for SAP Multiresource Scheduling 10:

Documentation Topic	Type of Change	Required Support Package (SP)	Description	More Information
Search strategy for automatic assignment creation	Enhanced	SP 04	If you have activated qualification matching, you can now specify in Customizing what resources the system uses for automatic assignment creation. A new checkbox has been introduced in Customizing activity <i>Define Search Strategy for Automatic Assignment Creation</i> (under  <i>Sources of Demand</i>  <i>PM/CS Orders</i>  <i>Define Search Strategy for Automatic Assignment Creation</i> . Using this checkbox you can control whether the system uses the resources found based on the search strategy or whether it uses the resources that are assigned to the organizational unit of the demand.	For more information, see the field help for the Search Strategy checkbox in the system.

3.6 Support Package 05

See what's new and what has changed with support package 5 for SAP Multiresource Scheduling 10.

Related Information

[What's New: Documentation Enhancements \[page 40\]](#)

[What's New: Note Management \[page 41\]](#)

[What's New: Web-Based Resource Management \[page 41\]](#)

3.6.1 What's New: Documentation Enhancements

We've added information about how to set up the use of custom demand types for work tickets from SAP Hybris Cloud for Customer. The information about data protection and privacy has been slightly updated.

Documentation Topic	Type of Change	Required Support Package	Description	More Information
Setting up the integration of SAP Multiresource Scheduling with SAP Hybris Cloud for Customer	Enhanced	SP 5	If you want to use custom demand types for work tickets, you must set up a status profile in SAP Multiresource Scheduling (using transaction BS02).	Creating a Status Profile for Work Tickets [page 509]
Data protection and privacy	Enhanced	SP 5	Some of the sections in the <i>Data Protection and Privacy</i> section have been updated.	See the <i>Administrator's Guide for SAP Multiresource Scheduling</i> (under  Security Information  Data Protection and Privacy ). The guide is available on SAP Help Portal at http://help.sap.com/mrs .

Related Information

[Administrator's Guide for SAP Multiresource Scheduling](#)

3.6.2 What's New: Note Management

Notes for resources and assignments are now stored independently of the language in which they were created.

Topic	Type of Change	Required Support Package	Description	More Information
Creating notes for resources and assignments	Enhanced	SP 5	The system now stores notes as language-independent objects. This means that resource planners can view and edit shared notes regardless of their current log-on language.	See the documentation in Customizing for SAP Multiresource Scheduling under ► Basic Settings ► Configure Note Management Settings ► .

3.6.3 What's New: Web-Based Resource Management

We have introduced new authorization checks related to the display of customer and other personal data in the apps for Web-based resource management.

Topic	Type of Change	Required Support Package	Description	More Information
Authorization checks for Web-based resource management	Enhanced	SP 5	You now use authorization objects <code>F_KNA1_GRP</code> and <code>P_ORGIN</code> to control the access to customer and other personal data in the apps for Web-based resource management.	See the <i>Administrator's Guide for SAP Multiresource Scheduling</i> (under ► Security Information ► Authorizations ►). The guide is available on SAP Help Portal at http://help.sap.com/mrs .

Related Information

[Administrator's Guide for SAP Multiresource Scheduling](#)

3.7 Feature Package 06

See what's new and what has changed with feature package 6 for SAP Multiresource Scheduling 10.

Related Information

[What's New: Documentation Enhancements \[page 42\]](#)

[What's New: Web-Based Planning Board \[page 43\]](#)

3.7.1 What's New: Documentation Enhancements

Documentation Topic	Type of Change	Required Feature Package	Description	More Information
Deletion of tools	Enhanced	FP 6	To delete a tool from the SAP Multiresource Scheduling database, you first need to delete the tool demand. This information has been added to the documentation for the Deletion of Resources report.	Deletion of Resources [page 967]

3.7.2 What's New: Web-Based Planning Board

You can now use the UI5 Gantt chart instead of the JGantt chart to display the resource view and demand view in the Web-based planning board.

Topic	Type of Change	Required Feature Package	Description	More Information
Using the new UI5 Gantt chart for the Web-based planning board	New	FP 6	You can now decide whether to use the JGantt chart or the UI5 Gantt chart to display the resource view and demand view in the Web-based planning board. We recommend that you use the SAP UI5 Gantt chart as most browsers such as Google Chrome, Mozilla Firefox, or Microsoft Edge no longer support JGantt charts based on Java applet. For more information, see SAP note 2283330 	Resource Planning with the Web-Based Planning Board [page 176] The UI5 Gantt Chart [page 180]

3.8 Support Package 07

See what's new and what has changed with Support Package 7.

Related Information

[What's New: Capacity Leveling for Demands with Technical Objects \[page 44\]](#)

[What's New: Capacity and Demand Overview \[page 45\]](#)

[What's New: Documentation Enhancements \[page 46\]](#)

3.8.1 What's New: Capacity Leveling for Demands with Technical Objects

A new user setting has been introduced. This setting allows you to specify the technical object to be considered for capacity leveling for demands with two technical objects.

Topic	Type of Change	Required Support Package	Description	More Information
Use of technical objects in capacity leveling	New	SP 7	When you use capacity leveling for a demand that has two technical objects, the system by default considers the availability of both objects when shifting the demand to the next free slot or when proposing suitable time slots for shifting the demand. A new user setting allows you to specify the availability of which technical object (main object or error-causing object) you want to consider for capacity leveling.	Using Capacity Leveling in the Scheduler Workplace (SAP GUI) [page 710] Using Capacity Leveling in the Web-Based Planning Board [page 712]

3.8.2 What's New: Capacity and Demand Overview

New customizing settings allow you to control how the total demand is calculated for the [Capacity and Demand Overview](#) report.

Topic	Type of Change	Required Support Package	Description	More Information
Options for the calculation of the total demand	New	SP 7	Three new options allow you to finetune your configuration: - If you base the total demand calculation on the assignment work and period, you can now specify what assignment period (in relation to the current date) is used. - If you have specified demand statuses that are to be excluded from the calculation of the planning node capacity, you can now specify that assignments for demands with these statuses are also excluded from the calculation. - You can now specify that the demand work is distributed proportionally across the relevant working days, according to the start and end time of the demand and the opening hours of the work center.	You can find the new settings in Customizing for SAP Multiresource Scheduling under Settings for Capacity and Demand Overview > Control Options for Total Demand Calculation.  For more information, see the documentation in the system. Setting Up the Capacity and Demand Overview [page 659]

3.8.3 What's New: Documentation Enhancements

We've made some minor documentation updates by adding more information for specific topics. For example, we've updated the list of ICF services that you must activate for the UI5 Gantt chart. In addition, we've updated the documentation for the integration of SAP Multiresource Scheduling with SAP Cloud for Customer.

Documentation Topic	Type of Change	Required Support Package	Description	More Information
Activating ICF services	Enhanced	SP 7	If you want to use the Web-based planning board with the UI5 Gantt chart, you must activate the required ICF services first. We have added the services related to the UI5 Gantt chart to the list of services required for the Web-based planning board.	Activating ICF Services [page 916]

Documentation Topic	Type of Change	Required Support Package	Description	More Information
Resource planning for work tickets from SAP Cloud for Customer	Enhanced	SP 7	- There have been a few naming changes. As a result, we've updated the following names: - SAP Hybris Cloud for Customer is now SAP Cloud for Customer - SAP Hybris Cloud for Service is now SAP Service Cloud - We've updated some references to SAP Cloud for Customer documentation. - We've included a recommendation about status configuration in SAP Cloud for Customer.	Resource Planning for Work Tickets from SAP Cloud for Customer [page 503] SAP Cloud for Customer Integration: Set-Up and Prerequisites [page 504] Functions Available for Demands from SAP Cloud for Customer [page 511]

Documentation Topic	Type of Change	Required Support Package	Description	More Information
Appointment booking with SAP CRM service orders	Enhanced	SP 7	We've corrected the information about the authorization objects required for overbooking resources. This information has been updated in the application help and in the <i>Authorizations</i> section of the administration guide.	Appointment Booking with SAP CRM Service Orders [page 497] The administration guide is available on SAP Help Portal, at http://help.sap.com/mrs → Administration. i Note To access the administration guide, you need to sign in to SAP Help Portal using an SAP ID.
Intelligent shifting of assignments	Enhanced	SP 7	We've made minor corrections to the application help for the intelligent shifting function..	Intelligent Shifting of Assignments [page 165]

Related Information

[Administrator's Guide for SAP Multiresource Scheduling](#)

3.9 Support Package 08

See what's new and what has changed with Support Package 8.

Related Information

[What's New: Information Retrieval \[page 49\]](#)

3.9.1 What's New: Information Retrieval

As an auditor or data protection officer, you can now use a report to show and download personal data that is stored for personnel resources (HR persons or business partners).

Topic	Type of Change	Required Support Package	Description	More Information
Report for showing personal data	New	SP 8	The <i>Display and Download of Resource Information</i> report (/MRSS/RSI_RES_INFO) allows you to view and download personal data for individual resources.	See the <i>Administrator's Guide for SAP Multiresource Scheduling</i>: • Information Retrieval • Showing Personal Data Using a Report i Note The <i>Administrator's Guide for SAP Multiresource Scheduling</i> is available in English only. To access this guide, you must first sign in to SAP Help Portal using an SAP ID.
Authorizations	New	SP 8	A new authorization object /MRSS/RSI is available. With this authorization object, you can specify whether a user is authorized to execute the <i>Display and Download of Resource Information</i> report (/MRSS/RSI_RES_INFO).	See the <i>Administrator's Guide for SAP Multiresource Scheduling</i> at Authorizations .

3.10 Support Package 09

See what's new and what has changed with Support Package 9.

Related Information

[What's New: Implementation Guide Adjustment \[page 50\]](#)

3.10.1 What's New: Implementation Guide Adjustment

The missing *BAdI: Description and Tooltip for Assignments* has been added to the SAP Multiresource Scheduling Implementation Guide.

Topic	Type of Change	Required Support Package	Description	More Information
Implementation Guide	Enhanced	SP 9	The <i>BAdI: Description and Tooltip for Assignments</i> (/MRSS/SGE_ASS_CHECK) was missing in the SAP Multiresource Scheduling Implementation Guide. With this SP, it has been added to the IMG.	See the SAP Multiresource Scheduling Implementation Guide.

3.11 Support Package 10

See what's new and what has changed with Support Package 10.

No new documentation-relevant changes have been made with Support Package 10.

4 Master Data

Resource master data (employees, tools, spare parts) is required for scheduling and planning resources for an order.

Required Master Data	Function and Transactions
Human Resources (personnel resource, employee)	You can model personnel resources: • As business partners with the employee role • As employees in SAP ERP HR You specify the option that you want to use at client level in Customizing for SAP Multiresource Scheduling at ► Basic Settings ► Configure Basic Settings ►. You create business partners with the role Employee in transaction BP. i Note If you use the business partner in the Employee role for personnel resources, this master data must be maintained in the SAP Multiresource Scheduling system. In SAP HR, employees are created in transaction PA30. i Note To process employee data from an external HCM system, use report <code>/MRSS/HCM_RPTWFMIF</code>.
Availability data of human resources	In resource planning, data about the availability times of an employee is required. Availability data is managed in SAP Multiresource Scheduling Basis. If you model your personnel resources as business partners, you maintain availability in transaction <code>/MRSS/WFM_ADMIN</code>. If you use SAP HR for your personnel resources, transfer the availability information to SAP Multiresource Scheduling Basis from report <code>/MRSS/HCM_RPTWFMIF</code>.

Qualification of human resources

Specific qualifications may be required to carry out some operations of an order. You can create qualifications as follows:

- If you use standard qualifications, edit them in transaction `PPPM`.
- If you use qualifications from SAP Multiresource Scheduling, the following transactions are available:
 - Qualification catalogs and matrixes form the basis of SAP Multiresource Scheduling profiles. You create these with transactions `/MRSS/SQM_CAT` and `/MRSS/SQM_MAT`.
 - To create employee profiles, call transaction `/MRSS/PPPM` (you can also create and edit employee profiles that are specific to SAP Multiresource Scheduling using a Web UI).
 - To create requirements profiles for the demands, call transaction `/MRSS/REQM`.

In each case, you enter the type and the degree of the qualification as well as the validity time of the qualification.

Organizational unit/work center

You can group employees in the HR organizational model. A typical example of a group are workshop resources.

Use transactions `PPOCE` and `PPOME` to process the organizational plan.

In the order, a work center is assigned to each operation. It is essential to assign these work centers to the relevant organizational unit. You assign the work centers in work center maintenance (transaction `CR02`) by choosing [HR Assignment](#).

Resource planner

You assign a resource planner to the organization unit by choosing  [Goto](#)  [Assignment: Resource Planner \(MRS\)](#)  from the context menu.

To do so, call transaction `PPOME`.

This assignment is important if you use transaction `/MRSS/PLBOTIME` to call the [Scheduler Workplace](#).

Tool as material

You create tools as material with material type [Production Resource/Tool](#).

To do so, call transaction `MM01`.

For each tool, you can enter the relevance for resource planning. To determine whether the tool is relevant for resource planning, you assign a corresponding control key.

Tool as equipment

In resource planning, you plan tools that are equipment. The tool demand is defined in the order using the tool material (see above), which can be assigned to an operation as production resource and tools. To determine the tool or equipment in the resource planning board, the system requires the equipment material (the corresponding tool as material) and the organizational assignment (responsible work center). To create equipment, call transaction `IE25`.

i Note

You can use tools as equipment for Plant Maintenance (PM) and Customer Service (CS).

If you use master data specific to SAP Multiresource Scheduling (such as qualification catalogs or employee profiles) for your personnel resources or transfer your HR data to master data specific to SAP Multiresource Scheduling, you can use the functions for SAP Multiresource Scheduling qualifications such as neighboring-level matching, free employee search, and global demand search.

i Note

Qualifications, qualification catalogs and matrixes, and employee and requirements profiles are available if you use the SAP Multiresource Scheduling add-on based on SAP NetWeaver and the SAP Multiresource Scheduling add-on based on SAP ERP.

4.1 SAP Multiresource Scheduling Master Data

SAP Multiresource Scheduling provides separate master data that you can use to optimize the functions of SAP Multiresource Scheduling:

- **Resource planning structure**
The resource planning structure is a separate employee structure used for planning. It is independent of the HR organizational structure and allows you to assign resource planners, resources, contact persons, and work centers to resource planning nodes. However, you can also use the HR organizational plan as the resource planning structure.
- **Qualifications, qualification catalogs, and qualification matrixes**
As an alternative to using the standard HR qualifications, you can use SAP Multiresource Scheduling master data. This allows a more precise comparison of requirements and resources in order to determine the most suitable employees for tasks and vice versa. For the comparison, you can create combinations of qualifications from two different catalogs and enter a specific skill level in the profiles.
- **Employee and requirements profiles**
These combinations of qualifications and other criteria are the basis for comparison between the requirements of the task (the demand in the system) and the suitability of the employee for completing these tasks. You can select new profiles directly in the operations of orders and networks to create corresponding demands for resource planning.
- **Transfer program for qualifications**

If you do not want to create new master data but instead copy qualifications, qualification catalogs, and employee profiles from the standard system, you can use the relevant transfer programs (see Data Transfer).

- **Roles and authorizations**

SAP Multiresource Scheduling authorizations allow you to specify who can edit qualification catalogs and matrixes, and when resources are to be displayed anonymously in the resource planning board, for example.

i Note

If you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver and the SAP Multiresource Scheduling add-on based on SAP ERP in one system, you can use the following: qualifications, qualification catalogs and matrixes, employee profiles and requirements profiles, the transfer program for qualifications, and the associated roles and authorizations.

4.1.1 Resource Planning Structure

If you want to organize resources, resource planners, and contact persons for SAP Multiresource Scheduling independently of the HR organizational plan, you can create a separate employee structure for planning in the HR organizational model.

In Customizing for SAP Multiresource Scheduling, define the following under ► [Basic Settings](#) ► [Define Resource Planning Nodes and Evaluation Paths](#) ►:

- Which object type the system uses as resource planning nodes
- Which evaluation paths the system uses to determine the assignment of resources, resource planners, and contact partners to the resource planning nodes

4.1.2 Qualification Catalog

Definition

Structured list of qualifications that are of interest to the company. A qualification catalog can be organized hierarchically and used in several qualification matrixes.

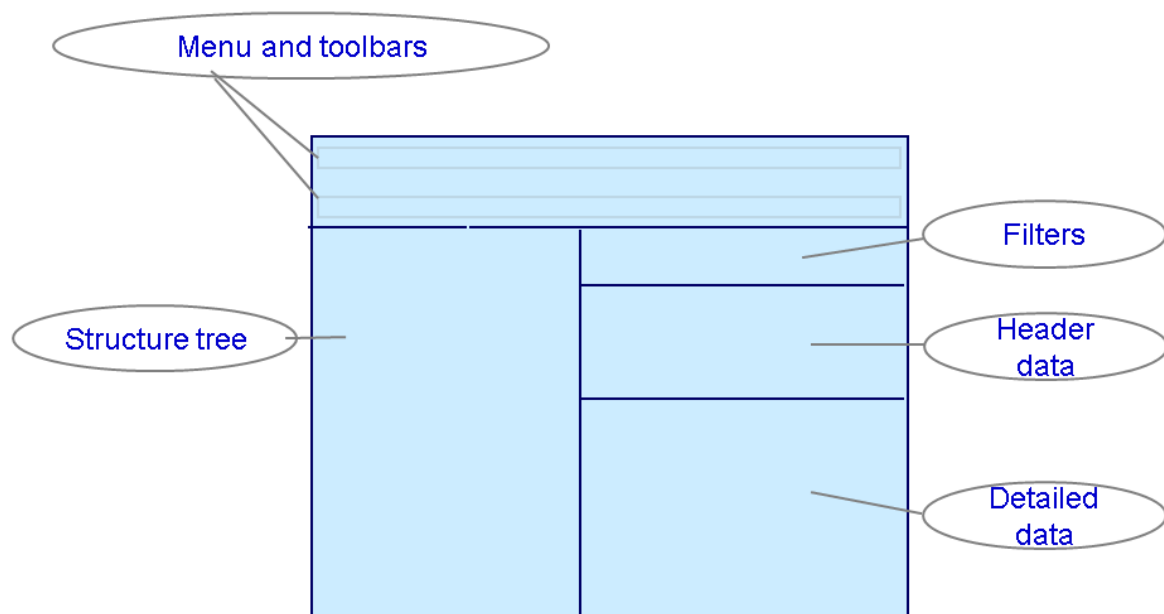
Use

Qualification catalogs form the basis for SAP Multiresource Scheduling. They list qualifications that belong together, for example, in the areas of technology, industry, or certificates. You call the individual qualification catalogs using transaction `/MRSS/SQM_CAT`.

i Note

You can use qualification catalogs if you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver in the same system as the SAP Multiresource Scheduling add-on based on SAP ERP.

Structure



A qualification catalog is structured as a tree hierarchy. If you double-click a catalog item in the tree structure, the item details are displayed at the bottom right of the screen, where you can edit them. The header data is located above this and applies to the whole qualification catalog. It is therefore the same for all items. In the area above the header data, you can select the filter that is to be displayed in the tree structure.

The header data includes:

- Catalog number
- *External Numbers* indicator
- Deletion indicator
- Maintenance group
- Factors for adjacent-level matching
- Maximum hierarchy depth

- Person who created catalog
- Creation date
- Person who last changed catalog
- Date of last change
- Description (language-dependent)

For each catalog item, the system displays the following detailed data:

- Catalog entry (short description)
- Text (description)
- Qualification number
- Duration of validity
- Usable until date
- Filter (in tree structure only)
- Deletion indicator

Integration

Qualification matrixes access one or two qualification catalogs and a rating scale in each case. With the help of the qualification matrixes, the system uses the qualification catalogs to create requirements profiles and employee profiles.

The system can copy standard qualifications (infotype 0024) and standard qualification catalogs. For more information, see [Copying Qualification Catalogs from SAP HR. \[page 77\]](#)

See also:

[Creating a Qualification Catalog \[page 56\]](#)

[Searching and Editing a Qualification Catalog \[page 58\]](#)

[Using Filters for Qualification Catalogs \[page 59\]](#)

[Qualification Matrix \[page 61\]](#)

[Qualification Matching for Structured Qualifications \[page 556\]](#)

4.1.2.1 Creation of a Qualification Catalog

Use

You create new qualification catalogs if you require a new combination of qualifications for resource planning.

Prerequisites

- In Customizing for [SAP Multiresource Scheduling](#), you have defined number ranges, system parameters, and maintenance groups by choosing [► Qualifications ► Master Data. ►](#)
- You are authorized to create qualification catalogs for each maintenance group (authorization objects /MRSS/MNT and /MRSS/MNTP).

Activities

To create a qualification catalog, choose [Create](#) from the [Qualification Catalog](#) screen (transaction /MRSS/SQM_CAT). Qualification catalogs are created without a validity period and that are not assigned a version.

Enter the following data for the qualification catalog:

- **Qualification catalog number**
You can enter an external catalog number if, for example, you want to enter a descriptive name for the catalog. If you do not enter an external number, the system automatically assigns a number from the internal number range. Number range 01 is used to assign internal numbers and number range 02 is used to assign external numbers. You can change the valid number range intervals for external and internal numbers using transaction /MRSS/SQM_QUAL_NUM.
- **Deletion indicator**
The deletion indicator prevents the qualification catalog from being used. For example, if a qualification catalog is not to be used immediately, you can select the deletion indicator when you create the catalog. If you select the indicator at a later time, the system prevents any further use of the catalog. This does not affect any current use.
- **Maintenance group**
To control which qualification catalogs can be used in which qualification matrixes, you have to assign each qualification catalog to a maintenance group. Maintenance groups also serve as a criterion for checking authorizations for qualification catalogs and qualification matrixes. To select a valid maintenance group, use the input help. Parameter /MRSS/SQM_MNTGP is available for you to prefill the maintenance group. To specify your own default value for new qualification catalogs and qualification matrixes, choose [► System ► User Profile ► Own Data. ►](#) and enter parameter /MRSS/SQM_MNTGP and the maintenance group you require as the parameter value on the [Parameters](#) tab page.
- **Maximum hierarchy depth and factors for adjacent-level matching**
The fields [Higher Level Factor](#), [Lower Level Factor](#), [Same Level Factor](#), and [Hierarchy Depth](#) are populated with the default values from Customizing. To change the default values, use the IMG activity [Define System Parameters for Qualification Catalogs](#) under [► SAP Multiresource Scheduling ► Qualifications ► Master Data. ►](#) You can overwrite these values individually in the catalog. However, the value for the maximum hierarchy depth cannot exceed the value in Customizing.
- **Short description**
The system displays the descriptions of qualifications in the logon language. If no text exists in the logon language, it displays the descriptions in the original language of the maintenance group. If no text exists in the original language, no descriptions are displayed.
- **External number assignment for qualifications**
If qualifications are to be copied or updated using interfaces, select [External Numbers](#). You can specify the type of number assignment only if the catalog does not contain qualifications. This setting applies to all qualifications in the catalog.

- **Qualifications**

You can enter a validity duration in days if, for example, a certificate expires after a certain period. You can also enter a date to which the qualification can be used. The deletion indicator has the same function as at catalog level.

Creating with Reference

To use an existing qualification catalog as a template for a new catalog, enter the number of the existing catalog and choose . The new catalog entries are created with internal number assignment; external number assignment is not possible in this case.

4.1.2.2 Searching and Editing a Qualification Catalog

Use

You can search, display, and edit qualification catalogs using the [Qualification Catalog](#) transaction (/MRSS/SQM_CAT).

Prerequisites

You are authorized to create, edit, and delete qualification catalogs (authorization object /MRSS/MNT). Authorizations can be restricted to certain activities, maintenance groups, and structure nodes.

Features

Searching

You can search for qualification catalogs from the [Qualification Catalog](#) initial screen (transaction /MRSS/SQM_CAT). If you do not know the catalog number, you can use the input help for qualification catalogs to search for specific header or item data. The search for the short text is not case-sensitive.

Editing

You must be in change mode to edit a qualification catalog.

- **Creating catalog items**

To create a new item, choose . If entries already exist, select an item at the required location in the tree hierarchy and choose  or . The system assigns a qualification number and you can enter a validity duration in days, a usable until date, a short text, and a longer description for the item.

i Note

You can create only as many hierarchies in the tree structure as are specified in the header data of the qualification catalog in the [Hierarchy Depth](#) field.

- **Moving and deleting catalog items**

You can move or delete selected items using drag and drop. You can also select several entries and move or delete them together. You can delete qualifications only if they are no longer used. To check this, select the qualification and call the where-used list from the toolbar of the tree structure. To do so, choose .

- **Changing the maintenance group**

You can change the maintenance group of a qualification catalog only if the catalog is not used in a qualification matrix.

Creation of change documents

If you have activated the creation of change documents for qualification catalogs in Customizing at [► Qualifications ► Activate Creation of Change Documents for Master Data](#),  the system logs your changes to qualification catalogs using the SAP functions for creating change documents. To call the change history for the catalog or individual qualifications, choose the corresponding entry under [► Environment ► Display Changes](#) .

i Note

The system does not log structure changes in the hierarchy of the qualification catalog. If you want to track these, check the changes of the field for the higher-level nodes.

Deleting

To delete a qualification catalog, enter the catalog number on the [Qualification Catalog](#) initial screen and choose . You can delete qualification catalogs only if they are no longer used. To check this, call the where-used list in the qualification catalog. To do so, choose .

See also:

[Using Filters for Qualification Catalogs \[page 59\]](#)

4.1.2.3 Using Filters for Qualification Catalogs

Use

You can create personal or organization-specific filters to restrict or facilitate the search for qualification catalogs. The system then uses these filters in the catalog search-helps for employee and requirements profiles.

Prerequisites

You are authorized to create and edit filters (authorization object /MRSS/MNTP).

Features

Filter types

You can choose between the following options from *Filter Type*:

- **No Filter**
Choose this option if you do not want to create a filter, or do not want to view or edit any of the existing filters.
- **Personal Filter**
Choose this option if you want to create, edit, or display a personal filter.
- **Organization-Specific Filter**
Choose this option if you want to create, edit, or display an organization-specific filter.

Creating a Filter

You must be in change mode to create a filter.

i Note

The authorization required to change filters is independent of the authorization required to change qualification catalogs. If you are not authorized to change qualification catalogs, choose *Change Filter* from the toolbar of the tree structure to change the filters only.

To define a filter, select the qualifications from the tree structure and add them to the filter by choosing **S**  or **M** . S stands for "single", referring to an individual node without subnodes. M stands for "multiple", which means a node with subnodes. To delete entries from the filter, choose .

As soon as you have added a qualification to a filter, the catalog item is entered as green. If you add an item and its subnodes, all of the items are entered as green.

You can create just one personal filter for each qualification catalog, but you can create several organization-specific filters. If you create an organization-specific filter, you have to specify a resource planning node. As soon as you have selected this option, the system displays the relevant field with a corresponding input help.

Displaying Filters for a Person

To display the active, organization-specific filters for each qualification catalog and person, call the *Display Filter Information for Personnel Master* transaction (/MRSS/SQM_CAT_FILTER). To display just your own organization-specific filters for the current catalog, choose either:

-  *Goto*  in the qualification catalog
-  from the search helps for the employee and requirements profiles

Using Filters

You must activate a filter in the qualification catalog before it is used in the catalog search helps of the profiles. To do this, select the *Active* indicator next to the *Filter Type* field. Note the following points:

- If you create and activate an organization-specific filter for a qualification catalog, this applies only for users who are assigned to the specified resource planning node.
- If a user is assigned to several resource planning nodes, the system determines the active filter for each node assigned and uses the unifying quantity of the individual, organization-dependent filters.

- If a resource planning node assigned to the user does not have an active filter, the system searches the resource planning structure from the bottom up for resource planning nodes with an active filter. As soon as the system finds a node, it uses it and stops the search.

Example: Using Filters

1. You have activated a personal filter for a qualification catalog as well as two other filters for two resource planning nodes assigned to you.
2. In the employee search, you call the [Search Help for Qualifications](#) function.
3. The system provides the data that meets the requirements of the personal filter and the unifying quantity of the two organization-specific filters. That is, you see only qualifications that exist in both the personal filter and one of the two organization-specific filters. Under [Filter Type](#), the system displays [organization-specific and personal filter](#).

4.1.3 Qualification Matrix

Definition

Summary of structured qualifications that refer to qualification catalogs and a rating scale. A qualification matrix is spanned by a primary and secondary dimension that each refer to a qualification catalog. As a third dimension, each matrix is also uniquely assigned to a scale that allows the qualifications to be rated (for example, basic knowledge, advanced, expert, or present/absent).

Use

The system uses qualification matrixes for SAP Multiresource Scheduling. By comparing combinations of qualifications and ratings, the system can search for suitable tasks for employees and vice versa.

i Note

You can use qualification matrixes if you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver in the same system as the SAP Multiresource Scheduling add-on based on SAP ERP.

Structure

The qualification matrix consists of the following data:

- Matrix number (key)
- Language-dependent short text (description)
- Qualification catalog for primary dimension (reference to existing qualification catalog)
- Qualification catalog for secondary dimension (reference to existing qualification catalog)
- Plants

- Personnel area
- Maintenance group
- Scale (reference to existing scale): An ordinal number is uniquely assigned to each value to determine the rating. You can define any number of scales in the system. SAP standard functions for personnel development are used to create and maintain the scales ([Change Scale](#) transaction oosc). For more information, see SAP Library at [Personnel Development > Appraisal Systems](#).
- Deletion indicator
- Created by
- Date/Time of creation
- Changed by
- Date/Time of last change

4.1.3.1 Creating and Editing a Qualification Matrix

Use

You can create new qualification matrixes or edit existing ones if you require new combinations of qualification catalogs and rating scales for resource planning.

Prerequisites

- The qualification catalogs to which you want to refer have already been created.
- You are authorized to create and edit qualification matrixes (authorization object /MRSS/MNT). In each case, only those qualification matrixes are displayed for which you have at least display authorization.

Features

Creating a Qualification Matrix

To create a qualification matrix, call transaction /MRSS/SQM_MAT and in change mode choose .

Enter the following information when you create a qualification matrix:

- **Matrix number (key)**
The matrix number is used to identify the matrix. If you do not enter an external matrix number, the system automatically assigns a number from the internal number range. Number range 01 is used to assign internal numbers and number range 02 is used to assign external numbers. You can change the valid number range intervals for external and internal numbers using transaction /MRSS/SQM_QUAL_NUM.
- **Language-dependent short description**
- **Qualification catalog for the primary dimension**
This data is mandatory. You cannot enter qualification catalogs with a selected deletion indicator.

- **Qualification catalog for the secondary dimension**

The reference to another qualification catalog is optional. If you enter a second catalog, it must belong to the same maintenance group as the qualification catalog for the primary dimension.

- **Plants**

To permit the use of qualification matrixes for specific plants, you have to enter all plants in whose requirements profiles the qualification matrix may be used. If you do not enter a plant, the qualification matrix cannot be used in any requirements profile.

i Note

The *Plant* column is displayed and must be filled only if you have activated the inclusion of plants in Customizing for SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►. If you have deactivated the inclusion of plants, the system uses the default plant from the Customizing setting ► [SAP Multiresource Scheduling](#) ► [Qualifications](#) ► [Master Data](#) ► [Define Default Plant for Qualifications](#) ►.

- **Personnel areas/subareas**

To permit the use of qualification matrixes for specific HR master records, you have to enter all personnel areas and subareas in whose employee profiles the qualification matrix may be used. If you do not enter a personnel (sub)area, the qualification matrix cannot be used in any employee profile. If the personnel area or subarea of an employee changes, the system indicates qualifications in the employee's profile as obsolete if they were selected from a qualification matrix that is not permitted for the new personnel (sub)area.

i Note

The *Personnel Area* column is displayed and must be filled only if you have activated the inclusion of personnel areas in Customizing for MRS under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- **Maintenance group**

The qualification matrixes always belong to the maintenance group of the qualification catalog. The catalog is assigned to the maintenance group in the primary dimension, and so the maintenance group is assigned to the qualification matrix indirectly only.

- **Creation of change documents**

If you have activated the creation of change documents for qualification matrixes in Customizing under ► [Qualifications](#) ► [Activate Creation of Change Documents for Master Data](#) ►, the system logs your changes to qualification matrixes using the SAP functions for creating change documents. To display the change history for the matrix, select the corresponding row and choose ► [Environment](#) ► [Display Changes](#) ►.

- **Rating scale**

Editing a Qualification Matrix

- You can change the assignments of the qualification catalogs and the scale only if the qualification matrix is not used in any requirements profile or employee profile.
- In the same way, you can delete a qualification matrix only if it is not in use. You can check this by selecting the qualification matrix and calling the where-used list. To do so, choose .
- If a matrix is no longer to be used, set the deletion indicator.

Creation of Change Documents for Qualification Matrixes

If you have activated the creation of change documents for qualification matrixes in Customizing under ► [Qualifications](#) ► [Activate Creation of Change Documents for Master Data](#) ►, the system logs changes to qualification matrixes using the standard function for creating change documents. To display the change documents for a qualification matrix, select the corresponding row and choose ► [Environment](#) ► [Display Changes](#) ►.

4.1.4 Employee Profile

Definition

An employee profile contains a variable number of structured and unstructured qualifications that provide information about the knowledge and skills of the employee.

Use

The system uses employee profiles to find suitable employees for a demand and vice versa.

Note

Employee profiles are available if you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver in the same system as the SAP Multiresource Scheduling add-on based on SAP ERP.

Structure

An employee profile can contain the following data:

Employee Details

- Personnel number and name of employee
- Description and status of profile
- Administrative data and data for the approval workflow

Structured Qualifications

An example of a structured qualification is a specific technician-certification. Structured qualifications are not defined in the employee profile but are taken from the qualification catalogs. In qualification matrixes, two catalogs can be combined. In this way, you can provide different industries for the technician certification, for example. You also evaluate the qualification in the employee profile. So, for example, you can define the following as a structured qualification in an employee profile: technician certification, network technology, and basic knowledge.

Unstructured Qualifications

There are different types of unstructured qualifications, such as:

- Customer experience
- Project experience
- Training

An unstructured qualification contains a short text, long text, time of acquisition, and (in the case of project and customer experiences) information from the customer.

Additional Tab Pages

The additional tab pages contain further attributes (customer-specific enhancements), approval data, and documents such as a status log.

Integration

- Employee profiles developed as part of the enhancement are independent of existing, standard employee profiles.
- Employee profiles can be displayed and edited in both the SAP GUI and the Web GUI.

See also:

[Creating and Editing an Employee Profile \[page 72\]](#)

[Status of Employee Profiles \[page 69\]](#)

[Approval Workflow for Employee Profiles \[page 70\]](#)

4.1.4.1 Creating and Editing an Employee Profile

Use

You create employee profiles to compare qualifications in an employee and demand search. You can also update existing employee profiles for employees who have acquired new qualifications.

Integration

There is an authorization concept and an approval workflow for editing employee profiles. Authorized persons can create, edit, and approve specific employee profiles using the SAP GUI or a Web interface. You can define Smart Forms in Customizing to configure the print layout of employee and requirement profiles. To do so, use the IMG activity under ► [Qualifications](#) ► [Profiles](#) ► [Define Profile Settings](#) ►.

Prerequisites

- The employee for whom you would like to create a profile can be found in the HR master record.
- You are authorized to create or edit the employee profile in SAP ERP (authorization object /MRSS/SQPE for SAP GUI; authorization object /MRSS/SQPW for Web GUI; authorization object MRSS/SQPT for profile maintenance in SAP Multiresource Scheduling).
- Your SAP user or Web user is defined in HR infotype 0105 (subtypes 0001 and 0002).
- You have the respective portal role to use the Web application.

Features

The system offers the following transactions in the SAP GUI for editing employee profiles:

- Administration of employee profile (transaction /MRSS/PPPM) – This allows you as an employee to edit, approve, and submit your own profile for approval.
- Approval by manager (transaction /MRSS/PPPA) – This allows you, the superior, to check and approve the employee profiles that have been submitted to you for approval.
- Employee profile maintenance (transaction /MRSS/PPPT) – This allows you (as an employee of the data entry department) to create, call, and edit employee profiles and submit changes for approval.

The Web interface in the Enterprise Portal offers the [Maintain Employee Profile](#) (EmpProfileOviewApp) Web application for processing employee profiles. Users require a user name and password to call the application.

Creating and editing qualifications occurs identically in the three SAP GUI transactions and in the Web interface. The following lists the quick infos from the SAP GUI that may deviate from those in the Web GUI. The icons, however, do not change.

Creating a New Employee Profile

Call the [Employee Profile Maintenance](#) transaction (/MRSS/PPPT) and enter the personnel number of the employee for whom you want to create an employee profile. As an employee, you can also recreate your own employee profile by calling transaction /MRSS/PPPM or by calling the Web application for employee profile maintenance, entering your data, and saving the profile.

Creating and Editing Structured Qualifications

Choose  to create new lines for qualifications. You can specify a qualification matrix in each line as well as choose a qualification from the qualification catalog of the primary dimension. Here, only those qualification matrixes are available that have been assigned to the personnel (sub)area of the employee. You can enter a qualification from the catalog of the secondary dimension only if this catalog is defined in the respective matrix. If you enter qualification catalogs for both dimensions in the profile, these must also belong to the same maintenance group. Enter the qualification level in the [Rating](#) column.

Note

You can use the input help for matrixes, qualifications, and ratings to choose appropriate values.

Alternatively, you can choose these values using the . The selection assistant calls all available input helps in succession. You can limit the number of input helps for qualifications by defining filters for the qualification catalog. Qualification matrixes and qualification catalogs with selected deletion indicators cannot be used to choose qualifications.

The *Obsolete* and *From Source* indicators cannot be edited:

- The system automatically indicates a qualification in an employee profile as obsolete when the organizational assignment (personnel area/subarea) of the employee changes and the qualification, or rather the underlying qualification matrix, may no longer be used for the updated organizational assignment of the employee. You cannot change an obsolete qualification; it can only be deleted. The system ignores obsolete qualifications when you print an employee profile.
- The system sets the *From Source* indicator for a qualification if the qualification was transferred from SAP HR and the transfer program has been configured accordingly. A qualification with a selected *From Source* indicator cannot be changed.

Validity data

- If a validity period is defined for the qualification in the qualification catalog of the primary dimension, you can change only the "Valid From" date. Here, the "Valid To" date is calculated automatically by the system by adding the validity period to the "Valid From" date.
- If a validity period is not defined for the qualification in the qualification catalog, you are free to change both dates. The default settings for the "Valid From" date and the "Valid To" date are the system date and 12/31/9999, respectively.
- If a "Useable Until" date is entered for the qualification in the qualification catalog, you will not be able to set the "Valid To" date past this date. If a "Useable Until" date is defined for catalogs of the primary and secondary dimensions, the earlier of the two dates will be the latest possible "Valid To" date.

Creating and Editing Unstructured Qualifications

Choose  to create new lines for qualifications. You can enter texts for unstructured qualifications. As soon as there are texts for a qualification in the logon language, the icon in the *Long Text* column changes from  to . Languages in which terms have already been defined are denoted by the system with an asterisk (*) in the long text dialog box and are displayed at the top of the dropdown box.

i Note

For the system to be able to find the long texts during qualification matching, the texts must be indexed in the associated TREX search engine. If you have scheduled report /MRSS/SQE_TREX_DELTA_INDEXING to run periodically, indexing automatically starts at certain intervals. Report /MRSS/SQE_TREX_FULL_INDEXING allows you to create a complete index.

Adding Attachments

You can add documents, such as a resume, on the *Attachments* tab page.

Displaying Active Profile

- Choose  to display the employee profile currently active. You can print the active profile once it is displayed. The print function is not limited to the most recent status.

Tracking Changes

- If you have changed an employee profile and started the approval workflow by choosing , you will find the changes to be approved on the *Approval Data* tab page. If changes from previously active qualifications are involved, the system will display the old and new status and highlight the changes in red.
- You can view all previous changes to the status of the employee profile on the *Status Log* tab page.

Deleting an Employee Profile

To delete an employee profile, choose:

- [Profile](#) > [Delete Profile](#) in the application menu of the SAP interface
- [Delete Profile](#) in the application toolbar of the Web interface

Creation of Change Documents for Employee Profiles

If you have activated the creation of change documents for employee profiles in Customizing at [Qualifications](#) > [Activate Creation of Change Documents for Master Data](#), the system logs changes to employee profiles using the standard functions for creating change documents. To call the change documents for an employee profile, choose [Environment](#) > [Display Changes](#)

More Information

[Employee Profile](#) [page 64]

[Status of Employee Profiles](#) [page 69]

[Approval Workflow for Employee Profiles](#) [page 70]

[Editing Several Employee Profiles](#) [page 68]

4.1.4.2 Editing Several Employee Profiles

Use

If you are responsible for several employee profiles (for example, if you work in the data entry department), you can create or edit these using the [Employee Profile Maintenance](#) transaction (/MRSS/PPPT).

Prerequisites

The authorization object /MRSS/SQPT is assigned to your user profile.

Features

On the initial screen, you can specify the employees for whom you want to display or create employee profiles:

- Enter a single personnel number or a range of personnel numbers.
- Enter individual organizational units or an interval of organizational units whose assigned employees you then select. The employee profiles that are displayed and those that you may edit depend on the settings for authorization object /MRSS/SQPT.

- Enter individual resource planning nodes or an interval of resource planning nodes whose assigned employees you then select. The employee profiles that are displayed and those that you may edit depend on the settings for authorization object /MRSS/SQPT.

Once you have called the transaction, the system displays a list of employees whose profile you can edit on the left of the screen. On the right, the employee profile of the employee selected from the list is displayed. If you have created new employee profiles or changed existing ones, you can start the approval workflow.

See also:

[Creating and Processing Employee Profiles \[page 65\]](#)

[Approval Workflow for Employee Profiles \[page 70\]](#)

4.1.4.3 Status of Employee Profiles

Use

The different statuses of the employee profiles indicate the current stage of the profile in the SAP Business Workflow.

Integration

The status of the employee profile also affects the status of the qualifications within the profile. The system displays the status of the qualifications in the *Active* column of the *Structured Qualifications* and *Unstructured Qualifications* tab pages. If you have added a new qualification or changed an existing one, a yellow icon appears indicating the status as *Changed*. Qualifications that are already active appear with a green icon, and rejected ones appear with a red icon.

Features

The current status of the employee profile displayed is shown in the *Profile Status* field.

Possible Statuses of Employee Profiles

Status	Meaning
<i>Created</i>	The profile has been created and saved only.

Status	Meaning
<i>Changed</i>	The profile has been changed but not yet presented for approval. The system saves the revised status separately. Provided that the changes have not yet been approved, the last status applies. You can switch between the view of the active profile and the view of the changed profile. Provided that the status is <i>Changed</i> , you can reverse the changes to return to the last active status. In this case, the system terminates the approval workflow and the profile no longer appears in the worklist of the approver.
<i>For Approval</i>	The profile has been created or changed and presented for approval. If the profile is then changed again, the system resets the status to <i>Changed</i> before the profile is rejected or approved.
<i>Rejected</i>	The approver has rejected a new or changed profile.
<i>Active</i>	A new or changed profile has been approved. The system includes only active employee profiles when searching for employees or demands.

4.1.4.4 Approval Workflow for Employee Profiles

Use

Approval processes for employee profiles are automated based on SAP Business Workflow. You can edit and approve employee profiles either in the SAP GUI or using the Web interface. The system sends e-mails about changes and necessary actions to the respective people as part of the approval workflow.

Prerequisites

You have configured the Customizing settings under ► [SAP Multiresource Scheduling](#) ► [Profiles](#). ►

Process

The workflow includes the same steps in the SAP GUI and the Web GUI. It can have the following variants:

- Superior approves changes by employee
- Employee approves changes by superior

- Superior and employee approve changes by data entry department

Example

Superior approves changes by employee:

1. An employee updates information in his or her employee profile and transfers the profile to the approval workflow. The employee profile status changes to "For Approval". The "Approval Data" tab page indicates to the employee who the approver is.
2. The system sends an e-mail to the employee's superior so that he or she can check the employee profile. The e-mail includes a link to the employee's Web profile.
3. The superior calls the profile either in the Web interface using the link in the e-mail or directly in his or her SAP inbox. The superior now sees the overview page, which displays the current employee profile (cannot be edited here).
4. The superior can either approve or reject the changed profile. The employee profile status changes to "Active" or "Rejected" accordingly. If the approver rejects a change, a reason for this decision must be given.
5. The approver's comment appears in the employee profile on the [Approval Data](#) tab page.
6. If the changes were rejected, the employee receives an e-mail to this regard.

See also:

[Status of Employee Profiles \[page 69\]](#)

4.1.5 Requirements Profile

Definition

A requirements profile contains a summary of all qualifications and other criteria that an employee must fulfill to be suitable for a demand.

Use

The system uses requirements profiles to find suitable resources for a demand and vice versa.

i Note

Requirements profiles are available if you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver in the same system as the SAP Multiresource Scheduling add-on based on SAP ERP.

Structure

A requirements profile can contain the following data:

Header data

- Profile key
- Deletion indicator
- Plant
- Profile description

Administrative data

- Person who created profile and date of creation
- Person who last changed profile and date of change

Structured qualifications with the following data:

- Qualification matrix and qualifications from catalog of primary dimension
- Valuation
- Qualification from catalog of secondary dimension
- *Mandatory* indicator

Unstructured qualifications with the following data:

- Type of unstructured qualification: For example, customer experience, project experience, or training
- Time interval of acquisition
- Search term in one or more languages

Additional attributes (customer-specific fields)

Data about on call

- Search type as default value for employee search
- Several required on-call types in the table or a specific on-call type that the system uses exclusively to search for people with on call without taking into account qualification matching

4.1.5.1 Creating and Editing a Requirements Profile

Use

To find suitable employees for tasks in SAP Multiresource Scheduling, you can create new requirements profiles or editing existing ones.

Integration

For the print layout of requirements and employee profiles, you can define Smart Forms in Customizing for [SAP Multiresource Scheduling](#). To do so, use the IMG activity [Define Profile Settings](#) under ► [Qualifications](#) ► [Profiles](#) ►.

Prerequisites

You are authorized to create or edit the requirements profile (authorization object /MRSS/SQPR).

Features

Creating a Requirements Profile

To create a requirements profile, choose [Create](#) from the [Requirements Profile](#) screen (transaction /MRSS/REQM). You can enter an external number for the requirements profile if, for example, you want to enter a descriptive name for the profile. If you do not enter an external number, the system automatically assigns a number from the internal number range.

You can also create requirements profiles in the following contexts:

- In a network activity, service-order operation, material, or equipment

i Note

If you select the [Reusable](#) indicator when you create a requirements profile, you allow the profile to be used in other contexts. As soon as you select the [Reusable](#) indicator, the [Deletion Indicator](#) checkbox appears with which you specify whether the requirements profile, which can generally be reused, can be used at the moment.

If you want to change a reusable requirements profile, the system copies the profile and provides the copy for you to change. This prevents the requirements profile of other operations from being unintentionally changed.

- Temporarily in the [Scheduler Workplace](#) in the item worklist, in order to create a comparison requirements profile for a demand (As soon as you have created a comparison requirements profile, the system compares this with the demands' requirements profiles in the worklist and displays the result of qualification matching in the [Qualif.](#) column of the item worklist.)

Editing a Requirements Profile

You can enter and edit the following information for the requirements profile:

- **Plant**

i Note

The [Plant](#) column is displayed and must be filled only if you have activated the inclusion of plants in Customizing for SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►. If

you have deactivated the inclusion of plants, the system uses the default plant from the Customizing setting ► [SAP Multiresource Scheduling](#) ► [Qualifications](#) ► [Master Data](#) ► [Define Default Plant for Qualifications](#) ►.

When you create structured qualifications in the requirements profile, you can specify only qualification matrixes that are assigned to the same plant as the requirements profile. If you assign an existing requirements profile to an object (material, equipment, CS operation, or network activity), the system checks whether the plant of the requirements profile corresponds to that of the object. You can assign requirements profiles only if they are assigned to the same plant as the object. When you create a requirements profile from an object, the system copies the plant from the relevant object (material, equipment, CS operation, or network activity). As soon as a requirements profile is used, you can no longer change the plant.

- **Description**

- **Deletion indicator**

The deletion indicator prevents the requirements profile from being used. When you create a new requirements profile, it may be useful to select the deletion indicator if, for example, the requirements profile is not to be used immediately. If you select the indicator at a later time, the system prevents any further use of the requirements profile. This does not affect any current use.

- **Structured Qualifications**

Choose  to create new lines for qualifications. You can specify a qualification matrix in each line as well as choose a qualification from the qualification catalog of the primary dimension. Here, only those qualification matrixes are available that have been assigned to the plant of the requirements profile. You can enter a qualification from the catalog of the secondary dimension only if this catalog is defined for the respective matrix. Enter the qualification level in the [Rating](#) column.

Note

You can use the input help for matrixes, qualifications, and ratings to choose appropriate values.

Alternatively, you can choose these values using the . The selection assistant calls all available input helps in succession.

To facilitate the creation procedure, you can also copy a similar qualification by choosing  and then making slight changes. The system does not allow you to duplicate structured qualifications. If you select the indicator in the [Mandatory](#) column, the resource has to possess the qualification in order to fulfill the requirement.

- **Unstructured Qualifications**

Choose  to create new lines for qualifications. You can enter search terms in different languages for unstructured qualifications. As soon as search terms have been entered for a qualification in the logon language, the icon in the [Search Terms](#) column changes from  to . The system indicates languages in which search terms are defined at the top of the dropdown list with an asterisk (*).

To facilitate the creation procedure, you can also copy a similar qualification by choosing  and then making slight changes. The system also copies any search terms defined.

Note

For the system to be able to find the long texts during qualification matching for comparison requirements profiles, the texts must be indexed in the associated TREX search engine. If you have scheduled report /MRSS/SQE_TREX_DELTA_INDEXING to run periodically, indexing automatically

starts at certain intervals. Report /MRSS/SQE_TREX_FULL_INDEXING allows you to create a complete index.

- **On Call**

The default setting is *No Search*. To enable a pure on-call search, choose *On-Call Search* and the required on-call type as the search type. To integrate the search for on-call types into qualification matching, choose *Additional to Qualification Matching* as the search type. In this case, you can enter several on-call types in the list for the system to include.

Deleting a Requirements Profile

You can delete a requirements profile only if it is not in use. To check this, choose .

Creation of Change Documents for Requirements Profiles

If you have activated the creation of change documents for requirements profiles in Customizing at  *Qualifications*  *Activate Creation of Change Documents for Master Data* , the system logs changes to requirements profiles using the standard functions for creating change documents. To call the change documents for a requirements profile, choose  *Environment*  *Display Changes*. .

4.1.6 Resource Addresses in SAP Multiresource Scheduling

Use

The following types of addresses exist in SAP Multiresource Scheduling:

- **Main address**

The main address is the resource address that is transferred to SAP Multiresource Scheduling using report MRSS/HCM_RPTWFMIF for HCM resources or /MRSS/WFM_MASTERDATA_ADMIN for business partners. By default, the system uses this address to calculate travel times. It is also used by the Optimizer to optimize the resource planning situation.

You cannot change this address in SAP Multiresource Scheduling.

i Note

For HCM resources, you can specify which address is to be transferred from HR infotype 0006 to SAP Multiresource Scheduling. You do so in Customizing for SAP Multiresource Scheduling under  *HR Integration*  *Assign Subtypes for Addresses from SAP HR to MRS Address Types (ERP)* .

i Note

For more information about address validation and geocoding, see [Best Practices for the Use of Geographic Information \[page 631\]](#).

If you want to replace the main address for resource planning in SAP Multiresource Scheduling, you have the following options:

- **Alternative address**

Creating an alternative address can be useful, for example, if resources usually start their assignments not at the main address but at another location. If you define and activate an alternative resource address, the system uses this address to calculate travel times.

You can create an alternative address for human resources and for teams. You can do so in the Scheduler Workplace (SAP GUI). For more information, see [Creating Addresses for Resources \(SAP GUI\) \[page 142\]](#).

- **Temporary address**

You can define several temporary addresses for each resource. This can be useful, for example, if resources travel between different locations while working on an assignment. If you define temporary addresses, the system uses these addresses to calculate travel times. You must specify a validity period for each address. You can create temporary addresses for human resources only. You can do so in the Scheduler Workplace (SAP GUI) and in the Web-based planning board. For more information, see [Creating Addresses for Resources \(SAP GUI\) \[page 142\]](#) and [Creating Addresses for Resources \(Web\) \[page 206\]](#).

→ Recommendation

If you create and activate an alternative address for a resource, this address takes precedence over the main address, but also over existing temporary addresses. Thus, if you want to replace the main address in SAP Multiresource Scheduling, you should either specify an alternative address **or** one or multiple temporary addresses.

i Note

If you have already planned assignments with travel times, the system does not update the travel times when the address (main address, alternative address, or temporary address) is changed. You must update the assignment manually after changing the address.

Note that N. N. resources and tools do not have an address.

More Information

- [Creating Addresses for Resources \(SAP GUI\) \[page 142\]](#)
- [Creating Addresses for Resources \(Web\) \[page 206\]](#)
- For more information about address validation and geocoding, see [Best Practices for the Use of Geographic Information \[page 631\]](#).

4.1.7 Data Transfer

Use

You can use existing qualification catalogs and employee profiles from SAP HR for SAP Multiresource Scheduling. You can also transfer availability information from SAP HR to SAP Multiresource Scheduling and back.

Prerequisites

The functions for transferring data are available if you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver and the SAP Multiresource Scheduling add-on based on SAP ERP in one system, which you also use as your SAP HR system.

4.1.7.1 Copying Qualification Catalogs from SAP HR

Use

You can use existing qualification catalogs for SAP Multiresource Scheduling so that you do not have to create and maintain your own qualification catalogs for SAP Multiresource Scheduling. Standard qualification catalogs are copied in all available languages.

Integration

- This report supports the extended infotype 0024, which is used in personnel management as part of personnel development.
- The data can be copied only from an SAP HR system.

Prerequisites

- The qualifications are maintained either using profile maintenance in personnel development (transaction PPPM) or in the HR master data as extended infotype 0024 (transaction PA30). To use the extended infotype 0024, the integration switch for qualifications must be selected. You can configure this setting in table T77S0: To activate integration, the value "1 A032 Q" must be entered for PLOGI QUALI.
- In transaction /MRSS/SQM_CAT, you have created the qualification catalog to which you want to copy data and selected external number assignment for qualifications in the header data.

Activities

- To copy the data to the SAP Multiresource Scheduling qualification catalog, execute program /MRSS/SQL_CAT_MIGRATION.
- On the selection screen, enter the SAP Multiresource Scheduling qualification catalog and the standard qualification catalogs to copy. Since the standard qualification catalog arranges the qualifications in qualification groups, you can select only qualification groups during the copy process. When you choose a qualification group, you also select all of the subordinate groups and qualifications. To copy the data from an SAP system other than the logon system, you also have to enter an RFC destination.

- When you copy the catalog(s), both SAP HR qualification groups and SAP HR qualifications are copied as entries to the qualification catalog. Entries in the employee or requirements profile can then also be maintained for a qualification resulting from an SAP HR qualification group.
- Before copying the catalog(s), the system checks whether all of the subordinate qualification groups use the same scale. Data can be transferred to SAP Multiresource Scheduling only if this is the case.
- You can copy a catalog again provided that it is not used in qualification matrixes. If you copy a catalog more than once, the system overwrites the old catalog data with the current data.

4.1.7.2 Copying Structured Qualifications from SAP HR

Use

You can copy existing employee profiles from SAP HR to SAP Multiresource Scheduling so that you do not have to create and maintain them separately for SAP Multiresource Scheduling. The qualifications in the standard employee profile correspond to the structured qualifications in the employee profile of SAP Multiresource Scheduling. However, only matrixes without a secondary dimension can be used during the transfer.

Integration

This report supports the partial profile [Qualifications](#) from extended infotype 0024, which is used in personnel management as part of personnel development.

Prerequisites

- You have entered the standard qualifications of the employees for whom you want to transfer qualifications to SAP Multiresource Scheduling by maintaining the profiles in personnel development (transaction PPPM) or the HR master data (transaction PA30, infotype 0024). You must use the extended infotype 0024.
- You have created the qualification matrix of SAP Multiresource Scheduling, whose qualifications you want to transfer as a one-dimensional matrix (transaction /MRSS/SQM_MAT).

Activities

- To copy the data to the qualification matrix of SAP Multiresource Scheduling, execute the [transfer program for qualifications from the employee profile](#) (/MRSS/SQL_CAT_MIGRATION).
- On the selection screen, choose the qualification matrix from SAP Multiresource Scheduling and the personnel numbers whose data you want to transfer from HR. You can start the transfer program for one or more personnel numbers. You can also specify one or more resource planning nodes for whose assigned employees you want to transfer qualifications. If you have chosen both personnel numbers and resource

planning nodes, the system determines the data that meets both of these requirements. To copy the data from an SAP system other than the logon system, you have to enter an RFC destination.

- If you choose the option *Set "From Source System" Indicator* on the selection screen, the *From Source* indicator is set for the transferred qualifications in the employee profile. If you do not set the indicator, you cannot tell from the employee profile whether a qualification was transferred from a different system.
- To set the profile to active immediately and therefore skip the approval process, choose the *Save Profile in Status "Active"* radio button. However, this is possible only if:
 - A profile is created as new by the program run.
 - A profile to be changed already has the status "active".

In all other cases, the system copies the data to the profile and sets the profile status to "Changed" to include the current approval process. In this case, the system generates a message stating that the status could not be set to "active".

- To save the profile with "Created" or "Changed" status and cancel an approval process that may be running, choose *Save Profile with "Changed" Status*. If it has copied qualifications as changed, the system starts the approval procedure. With the *Removed and Already Rejected Profiles* indicator, you can specify that this does not apply to profiles that had "Rejected" status before the change.
- The system determines the standard qualifications for each employee from infotype 0024 and compares them with the SAP Multiresource Scheduling qualifications from the matrix specified.
- This report can be executed more than once. To avoid data losses, the system informs you if specific qualifications already exist in the SAP Multiresource Scheduling matrix. You can prevent data from being overwritten by canceling the entire procedure. If you confirm the transfer process, the system overwrites the old data with the qualifications from the standard profile.
- If no SAP Multiresource Scheduling profile exists for an employee, the system creates a new profile with the standard qualifications copied.

4.1.7.3 Availability Transfer Between SAP ERP HCM and SAP Multiresource Scheduling

Use

If you use personnel resources from SAP ERP HCM, you transfer availability information from SAP ERP HCM to SAP Multiresource Scheduling and vice versa. As a rule, the following standard infotypes can be transferred in both directions:

- Absences (infotype 2001)
- Attendances (infotype 2002)
- Alternative working times (infotype 2003)

Planned working time (infotype 0007) can only be transferred from SAP ERP HCM to SAP Multiresource Scheduling.

Prerequisites

You have configured the following settings in Customizing for *SAP Multiresource Scheduling*:

- [▮ HR Integration ▸ Configure Settings for HR Integration ▮](#)
- [▮ HR Integration ▸ Define Function Modules for HR Integration ▮](#)
- [▮ Basis \(Time Allocations\) ▸ Define Time Allocation Types ▮](#)
[▮ Basis \(Time Allocations\) ▸ Assign Time Allocation Types to Resource Types ▮](#)

For more information, see the Customizing documentation in the system.

Features

Availability Transfer from SAP ERP HCM to SAP Multiresource Scheduling

- To transfer availability information for resources from SAP ERP HCM to SAP Multiresource Scheduling, you use report `/MRSS/HCM_RPTWFMIF`. For more information, see the system documentation for the report.

i Note

If you start the report to transfer availabilities from SAP ERP HCM for a resource that is currently displayed in the planning board, you cannot create, change, delete, or save any objects (assignments or time allocations) for this resource in SAP Multiresource Scheduling. This is only possible after the report has run. To be able to further process the objects of the resource, you have to refresh the planning board first.

- In SAP Multiresource Scheduling, you can indicate whether time allocations are exceptional or non-exceptional:
 - Exceptional time allocations do not contribute to the basic availability of a resource. In the Gantt chart, these time allocations are displayed as bars.
 - Non-exceptional time allocations contribute to the basic resource availability. In the Gantt chart, basic availability is displayed as gray (= not available) or white (= available) background to the rows.
- You can use dynamic breaks for resources. If the required Customizing settings are in place and dynamic breaks have been defined in SAP ERP HCM, the system transfers the breaks from SAP ERP HCM to SAP Multiresource Scheduling when the availability transfer report is run.

i Note

To ensure that dynamic breaks are transferred correctly to SAP Multiresource Scheduling, make sure that the following Customizing settings are in place before running the report:

- An exceptional time allocation type `DYN_BREAK` has been created in Customizing under [▮ Basis ▸ Define Time Allocation Types ▮](#).
- The dynamic breaks function has been activated at planning board profile level in Customizing under [▮ Set Up Scheduler Workplace ▸ Workplace Profiles ▸ Define Planning Board Profile ▮](#).

If the required settings are in place, the system shows dynamic breaks as bars in the planning board. Both the resource planner and the Optimizer can shift the breaks within the defined limits. Please note that you cannot create or delete dynamic breaks in SAP Multiresource Scheduling.

- If you have defined alternative working times or planned working times using a daily work schedule, the system transfers the planned working time as availability to SAP Multiresource Scheduling for fixed working times, and transfers the normal working time for flextime. For resources with flextime, the system differentiates availability, unavailability, as well as the potential availability and displays the times between the planned working time frame and normal working time in a different shade of gray in the planning board.

❖ Example

For a resource with flextime, the planned working time frame is set from 08:00 to 18:00, the normal working time from 08:00 to 17:00. In the planning board, the time of potential availability from 17:00 to 18:00 is displayed in a different color to the times of availability and unavailability.

Availability Transfer from SAP Multiresource Scheduling to SAP ERP HCM

- In the [Configure Settings for HR Integration](#) Customizing activity, you control which availability information can be created in SAP Multiresource Scheduling and transferred to SAP ERP HCM. Alternative working times and time allocations for which a group is entered in the table and the [Resource Planner Relevant](#) indicator is set are available to resource planners in the planning board.
- You cannot change or delete time allocations in the planning board after they have been transferred to SAP ERP HCM. You can delete alternative working times but not edit them once they have been transferred to SAP ERP HCM.
- If you create HR-relevant time allocations (this is, time allocations that are transferred to SAP ERP HCM) in the planning board, you cannot enter any descriptions.
- If an HR-relevant time allocation is currently being created in the planning board, the system blocks the relevant personnel number in the HR system.
- You can only move HR-relevant time allocations in the planning board in such a way that they do not cross daily limits.

More Information

[Resource Planning for Resources from Different Time Zones \[page 168\]](#)

5 Resource Planning with the SAP GUI

Use

Resource planning allows you to carry out detailed planning to execute demands such as order operations from Plant Maintenance (PM) and Customer Service (CS) or service order items from SAP CRM. You can assign suitable resources (for example, employees or tools) to the demands.

i Note

You can use tool resources for orders from Plant Maintenance (PM) and Customer Service (CS).

With the Scheduler Workplace, SAP Multiresource Scheduling provides a separate user interface for resource planning. Each resource planner can configure the Scheduler Workplace as required. For more information, see [Scheduler Workplace \[page 84\]](#).

Prerequisites

- You have configured all of the required settings in Customizing for [SAP Multiresource Scheduling](#).
- You have created the required master data.
- You have defined the objects (for example, organizational units) that you want to use for your resource planning structure.
- You have the necessary authorizations for resource planning.
- You have set up the required integration scenarios. Demands are available in SAP Multiresource Scheduling.

Process

i Note

Resource planning is a dynamic process that does not always run in the same way. Moreover, depending on the requirements of the task and the complexity of the data, this is not required or even possible. The steps described below apply to all aspects of resource planning. However, the sequence may change and the resource planner may skip or repeat some of the steps with certain assignments. Depending on the source of the demand (CRM service order, order from ERP Customer Service, project from Project System and cProjects, or Plant Maintenance), additional steps may be available or necessary. These are described in the corresponding sections (for example, resource planning in the service). The following process contains the steps that may be relevant regardless of the source of the demand. Steps that refer to tool resources are only relevant for source of demands from Plant Maintenance (PM) and Customer Service (CS).

The process begins after you or the person responsible has created an order that is relevant for planning and this has been transferred to SAP Multiresource Scheduling.

1. You open the *Scheduler Workplace*. Depending on the main aspects of the work, the resource planner can use various transactions (see [Calling the Scheduler Workplace by Work Priority \[page 120\]](#)).
2. The planning horizon is the period for which you plan assignments. It is configured automatically by the selected transaction or you can enter it manually (see [Planning Horizon \[page 123\]](#)).
3. Once you have opened the *Scheduler Workplace*, you obtain an overview of the scope of your worklist and the available resources.
4. You check the item worklist to determine whether there are any items classed as urgent. You also attempt to process items with a higher priority first when you plan the resources.
5. You check whether there are personnel resources with a suitable qualification profile to carry out the order operations. The system displays the result of the qualification comparison as a ranking list sorted in decreasing suitability of qualifications and time availability.
6. You check the utilization of the personnel resources.
7. You add personnel resources from other resource planning nodes to the planning board if your own resources do not have the required qualifications or are overloaded.
8. You link demands to other resource planning nodes if you want to assign them to another resource planner, for example.
9. You create teams if several employees are required to complete the task over a longer period of time, or if you want to use capacitive planning.
10. You check whether you have suitable tool resources to carry out the order.
11. You add tool resources from other resource planning nodes to the planning board if your own resources are not sufficient.
12. You create a link between tool and personnel resources if, for example, a resource requires the tool in the field for a longer period of time.
The tool is then unavailable for other resources. When you create an assignment, a tool assignment is also created to simplify planning.
13. You create time allocations for unscheduled absences or attendances of resources.
If a personnel resource is absent during normal working time, the resource planner can note this in a time allocation on the planning board. The same applies to tools that require maintenance or repair.
14. You create assignments for your personnel resources, taking into account the above criteria.
You can copy the dates for the assignments automatically from the order or enter them yourself.
15. The system checks whether the resource type is suitable for the assignment. If a resource does not have the necessary requirements profile, the system generates an alert.
16. You split assignments if an assignment exceeds the normal working time (plus overtime) of a personnel resource, for example.
17. You split demands if you want to distribute them across different resources or resource planning nodes.
18. You can assign several personnel resources to a demand. In this case, the system does not calculate the duration automatically. Instead, you enter the duration of the respective assignments based on your experience.
19. Provided that you do not save your data, you can undo any planning steps you have made and repeat them if required.
20. You use the Alert Monitor to check that planning for your assignments is free of conflicts.
The system runs checks while you plan your resources. It generates alerts if errors occurred during the checks and indicates the type of error and its cause in the Alert Monitor.
21. You correct the cause of the alert.
To do so, you must check the data (for example, availability) and process assignments again.

i Note

You can confirm alerts without having corrected their cause.

22. You save your planning.

Only once you have saved your changes in resource planning are they visible to other resource planners who work with the same resources.

If you work in the *Scheduler Workplace*, data can be changed in other applications (for example, new assignments or new order operations), which can affect resource planning. To include this data, update the *Scheduler Workplace* regularly.

If you want to create an assignment for an order operation or resource, the order or resource may be locked. This is because another resource planner is creating assignments for the order or resource at the same time. In this case, wait and update the data in the *Scheduler Workplace* or contact the other resource planner. Assignments and time allocations are locked as long as they are being processed by another resource planner.

Result

You have created assignments for suitable resources to carry out planning-relevant operations or suboperations. Your planning is on schedule and free of conflicts.

More Information

[Scheduler Workplace \[page 84\]](#)

[Cross-Area Functions in Resource Planning \[page 120\]](#)

[Data Consistency and Locks \[page 127\]](#)

[Checks and Alerts \[page 129\]](#)

[Progress Monitoring \[page 174\]](#)

5.1 Scheduler Workplace

Definition

The Scheduler Workplace (SAP GUI) consists of graphical screen areas and tools that the resource planner can use to plan tasks and employee assignments and to monitor their execution.

You can use the resource planning layout of the Scheduler Workplace to create and edit resource assignments for demands.

Note

If the required Customizing settings are in place, you can switch to the demand planning layout of the Scheduler Workplace. For more information, see [Capacity and Demand Planning \[page 657\]](#).

Use

The resource planning layout of the Scheduler Workplace comprises four areas:

- The **order worklist** contains a hierarchical list of all complex demands (demand headers) and the associated single demands (demand items).
- The **item worklist** contains a flat list of all single demands that are relevant for resource planning.
- The **resource planning board** provides various functions that you can use to create and edit assignments. The resource planning board contains all resources that a resource planner can plan, along with their availability and any assignments already allocated. Only those days defined as the planning horizon in Customizing or by the resource planner are displayed. Resources can be either personnel resources, teams, or tools (for example, a service work center is also indicated as a tool). The resource planner can create, move, or delete assignments by means of drag and drop.
- The **Alert Monitor** displays all information about potential conflicts and errors that occur during planning. The resource planner can check the planning on the basis of these alerts and correct it where necessary.

Caution

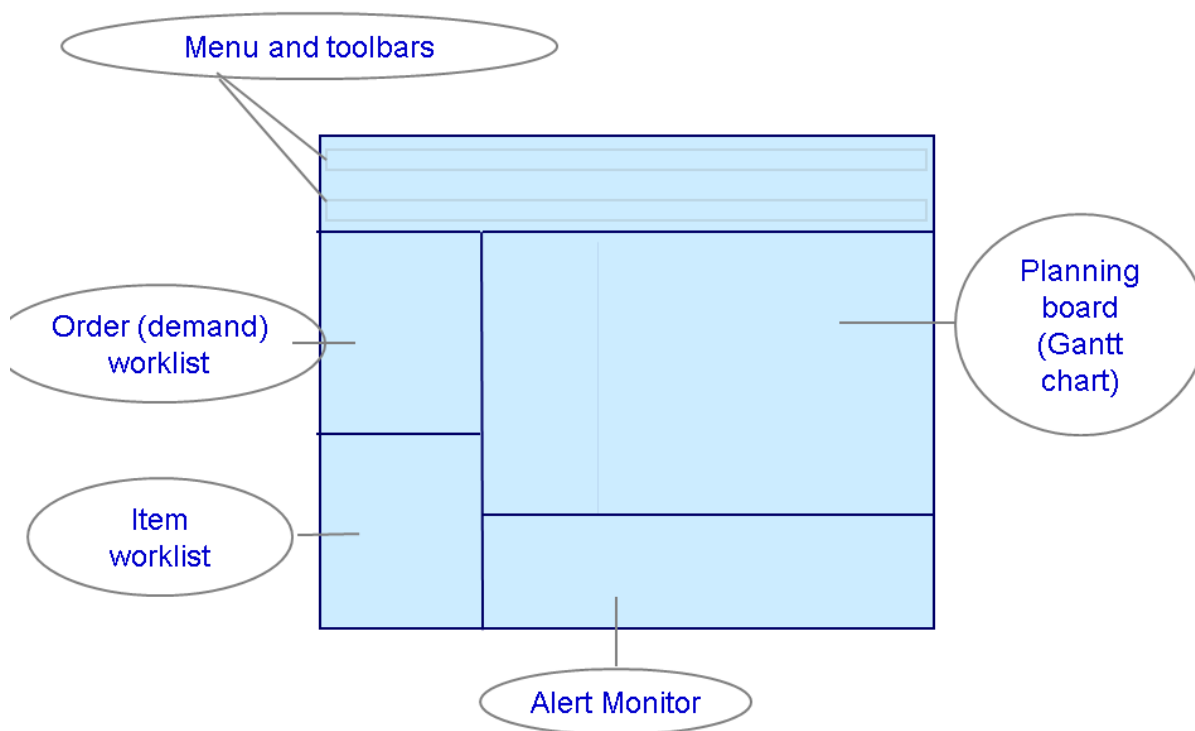
In some parts of the system documentation, the term “planning board” is used to indicate the entire Scheduler Workplace, not only the screen area containing the Gantt chart.

Structure

The resource planning layout of the Scheduler Workplace is graphically divided into four areas:

- [Order Worklist \[page 91\]](#)
- [Item Worklist \[page 93\]](#)
- [Resource Planning Board \[page 100\]](#) (bar chart)
- [Alert Monitor \[page 118\]](#)

Example for the potential division of the user interface:



To configure the Scheduler Workplace, you must make the required settings in Customizing for SAP Multiresource Scheduling under [Set Up Scheduler Workplace](#).

i Note

SAP delivers the UI profile `STANDARD` with the following layouts:

- `DEM_PLAN` (demand planning layout)
- `RES_PLAN` (resource planning layout)

You can copy the standard UI profile and adjust it according to your business needs. For more information, see the documentation for the [Define User Interface Profiles](#) activity available in your system.

In Customizing under [Set Up Scheduler Workplace](#) > [Define User Interface Profiles](#) > [Maintain Container Positions in the Layout](#), you can change the arrangement of the areas and how they are displayed.

5.1.1 Workplace Functions

Use

The [Scheduler Workplace](#) provides several functions in the menu and the toolbar that you can also call from the individual areas (such as worklists or the planning board). These functions are described in the sections for the individual areas. The functions described in this section refer to the workplace as a whole and are available only in the main menu or in the upper toolbar of the [Scheduler Workplace](#).

Features

Function	Significance of Function
Change Text on Title Bar	So that you can distinguish between different minimized windows, you can enter a unique title for the current session. To do so, choose Planning Board > Change Text on Title Bar .
Undo and Redo	Provided that you have not saved your planning, you can undo or redo your last actions. To do so, choose Edit > Undo or Edit > Redo , or in the toolbar choose  or  . For more information, see Undo or Redo Actions [page 125] and Automatic Assignment Creation [page 250] .
Refresh Workplace	To display the current planning situation including the latest changes, refresh the workplace by choosing Edit > Refresh or . You can define in Customizing whether the workplace should be refreshed completely or whether a delta refresh should be performed to shorten the time required for the refresh. For more information, see Workplace Refresh [page 88].
Change Planning Horizon	To change the planning horizon for resources or demands, choose Edit > Change Period or  . For more information, see Planning Horizon [page 123] .
Show and Hide Organizational Levels Manager	To show and hide the resource planning structure, choose Edit > Organizational Levels Manager or choose  from the toolbar.
Switch Between Demand and Resource Display	To plan resources, choose the resource display. To check open demands and execute assignments, switch to the demand display. To do so, choose Planning Board > Display of Demand and Planning Board > Display of Resources. Alternatively, choose  or  from the toolbar. For more information, see Progress Monitoring [page 174]. You can also use the display of demand for demand and capacity planning under certain circumstances. For more information, see Capacity Planning of Demands from Service and Project System [page 694].
i Note To use the demand planning functions to their full extent, make sure to configure the individual Gantt charts as described in the documentation for Customizing activity Define User Interface Profiles. You can also copy the delivered standard UI profile for demand planning (DEM_PLAN) and adjust it according to your business needs. You can find this activity in Customizing for SAP Multiresource Scheduling under Set Up Scheduler Workplace > Workplace Profiles > Define User Interface Profiles.	

Switch Between Bar Chart and Table-Based Planning	To create assignments using drag & drop and obtain a graphical overview of the bar chart, choose  . To switch to table-based planning, choose  . For more information, see Table-Based Planning [page 112] .
Call Global Demand Search	If you want to call the global demand search in a new window directly from the scheduler workplace, choose  . For more information, see Finding Suitable Demands for Employees (SAP GUI) [page 553] .
Call Free Employee Search	If you want to call the free employee search in a new window directly from the scheduler workplace, choose  . For more information, see Finding Suitable Employees in the Scheduler Workplace (SAP GUI) [page 534] .
Check Availability	To display the availability check of the warehouse-relevant items directly in the maintenance order, choose ▶ Demands ▶ Check Availability ▶. This displays the information only. You can use the parts availability check to update the parts availability information. For more information, see Parts Availability Check [page 592] .
User Parameters	To change the user parameters of the Scheduler Workplace , choose ▶ Extras ▶ Settings ▶. For more information, see User-Specific Configuration [page 89] .
Technical Data	Customizing information about the profiles and the criteria for splitting the assignment is available at ▶ Extras ▶ Technical Information ▶. For more information, see Assignment Split [page 154] .

More Information

[Calling the Scheduler Workplace by Work Priority \[page 120\]](#)

5.1.1.1 Workplace Refresh

Manual Refresh

As a resource planner, you can refresh the Scheduler Workplace manually. You have the following options:

- **Delta refresh:** Only objects that have been created or changed since the last refresh or the last time the workplace was called are reloaded and the screens are partially regenerated.
Delta refresh must be activated in Customizing for [SAP Multiresource Scheduling](#) by choosing ▶ [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ▶ [Workplace Profiles](#) ▶ [Define Planning Board Profile](#) ▶ and selecting the [Delta Refresh](#) checkbox.

i Note

The following restrictions apply to the delta refresh:

- If a resource has been newly transferred to SAP Multiresource Scheduling or if a resource has been modified (for example, the status of the resource has been changed) since the last refresh, you must perform a complete refresh since the bar chart must be regenerated completely. The same applies to newly created tool resources, teams, and team members as well as newly assigned team members. In these cases, choose ► [Edit](#) ► [Complete Refresh](#) ► in the menu bar.
- Due to their time dependency, alerts are always reloaded completely and a delta refresh is not possible.
- If you have activated collision display, the system automatically performs a complete refresh.
- If a demand was locked before the refresh, the lock icon remains after the delta refresh. In this case, you have to carry out a complete refresh.

❖ Example

You are editing a demand in a window. If you open a second window and want to edit the same demand, the demand is displayed as locked. When you save the changes to the demand, the demand is released and is available again for changes. However, the lock icon is still displayed. To remove the lock icon from the demand, you have to refresh the planning board completely.

- **Complete refresh:** All SAP Multiresource Scheduling objects (demands, assignments, links, resource availability, time allocations, alerts) are refreshed and all screens are regenerated completely.

If the delta refresh is active, you can call a complete refresh at any time in the menu bar by choosing ► [Edit](#) ► [Complete Refresh](#) ►.

Automatic Refresh

The automatic refresh of the Scheduler Workplace is configured in Customizing. You can specify the interval (in minutes) at which data is refreshed. In addition, you can specify what data to update during the automatic refresh. You can find the relevant settings under ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ► in the *Maintenance of Scheduling Engine Profile* area.

For more information, see the field help (F1 help) in the system.

5.1.2 User-Specific Configuration

Use

The *Scheduler Workplace* is configured using profiles that are defined in Customizing. In addition to these configuration settings, you can optimize the workplace to meet your requirements by configuring additional, user-specific settings in the *Scheduler Workplace*.

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, you have carried out the activities under *Set Up Scheduler Workplace*. You define the profiles for the workplace here.

Features

- You can determine the Customizing profiles that are valid for the current scheduler workplace from the main menu by choosing ► *Extras* ► *Technical Information*. ► Additional Customizing data, such as the criteria for splitting assignments, is also available here.
- By choosing ► *Extras* ► *Settings*, ► you can change the various user settings whose default values are also taken from Customizing for the scheduler workplace. These settings are persistent, which means that they also apply when you next call the transaction. These include the following:
 - Basic settings such as the planning horizon, automatic save of the planning board, concretization of assignments in non-availability periods, and the type of availability determination
 - Settings for the planning board response such as the response when you double-click the worklist and when you move demands to resources using drag & drop
 - Visibility of planning board elements such as time data or columns in the resource list
For example, you can specify whether only the selected resources and demands are to be displayed or whether associated resources and demands are to be displayed as well.
 - Settings for demand-based resource selection
- The screen layout between the view containers for the bar chart and the worklist is defined in the user settings. The layout last selected by the user is stored here and applied the next time the planning board is called up or updated. Whenever you reassign the various containers, the system saves this setting for your user. When you restart the planning board, the system also retains the stored container positions.

The system also offers the following temporary options for the scheduler workplace:

- Show and hide screen areas
- Change the size of the screen areas
- Change the size of the bar chart and the time display in the planning board
- Change how resources and demands are displayed
- Display details and additional data
- Change the planning horizon
- Table-based planning

More Information

[Planning Horizon \[page 123\]](#)

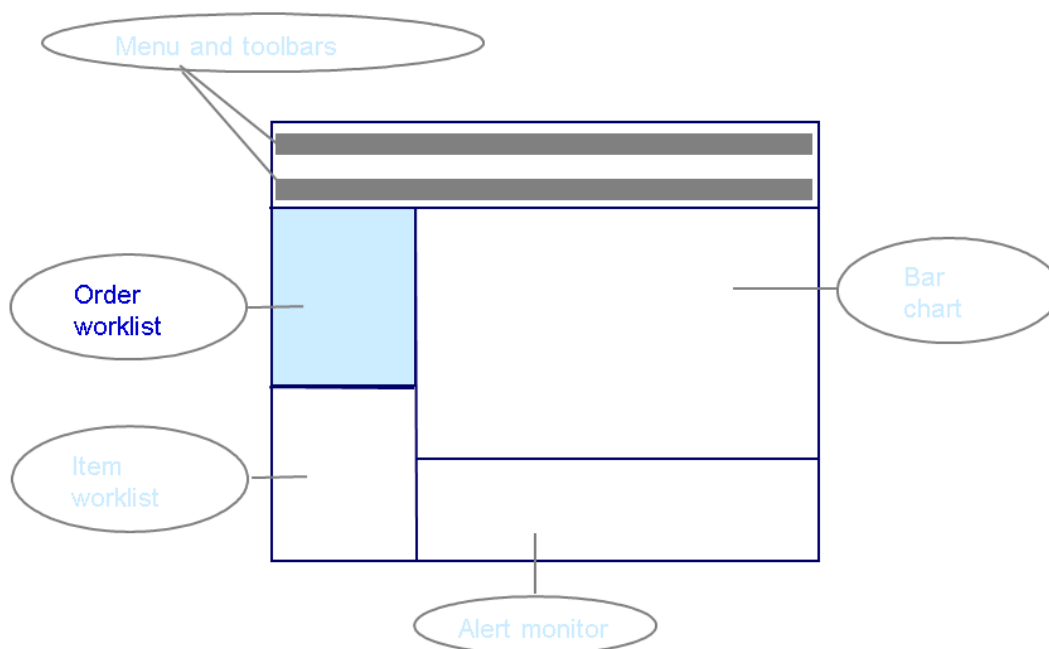
[Automatic Save \[page 133\]](#)

[Partial Concretization of Stretched Assignments in Non-Availability Periods \[page 151\]](#)

[Availability Determination \[page 537\]](#)

5.1.3 Order Worklist

Use



The order worklist contains all of the orders for which the resource planner is responsible. The orders that are assigned to the resource planner depend on a resource planning node (such as an organizational unit) and a defined period.

The order worklist is displayed in a tree structure, which shows the operations and suboperations of the order along with the required resource. The system displays only the sections of the order that are relevant for the selected groups. The resource planner can view the planning status at each level of the tree.

The order worklist displays the order and all operations that are relevant for planning. An operation that is not relevant for planning is also displayed if it has suboperations that are relevant.

Prerequisites

- You have assigned the resource planner to one or more resource planning nodes (for example, organizational units).

For more information, see [Master Data \[page 51\]](#).

Features

You can change how the order worklist is displayed:

- Expand the navigation tree by choosing  and collapse it by choosing .
- Minimize the screen area by choosing  or maximize it by choosing .

You can choose  to branch to the order or display the order structure.

The planning status of an order and its operations are displayed with an icon:

-  Unplanned
-  Partially planned
-  Planned

If an order is marked with a red flag , it contains errors and you cannot create assignments for it.

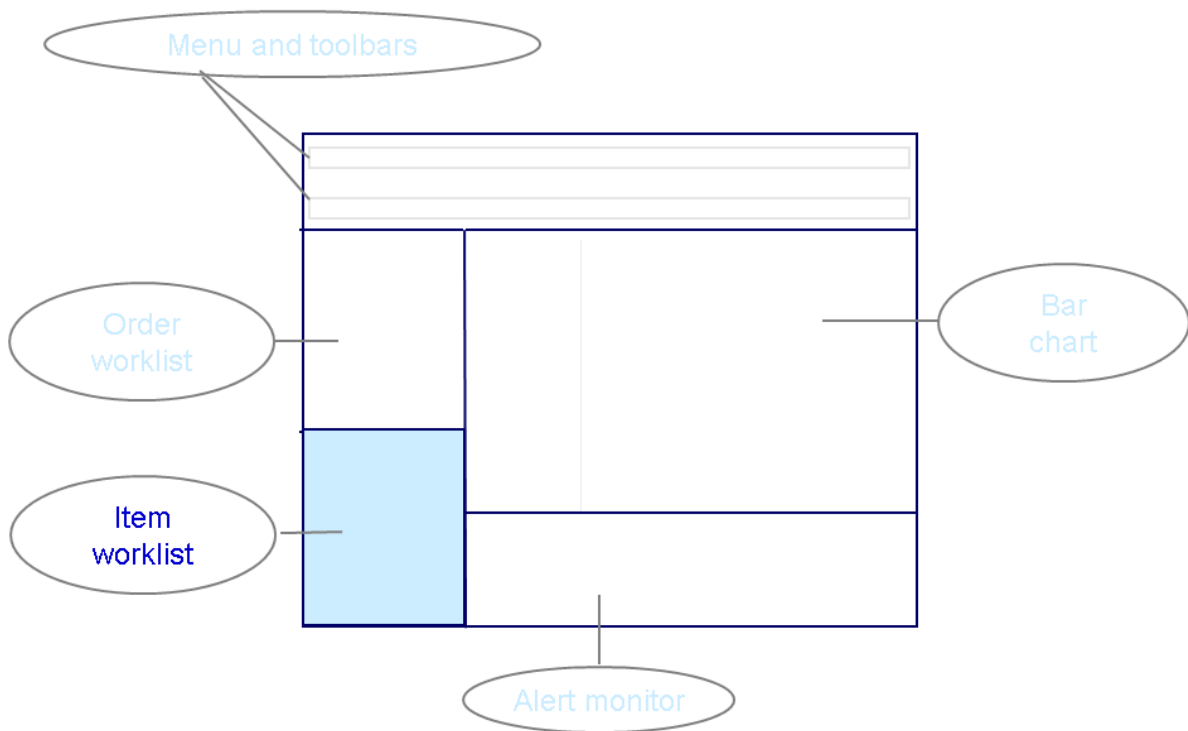
Among others, the following functions are available in the context menu for an order:

- Change Document: If you select this entry, the underlying source of the demand (such as the maintenance order) opens in change mode.
- Long Text: If you select this entry, the system displays the long text that was entered for the order.
- Message: If you select this entry, the system displays the associated message or message long text for the order.
- Lock: If you select this entry, you can lock the demand manually. For more information, see [Data Consistency and Locks \[page 127\]](#).

If you call the context menu for an order operation in the order worklist, several of the functions that are provided when you call the context menu for an operation in the item worklist are also provided. These functions are described in the [Item Worklist \[page 93\]](#) document.

5.1.4 Item Worklist

Use



The item worklist shows you all demand items (such as order operations or network activities) that are relevant for resource planning. The demand header and each demand item are displayed in a table row. For each item, you can display detailed planning-relevant data, such as all dates and times from the demand header.

You can compile the item worklist as you require by using the sort and filter functions. For example, you can filter the items according to urgency or priority, or find all of a customer's open demands.

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, you have configured the settings under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Worklist Profile](#) ►.

Features

Icons	Function

	Sorts the column in ascending order
	Sorts the column in descending order
	Finds data
	Continues search
	Allows you to filter the item worklist based on the available table columns This is the standard filter function available for SAP GUI ALV tables (SAP List Viewer tables).
	Defines and manages the layout
	Minimizes the display of the item worklist
	Maximizes the display of the item worklist
	Enlarges/shrinks the item worklist and displays both worklists
	Displays the attributes of the selected demand in a table
	Calls the detailed view for the demand [page 96]
	Selects demands and the associated assignments; the demand item is also selected in the order worklist
	Displays all assignments of an demand item; the assignments are listed in a dialog box
	Allows you to filter the item worklist by planning status and demand type This is an SAP Multiresource Scheduling-specific filter.
	Displays the qualifications required to process the task
	Displays suitable resources for processing the task
	Creates a temporary comparison profile for the selected demand. For more information, see Creating and Editing a Requirements Profile [page 72] .
	Deletes a temporary comparison profile for the selected demand.
	Manually locks the demand
	Manually unlocks the demand



Selects the option for [demand-based resource selection in the planning board \[page 144\]](#)



Display the item worklist in a dialog box

i Note

If you select items in both the item worklist and in the dialog box, the selection you make in the dialog box takes precedence. That is, after refreshing the Scheduler Workplace, the items you selected in the dialog box are still selected.

The context menu for a demand allows you to call functions such as the following in the item worklist:

- Optimize the width of the table columns in the item worklist
- Find next
- Table calculation: Export table
- Create assignment
- Select assignments and demands
- Display assignments
- Call the detailed view for the demand
- Call demand attributes
- Display change documents of the assignments
- Assign tool
- Display required qualifications (requirements profile) for the selected demand
- Find suitable resources for the selected demand
- Call the demand source (for example, order) in a new window; call long text or long text of log for the demand source
- Display a message or message long text for the order
- Call business partners
- Display map (see [Displaying Geographical Information \[page 652\]](#))
- Manually lock or unlock demand
- Create or delete filters for resources
- Reject offer (see [Resource Planning in Projects: Contact Person Process \[page 267\]](#))
- Split demand (see [Demand Split \[page 161\]](#))
- Display the history of the demand split (see [Demand Split \[page 161\]](#))
- Display date rule (see [Long-Term Planning for Network Activities with Date Rules \[page 275\]](#))
- Start [automatic assignment creation \[page 250\]](#)
- Start [utilization-based planning \[page 252\]](#)
- Print documents for the demand (see [Printing of Demand Documents in SAP GUI \[page 97\]](#))

i Note

This function is available only for demands (orders and notifications) from Plant Maintenance (PM) and Customer Service (CS).

i Note

The functions in the context menu of the item worklist are also available in the context menu of the order worklist, and in part, in the [Demands](#) menu.

Related Information

[Filtering the Item Worklist \[page 98\]](#)

5.1.4.1 Detailed View for Demand

Use

The detail view for the demand contains the following functions:

- You can change the duration and dates of demands of certain types. For example, you can change demands that are based on order operations from Plant Maintenance (PM) and Customer Service (CS), or on network activities from Project System (PS).

i Note

If assignments exist for a demand, the changeability of individual fields on the demand detail screen may be restricted. This also depends on the type of demand.

- You can assign a different resource planning node to the demand (see [Assigning Demands to Other Resource Planning Nodes \[page 153\]](#)). This function is not available for network activities if capacity planning is active for work centers. The function is not available for CRM orders.
- You can change the number of required resources.

i Note

If capacity planning is active, backward integration into the network operation is ensured. No backward integration for the resource change takes place for demands from cProjects.

- You can call the change documents for the demand by choosing *History* (see [Creation of Change Documents for Planning Board Objects \[page 139\]](#)).
- You can call the status list for the demand by choosing .

In the area to the right of the details, you can also choose  to switch between the following displays:

- Demand attributes (data for demand as in the operation worklist)

- Partner for demand (resources found from network activity)
- Status for demand (status list for demand; same as choosing )

Activities

To call the detailed view for a demand, choose *Details for Demand* from the context menu of the demand. If you choose *Demand Details* from the menu  *Extras*  *Settings*  *Response*  *Double-Click in Worklist* , you can also call the detailed view by double-clicking the demand in the worklist.

5.1.4.2 Printing of Demand Documents in SAP GUI

Use

You can print shop papers and documents for demands from Plant Maintenance (PM) and Customer Service (CS) in the Scheduler Workplace.

Prerequisites

- You have activated business function LOG_EAM_SIMPLICITY_2.
- You have activated printing for the required demand type in Customizing for *SAP Multiresource Scheduling* under  *Sources of Demand*  *Activate Printing for Demand Types* .
- (Optional) You have implemented the Business Add-In *BAdI: Print PM/CS Orders and PM/CS Notifications* (/MRSS/RSG_PRINT) in Customizing for *SAP Multiresource Scheduling* under  *Enhancements*  *Sources of Demand* .

Features

- You can select one or more demands in the item worklist, order worklist, or demand view. By choosing the *Print Documents* option, you call a dialog box in which you can select the required documents.

Note

Before you can call the print function in the planning board, you must first save all changes.

- If you select a PM/CS order and call the print function, the system displays the documents and shop papers for this demand as well as for the associated notification in the dialog box. The same applies if you select a notification. In this case, the documents and shop papers for the associated order are also displayed.

Note

Note the following constraints:

- It is not possible to display the documents using the print preview.
 - It is not possible to open the shop papers or documents in SAP Multiresource Scheduling.
- Once the print function has been executed for the selected demand, the system changes the request status automatically to `PRT` (*Printed*).
 - It is only possible to print documents for orders and notifications that are released in the PM/CS system at the time of printing and that are not locked by other users.

5.1.4.3 Filtering the Item Worklist

You can use the standard filter function and an SAP Multiresource Scheduling-specific filter to adjust the item worklist according to your requirements.

Available Filters

You have two options to filter the item worklist:

- Using the standard ALV filter
This allows you to filter the item worklist based on the available table columns. You set this filter using this icon: .
- Using an SAP Multiresource Scheduling filter
This allows you to filter the item worklist based on the planning status and type of demand. You set this filter using this icon: .

If you make settings for either planning status or demand type (or both) in both filters, the SAP Multiresource Scheduling filter takes precedence over the standard filter. If you make settings for either planning status or demand type (or both) using the SAP Multiresource Scheduling filter and settings for other attributes, such as duration or priority, using the standard filter, the system takes both filters into account.

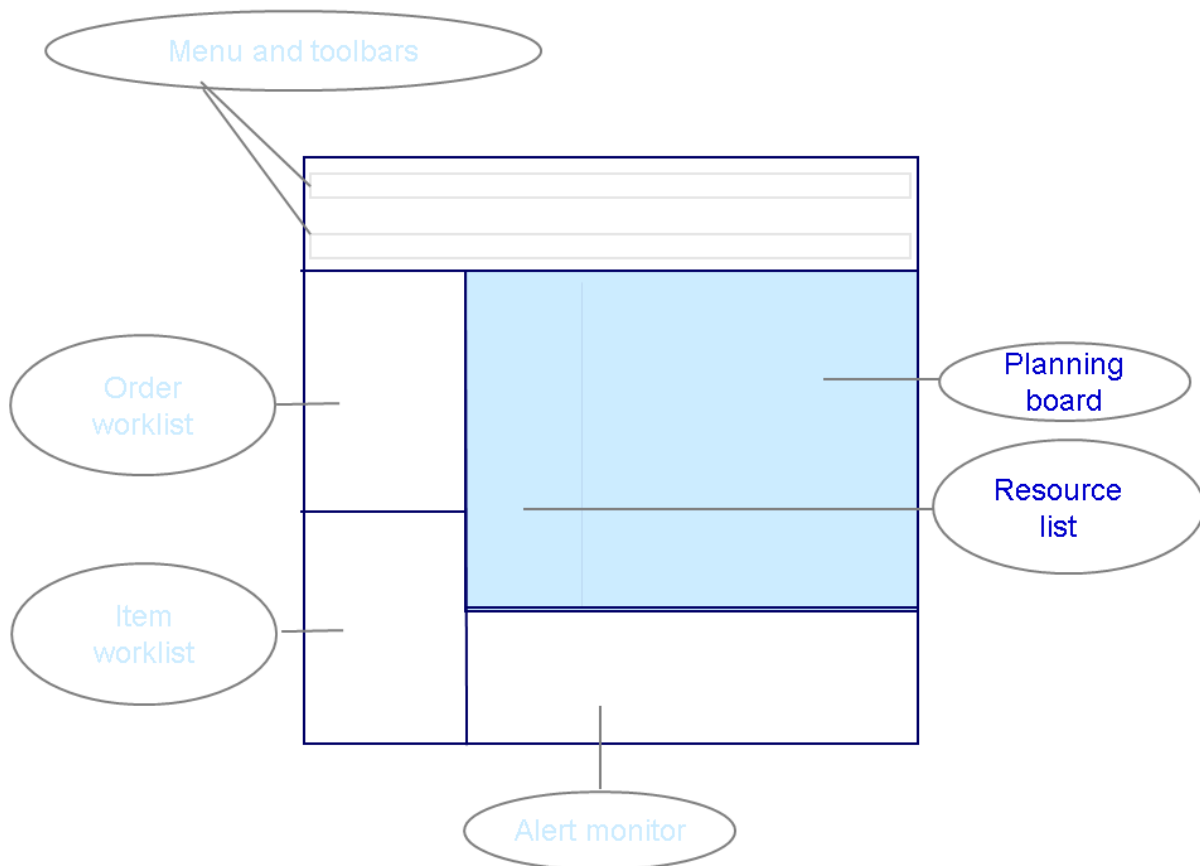
Example

Example	Filter Used	Filter Attribute	Result
1	Standard filter	Duration = 1	The system combines both filters and filters the worklist for planned demands with duration = 1.
	SAP Multiresource Scheduling filter	Planning status = planned	

Example	Filter Used	Filter Attribute	Result
2	Standard filter	Planning status = unplanned	The system ignores the standard filter and filters the worklist for planned demands.
	SAP Multiresource Scheduling filter	Planning status = planned	
3	Standard filter	Planning status = planned	The system ignores the standard filter and filters the worklist for all demands of type PS01, regardless of the planning status.
	SAP Multiresource Scheduling filter	Demand type = PS01	
4	Standard filter only	Planning status = planned	The system filters the worklist for all planned demands of type PS01 and duration = 1.
		Demand type = PS01	
		Duration = 1	

5.1.5 Resource Planning Board

Use



As the resource planner, you can use the resource planning board to create and edit assignments and time allocations for resources and tools, for example. For personnel resources, you can also enter travel times and alternative working times. The planning board can also be used to monitor progress. It consists of a resource list and a Gantt chart (bar chart).

i Note

The layout of the planning board can be configured in Customizing for the layout of the Scheduler Workplace. You can also adjust the layout in the user settings (► [Extras](#) ► [Settings](#) ►). For more information, see [User-Specific Configuration \[page 89\]](#).

The resource planning board is an area in the Scheduler Workplace (SAP GUI). For more information about functions that apply to all areas of the Scheduler Workplace, see [Workplace Functions \[page 86\]](#).

i Note

The terms “planning board” and “resource planning board” are used in some parts of the documentation as a synonym for the entire Scheduler Workplace.

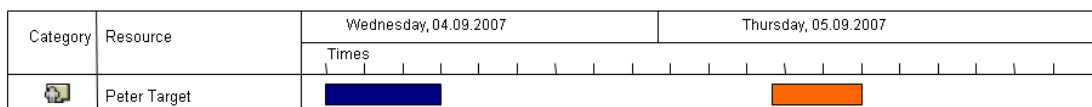
Prerequisites

- In Customizing for *SAP Multiresource Scheduling*, you have carried out the following activities under *Set Up Scheduler Workplace*:
 - *Define User Interface Profiles*
Here, you enter the graphic profile and define how the bar chart is displayed (for example, width) along with the graphical element types for assignments and time allocations. In addition, you can activate various functions according to your business requirements.
 - *Define Planning Board Profile*
You enter the required user interface profile (UI profile) for the resource planning board.
- You have defined the graphic profile in Customizing for *SAP Multiresource Scheduling* under **Basic Settings** > *Bar Chart* > *Define Graphic Profiles*.

Features

Planning Board Basics

- The planning board is a Gantt chart (bar chart) with rows. The header area of the Gantt chart shows a time axis. Below this, rows are displayed for the individual resources showing the associated bars for assignments, time allocations, or confirmed times. The following figure shows an example:



Note

As an alternative to the Gantt display, you can switch to table-based planning. For more information, see [Table-Based Planning \[page 112\]](#).

- Icons are used to differentiate between the different types of resources. This includes the following:

Icon	Description
	Contracted personnel resource of an organization.
	Team resource
	Personnel resource from an external company that is commissioned by the organization and made available on a temporary basis.

Icon	Description
	Personnel resource that is assigned to a different organization in the planning board but that is made available temporarily for demand planning.
	Tool resource

- You can expand the resource row to display more information for each resource. For example, you can display additional rows for capacitive assignments and links. The followings icons are used:

Icon	Description
	If time recording data has been entered, this is displayed as a bar below the assignment. This allows you to directly compare planning and execution. The system automatically updates the time recording data. For more information, see Progress Monitoring [page 174] .
	Displays capacitive assignments
	Displays links with a tool

- You can also show additional columns in the resource list of the Gantt chart. This may include the following columns:

Column	Description
<i>N</i>	Indicates whether or not notes have been created for the resource To create, edit, or delete a note for the resource, choose Additional Data from the context menu of the resource. A dialog box appears in which you can change the text.
<i>#C</i>	Displays the number of capacitive assignments for the resource
<i>Status</i>	Displays the status of the resource
<i>AA</i> (Absolute Availability)	Displays the absolute availability of the resource
<i>RU</i> (Relative Utilization)	Displays the relative utilization of the resource

- Times at which a resource is available or not available are displayed differently for each resource in the planning board (for example, resources' shifts or tool maintenance).

- The planning horizon is the period that is currently defined for the resources. The default value is taken from Customizing. However, you can change this period when you open the Scheduler Workplace. If the Scheduler Workplace is already open, you can extend or shorten it by choosing .

Important Functions

- By choosing , you can switch to the demand planning layout. For more information, see [Capacity and Demand Planning in the SAP GUI \[page 670\]](#).

To switch back to the resource planning layout, you choose .

- The following table lists important buttons that you can use:

Note

Some functions, such as travel times or pre-booking mode, are only available after they have been activated in Customizing.

Button	Function	More Information
 and 	Shows the current number of alerts and allows you to call up the Alert Monitor in a separate dialog box If errors occurred during your last action, the system displays the error messages above the bar chart. The number of errors is also stated. The error text is hidden again as soon as you carry out the next activity. If you choose the pushbutton, the system displays detailed information about the alerts in a separate dialog box.	Checks and Alerts [page 129]
	Allows you to filter the resource list If you have applied a filter, the system displays this in the column header. If the resources are not sufficient or are overloaded, you can extend the resource list.	Resource-List Filter and Extension [page 108]
	Shows additional rows for resources in the resource list	Use this button if you want to display additional rows for all resources in the resource list, such as time data or capacitive assignments.
	Hides additional rows for resources in the resource list	Use this button if you want to hide additional rows for all resources.

Button	Function	More Information
	Hides additional rows	If several bars exist for a resource (for example, assignments and time allocations at the same time), the bars overlap, that is, they are displayed on top of each other.
	Shows additional rows	If several bars exist for a resource (for example, assignments and time allocations at the same time), the bars are displayed in separate rows, that is, one below the other.
	Allows you to scroll to the current time segment of the bar chart	
	Allows you to switch the selection mode on and off Use this button to select several objects in the planning board at the same time by pressing the mouse button and dragging a frame around the required objects. If you select objects in the same category, such as assignments, you can also move them at the same time.	Processing Planning Board Elements [page 138]
	Allows you to create assignments by pressing the mouse button and dragging a frame in the row that contains the period in which the assignment is to be carried out	Creating Assignments [page 134]

i Note

This mode is defined in Customizing as the standard mode. This means that it is always started automatically once you have carried out activities in other modes. You can change this setting in the user interface profile (see the prerequisites section).

Button	Function	More Information
	Allows you to create capacitive assignments by using drag & drop to move a demand to a resource name	Creating Capacitive Assignments [page 146]
	Allows you to create time allocations by pressing the mouse button and dragging a frame over the period in which the resource is absent	Time Allocations [page 136]
	Allows you to create links between personnel resources and tools by pressing the mouse button and dragging a frame over the period in which the two resources are to be linked The frame can be created in both the tool row and the personnel resource row	Using Tools in the Scheduler Workplace [page 588]
	Allows you to activate or deactivate automatic saving in the planning board after you have made changes	Saving the Planning Board [page 133]
	Allows you to align newly created assignments to existing assignments or unavailability periods	Alignment of Assignments [page 116]
	Allows you to recalculate assignments for a demand after you have made changes	Recalculation of Splits [page 157].

Button	Function	More Information
	Allows you to set the time scale for the planning board	If the scaling factor of the planning board is one week or more, the following applies: If you plan an assignment for a resource using drag & drop, that is, you move the assignment to the resource name, the system places the start of the assignment automatically at the start of the availability period. This applies regardless of which user settings you have configured in the Response When Dragging & Dropping Demands to Resources area under Extras > Settings > Response. i Note This response is not valid in the following cases: - In Customizing for SAP Multiresource Scheduling, you have selected the Create Assignment At Dropped Time checkbox under Set Up Scheduler Workplace > Workplace Profiles > Define User Interface Profiles. In this case, the system places the start of the assignment at the time point on which the assignment was dropped using drag & drop. - You have activated the alignment of assignments in Customizing and in the planning board. In this case, the start of the assignment to be created is based on existing assignments or unavailability periods.
	Allows you to shift a set of assignments while keeping the sequence	Shifting of Assignments [page 167]

Button	Function	More Information
	Starts the automatic optimization of the planning situation	Optimizer for Resource Planning [page 617]
	Allows you to hide the bars for travel times in the planning board	Travel Times [page 565]
	Allows you to create preliminary assignments with limited visibility	Creating Assignments [page 134]

- You can call up many more functions using the context menu for the different planning board objects. For example, you can open the detail view, set statuses, or display dependencies.

5.1.5.1 Display of the Current Time

Use

In the planning board, the current time is displayed as a dotted, vertical line.

Prerequisites

In the planning board, you have chosen  [Extras](#)  [Settings](#)  [Visible Objects](#) and set the indicator [Display Time-Now Line](#).

Features

Regardless of whether you display the line, you can choose  to scroll to the current time in the bar chart.

5.1.5.2 Display of the Planning Board in an Alternative Time Zone

Use

You can display the planning board in an alternative time zone.

Prerequisites

You have activated the use of alternative time zones in Customizing for *SAP Multiresource Scheduling* under
► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► *Define User Interface Profiles* ►.

Features

- You can change the time zone in which the planning board is currently displayed. To do this, a menu option is available under ► *Planning Board* ► *Mode* ► *Alternative Time Zone* ►.
- You can reset the time zone to the system time zone by choosing ► *Planning Board* ► *Mode* ► *Reset Time Zone* ►.
- A context menu entry *Display Time Zone Dependent Details* is available for assignments in the resource Gantt chart. When you select this entry, the system displays a dialog box including details such as the time zone of the resource planner and the time zone of the resource.

Note

If the resource time zone is changed after the planning board was launched, the system does not update this information after a planning board refresh. To have this information updated, you must relaunch the planning board.

Example

Resource A is created with time zone BRAZIL. You launch the planning board, select an assignment and display the time zone dependent details. The resource time zone is specified as BRAZIL.

While the planning board is still open, you change the time zone of resource A to INDIA. You refresh the planning board and display the time zone of the resource. This is still given as BRAZIL. In order for the change to become visible in the time zone dependent details, you must relaunch the planning board.

5.1.5.3 Extending and Filtering the Resource List

Use

To reduce the number of resources displayed in the Scheduler Workplace (SAP GUI), you can filter the resource list for specific criteria. To obtain additional resources if the current ones are not suitable or sufficient, you can extend the resource list.

Features

Filtering the Resource List

You can filter the resource list by the following criteria:

- Personnel resources for one or more resource planning nodes
- Personnel resources of a specific resource type
- Personnel resources that belong to a specific postal code area
- You can enter a demand type to filter the assignments of the filtered personnel resources. The system then displays only those personnel resource assignments for the demands with the corresponding type.
- You can display personnel resources and teams that have general on-call availability or that have specific on-call types in the period displayed. The system then displays only those on-call types that are assigned to the resource planning nodes currently displayed in the planning board and worklist.
- Tool resources with a specific short text
- Provided that the required Customizing and user settings are in place, you can use further selection options to filter the resource list based on previous assignments.

You configure the settings for the resource filter in a separate window. This opens when you choose the [Filter for Resources](#) icon from the application toolbar above the resource list.

If the resource list is filtered, this is shown by the extended column header [Resource \(Filtered\)](#).

To set a saved variant of the resource filter as the default, enter the variant in the user settings under ► [Visible Objects](#) ► [Display of Resources](#) ► [Filter for Resources](#) ►.

Extending the Resource List

You can extend the resource list in the planning board by adding resources from another resource planning node, for example. To do this, choose [Additional Resource](#) from the context menu of a resource and enter the personnel resource, tool, team, or another resource planning node in the subsequent window. Provided that the required Customizing and user settings are in place, you can use the assignment-based resource selection options to extend the resource list.

Related Information

[Assignment-Based Resource Selection \[page 515\]](#)

5.1.5.4 Sorting of the Resource List

Use

The sequence in which the resource types (teams, employees, and tools) are displayed in the resource list initially depends on the Customizing settings for the current user profile. You can override this default setting in the planning board. You can also use the BAAdl [Sort Resources](#) to define additional criteria.

Features

To change the sort sequence of the resources in the resource list of the planning board, choose  to open the [Sort Resources](#) dialog box. In general, you can sort the resources by specific criteria or manually.

Sorting by Criteria

- You can choose the employee's entry date as a sort criterion for the personnel resources, for example, and the creation date for teams.
- You can save the sort criteria as a user-specific variant and use them again later.
- The system displays resources added later at the end of the resource list.

Manual Sorting

- You can use the arrow keys to change the sort sequence for the resources. You can save the result as a variant and use it again later.
- The system displays resources added later at the end of the resource list.

Sorting with BAdI

You can also define the sort sequence using the BAdI under [► Enhancements ► Scheduler Workplace ► BAdI: Sort Resources ►](#). The settings from the BAdI override or supplement the criteria from the user settings in the planning board.

5.1.5.5 Detailed View for Assignment

Use

The detailed view for the assignment provides various functions. For example, you can do the following:

- You can allocate the assignment to another resource.
- You can change the duration and dates of the assignment.
- You can change the assignment type (see [Stretched Assignments \[page 150\]](#) and [Creating Capacitive Assignments \[page 146\]](#)).
- You can set the site supervisor indicator (see [Site Supervisor Indicator \[page 169\]](#)).
- You can set the [No Travel Expenses](#) indicator (if you set this indicator for an assignment, no travel costs are allowed for the associated demand).
- You can specify the utilization of the resource by the assignment (default value is 100%).
- You can enter an assignment probability.
- You can call the status list for the assignment by choosing .
- You can create a note for the assignment.

In addition to the [Assignment Details](#) tab, you can also display additional tabs showing the travel time details, the travel route, and the processing time details for the assignment.

Prerequisites

- If you want to create notes for assignments, you must be authorized to do so (authorization object /MRSS/NOTE). In addition, you must have activated the use of assignment notes in Customizing for [SAP Multiresource Scheduling](#) under ► [Basic Settings](#) ► [Configure Note Management Settings](#) ►.
- If you want to display additional tabs for travel and processing time details, you must have activated these options for the current planning board profile. You do so in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.

Activities

- To call the detailed view for an assignment, choose [Details for Assignment](#) from the context menu of the assignment, or simply double-click the assignment.
- When you edit the assignment dates in the detailed view, the following applies for **concrete assignments**:
 - When you enter a new end date and end time, the system calculates the new start date and time based on the entered end date minus the duration.
 - When you delete the end date and end time, the system calculates the new end date and end time based on the (unchanged) start date and time plus the duration.
 - When you enter a new start date and start time, the system calculates the new end date and end time based on the entered start date plus the duration.
 - When you delete the start date and start time, the system calculates the new start date and start time based on the (unchanged) end date and end time minus the duration.
 - When you delete both the start date and start time and the end date and end time, the system calculates the new start date and start time based on the start date and start time of the associated demand. The end date and end time is calculated based on the newly calculated start date plus the duration.
 - When you delete the start date and start time, the end date and end time, as well as the duration, the system calculates the new start date and start time and the duration based on the associated demand values. The end date and end time is calculated based on the demand start date plus the demand duration.
 - When you enter a new duration, the system calculates the new end date based on the start date plus the duration.
 - When you delete the duration, the system calculates the new duration based on the (unchanged) start and end dates.
- When you edit the assignment dates of **stretched assignments**, the system calculates the corresponding dates in the same way as it did for concrete assignments. The only difference is that during the recalculation of dates, the resource availability is considered as well. For more information, see [Stretched Assignments \[page 150\]](#).
- When you edit the assignment dates of **capacitive assignments**, the system does not recalculate the corresponding dates.

→ Recommendation

If you specify midnight as 24:00, the system converts your entry automatically to 0:00 (start of the next day). Depending on the assignment type (stretched or concrete), the recalculation of dates and times

varies accordingly. We therefore recommend that you specify the time either as 23:59 or as 0:00, depending on your requirements.

Note

The following points about mobile integration are valid only for assignments to demands from network activities. They are relevant only if a mobile application has been integrated. Before you can use these functions, you must have maintained the Customizing activities [Define Abstract Assignment Statuses for Integration with Mobile Devices](#) and [Assign Statuses for Integration with Mobile Devices](#) in Customizing for SAP Multiresource Scheduling under [Sources of Demand](#) and [Sources of Demand > Networks](#).

- Once communication with the mobile devices has been established accordingly, you can see the current status of the assignment in the [Mobile Status](#) field (for example, the status for the start of work that the employee has sent from the mobile device). If there are several assignment statuses with the same time stamp, the system displays those whose transaction does not start with /MRSS/.
- By choosing , you can call the status history for mobile integration and add statuses with any time stamp.
- You can set the [Send to Mobile](#) indicator if you want to send the assignment to the mobile device after you have saved. (Prerequisite: You have integrated a mobile application and the BAdI "Sending Assignments to Mobile Devices" has been implemented accordingly).

5.1.5.6 Table-Based Planning

Use

As an alternative to the bar chart in the planning board, you can display the resource planning situation as a table by choosing . Although the bar chart provides you with a better graphical overview of the employees' utilization and allows you to create assignments easily using drag & drop, the table-based display provides the following:

- Filter and sort functions for assignments
- All information displayed in the detail windows for assignments and time allocations
- Display of demands that are not yet planned
- Additional data for the resource, such as notes, department, telephone number, fax number, and e-mail address

Prerequisites

In Customizing, under [Set Up Scheduler Workplace > Workplace Profiles > Worklist Profile > Create Worklist Profile > Fields in Table-Based Resource Planning](#), you have specified the columns that are to be displayed in table-based resource planning.

Features

In the table view, you can execute the same functions as in the bar chart. For example, you can:

- Create planning board elements such as assignments or time allocations using (Insert Row).
- Create filters for resources

To switch between the bar and table views of the planning board, choose  or .

5.1.5.7 Day-Based Scheduling

Use

You can plan assignments on a daily basis so that resource planning can be displayed more easily. Day-based scheduling allows you to plan resources for entire days. Day-based scheduling must be activated in Customizing

Prerequisites

[Setting Up Day-Based Scheduling \[page 115\]](#)

Features

- You can use day-based scheduling for concrete, stretched, and capacitive assignments, as well as for team assignments.
- If you have activated day-based planning, you cannot edit the start and end time of the assignments. The start time is set to 00:00 and the end time is set to 23:59 (except for stretched assignments). Stretched day-based assignments might extend beyond the end of the working day if the working time of the resource does not correspond to the time unit for day-based assignments specified in Customizing. Similarly, if the customized time unit is shorter than one working day, a day-based assignment might end before the end of the working day.

❖ Example

Resource A works 7.5 hours per day. In Customizing, it is defined that a day-based assignment comprises 8 hours per day. The resource planner creates a 4-day stretched day-based assignment for Resource A, starting on Monday. On Thursday, Resource A will have covered only 30 of the 32 requested hours. Therefore the assignment is extended to Friday to cover the remaining 2 hours.

- If the assignment follows demand function is active, you cannot change the assignment start and end dates, since the assignment dates directly depend on the demand dates. However, the system sets the assignment start time to 0:00 and the end time to 23:59 (except for stretched assignments) and rounds off the assignment duration to days, independent of the demand start and end times.

- You can configure day-based planning for a specific assignment. To do so, choose the time unit *Day* in the assignment details.
- If you have made the relevant Customizing settings, the system automatically creates new assignments on a day basis when you drag them from the worklist to the Gantt chart.
- PM integration scenario: If day-based scheduling and the integration of splits is set up, the system automatically creates a day-based assignment when an order operation split is integrated in SAP Multiresource Scheduling.

❖ Example

In the PM system, an order operation is created with a duration of 3 days. For this order operation, a split is created with a duration of 3 days. Your SAP Multiresource Scheduling system is set up so that the duration of the split is used as demand duration when the split is transferred as an assignment to SAP Multiresource Scheduling. As a result, the SAP Multiresource Scheduling system creates an assignment with a 3-day duration (= 72 hours) for the related demand.

→ Recommendation

- Select the *Hide Non-Working Times* checkbox under ► *Extras* ► *Settings* ► *Response* ► *Planning Board Response* .
- Use the calendar view. Either choose the *Calendar View* radio button before launching the planning board or choose  in the planning board and then select the *Calendar View* radio button.

Restrictions and Limitations

Day-based scheduling is subject to the following restrictions:

- You cannot use automatic assignment creation.
- Backwards integration is not carried out on a day basis.
- You cannot use the Optimizer.
- The system does not include travel times.

Related Information

[Setting Up Day-Based Scheduling \[page 115\]](#)

5.1.5.7.1 Setting Up Day-Based Scheduling

Day-based scheduling allows you to plan resources for entire days. You set up and activate day-based scheduling in Customizing.

Procedure

1. In Customizing for SAP NetWeaver under ► [General Settings](#) ► [Check Units of Measurement](#) ►, define a time unit that you want to use for day-based scheduling.

For example, you want a working day to last for 8 hours. Create a time unit for a working day and specify that this time unit comprises 28,800 seconds (= 8 hours).
2. In Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►, make the following settings:
 - Under [Maintenance of Scheduling Engine Profile](#), select the checkbox to activate day-based scheduling.
 - Under [Time Unit for Planning Board Profile](#), enter the time unit that you created in Step 1.
3. For PM integration scenario only: In Customizing for SAP Multiresource Scheduling under ► [Sources of Demand](#) ► [PM/CS Orders](#) ► [Control Integration Between MRS and PM/CS](#) ►, specify whether the work or the duration of an order operation is used as demand duration when integrating order operations as demands in SAP Multiresource Scheduling.
4. For PM integration scenario only: In Customizing for Plant Maintenance and Customer Service under ► [Maintenance and Service Processing](#) ► [Maintenance and Service Orders](#) ► [General Data](#) ► [Define Default Values for Units of Operation](#) ►, enter the time unit to be used for a working day (Step 1). Enter the time unit either for work or duration, depending on the setting you made in Step 3.
5. Optional: To make day-based scheduling the default when creating new assignments using drag and drop, make the following settings in Customizing for SAP Multiresource Scheduling:
 - Scheduler Workplace (SAP GUI): Go to ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ► and select the [Create Day-Based Assignments](#) checkbox.
 - Web-based planning board: Go to ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#) and select the [Create Assignments Day-Based](#) checkbox.
6. Optional: Define a global time zone for day-based assignments. You do so in Customizing for [SAP Multiresource Scheduling](#) under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►. The system then uses the same global time zone for all resources.
7. Recommended: To optimize the display of day-based assignments in the Scheduler Workplace (SAP GUI), specify that non-working times and the row for capacity assignments are not shown in the planning board. To do so, make the following settings under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►:
 - Deactivate the display of non-working times by selecting the [Hide NWork](#) checkbox.

i Note

This setting can be overwritten in the user settings for the planning board.

- Activate the display of capacitive assignments in the planning row. To do so, select the relevant checkbox.
The system hides the row for capacitive assignments. Instead, capacitive assignments are displayed directly in the planning row for the resource.

5.1.5.8 Alignment of Assignments

Use

Using the Scheduler Workplace (SAP GUI) for resource planning, you can align new assignments with existing assignments or non-availability periods to ensure that resource planning is as effective as possible.

Prerequisites

- You have activated the alignment of assignments for each planning board profile and defined a maximum time interval. You do this in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►. Here you can also choose to specify that travel times are allowed in non-availability periods.

Features

- When creating assignments, you can activate or deactivate the alignment function by choosing the  pushbutton provided in the planning board.

i Note

If you are working with teams, you can use the alignment function when creating assignments either for individual team members or for the entire team. Alignment of assignments is not possible if the automatic distribution of team assignments to the individual team members has been activated in Customizing (► [Basic Settings](#) ► [Configure Basic Settings](#) ►).

- When you move assignments to the Gantt chart in the planning board using drag & drop, the system attaches them to the nearest assignment or break (taking travel times into account). During this process, it takes into account the maximum time interval that can exist between two assignments (or an assignment and a non-availability period) that are to be aligned as defined in Customizing.

i Note

If you move an assignment in the planning board to an existing assignment, the assignments are not aligned to allow the resource planner to overbook deliberately.

- Both concrete assignments and stretched assignments can be aligned, provided that the start and end of the assignments are not interrupted by non-availability periods. It is not possible to align capacitive assignments.
- If the corresponding checkbox is selected in Customizing, travel times can fall in non-availability periods if necessary when the new assignment is created.
- The system creates the new assignment within the planning period for the demand. If it is not possible to align the assignment within the planning period, the system issues a warning message.

i Note

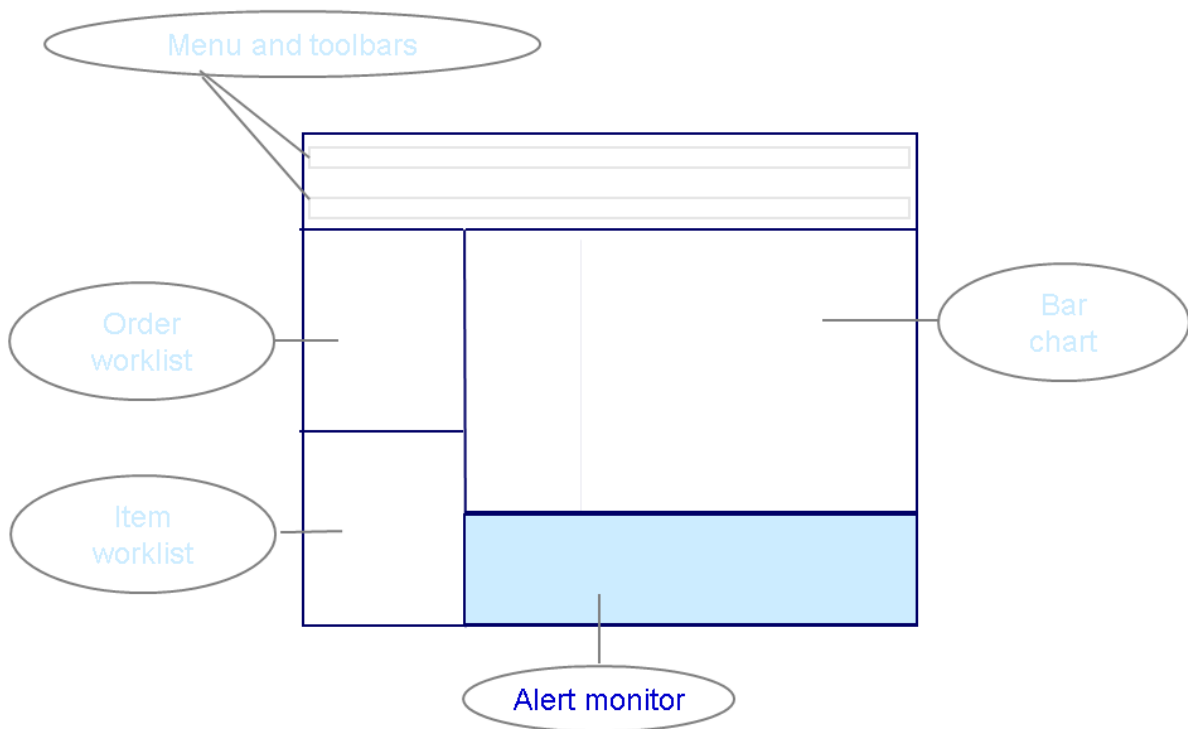
If the assignment follows demand function is active for the respective demand type, this setting takes precedence over the alignment of assignments. In that case, the dates of newly created assignments follow only the demand dates and not the dates of existing assignments.

More Information

For more information about the functions of the planning board, see [Planning Board \[page 100\]](#).

5.1.6 Alert Monitor

Use



The Alert Monitor displays all alerts (such as warnings or information) that arise due to the planning situation. Alerts are generated by the system if the resource planner violates conditions when planning an assignment and this is detected when various data is checked (master data, Customizing data, and order data).

This is the case, for example, if a personnel resource is overloaded. If the resource planner creates an assignment for this personnel resource, the system checks the employee's normal working time and how many hours of overtime are allowed. If the planned duration of the assignment exceeds the permitted working time, an alert is generated.

Alerts help the resource planner to plan assignments concretely and consistently.

Once the resource planner has acknowledged the alerts, he or she can confirm them and thereby remove them from the Alert Monitor. Alerts can be confirmed at user level or at global level.

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, you have carried out the following activities under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Alert Profile](#) ⌵:

- [Define Alert Types](#)

- [Define Alert Profiles](#)

Features

Functions of the Alert Monitor

Icons	Function
	Displays details of an alert; displayed in a list
	Sorts the column in ascending order
	Sorts the column in descending order
	Finds data
	Continues search
	Sets the filter based on the columns and also deletes it
	Defines and manages the layout
 <i>Confirm</i>	Confirms the selected alert for a single user
 <i>Confirm Globally</i>	Confirms the selected alert for all users
	Displays the long text for a message if one exists
	Minimizes the display of the Alert Monitor
	Maximizes the display of the Alert Monitor
	Displays the planning board and the Alert Monitor

The current number of alerts is shown in the toolbar above the planning board by the pushbuttons  and  and with the quick info Alert Monitor. If you choose the pushbuttons, the system displays detailed information about the alerts in a separate dialog box.

More Information

[Checks and Alerts \[page 129\]](#)

[Checks \[page 130\]](#)

5.2 Cross-Area Functions in Resource Planning

You can use SAP Multiresource Scheduling for demands from different areas: For example, the source of the demand can be a service order from CRM or ERP Customer Service, a Plant Maintenance order, a project from Project System, or a cProject.

Depending on the source of the demand, additional steps may be required or can be carried out when you plan resources, and these are described in the following sections:

- [Resource Planning in the Service \[page 240\]](#)
- [Resource Planning in Projects \[page 261\]](#)
- [Resource Planning with Collaboration Projects \[page 471\]](#)
- [Resource Planning for a CRM Service Order \[page 488\]](#)
- [Resource Planning for Notifications from Plant Maintenance \(PM\) and Customer Service \(CS\) \[page 256\]](#)

The following sections describe cross-area functions of resource planning, that is, functions that you can use practically independently of the origin of the demand.

5.2.1 Calling Up the Scheduler Workplace

Use

As the resource planner, you can decide how the demand worklist is to be generated or for which period before you want to call the Scheduler Workplace.

i Note

If you want to change the period before you open the Scheduler Workplace, choose [Extras](#) [Settings](#) [Access via Period Dialog Box](#) in the Workplace menu bar.

If you want to change the period while planning resources, choose [Edit](#) [Change Period](#).

Prerequisites

- You have defined the authorizations using either authorization paths or authorization object `/MRSS/PB1` and assigned them to your employees. You can specify your authorization concept in the Customizing activity [SAP Multiresource Scheduling](#) [Basic Settings](#) [Configure Basic Settings](#).
- In Customizing for [SAP Multiresource Scheduling](#), you have defined the planning horizon at [Set Up Scheduler Workplace](#) [Define Planning Horizon](#).
In the [Scheduler Workplace](#), you can redefine the planning horizon to meet your requirements by choosing [Extras](#) [Settings](#).
- You can define your own search helps for resources and demands, to be displayed in the resource and demand selection instead of the standard search helps for the [Personnel Number](#) and [Demand](#) fields

before the *Scheduler Workplace* is called. To use your own search helps, configure the corresponding settings in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Define Search Helps for Resources and Demands* ►.

Features

You can use the following transactions to launch the Scheduler Workplace:

Transaction	Description
/MRSS/PLBOORGSRV <i>Planning Board (General)</i>	This transaction is the most extensive transaction for calling the <i>Scheduler Workplace</i>. When you access it, the system displays all of the options for choosing resources and demands. You can select the resources using resource planning nodes and personnel numbers, enter a period, and restrict the resource selection to those with on-call availability. i Note When launching the planning board, you can only filter for individual personnel resources with on-call duty. You can select demands using resource planning nodes, enter them directly, or restrict the selection according to the demand type or user status. You can also enter a period for the demands that is different to the period for resources.
/MRSS/PLBOORG <i>Planning Board for Resource Planning Nodes</i>	This transaction provides all of the options in transaction /MRSS/PLBOORGSRV except the option of entering individual resources or on-call types as selection criteria.
/MRSS/PLBOORG <i>Planning Board via Resource Planning Structure</i>	This transaction calls the <i>Scheduler Workplace</i> directly and displays the resource planning structure in the organizational levels manager.
/MRSS/PLBOSRV <i>Planning Board for Demands</i>	This transaction enables you to call specific demands directly. To find demands using specific criteria (such as demands for a particular work center), use the input help.

Transaction	Description
/MRSS/PLBOTIME <i>Scheduler Workplace</i>	This transaction displays all of the demand for the groups in the worklist within a specific period, along with the resources of all demand items. i Note You can create assignments even though you are not assigned to the organizational unit as a resource planner. However, to do so you require the relevant authorization. You can also change the period or planning horizon in this transaction.
/MRSS/PLBOMGR <i>Planning Board for Managers</i>	This transaction only displays the planning situation and does not permit you to make any changes. For more information, see Manager Planning Board [page 123].

Specifying Multiple Selection Criteria

i Note

Which options you see on the selection screen depends on the transaction you use to launch the Scheduler Workplace.

If you specify multiple criteria to determine which resources and demands you want the system to show in the Scheduler Workplace, the following applies:

- Planning node ID, service area, resource ID, and demand ID: The more criteria you specify, the greater is the results set. That is, the system just adds up the results found for each criterion.

❖ Example

On the selection screen, you specify resource planning node RP01 and demand D02. In the planning board, the system shows all demands that are assigned to RP01. The system also shows all items of demand D02, even if this demand is not assigned to RP01.

→ Recommendation

If you want to call up the Scheduler Workplace for a specific combination of resource planning node and demand ID, proceed as follows: Launch the planning board for the required resource planning node. In the planning board, filter the results using the required demand ID.

i Note

If you specify a demand by entering a demand ID, and you also enter a time period, the system does not take the time period into account.

- Demand type and status (inclusive and exclusive): Specifying one of these criteria reduces the results set. That is, if you specify a demand type or status, the system only shows demands of this type and / or with or without this status.

❖ Example

On the selection screen, you specify demand D02. You also specify that you want to exclude demand items that have the *Confirmed* (CONF) status. In the planning board, the system shows all items of demand D02 that do not have the *Confirmed* status.

5.2.1.1 Manager Planning Board

Use

In the manager planning board (transaction /MRSS/PLBOMGR), you (as manager) can display the current planning situation for the resources for which you have authorization. You cannot make changes in the manager planning board.

Prerequisites

In Customizing, you have defined which resource planning board profile you want the system to use and how it should determine the resources for which the manager planning board is displayed, by choosing *Define Settings for Manager Planning Board*.

Features

- You specify the organizational unit for the resource selection. You can also enter additional personnel numbers.
- In the planning board, the system displays only the resources for which you (as manager) have at least display authorization for its resource planning nodes.

5.2.2 Planning Horizon

Use

To determine the periods for which the system calls the scheduler workplace, you can enter one planning horizon for demands and one for resources.

❖ Example

The time period displayed for the item and order worklist for demands can contain four weeks, while the time period of the bar chart for the current resources only displays the next seven days.

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, you have defined the planning horizon at ► [Set Up Scheduler Workplace](#) ► [Define Planning Horizon](#) ►.

Activities

You specify the default period in Customizing at ► [Set Up Scheduler Workplace](#) ► [Define Planning Horizon](#) ►. The planning horizons for resources and demands move depending on the date and the values defined for them. The default period can be overwritten in the following locations:

- To change the default periods before you start the planning board, you activate a dialog box that is displayed before the scheduler workplace opens. To do so, choose ► [Extras](#) ► [Settings](#) ► in the scheduler workplace and set the indicator [Access via Period Dialog Box](#).
- If you enter other periods in the input fields of the planning board under ► [Extras](#) ► [Settings](#) ►, the system uses these as the default periods.
- To change the periods for your current session, you can choose  in the planning board or use the menu option ► [Edit](#) ► [Change Period](#) ► to change the periods for the current view. These settings are lost as soon as you close the scheduler workplace.
- You can also select periods on the initial screens of the [planning board via resource planning nodes](#) (/MRSS/PLBOORGSRV) and [planning board – general](#) (/MRSS/PLBOORGGM) transactions. The system displays the planning horizon values from the user settings as the default values. If no values have been defined there, it displays the values from the IMG activity [Define Planning Horizon](#).
- The planning horizon for demands is used to select demands only. For all other functions in the planning board, such as checks against the planning horizon, the system uses the planning horizon for resources.
- If you want the demand horizon to be the same as the resource horizon, you can set the indicator [Activate Planning Horizon for Resources Only](#).

5.2.2.1 Adjustment of Planning Horizon for Resources

Use

If you want to edit objects (such as assignments) in the planning board for periods that are outside the current planning horizon for resources or that cut the horizon, the system queries whether you want to adjust the planning horizon.

i Note

You can deactivate the planning horizon check for your planning board profile in Customizing for SAP Multiresource Scheduling. To do so, choose ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ► and select the *Ign. Planng. Horizon* checkbox under *Activation*. Note the following:

- Working without a planning horizon can cause performance problems if you want to create extremely long assignments or teams, for example.
- The system will not allow you to shift stretched assignments and time allocations outside the planning horizon even if you have activated the *Ign. Planng. Horizon* option.

Features

- As new period limits, the system proposes the maximum interval based on the limits of the edited object and current planning horizon.
- You can overwrite the period manually.
- After you have confirmed the new data, the system updates the planning board with the new planning horizon.
- You have to edit the object again to make the desired changes.

Example

The current planning horizon is May 1, 2007 to May 31, 2007. You want to change an assignment that is planned from May 30, 2007 to June 2, 2007. The system queries whether it should change the planning period and proposes a new period of May 1, 2007 to June 2, 2007. After you have confirmed the period and the system has updated the planning board, you edit the assignment.

5.2.3 Undo or Redo Actions

Provided that you have not saved actions that you carried out on the planning board, you can undo each action one-by-one and redo them again.

Choose  or . The quick info text also shows which action you are undoing or redoing (for example, [Undo: Create Assignment](#)).

If you have saved the data in the planning board, you can use this function only for actions that you subsequently carry out.

5.2.4 Grouping of Demands

Use

You can group demands in the demand Gantt chart of the Scheduler Workplace (SAP GUI). You can use this function to group demands based on specific attributes, for example, by work center, technical object, or customer.

i Note

You cannot use the grouping function in the availability view. In this view, the demands are already grouped based on the associated technical objects.

Prerequisites

In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Worklist Profile](#) ► [Create Worklist Profile](#) ►, you have specified which fields are available as grouping attributes. You must select the [Grouping](#) checkbox for at least one field so that the relevant button is available in the demand layout.

Features

- You can specify one attribute based on which you can group the demands that are currently displayed in the demand Gantt chart. To do so, choose  and select the desired attribute in the dropdown menu.
- In the list of demands, the system displays the grouping attribute as the first row (top level), followed by the associated complex demands (second level) and the single demands (third level).

i Note

If you apply a grouping attribute that is an item attribute, the hierarchical relationship between complex demands and single demands is no longer displayed in the demand Gantt chart.

If the grouping attribute cannot be applied for a demand, the demand is listed below the grouped demands.

- You can filter and sort the grouped demands.

5.2.5 Data Consistency and Locks

Use

Resources can be planned in an organization by several resource planners at the same time. Depending on their assignment, these resource planners can use the same resources (groups) or process the same orders.

To ensure that all of the resource planning data remains consistent within the organization, the system generates locks for planning board elements that are currently being processed by a resource planner.

Prerequisites

You have specified whether the locks for resources and orders are active in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► *Define Planing Board Profile* ►. For the order lock, you can also activate the *Manual Lock*.

Features

Locks for Assignments, Time Allocations, and Links

The system locks assignments for other users as soon as they are processed.

If a resource planner changes an assignment on the planning board, this assignment is locked. The assignment can still be viewed by other users, but they cannot change or delete it. If another resource planner attempts to change the assignment, the system generates a message with the assignment status and the name of the resource planner. The lock is removed when the planning board data is saved or updated.

The system locks time allocations and links as soon as they are processed.

Resource Lock

Resources are locked by the system if you have configured the appropriate Customizing settings (see prerequisites).

The resource lock is set on a daily basis. Since resource planners can work in different time zones, the system determines the day and the time zone that was defined in the planning board profile. If the resource planner creates an assignment from May 1 at 08:00 to May 2 at 17:00, the resource is locked on both May 1 and May 2.

If the resource planner does not set the lock at resource level, the system checks for potential conflicts when planning is saved (for example, if two users have processed a resource at the same time). The system then updates the alerts. The correct data is displayed for the resource planner who saves last.

Demand Lock

So that several resource planners cannot create assignments for the same demand simultaneously, demands can be locked manually or automatically if you have configured the appropriate Customizing settings (see prerequisites).

- To lock a demand in the planning board manually, choose **Lock > Lock Demand** from the context menu of the demand or select the demand and choose  in the toolbar above the item worklist. You can lock a demand manually only if it is not locked already.
- To remove the manual lock, choose **Lock > Unlock Demand** from the context menu of the demand, or select the demand and choose . A lock set manually can be removed only by the resource planner who set it.
- In addition to a manual lock, the system can lock a demand in the following cases:
 - The corresponding order or network is currently being processed by another user – this is an external lock that you cannot remove in the planning board.
 - You are processing a planning board element (such as an assignment), thereby locking the corresponding demand. The system removes this lock as soon as you have finished processing the planning board element by saving or updating it.
 - Another resource planner is working on a demand (for example, entering resource availabilities) as part of the contact person process with manual resource confirmation.

The icon in the **Locked** column in the item worklist and the corresponding column  in the worklist indicate whether a demand is locked and, if so, which type of lock:

 Manual lock

 External lock

 Lock during change to planning board elements

 External lock as part of contact person process with manual resource confirmation

In addition, alerts that arise due to relationships being violated are displayed immediately.

If the resource planner has not set the lock at order level, the system checks whether there are potential conflicts when you save the planning board and updates the alerts accordingly.

i Note

If a user edits a demand in the relevant transaction, it is not possible to create assignments in the planning board.

All changes made by a resource planner can be viewed by other resource planners only when they are saved.

Activities

- You save changes that you make when planning resources at regular intervals. This allows other resource planners to see them.
- You regularly update the planning board data. The system displays all changes that have been made by other users in the meantime.

5.2.6 Checks and Alerts

Use

Whenever the resource planner carries out actions in the planning board (for example, creating or changing assignments), the system carries out appropriate checks. The checks are carried out against conditions that are formulated implicitly (normal working time of the personnel resource) or explicitly (for example, relationships). The checks are based on data defined in the master data, Customizing, or the demand (for example, dates).

If condition violations are identified by the check, the system generates alerts, which are displayed in the Alert Monitor.

Alerts are linked to operations, resources, or assignments.

The resource planner checks the alerts and can change the resource planning as required.

Since the conditions for resource planning are constantly changing and each change to assignments can generate new alerts, alert monitoring is a continuous process.

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ►, you have:

- Defined the check classes and profile under [Check Profile](#)
- Defined the alert types and profile under [Alert Profile](#)

Features

Alerts

- There are a number of different alert types that can refer to dates, capacities, or availabilities, for example. The way in which the alerts are generated and displayed depends on how the alert type is configured.
- There are different types of alert, which are indicated by the following icons:
 -  Information
 -  Warning
 -  Error
- Alerts are displayed in a list in the Alert Monitor. Each alert row contains the category and type of alert, the object (for example, the assignment) associated with the alert, as well as other contextual information. For more information, see [Alert Monitor \[page 118\]](#).

- You can call the reference object (such as the assignment) or data about the reference object directly by double-clicking the alert row.
- You can confirm alerts in your personal profile or globally for the entire organization. The alert is then no longer displayed.

i Note

Time-dependent alerts (such as alerts for overdue tasks) result from checks that are triggered periodically. If you confirm a time-dependent alert, this confirmation is only relevant for your current session. This means that the alert is shown again, for example, when you close and reopen the Scheduler Workplace.

Checks

For more information, see [Checks \[page 130\]](#).

Activities

- The system carries out checks when the resource planner makes changes in the planning board.
- The system displays all alerts that are generated in the Alert Monitor.
- The resource planner checks the alerts and makes any necessary changes to resource planning.
- If the alerts affect the order data, the resource planner can display the order to check the data.
- If dates are moved, the resource planner informs the relevant personnel resources and, where necessary, the customer.

5.2.6.1 Checks

Use

Checks are combined in a check class that refers to a specific data area (for example, resource utilization). The role of a check class is to carry out the check using attributes and methods, and to communicate with the Alert Monitor (that is, to create or remove corresponding alerts).

In Customizing for the alert profiles, you can specify that the planning board is not saved if specific alerts are generated.

Prerequisites

- You have created and defined the required check classes in the [Class Builder](#) (transaction SE24).

Check Class	Meaning
/MRSS/CL_SGE_CHECK_RESCAP	Checks for resource utilization
/MRSS/CL_SGE_CHECK_RELAT	Checks relationships between assignments
/MRSS/CL_SGE_CHECK_ASG	Checks for assignment data
/MRSS/CL_SGE_CHECK_ASG_TIME	Checks for time-dependent alerts
/MRSS/CL_SGE_CHECK_ASG_TR	Checks for demands with date rule
/MRSS/CL_SGE_CHECK_OVER	Checks for collisions
/MRSS/CL_SGE_CHECK_QUAL	Checks for qualifications of resources
/MRSS/CL_SGE_CHECK_LINK	Checks for tool links
/MRSS/CL_SGE_CHECK_CLOCK	Checks related to time recording data
/MRSS/CL_SGE_CHECK_DEM	Checks for demands
/MRSS/CL_SGE_CHECK_DEMAND	Checks for demands
/MRSS/CL_SGE_CHECK_DEM_T	Checks whether demand was planned on time
/MRSS/CL_SGE_CHECK_INTEGRATION	Checks whether assignments are to be created automatically for demands

- In Customizing for [SAP Multiresource Scheduling](#), you have assigned the existing check classes and defined the check profile under [Check Profile](#).

Features

- **Resource Utilization**

The availability is calculated using the basis availability and the time allocations. The utilization data is calculated from the planned assignments.

- Alerts are generated if the resource planner creates an assignment for an operation before the production resources and tools are available or if no availability date is determined.
- Alerts are generated if a personnel resource is overloaded in a specific period. The same applies to teams. The utilization of teams is calculated from the team assignments and the assignment total at individual resource level.

- **Capacities**

The system checks the resource capacity.

- **Teams**

The capacity of a team is calculated from the total capacities of the team members. The utilization is calculated from the team assignments and the assignment total at individual resource level.

- **Relationships Between Assignments**

The system checks for condition violations between assignments for demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS). The conditions are taken from the underlying order. They are assigned explicitly (for relationships) or implicitly (for production resource and tool items). The check is usually carried out for assignments. If there is no assignment for a demand, the demand data is taken from the order.

The system carries out the following checks:

- Relationships between assignments or demands
- Availability of tools
- Concurrency between assignments of several personnel resources for a demand if more than one person is required for the demand
- **Assignment Data**
 - The system checks whether the assignments are within the order operation dates. For example, it checks whether an assignment is within the period between the earliest start and latest end date. It also compares the duration of all assignments of a demand with the planned duration of the order operation.
 - Assignment not yet started: The system generates this alert if an assignment has not yet been started although the time of the planned start (plus a duration defined in Customizing) has been reached. To determine whether the assignment has been started, the system evaluates its status, which is determined from the time data.
 - Assignment not yet finished: The system generates this alert if an assignment has not yet finished even though the planned end time has expired. To determine whether the assignment has finished, the system evaluates its status, which is determined from the time data.
 - If travel times are active, the system also checks whether there are conflicts with travel times (for example, overlaps with other travel times, assignments, or absences). This check is not available for demands from cProjects.
 - The system checks whether capacitive assignments overlap with absences or other assignments. It also generates alerts if capacitive assignments are not provided on time. This is the case if the capacitive assignment is not started on time before the scheduled end date minus the planned duration and buffer defined in Customizing.
- **Planned Working Time Frame**

The system checks whether an assignment starts between the normal working time and the planned working time, and whether the duration of the assignment is longer than the normal working time. It also checks whether the start of the first assignment and the end of the last assignment within the planned working time frame are further apart than the duration of the normal working time.
- **Date Rules**

The system checks demands with date rules from Project System to determine whether the assignments correspond to the date rule defined in the network activity.
- **Qualifications**

When you create an assignment for a personnel resource, the system checks whether the resource's qualifications meet the mandatory requirements of the corresponding order operation.
- **Links**

If a tool is linked to a personnel resource, the system automatically creates assignments for the tool if it is required to execute the assignment that the personnel resource is to carry out.

The system checks whether there is an assignment for the tool in the link period but there is no corresponding assignment of the personnel resource. This check is available for demands from Plant Maintenance (PM) and Customer Service (CS).
- **Time Recording**

The system compares the time recording data of the personnel resources with the planned times of the assignments.

It carries out the following checks:

- Delayed start of work
- Delayed end of work
- Early end of work
- Degree of completion
- **Demands**
 - Orders for the same customer: The system generates this alert if there are unplanned demands in the current worklist of the planning board when you create an assignment, these demands belong to the same customer, and are within a period defined in Customizing. The system also generates an alert if there are assignments for the same customer in this period or if the resource for the assignment belongs to the same resource planning node as the resource for the new assignment. To check the customer to which a demand belongs, the system evaluates a partner role of the order.
 - SLA violation: The system generates this alert if no assignment has been created in a specific period before the latest start of a demand. You can specify this period in Customizing.
 - Site supervisor indicator: The system checks whether an order meets the necessary site supervisor assignment as specified in the Customizing settings for demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS). This is the case only if there is exactly one assignment for the demands of the order and the site supervisor indicator has been selected for this assignment.
- **Dates** (date-based planning)

This check is carried out at demand level from the order. The system checks whether an assignment is planned for a demand in good time before the planned start.

5.2.7 Saving the Planning Board

Use

The following settings are available for saving the planning board data:

- The system saves the planning board data automatically after each change.
- The system asks the user at regular intervals whether the data is to be saved and the planning board refreshed (timer-based save).
- The system does not save the data automatically, that is, the resource planner has to save the planning board manually.

Prerequisites

You have specified the option that is to be used as standard for each profile by choosing ► [Set Up Scheduler Workplace](#) ► [Define Planning Board Profile](#) in Customizing for SAP Multiresource Scheduling. The duration of the time interval used for the timer-based save is specified in the [Period for Refreshing](#) field.

Features

You can override the Customizing settings by choosing the required option in the planning board under

► [Extras](#) ► [Settings](#) ⌵:

- Auto Saving
- Timer-Based Saving
- No Automatic Saving

To activate the [Automatic Save](#) option directly in the planning board, choose .

→ Recommendation

You should not activate automatic saving if you are working with a large amount of data in the planning board. If automatic saving is active, the system refreshes the planning board after each user action (for example, after opening the underlying source of demand). This may affect system performance.

5.2.8 Cross-Resource Functions

In the planning board, you can create assignments for employees and tools. The following describes the functions that you can use for both resource types.

5.2.8.1 Creating Assignments

Use

You have different options to create assignments for resources in the planning board. Each method has particular advantages that you can use in your work as a resource planner. When you create or edit an assignment, the assignment detail screen opens on which you can specify the assignment details. You can also create a note for the assignment on this screen.

Prerequisites

- If you want to create notes for assignments, you must be authorized to do so (authorization object /MRSS/NOTE). In addition, you must have activated the use of assignment notes in Customizing for [SAP Multiresource Scheduling](#) under ► [Basic Settings](#) ► [Configure Note Management Settings](#) ⌵.
- If you want to create assignments in pre-booking mode, you must be authorized to do so (authorization object /MRSS/PREB). In addition, you must have made settings in Customizing for [SAP Multiresource Scheduling](#) under ► [Basic Settings](#) ► [Assign Objects](#) ► [Status](#) ► [Assign Pre-Booking Status](#) ⌵.

- If you want users to be able to create assignments by dragging and dropping a demand item on a resource name, you must **not** activate the assignment follows demand function in Customizing under [Sources of Demand](#). This function takes precedence over all other automatic assignment creation options.

Procedure

Provided that you are authorized to do so, you can activate the pre-booking mode to create preliminary assignments with limited visibility. Assignments that are created in pre-booking mode are only visible to authorized resource planners and only when pre-booking mode is active. To activate pre-booking mode, choose  before you proceed to create an assignment. To deactivate pre-booking mode, choose the pushbutton again.

Drag & Drop on Resource

1. In the order worklist or item worklist, select the item that you want to assign to the resource.
2. Drag the item to the planning board and drop it onto the name of the resource.
You can manage the dates that are copied to the assignment in the [Response When Dragging & Dropping Demands to Resources](#) area in the user settings of the planning board.

i Note

If you choose the [Move Assignment to First Available Slot](#) option, you can select multiple demand items and drop them onto a resource. In this case, the system plans the demands sequentially. If the system cannot assign all selected demands to the resource, an error message is displayed after the process has been completed. Using the undo function, you can reset each assignment one after the other.

i Note

For PS demands, it is not possible to create concrete or stretched assignments whose end dates are beyond the planned end of the demand.

Drag & Drop to the Planning Board

1. In the order worklist or item worklist, choose the operation that you want to assign to the resource.
2. Move the operation to the planning board using drag & drop and place it on the day and time at which you want to create the assignment.
In this way, you choose the date of the assignment yourself and the duration is taken from the order.

Creating in the Planning Board

The planning board is in [Change Mode: Assignments](#).

1. In the order worklist or item worklist, choose the item that you want to assign to a resource.
2. In the planning board, press and hold the primary mouse button, and drag a frame within a resource row to the required time.
In this way, you select both the date and the duration of the assignment yourself.

Creating in the Dialog Box

1. In the order worklist or item worklist, choose the operation that you want to assign to a resource.
2. Select the resource for which you want to create an assignment.

3. Choose *Create Assignment*. There are several ways in which you can call this function:

- Menu ► *Tasks* ► *Create Assignment* ►
- Context menu of the item in the order or item worklist
-  icon

A dialog box appears.

4. In the dialog box, enter the required values for the assignment. If necessary, you can also change the operation or resource.

5. Choose .

In this way, you obtain a good overview of all detailed data for an assignment. For example, you can also enter your own description of the assignment, which is used instead of the order and operation number.

More Information

[Detailed View for Assignment \[page 110\]](#)

5.2.8.2 Time Allocations

Use

You can manually change the availability of a resource. To do so, you create a time allocation. This may be necessary if, for example, an employee is sick or a tool breaks down at short notice.

The basis availability (for example, working time and shifts) of a resource remains unaffected.

Prerequisites

You have defined time allocations in Customizing for *SAP Multiresource Scheduling* under ► *Basis (Time Allocations)* ► *Define Time Allocation Types* ► and *Assign Time Allocation Types to Resource Types*.

Features

When you allocate times for a personnel resource, you can choose between several options, depending on the Customizing settings. For example, you can create time allocations for:

- Vacation
- Illness
- Overtime Hours

When you allocate times for a tool, you can choose between the following alternatives, for example:

- Preventive maintenance
- Repair

Planning Periodic Time Allocations

If you are using resources from SAP ERP HCM, you can create time allocations that are repeated at regular intervals for one or more resources using report `/MRSS/WFM_MASTERDATA_ADMIN_HR` (transaction [/MRSS/WFM_ADMIN_HR](#)).

If you are working with business partner resources, you can create recurring time allocations using report `/MRSS/WFM_MASTERDATA_ADMIN` (transaction [/MRSS/WFM_ADMIN](#)).

For more information, please see the report documentation in the system.

Activities

You create a time allocation by choosing [Edit](#) [Create Time Allocation](#).

5.2.8.3 Copying of Time Allocations

Use

You can create a time allocation for multiple resources at once or copy an existing time allocation for other resources.

Note

This does not apply to HR-relevant time allocations.

Activities

To create a time allocation for multiple resources at once, you first create a new time allocation. In the details for the time allocation, you call the input help for the resource and select the resources for which you want to create a new time allocation.

There are two ways of copying an existing time allocation for other resources:

- You open the details of the time allocation using the [Quick Copy](#) context menu entry. In the input help for the resource, select those resources for which you want to copy the time allocation.
- Holding down the `CTRL` key, select the required resources in the resource list and the time allocation you want to copy. With the `CTRL` key still pressed, choose the [Quick Copy](#) option from the context menu for the time allocation.

5.2.8.4 Processing Planning Board Elements

Selecting Planning Elements

You can select multiple planning board elements at the same time, even if they are in different areas of the planning board.

1. Press and hold the control key (*CTRL*).
2. Use the mouse to select the required planning board elements one after the other.
3. Keep the control key pressed while you carry out the next action (for example, deleting or moving assignments).

Processing Details of a Planning Board Element

1. Select the required planning board element.
2. Choose ► *Planning Board* ► *Planning Board Element* ► *Display Details* ► (can also be accessed from the context menu or toolbar).
3. Make changes as required.
4. Choose .

Moving Planning Board Elements

You can move all planning board elements to a different time.

1. Select the required planning board element.
2. Move the element by pressing and holding the primary mouse button and dragging the element to the required date.

Moving Multiple Elements Simultaneously

You can use the selection mode to move multiple planning board elements at once while retaining their relative position to each other. This function is available to you in the resource Gantt chart as well as in the demand Gantt chart and in the dispatching view.

1. Choose .
2. Press and hold the primary mouse button to drag a frame around all of elements that you want to move.

Note

The selected elements must be of the same type if you want to move them synchronously.

3. Move the assignments by pressing and holding the primary mouse button and dragging one of the elements to the required date. The system moves the other selected elements while retaining their relative position to each other.

i Note

You can only move the elements to a different time, but cannot make any other changes. For example, you cannot change the assigned resources.

Deleting Planning Board Elements

Choose ► [Planning Board](#) ► [Planning Board Element](#) ► [Delete Planning Board Element](#) ►.

You can delete multiple assignments at the same time by selecting them in  and then deleting them.

5.2.8.5 Creation of Change Documents for Planning Board Objects

Use

You can display change documents for the following planning board objects:

- Demands
- Assignments
- Time Allocations
- Tool links

The system logs the changes to planning board objects in the following cases:

- When you save the planning board after making a change
- When the system changes the objects during integration of new data from orders, networks, or RM Web Requests.
- When objects are changed on a mobile device

Prerequisites

For the relevant object, you have activated the creation of change documents in Customizing for [SAP Multiresource Scheduling](#) by choosing ► [Basic Settings](#) ► [Activate Creation of Change Documents](#) ►.

Features

For each object, the system displays a table with the following information:

Number

- To record the sequence in which objects were created and uniquely identify objects with the same description, the system assigns a number to each object. The system sorts the list initially in descending order based on the object sequence number and change time stamp.
- For demands and tool links, the system assigns a global number (that is, counting starts with one and then continues).
- In contrast, the system assigns local numbers for assignments and time allocations. The first demand assignment receives the number one, the second assignment number two, and so on. For a different demand, counting starts again at one. This also applies for time allocations for which counting starts from the beginning for every resource.
- If you create multiple assignments for a demand or multiple time allocations for a resource directly after each other and save the planning board afterwards, the numbers are assigned at random.

Type

The icon in the *Type* column indicates whether the object is a demand, an assignment, a time allocation, or a tool link. The following icons are used:



Object Keys (for Demands and Assignments Only)

Description

Operation

The icons in the *Operation* column indicate whether the object was created, changed, or deleted.

Changed Field

Old Value

New Value

Start of Time Stamp

Current start time of the object or last start time if the object was deleted

Transaction Code

Transaction code of the transaction in which the object was changed. If a change is made by a mobile device user, any name can be entered here.

End of Time Stamp

Current end time of the object or last end time if the object was deleted

Entered by

Creation Date

Change Documents for Demands and Assignments

Change Documents for Demands and Assignments

- To call up the change documents for a demand, choose [Details for Demand](#) from the context menu of the demand. In the [Details for Demand](#) area, then choose [History](#).
- To call up the change documents of the assignments for a demand, choose [Change Documents of Assignments](#) from the context menu of the demand item.
- To call up only the changes of a specific assignment, choose the [Change Documents](#) entry from the context menu of the assignment.
- If a demand is deleted, the system also deletes the corresponding change documents of the demand and the related assignments.

Change Documents for Resources

- The system logs all changes to existing time allocations or tool links for the relevant resource.
- To call up the change documents for a resource, choose the [Change Documents](#) entry from the context menu of the resource.
- The system then displays all changes within the current planning horizon or that were within the current planning horizon when they were deleted. You can change the period in the [From](#) and [To](#) fields and call up the change documents for this period by choosing [Display History](#).
- By selecting the relevant checkboxes, you can specify whether you want to display change documents for tool links, time allocations, or both.
- If a personnel resource is deleted, the system also deletes the relevant change documents of the existing time allocations. The change documents of existing tool links for a personnel resource are deleted only if the corresponding tool is also deleted.
- When you call up the change documents of the existing tool links for a personnel resource, the system displays the linked tool in the [Description](#) column. When you call up the change documents of the existing tool links for a tool, the system displays the linked personnel resources in the [Description](#) column.

5.2.8.6 Addition of Resources

Use

As the resource planner, you can add tools, personnel resources, and teams from other resource planning nodes to the planning board and include them in your resource planning.

For example, you can use this function if the following applies:

- Your own personnel resources are already overloaded or do not have the required qualifications to carry out a task.
- A tool has not been created in the order as an operation but is still required to carry out a task.

Activities

- You can add personnel resources from another resource planning node to your own resources. You can also add tools and teams. To do so, choose ► [Resources](#) ► [Additional Resource](#) ► and make entries as required.
- Provided that the required Customizing and user settings are in place, you can use the assignment-based resource selection options to extend the resource list. For more information, see [Assignment-Based Resource Selection \[page 515\]](#).

5.2.9 Creating Addresses for Resources (SAP GUI)

Use

You can replace the main resource address that is transferred to SAP Multiresource Scheduling together with the resource availability. This can be useful if you want to use other addresses for resource planning in SAP Multiresource Scheduling. You have the following options:

- You can define an alternative address. Defining an alternative address can be useful, for example, if resources usually start their assignments not at their main address but at another location. Since you cannot define a validity period for the alternative address, each resource can only have one active alternative address at a time.

i Note

You can specify an alternative address for human resources (HCM resources and business partners) and for teams. By default, the team address is the same as the address of the person responsible in the team. If you activate an alternative address for the team, this address replaces the default team address.

- You can define one or multiple temporary addresses for each resource. Defining temporary addresses can be useful, for example, if resources travel between customer sites and stay at different locations while working on an assignment. You must specify a validity period for each temporary address.

i Note

You can specify temporary addresses for human resources only (HCM resources and business partners). If you want to use temporary addresses for teams, you must define temporary addresses for the person responsible in the team.

For more information, see [Resource Addresses in SAP Multiresource Scheduling \[page 75\]](#).

Procedure

Note

If you want to use geocoding, you must integrate an external application (for example, GIS) and make settings in Customizing for *SAP Multiresource Scheduling* under ► *Optimizer and Travel Times* ► *Travel Times* ► *Define Profile for Geocoding of Addresses* .

If geocoding is configured and the system cannot convert an address into geographic coordinates, the system issues a warning message. In this case, you can proceed to save the address, but travel times might be calculated incorrectly.

To **create an alternative address**, proceed as follows:

1. Call up the context menu for the resource and choose *Alternative Address*.
A dialog box opens.
2. Enter the address.
If geocoding is configured in your system, the system converts the address into geographic coordinates. You can also specify an address ID that helps you identify the address, for example, if you want to reactivate an alternative address that you defined earlier.
3. Activate the address by selecting the checkbox.

To **create one or more temporary addresses**, proceed as follows:

1. Call up the context menu for a resource and choose *Additional Data*.
A dialog box opens. The resource address displayed is the address that is currently used by the system to calculate travel times.
2. Choose  and specify an address by entering the following:
 - Type of address (home address, start address, end address)
 - Validity period
 - Address detailsIf geocoding is configured in your system, the system converts the address into geographic coordinates.
3. Choose .
Define more temporary addresses as required. You can do so by copying an existing address and adjusting this address as required (for example, adjust the validity period).
4. Save the planning board to save and activate the addresses.

→ Recommendation

If you create and activate an alternative address, this address takes precedence over the main resource address, but also over existing temporary addresses. Thus, if you want to replace the main resource address for resource planning in SAP Multiresource Scheduling, you should either define an alternative address **or** one or multiple temporary addresses.

5.2.10 Assignment of Personnel Resources

5.2.10.1 Demand-Based Resource Selection in the Planning Board

Use

You can select the resources displayed in the resource list of the planning board based on the current demands. You can select resources using the following criteria:

- Demand partner
- Resource planning node
- Qualification

Integration

Existing resource filters are not changed through demand-based resource selection. The system also takes into account the resource filters.

Prerequisites

If you want to activate demand-based resource selection, set the [Resource Selection](#) indicator in Customizing by choosing ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.

Note

If you use resource planning nodes with a high number of resources, it makes sense to always activate demand-based resource selection. When you then call up the planning board, no resources are initially displayed and you (the resource planner) restrict the resource list to those suitable for the current demands. If you do not set the [Resource Selection](#) indicator in Customizing, the resource selection is not demand specific when you start the planning board. As the resource planner, you can apply the selection to specific demands.

Features

To select the resources in the planning board based on demands, first select the demand in the item worklist and then the desired selection type by choosing the corresponding dropdown button in the toolbar of the item worklist:

Resources from Partners

- : The system selects all resources that it finds based on the partners of the demand. You have defined the relevant partner roles in Customizing under ► [Basic Settings](#) ► [Assign ERP Objects](#) ► [Partner Functions](#) ► [Define Abstract Partner Roles](#) ►.

Resources for Resource Planning Node

- : The system selects all resources that are assigned to the same resource planning node as the demand.

Qualified Resources

- : The system selects all resources that can fulfill the qualifications of the demand according to a search strategy. This function is available for SAP Multiresource Scheduling qualifications. To define how the resources are selected based on their qualification, you first select how the basic quantity is determined (the default setting depends on the user settings):
 - Resource planning node: The system uses all resources that belong to the same resource planning node as the demand.
 - Demand hierarchy: The system uses all resources assigned to a resource planning node that is subordinate to the resource planning node of the current demand. You enter the hierarchy level in the resource planning structure of the desired resource planning node in the [Hierarchy Level](#) field. The highest level of the resource planning structure has hierarchy level 0. If you enter 1 in the [Hierarchy Level](#) field, the system uses the resource planning node that lies one level below the access node of the resource planning structure. The resources assigned to this node form the basic quantity for the resource selection.
 - Explicit resource planning nodes: You specify one or more resource planning nodes for which you want the system to use the resources as the basic quantity.

- **Reduction strategy:**

You can further restrict the basic quantity of resources calculated in this way by selecting one of the following preselection variants:

- Select resources only for which the mandatory qualifications are fulfilled.
- Only select resources that have a least one of the required structured qualifications.
- Only select resources that have a least one hit in the structured qualifications.

To display the results of the qualification matching for the selected resources, set the [Display Result of Qualification Check](#) indicator. If you do not set this indicator, the system displays the resources found by the preselection process without an exact matching result. Since exact qualification matching is not carried out, the resource list can also contain resources that do not fulfill the demand to 100%.

i Note

To activate the selection type (for which the icon is currently displayed on the pushbutton) for a specific demand, select the demand and choose the icon. In the user settings, you can also specify that the current selection type selected starts when you double-click the desired demand.

Deactivating the Resource Selection

To deactivate the selection type currently selected, choose the [Remove Resource Selection](#) option in the dropdown list for the pushbutton. The system then displays the resource list again that it had displayed based on the initial criteria and resources and resource planning nodes subsequently selected. You can deactivate the resource selection only if the [Resource Selection](#) indicator is not set in Customizing.

5.2.10.2 Creating Capacitive Assignments

Use

By creating capacitive assignments, you can assign a task to an employee that must be completed within a specific period of time, but that does not require the whole timeframe. By comparison, the duration of a concrete assignment corresponds exactly to the time between the start and end of the assignment.

Prerequisites

- In Customizing for *SAP Multiresource Scheduling*, you have defined the demands for which capacitive planning is allowed by choosing  *Sources of Demand*  *Demand Settings*  *Check Capacity Planning* .

Features

- You can determine whether capacitive assignments can be created for a demand in the scheduler workplace. If the *Capacitive?* indicator is selected in the operation worklist, you can create capacitive assignments as follows:
 - In the context menu for the demand, choose *Create Assignment*. The *Details for Assignment* area is then displayed. From the *Assignment Type* dropdown box, choose *Capacitive Assignment* before you create the assignment.
 - Plan the demand as an assignment by transferring it to the row for capacitive assignments using drag and drop. The line must be expanded for you to do this.
 - Activate the session for capacitive assignments by choosing . You then simply have to drop the demand on the resource using drag and drop to create a capacitive assignment for it.
- The system determines the start and end times of the capacitive assignment from the demand data.
- You can plan an assignment for which capacitive planning is allowed or intended as a non-capacitive assignment (fixed posting or reservation) as well. To do this, add it to the planning row using drag and drop. In this case, the system determines the start time from its placement on the time line and calculates the end time from the duration of the assignment.
- You can plan a concrete assignment as a capacitive assignment by moving it from the planning row to the row for capacitive assignments by drag and drop.
- It is not possible to split a capacitive assignment.

5.2.10.3 Displaying Capacitive Assignments

Use

The system displays capacitive assignments in a separate row on the planning board, which is below the planning line in the hierarchy. The bars for capacitive assignments are displayed differently to the bars for concrete assignments (fixed postings and reservations).

Features

- The bar for a capacitive assignment stretches from the planned start to the planned end of an assignment. In contrast to concrete assignments, you cannot determine how long the assignment lasts from the length of the bar. Instead, the system displays the duration of the assignment for capacitive assignments as a figure within the bar.
- In the #C column, the system displays the number of existing capacitive assignments for each employee. The number is displayed even if the resource line is not expanded.
- To display the row for capacitive assignments for a specific resource, expand the node of the resource in the *Level* column.
- To display a list of all capacitive assignments for an employee, choose the resource row by double-clicking or choose *Capacitive Assignments* from the context menu of the resource. The traffic light in the list overview indicates whether alerts exist.
- For an indication of an employee's capacity used by the concrete and capacitive assignments allocated, view the *total bars in the planning row*. [page 148]
- In the row for capacitive assignments, all capacitive assignments that are not already in process are displayed. As soon as an assignment status changes because processing has started, the system moves the assignment to the planning row. The length of the bar then corresponds to the duration of the assignment. Once processing has finished, the system displays the capacitive assignment in the rows for capacitive assignments again.

5.2.10.4 Concretization of Capacitive Assignments

Use

As a resource planner, you can concretize capacitive assignments. This means that you can create concrete or stretched assignments for them.

Activities

1. To concretize a capacitive assignment, choose the *Concretize Assignment* entry from the context menu for the assignment.

2. A screen area is then displayed above the planning board for you to create stretched or concrete assignments. To do so, you can use either the [Concretize Assignments](#) or the [Create Assignments](#) tab page:
 - On the [Concretize Assignments](#) tab page, you can assign the data, duration, and assignment type to the new assignments in the [Concretized Assignments](#) table.
 - Alternatively, you can have the system create multiple assignments for specific weekdays automatically on the [Create Assignments](#) tab page.
3. To simulate the changes, choose ENTER. The system calculates the remaining duration of the capacitive assignment.
4. To create the new concretized assignments, choose . If the remaining duration of the capacitive assignment is zero or less, the system deletes the capacitive assignment when it creates the new assignments.

i Note

If the abstract status `WORK_START` is set for a demand, the system automatically concretizes the associated capacitive assignment (based on the point in time when the status is set and the assignment duration). The system shows the assignment as a concrete assignment in the Gantt chart. If the `WORK_START` status is canceled, the system restores the assignment to its original size and displays it as a capacitive assignment again.

Example: Your system is set up in a way that the `WORK_START` status is set for a demand in SAP Multiresource Scheduling when the concrete status `CNF` ([Confirmed](#)) is set for the associated order operation in SAP ERP. If the confirmation is canceled in the SAP ERP system, the system restores the capacitive assignment.

5.2.10.5 Totals Bars in the Planning Row

Use

The system displays capacitive assignments as totals bars in the planning row in order to clarify the actual utilization of a resource in the future.

Prerequisites

- You have activated the totals bars function for your UI profile in Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ► [Views](#) .
- You can specify a graphical element for the totals bars of your UI profile in Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ► [Other Graphical Elements of Planning Board](#) .
- In Customizing for SAP Multiresource Scheduling, under ► [Set Up Scheduler Workplace](#) ► [Define Settings for Totals Bars](#) , you can specify whether the system displays all the capacitive assignments for a

resource in one totals bar or whether each capacitive assignment belonging to the resource is displayed in a separate section. You can also specify whether the totals bar is to change color at a certain time (for example, 24 hours before the end of a capacitive assignment).

Features

- While the bars in the row for capacitive assignments stretch from the earliest possible start to the latest possible end of the assignments, the lengths of the totals bars in the planning row correspond to the actual duration of the assignments. The system adds the planned duration of the capacitive assignments and displays the result in a totals bar in the planning row. It takes into account availability, absences, and existing assignments of the resource. The system assumes that each capacitive assignment is fulfilled as early as possible.
- To shift the end of the assignment to the end of the planning horizon, choose the [Extend Capacitive Assignment](#) entry from the context menu for the totals bar.
- To delete the associated assignment for a totals bar, choose the [Delete Planning Board Element](#) entry from the context menu for the totals bar.
- The system also displays totals bars at team level. If the resource is a member of a team, the totals bar sections are also shown in the team member's row. If the resource is assigned first to one team and then to another in the period covered by the totals bar, the totals bar is split: The first part is displayed in the row for the first team and the second part in the row for the second team.
- You can use the BAdI /MRSS/SGU_DESC_DETER to define descriptions and quick info texts for totals bars and totals bar sections. You can find the BAdI in Customizing under ► [Enhancements](#) ► [Scheduler Workplace](#) ► [BAdI: Determine Description and Quick Info for Assignments](#) ►.

Note

When the abstract SAP Multiresource Scheduling user statuses WORK_START and WORK_STOP are set, for example, when the resource informs the system that work has started on the capacitive assignment, the totals bar is no longer displayed. Note that this is only the case if these abstract user statuses are available in your system.

Example

- An employee begins work at 8:00. A concrete assignment is already scheduled from 9:00 to 10:00, and during the course of the day between 8:00 and 16:00, a capacitive assignment of two hours is planned.
- The system places the start of the capacitive assignment at the earliest possible time, that is, 8:00. Since the concrete assignment is planned from 9:00 to 10:00, the system divides the capacitive assignment into two. The total bar of the capacitive assignment in the planning board is then placed around the concrete assignment: The first half of the capacitive assignment is planned from 8:00 to 9:00, and the second half is planned from 10:00 to 11:00.
- If another capacitive assignment is planned for this day, the system extends the totals bar accordingly. Depending on the Customizing settings, the second assignment is shown as a separate section in the totals bar.

- If the total bar exceeds the planned end time of the capacitive assignment, the system issues a warning message.

5.2.10.6 Stretched Assignments

Use

The duration of stretched assignments is either exactly as long as or shorter than the time difference between the beginning and end of the assignment. Unlike capacitive assignments, the duration of the assignment conforms to the availability of the employee. If an employee begins an assignment at 8:00, for example, has a doctor's appointment from 10:00 to 11:00 (and is therefore not available), then finishes the assignment at 12:00, the system can display this in the planning row as a stretched assignment from 8:00 to 12:00, with an actual duration of three hours.

Prerequisites

- In Customizing under  [Sources of Demand](#)  [Demand Settings](#)  [Allow Stretched Assignments](#) , you have defined the order types and plants for which the system uses stretched assignments.
- The assignment that you create fulfills this condition from Customizing.

Features

- If the system creates a stretched assignment, it first determines the start and end or duration of the assignment (as is the case with concrete assignments).
- The system does not update stretched assignments that are in parallel with time allocations created by running report `/MRSS/WFM_MASTERDATA_ADMIN_HR`. However, the system updates the resource capacity graphs and shows the overutilization of the resource in the planning board.
- To determine the end of the stretched assignment, the system checks when the employee is available. The assignment therefore stretches over times at which the employee is absent (weekend, holiday, or other time allocations such as vacation or sickness), without the system considering these times in the duration of the assignment.

Note

Other existing assignments do not affect the availability of the employee. If an assignment exists in parallel to the stretched assignment, the system displays this as a collision. For more information, see [Displaying and Editing Collisions in the Scheduler Workplace \[page 628\]](#).

Update of Stretched Assignments If Resource Availability Changes

If the availability of the assigned resource changes, you may have to manually adjust the start and end dates of the stretched assignment. This depends on whether the resource availability is changed in SAP Multiresource Scheduling or whether it is changed in SAP ERP HCM. The following applies:

- If the availability is changed in SAP Multiresource Scheduling, the system automatically adjusts the assignment start or end.
- If the availability is changed in SAP ERP HCM (and transfer report `/MRSS/HCM_RPTWFMI` is run), the system does not update the assignment dates automatically. Instead, the system raises alert 261 or 288. You must adjust the assignment start and end manually.

5.2.10.7 Partial Concretization of Stretched Assignments in Non-Availability Periods

Use

As a resource planner, you can also create stretched assignments in periods in which the resource is not available. To do so, you use the partial concretization of stretched assignments function.

❖ Example

You have a stretched assignment that starts or ends in a non-availability period of a resource or lies completely within the non-availability period of a resource. If the employee should still carry out the assignment, you can concretize the parts of the assignment that are in a non-availability period. This means that the system handles the assignment and the concretized parts of the assignment as a concrete assignment. The concretization is an attribute of the assignment, not an independent object.

Prerequisites

- The non-availability period must not be defined based on a time allocation for which the time allocation type has set the exception indicator in Customizing for the WFD server (which means that it is displayed as a chart in the planning board; see [Availability Transfer Between SAP HR and SAP Multiresource Scheduling \[page 79\]](#)).
- The corresponding demand corresponds to the criteria defined in Customizing under **SAP Multiresource Scheduling** > **Sources of Demand** > **Demand Settings** > **Control Partial Concretization of Stretched Assgmnts in Non-Avabilities** , and the duration of the partial concretization does not exceed the maximum duration defined.
- To display partial concretizations in the planning board, you have entered the corresponding graphical elements in Customizing under **SAP Multiresource Scheduling** > **Set Up Scheduler Workplace** > **Workplace Profiles** > **Define User Interface Profile** > **Status Groups** . For technical reasons, different graphical elements have to be used for the automatic availabilities at the start and end of the assignment. However, these can have the same appearance. If an assignment is concretized completely, the system uses the graphical element of the assignment.

Features

- In the user settings of the planning board, you can select one of the following options for preselecting concretization:
 - Always Concretize
 - Never Concretize
 - User Decision
- If you create a stretched assignment in a non-availability period or move one completely within a non-availability period, the system concretizes the assignment.

i Note

This does not apply if you select and move multiple stretched assignments using the  button. In this case, the system does not concretize the assignments.

- If a stretched assignment starts in a non-availability period, the system creates a partial concretization for the beginning. The partial concretization starts when the assignment begins and ends with the start of the first availability interval, which is cut by the assignment.
- The process is the same if the assignment ends in a non-availability period: The system creates a partial concretization for the end. The partial concretization ends when the assignment finishes and begins with the end of the last availability interval, which is cut by the assignment.
- In the assignment details, the system displays the duration of the concretization at the start and end of the assignment.

5.2.10.8 Alternative Working Times

Use

In **SAP HR**, you can enter short-term deviations from the personal work schedule and the payment of an employee by creating an *Alternative Working Time* for this employee. You can also create specific alternative working times from the planning board of SAP Multiresource Scheduling. This function is available only for personnel resources from SAP HR and not for business partners with the Employee role.

i Note

In the HR system, alternative working times are known as *HR Substitutions* (infotype 2003).

Prerequisites

- In Customizing under  *HR Integration*  *Configure Settings for HR Integration* , you have defined which types of the alternative working times the resource planner can use in the planning board. That is, you have assigned a grouping to the type of alternative working time and set the *Resource Planner Relevant* indicator.

If you use variants of the daily work schedule, you have activated the [Use Daily Work Schedule Variants for Varying Working Times](#) IMG activity under ► [SAP Multiresource Scheduling](#) ► [HR Integration](#) ►.

Features

- In the planning board, you can only create or delete alternative working times, you cannot change them.
- As soon as you have created or deleted an alternative working time, the system saves the planning board and transfers the alternative working time to HR. There is no undo function.

Activities

To create an alternative working time, choose . The [Details of Alternative Working Time](#) are displayed – here, you enter the resource, the HR subtype, daily work schedule (and variant), as well as the start and end time. On the right-hand side, you can see the existing alternative working times for all resources in the current planning board. The system displays all alternative working times in the current planning horizon. Alternative working times that overlap the planning horizon are indicated by a symbol that the system displays in the [Cuts Planning Horizon](#) column.

To delete an alternative working time, select the alternative working time in the list and choose .

5.2.10.9 Assigning Demands to Other Resource Planning Nodes

Use

As a resource planner, you can reassign a demand to a different resource planning node in the resource planning board. This function is not available for CRM service orders.

Prerequisites

You have configured the Customizing settings under ► [Basic Settings](#) ► [Define Resource Planning Nodes and Evaluation Paths](#) ►.

Features

- To assign an order operation to another work center, you can assign another resource planning node on the details screen for the demand. The system then transfers this change to the order operation when you choose save.
- In the same way, you can assign another resource planner for network activities by assigning another resource planning node on the demand detail screen. Once you have saved the change, it is also displayed in the network activity.
- To start the "Reassign" function from the resource search in the planning board, choose [Reassign RP node](#) from the context menu for the resource in the result list. The default value for the new resource planning node is the resource planning node of the selected resource in this case.
- You can either reassign the entire demand to another resource planning nodes or split parts of the demand and assign these to other resource planning nodes.

More Information

[Demand Split \[page 161\]](#)

5.2.10.10 Automatic Assignment Split

Use

If the planned duration of a demand exceeds the working time of an employee and you create an assignment for this demand using drag and drop, the system checks whether it can create the assignment using overtime hours or whether the assignment needs to be split into multiple assignments. If the conditions for an automatic assignment split are met, the system splits the assignment and creates one or more assignments for the same employee on the next working day(s).

i Note

You can prevent assignments from being split automatically by creating them using the dialog box.

Prerequisites

- You create the assignment using drag and drop.
- You have configured the automatic assignment split for all relevant planning board profiles. You can find the relevant settings in Customizing for [SAP Multiresource Scheduling](#) under [► Set Up Scheduler Workplace ► Workplace Profiles ► Define Planning Board Profile ►](#). For more information, see the documentation for the relevant fields in the system.

- You have not activated the assignment follows demand function in Customizing.

Features

When you create an assignment by dropping a demand at the required time in the resource Gantt chart, the system checks whether the assignment is to be split into multiple assignments.

i Note

Assignments that result from an automatic split are not dependent on one another.

Whether the system splits the assignment depends on the following parameters:

- Availability of the assigned resource
Depending on how your system is configured in Customizing, the basic availability (standard working time) or the total availability (standard working time + exceptional time allocations) of the employee is taken into account.

i Note

When checking the resource availability, the system does not take into account other assignments that the resource may have.

- Customizing settings for your planning board profile
The following settings are relevant:

This Setting	Specifies the Following
Minimum demand duration	The minimum duration a demand must have so that any assignments for this demand can be split automatically
Maximum overtime hours	The maximum overtime hours that may be added to the employee's regular working time in case the system automatically splits an assignment This setting is only relevant if an automatic assignment split (without taking overtime hours into account) results in exactly two assignments.
Maximum ratio of overtime hours to working time	The maximum allowed ratio of overtime hours to working time This setting is only relevant if an automatic assignment split (without taking overtime hours into account) results in exactly two assignments.
Maximum time interval	The maximum time interval that may lie between assignments that result from an automatic assignment split

i Note

To see these settings in the planning board, choose ► [Extras](#) ► [Technical Information](#) ►.

Example

The employee that you want to assign to a demand works daily from 7:00 to 17:00. In the planning board (resource planning layout), you drop the required demand at the required time in the Gantt chart.

i Note

Make sure that you drop the demand directly in the Gantt chart, not on the resource name.

The following settings apply for your planning board profile:

- Minimum duration = 3 hours
- Maximum overtime hours = 2 hours
- Maximum ratio between overtime hours and working time = 50%

Demand Duration	Dropped At	Result
2.5 hours	16:45	The system creates an assignment from 16:45 to 19:15. It does not split the assignment since the demand duration is less than the required minimum duration. The allowed overtime is not exceeded.
5 hours	15:00	The system creates two assignments: One assignment is from 15:00 to 17:00 on the current day, the other assignment is from 7:00 to 10:00 on the following day. It splits the assignment since the demand duration exceeds the required minimum duration. In addition, creating one assignment would exceed the allowed overtime.

Demand Duration	Dropped At	Result
3 hours	15:00	The system creates one assignment from 15:00 to 18:00. It does not split the assignment since the demand duration complies with the required minimum duration. In addition, the allowed overtime is not exceeded and the ratio of overtime to working time is at 33%.

More Information

[Creating Assignments \[page 134\]](#)

5.2.10.11 Recalculation of Splits

Use

If the dates of a demand change, you can recalculate assignments that have already been created for the demand. You can select several assignments in the planning board (these can belong to different demands and be assigned to different resources) and recalculate them based on the new start date for the demand. During recalculation, the system deletes the existing assignments and creates them again. This means that assignments can also be split.

Prerequisites

In Customizing for SAP Multiresource Scheduling, you have deactivated the 1:1 relationship under [Sources of Demand](#) > [Activate 1:1 Relationship of Assignments and Demands for Demand Categories](#).

Features

To recalculate splits, select the required assignments and choose .

5.2.10.12 Assignment Copy

Use

To make it easier to create assignments, you can create an initial assignment and then use it as a template for the other assignments (that can be either before or after the first assignment). You use this function when the following two requirements are met:

- You want to plan a resource for an assignment that stretches over several days.
- The system does not allow splits. You must therefore create multiple assignments for the resource.

Activities

Concrete and stretched assignments

- Create an initial assignment in the required period and choose [Copy Assignment](#). Alternatively, display the details of an existing assignment and choose [Copy Assignment](#).
- Enter a start and end date for the new assignments and choose [Execute](#).
- The system generates an assignment for each day within the period specified. The confirmation screen contains a list of all assignments that are to be created. Choose [Create](#) to create them. To cancel the operation, choose [Cancel](#).

Capacitive assignments

- Enter a start and end date.
- The system creates exactly one assignment with these dates and copies the duration from the underlying assignment.

❖ Example

The original assignment begins on Monday, August 10 and ends on Wednesday, August 12. The total duration is 5 hours. You want to copy this assignment but restrict the time period to August 13. You therefore enter August 13 as the start and end date. The system creates a new assignment with a duration of 5 hours for August 13.

5.2.10.13 Plan for Multiple Resources for a Demand

Use

If you have a demand for which multiple resources have to be planned, you can plan them in one step.

Prerequisites

In Customizing for SAP Multiresource Scheduling, you have deactivated the 1:1 relationship under ► [Sources of Demand](#) ► [Activate 1:1 Relationship of Assignments and Demands for Demand Categories](#) ►.

Activities

1. You create an assignment with the required dates.

i Note

Do not use drag & drop if you want to plan multiple resources for the demand. If you use drag & drop and more work than the initial resources can handle in the period specified must be allocated, the assignment will be split over several days.

2. To plan multiple resources for a demand at the same time, open the [Details for Assignment](#) dialog box and call the input help (F4) for the [Resource](#) field. Select the resources that you want to plan.
3. Once you have selected and confirmed multiple resources, an ALV grid is added to the [Details for Assignment](#) dialog box, in which the resources are displayed.
4. For each of the selected resources, the system creates an assignment for the required time, date, and duration of the demand.

i Note

Assignments are independent from one another from the moment that they are created, and as such cannot be processed at the same time. Before you save, you can undo the creation.

5.2.10.14 Cutting Out of Assignments

Use

If you want to correct your resource planning for demands, you can cut out parts of concrete or stretched assignments, which you can then delete, move to the end, or assign to a different resource. You cannot use this function for capacitive assignments.

Features

To cut out assignments, choose [Cut Assignment](#) from the context menu of the assignment. In the [Cut Assignment](#) area that opens, the system displays the current resource and the demand. You have to define the start and end of the segment you want to cut out. In the [Action](#) dropdown list, you can select the following:

- Assign Assignment Segment to Resource

- Attach Assignment Segment to End
- Remove Assignment Segment

Note

- In the case of stretched assignments, the total duration of the resulting assignments may differ from the duration of the original assignment.
- If a resulting assignment has zero duration, the system does not allow you to cut out the segment.

Assign Assignment Segment to Resource

To cut out part of the assignment and assign it to a different resource, choose [Assign Assignment Segment to Resource](#). The new resource that you specify in the [For Resource](#) field must be assigned to the current resource planning node of the demand. You can use the input help to select this type of valid resource. To cut out the relevant segment, choose  [Cut](#).

Example

An assignment of Mr. Müller is to start at 08:00 and last until 11:00. You cut out one hour between 09:00 and 10:00 and assign it to Ms. Schmidt. Result: Mr. Müller now has two assignments, one from 08:00 to 09:00 and one from 10:00 to 12:00. Ms. Schmidt has one assignment from 09:00 to 10:00.

Attach Assignment Segment to End

To cut out part of the assignment and attach it to the end of the assignment for the same resource, choose [Attach Assignment Segment to End](#). To cut out the relevant segment, choose  [Cut](#).

Note

In the case of stretched assignments, the system determines the end date of the second resulting assignment so that the total duration remains unchanged.

Example

An assignment of Mr. Müller is to start at 08:00 and last until 11:00. You cut out one hour between 09:00 and 10:00 and attach it to the end of the assignment. Result: Mr. Müller now has two assignments, one from 08:00 to 09:00 and one from 10:00 to 13:00.

Remove Assignment Segment

To cut out and delete part of the assignment, choose [Remove Assignment Segment](#). To cut out the relevant segment, choose  [Cut](#).

Example

An assignment of Mr. Müller is to start at 08:00 and last until 12:00. You remove one hour between 09:00 and 10:00. Result: Mr. Müller now has two assignments, one from 08:00 to 09:00 and one from 11:00 to 12:00.

5.2.10.15 Demand Split

Use

If you want to split a demand and distribute it to different resources or resource planning nodes, use the demand split. You can split demands from both order operations and projects. Since the procedure is different in each case, this function is described separately for demands from order operations and demands from projects.

Note

Demands from CRM service orders cannot be split.

Prerequisites

- For demands from order operations: An assignment has not yet been created for the demand.
- For demands from network activities: A date rule has not been created for the network activity
- For demands from projects:
 - For the underlying project of the demand, the *Contact Person Process with Manual Resource Confirmation* process variant is **not** selected.
 - For the *Contact Person Process Without Manual Resource Confirmation* process variant, the demand split is permitted only if the demand is no longer an offer demand.

Features

Demands from Order Operations

Demand

This field displays the original demand.

Resource Planning Node 1

Data for the original demand: All fields are prefilled with the values from the original demand. The *Duration*, *Resources*, and *Site Supervisor* fields are not ready for input. You can change only the start and end dates of the demand.

Resource Planning Node 2

Data for second demand (new demand that results from the split): The resource planning node as well as the start and end dates are prefilled with the values from the original demand. If you want to reassign the new demand to a different resource planning node, enter this node using the input help. You can enter the desired *Duration* and change the start and end dates. You can set the site supervisor indicator only if it is already set for the original demand.

For demands from projects:

Demand

This field displays the original demand.

Total Work

Total work of the demand to be split, number of resources, and number of site supervisors

Resource Planning Node 1

Data for the original demand: All fields are prefilled with the values from the original demand. The *Total Work* field is not ready for input. You can change the *Resources* and *Site Supervisor* values, as well as the demand start and end dates.

Resource Planning Node 2

Data for second demand (new demand that results from the split): The resource planning node as well as the start and end dates are prefilled with the values from the original demand. If you want to reassign the new demand to a different resource planning node, enter this node using the input help. You can also change the *Total Work*, *Resources*, and *Site Supervisor* values.

Covered by Assignments

The system displays the data already covered (duration, resources, and site supervisor), which results from assignments already planned for the demand.

Still Open

The system displays values that are still open:

- For total work: current demand less the value from existing assignments and less the value entered for the second resource planning node.
- For *Number of Resources* and *Number of Site Supervisors*: values of the current demand less the corresponding values for resource planning nodes 1 and 2.

Activities

Splitting a Demand from an Order Operation

1. You enter the duration to be transferred to the new demand. This value is then deducted from the original demand. If the total duration does not stay the same, the system issues a warning.
2. You cannot change the number of resources. The number of resources for the new demand is always one.
3. If the site supervisor indicator was set for the original demand, you can also set it for the new demand or not. If you do so, the system deselects it for the original demand.
4. You can change the dates for the original demand and the new demand. These dates must lie within the planned start and end dates of the original demand.
5. Once you have confirmed your entries, the system splits the original demand and creates two demands with the data entered. The system also creates a new order operation by copying the existing one. To determine the corresponding work center for the new resource planning node, the system uses the evaluation path defined in Customizing. If this is not clearly defined, you have to enter the work center in a dialog box.

Splitting a Demand from a Project

1. You enter the total work to be transferred to the new demand. This value is then deducted from the original demand. The sum of the total work must be retained.
2. You can split the number of resources between the original demand and new demand as required. When doing so, you can change the total number of resources. This information is not transferred to the project. The number of resources must be greater than zero.
3. You can split the number of site supervisors between the original demand and new demand as required. When doing so, you can change the total number of site supervisors. The system transfers this information to the project.
4. You can change the dates for the original demand and the new demand. These dates must lie within the planned start and end dates of the original demand. If you enter a date outside of this time frame, the system issues a warning when you confirm your entry. If you enter a date outside of the planning horizon, the system allows you to adjust the planning horizon accordingly. For more information, see [Adjustment of Planning Horizon \[page 124\]](#).
5. When you confirm by choosing RETURN, the system adjusts the data in the *Still Open* line accordingly. You can check the effects of your current entries.
6. Once you have saved your entries, the system splits the original demand and creates two demands with the data entered. Since a network activity does not have to exist for every demand in the project system, the system assigns the new demand to the network activity of the original demand instead of creating a new network activity.

More Information

[Creation of Change Documents for Demand Splits \[page 163\]](#)

5.2.10.16 Creation of Change Documents for Demand Splits

Use

The system creates change documents when a demand is split. For the new demand created, information about the original demand from which it was created is saved. For the original demand, information about the demands into which it was split is also saved.

Prerequisites

This function is always active, which means it is not defined in Customizing.

Features

To call up the change documents for a demand, choose the [Demand Split](#) entry in the context menu for the demand. In the [Demand Split](#) area, then choose [History](#). For each demand split, the system displays a table with the following information:

Relationships

The entry in the relationships column indicates for which demand the change document information applies.

❖ Example

You split demand x into demands x and y. You then split demand y again into demands y and z. If you now call up the creation of change documents for demand y, the system displays the relationship of demand x as the predecessor and demand z as the successor.

Demand

Demand ID (for order or project)

ID

Demand item ID (for order or project)

Sub ID

ID of demand subitem (suboperation of order or project)

Duration and duration unit

Demands from order operations

Work and work unit

For demands from projects:

Start date and time

Current start time of the object or last start time if the object was deleted

End date and time

Current end time of the object or last end time if the object was deleted

Object type

Indicates whether the object to which the split demand was reassigned is a resource planning node or an organizational unit.

Object ID

Indicates the ID of the resource planning node or organizational unit to which the split demand may have been reassigned.

Description

Indicates the name of the resource planning node or organizational unit to which the split demand may have been reassigned.

5.2.10.17 Editing of Demand Splits

Use

From the change document description, you can change demands again that have already been split. This means, for example, you can undo splits or assign a split demand for which no assignments have been planned to a different resource planning node.

Prerequisites

- You have activated the function in Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) .
- You are assigned to the resource planning node of the original demand as resource planner.

Features

- All subsequent split demands are displayed. If the current demand also originates from a split, the preceding demand is not displayed in change mode.
- All fields that can be edited on the [Demand Split](#) screen can also be edited in demand split editing. The system runs all checks that it also runs for demand splits.
- The planning status of the demand is displayed.
- You can delete split demands for which no assignments have yet been created.

Activities

To edit demands from the change document description for the demand split, choose [Demand Split History](#) in the context menu for the demand. The history opens in change mode. Adjust the changeable fields as required and choose . To delete a demand, select the line and choose .

5.2.10.18 Intelligent Shifting of Assignments

Use

You use the intelligent shifting of assignments to fill any gaps in resource planning and therefore improve the utilization of resources.

Prerequisites

You have made the relevant settings in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► *Define Planning Board Profile* ►:

- You have enabled intelligent shifting by selecting the checkbox.
- You have made settings for automatic assignment splitting.
- Optional: You have defined a maximum scaling factor.
The scaling factor specifies the extent (in percent) to which the system can shorten assignments to avoid gaps in resource planning. If you do not specify a scaling factor, the system does not shorten assignments during intelligent shifting.
- Optional: If you want to specify that certain assignments must not be changed, for example, because their dates are fixed, you must implement the *Intelligent Shifting* Business Add-In (BAdI) (/MRSS/SGE_ASS_SHF).

Features

- You start intelligent shifting from the context menu of an assignment. The system uses the start date and time of the selected assignment as starting point for intelligent shifting. This means that the system may shift all assignments that start at or are after this point in time. Assignments that overlap with this point in time may also be shifted.
- The assignments are planned consecutively and gaps are filled. If consecutive assignments are planned for the same demand, they are combined into a single assignment.
- Assignments with fixed dates are not shifted. If an assignment is before a fixed assignment, the system tries to shorten it by the scaling factor that you defined in Customizing. If the assignment cannot be shortened sufficiently, the system tries to split it. If it cannot be split, the entire assignment is moved after the fixed assignment.

i Note

You must implement the *Intelligent Shifting* BAdI (/MRSS/SGE_ASS_SHF) to prevent assignments from being shifted.

- If an assignment overlaps with a non-availability time (for example, a break), the system tries to shorten it by the defined scaling factor. If the assignment cannot be shortened, the system attempts to split the assignment. If this is also unsuccessful, the system shifts the assignment to the next time when the resource is available.

i Note

Travel or processing times are not taken into account. This means that assignments may be shifted in such a way that they overlap with travel or processing times as a result of intelligent shifting.

- The intelligent shifting algorithm runs until the end of the planning horizon is reached. Any remaining assignments that could not be shifted are deleted automatically.

5.2.10.19 Shifting of Assignments

Use

You can use this function to shift the assignments that exist for a given demand and a given resource while keeping the sequence of the assignments. For example, you can transfer the set of assignments to another resource and move the assignments forwards or backwards in time.

This function is only available in the Scheduler Workplace (SAP GUI).

Prerequisites

Make settings in Customizing for SAP Multiresource Scheduling under ► [Settings for Capacity and Demand Overview](#) ► [Define Distribution of Demand Work](#) ► if the following applies:

- The organizational unit (planning node) of the resource is not linked to a work center in SAP ERP.
- The organizational unit (planning node) of the resource is linked to more than one work center.

For more information, see the documentation in the system.

Features

- You can shift assignments for personnel resources, N.N. resources, and teams. Note that all assignments must be for the same resource and the same demand.
- The system considers travel times when the assignments are transferred to another resource that is based at a different location.
- After shifting the assignments, the system performs the standard collision and alert checks.

Procedure

Proceed as follows:

1. In the planning board, select the assignment or assignments that you want to shift. Make sure to select all related assignments, that is, all assignments that exist for the respective resource and demand combination.
2. Choose . A dialog box appears.
3. Enter the name of the target resource and the number of working days by which you want to shift the assignments.
You can either move the assignments forwards or backwards in time.
4. Confirm your entries. The system shifts the assignments as follows:
 - If you want to assign a new target resource, the system replaces the original resource with the target resource.

- The system determines the working days and factory calendar of the resource based on the planning node to which the resource is assigned. Holidays and non-working times are considered when assignments are shifted.
- Depending on whether you want to move the assignments forwards or backwards, the system adds or subtracts the specified number of working days to or from the original dates for each assignment. The system considers the following dates:
 - Arrival start and end date
 - Preparation start and end date
 - Assignment start and end date
 - Wrap-up start and end date
 - Departure start and end date

i Note

If you want to use travel and processing times, you must activate and configure these functions in Customizing.

- When shifting concrete assignments, the system keeps the start and end times of the assignment. The arrival and departure time might change, depending on the resource location on the target date.
- When shifting stretched assignments, the system keeps the assignment start time, but might change the assignment end time, depending on the resource availability (for example, due to a lunch break). Also, the arrival and departure time might change, depending on the resource location on the target date.

i Note

The system does **not** consider the resource's qualifications or other assignments that may exist for the target resource. Similarly, restrictions that result from the basic order start and end date or the start and end date of a demand bundle do **not** affect the shifting of assignments.

5.2.10.20 Resource Planning for Resources from Different Time Zones

Use

As a resource planner, you can plan with resources in the planning board that work in different time zones. This function is available only for personnel resources from SAP HR.

Prerequisites

In Customizing, you have assigned the desired time zone to the personnel (sub)areas by choosing [SAP Multiresource Scheduling](#) > [HR Integration](#) > [Define Time Zones for Converting Infotype Records](#).

Features

- As a resource planner, if you create HR-relevant time allocations in the planning board for resources that are assigned to a different time zone, the system creates the infotype records in HR at corresponding intervals. To show you what the system creates in HR, the [HR Details](#) area displays the HR-relevant times for time allocation. If time zones differ, these times deviate from the times in the planning board.
- With HR-relevant time allocations, you must note that the infotypes in HR can be created only for partial days or full days.

Example

In SAP Multiresource Scheduling, you want to create a full day time allocation for a resource with a delay of six hours. This time allocation is also relevant for HR, which means that after you save the planning board, the system should create a full day infotype record for the resource:

1. In the Details for Time Allocation area, you enter, for example, September 1, 2007 as the start date and September 2, 2007 as the end date. You set the times to the initial setting, in other words, 00:00.
2. In the [HR Details](#) area, the system displays the data it will create in HR. When you create or change the time allocation, the system simulates the creation of the infotype records in HR. The system sets the [Full-Day](#) indicator since the duration of the time allocation is 24 hours. The times in the HR details correspond to the time zone of the resource (00:00). The system updates the times for the planning board by the length of the delay, resulting in an adjustment of six hours: September 1, 06:00 and September 2, 06:00.

5.2.10.21 Site Supervisor Indicator

Use

In Customizing, you can specify that a site supervisor must or can be assigned for specific order types by choosing ► [Sources of Demand](#) ► [Demand Settings](#) ► [Define Site Supervisor Assignment for Order Types](#) ►. This function is available for demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS).

This means that for orders of this type from the service area, the resource planner must create an assignment in which the site supervisor indicator is set for one of the operations. In Customizing, you can specify whether precisely or at least one assignment is required. For networks from projects, this means that the resource planner can specify in each assignment whether the resource is a site supervisor.

Features

- If Customizing settings have been configured accordingly, the relevant indicator in the [Site Supervisor](#) column in the item worklist of the planning board tells you (the resource planner) whether a site supervisor must be defined for a demand from the service area. You can set the site supervisor indicator either in the

[Details for Demand](#) or by selecting the [Set Site Supervisor Indicator](#) option from the context menu of the assignment.

- For demands from network activities, the indicator in the [Site Supervisor](#) column shows that you should identify at least one resource as a site supervisor. In contrast to the service area, this is not mandatory. You can set the site supervisor indicator for the assignment independent of the number of site supervisors in the demand. The entry in the [Number of Site Supervisors](#) column indicates how many site supervisors are planned for the demand. You can then set the site supervisor indicator in the assignment for further resources accordingly. To do so, set the site supervisor indicator in the assignment details or choose [Set Site Supervisor Indicator](#) from the context menu of the assignment. The indicator is then valid for all assignments of the same resource for the same demand. If you remove the site supervisor indicator, it is removed for all assignments of the same resource for the same demand.

5.2.10.22 Anonymization of Resource Names

Use

As a resource planner, you can flag a resource as confidential, meaning that the resource name is not shown to other resource planners. You can do this when calling up the resource details in the Scheduler Workplace (SAP GUI) or the Web-based planning board.

If you are working with resources from SAP ERP HCM, it is also possible to configure SAP Multiresource Scheduling so that a resource's name is anonymized during the transfer of resource information from your HR system. For this purpose, SAP provides two Business Add-Ins (BADIs).

Prerequisites

Resource planners can only flag those resources as confidential that have been assigned to them.

Activities

To manually anonymize a resource for other resource planners, you open the resource details from the context menu for a resource and indicate that the resource is confidential by selecting the relevant checkbox.

To configure SAP Multiresource Scheduling so that the required resource names are automatically, you can use the following Business Add-Ins:

- To mark a resource as anonymous during the transfer of resource details from SAP ERP HCM to SAP Multiresource Scheduling (using report `/MRSS/HCM_RPTWFMIF`), you can use Business Add-In [BADi: HR Resource Information](#) (`/MRSS/HCM_RES_INT`).
- To define the ID and name to be displayed for anonymous resources, you can use Business Add-In [BADi: Anonymize Resources](#) (`/MRSS/SGE_RESOURCE`).

For more information, please see the BADI documentation in your system.

5.2.10.23 Resource Status

Use

You can define an additional resource status to be displayed in the planning board for personnel resources. The status can be set by means of function module `/MRSS/SGE_RESOURCE_STATUS_SET`.

Prerequisites

- In the Customizing activity [Define Planning Board Profile](#), you can activate the resource status display.
- You can enter the available personnel resource statuses along with a short and long text in Customizing under ► [Set Up Scheduler Workplace](#) ► [Define Status for Resources](#) ►.

5.2.11 Displaying the Utilization of Resources

Use

You have the following options to display the resource utilization:

- You can use the utilization report `/MRSS/SG_REPORT_MAIN` to display the resource utilization for an organizational unit or a work center. For example, before you assign a demand to a work center, you can check whether the work center has enough capacity to complete the assignment.
- In the Scheduler Workplace (SAP GUI), you can display the utilization of individual resources.

i Note

The system takes into account personnel resources, N.N. resources, and teams when displaying the resource utilization.

Integration

The resource availability data (working times, shift schedule) and the planning board data are used as a basis for calculating utilization.

Time allocations to which an on-call type is assigned are not included in calculating the resource availability.

Features

The utilization report offers the following options to configure the resource utilization display:

- Display in absolute values or in percentages
If the utilization is for an individual organizational unit or work center, the graphs (for example, columns) are displayed in different colors that represent:
 - Assigned demands
 - Assignments in the demands with no availability
 - Unassigned demands
This does not apply to the group view.
 - Assigned reservations
 - Unassigned reservations
 - Assigned resource offers
This means that the resource planner made an offer as part of the contact person process with manual resource confirmation, which the requester has not yet accepted.
 - Travel time
- If an organizational unit or work center is overloaded, this is shown in a separate color (for example, red).
- Base date
You can enter the day that is to be displayed by default when you call the report. You can either choose a date from the button menu (today's date +/- 1 or 2 days). Or you can choose any date from the calendar view.
- Period for analysis
You can choose between 1 day, 6 days, 1 week, 2 weeks, 4 weeks, or 8 weeks. Note that if you select a longer period of time, this will affect system performance.
- Graph type
You can specify how to display the utilization. You can choose between a display using vertical bars, horizontal bars, areas, profiles, and lines.
- Evaluation type
 - In the single view, the utilization of one organizational unit is displayed.
 - In the group view, the utilization of all organizational units that belong to a group is displayed. However, the utilization of the entire group is not displayed. To choose the group view, you must first select a higher-level group in the organizational level overview.
 - In the cumulative group view, the utilization of the organizational units is cumulated on the next highest level.
- 2D or 3D display

You can use all of these options when calling up the utilization report using transaction code [/MRSS/UTILREP](#).

If you display the utilization of individual resources in the planning board of the Scheduler Workplace, the following options are available:

- Display in absolute values or in percentages
- Period for analysis
- Graph type
- 2D or 3D display

Activities

Displaying the Resource Utilization for Organizational Units and Work Centers

- Use transaction code **/MRSS/UTILREP** to access the report.
- If the organizational levels manager is closed, open it by choosing .
- Choose the required organizational unit.
- Change the display of the chart to meet your requirements.

Displaying the Utilization of Individual Resources

- In the Scheduler Workplace (SAP GUI), select a resource in the resource list and choose the respective option in the context menu.
- Change the display options to meet your requirements.

5.2.12 Display of Dependencies Between Assignments

Use

Dependencies between assignments can be displayed for demands from the areas of Plant Maintenance (PM), Customer Service (CS), and Project System (PS).

If relationships between order operations have been created in the order, they are also included in resource planning. Relationships result in dependencies between the assignments.

Note

Cross-order relationships are not supported.

If the resource planner violated relationships when planning assignments, the system generates alerts. So that resource planners can see which dependencies exist between assignments, they can display them in the planning board.

An alert is also generated if an assignment violates a relationship to a demand for which no assignment exists.

Note

If no relationships are defined in the order and the operations have an FS relationship with one another, the implicitly stated relationships are transferred to the resource planning board.

Features

- You can display the following relationships in the system:
 - Direct predecessors
 - All predecessors

- Direct successors
- Direct dependencies
- All dependencies
- You can hide all dependencies again.

Activities

- Select the assignment in the planning board for which the dependencies to other assignments are to be displayed.
- You can display relationships and dependencies by choosing  [Planning Board](#)  [Planning Board Element](#)  in the application menu.
- The system uses arrows to display the dependencies and dependency direction.

5.3 Progress Monitoring

Use

This function compares the execution of the assignments with planning. This enables the resource planner to react to any deviations early.

The resource planner uses the time recording data of the employees displayed in the planning board, the status of the assignments, and the demand display with a planning overview to monitor progress. You can also use the planning conformity report /MRSS/SGR_SCHEDULE_COMPLIANCE to compare planning and execution.

Prerequisites

- The resource planner has assignments for personnel and tool resources for order operations in his or her worklist.
- A time recording system is connected and the time recording data is transferred.

Features

Once the resource planner has planned resources for his or her worklist, he or she monitors how the plan is implemented. The resource planning process must be extremely flexible. Some events require the resource planner to replan or move assignments (for example, if an employee is sick, a machine breaks down, or other problems that occur during execution).

- Assignments have statuses that are set by the resource planner or responsible personnel resource. If an assignment deviates from the required status on a specific date, the resource planner must determine the cause and correct resource planning where necessary.
- A special interface enables time recording data to be transferred from a different system and made available in the planning board. This data is displayed in the resource planning board and can be used as the basis for checks and, therefore, to generate alerts.
- The resource planner can switch to a demand-based view in the planning board. To do so, he or she chooses **► Planning Board ► Display of Demand ◀**.
The demand display does not show the resources of the planning board; instead, it shows the order operations on each row with their associated assignments. The following data is also displayed:
 - Hours used to execute the assignments to date
 - Percentage of task currently executed
The percentage value is calculated as a quotient of the duration already taken for execution and the total duration of the assignments.
 - Hours already planned to execute the assignments
 - Hours reserved in rough-cut planning of the order operation

More Information

[Checks and Alerts \[page 129\]](#)

6 Resource Planning with the Web-Based Planning Board

Use

The Web-based planning board allows you to carry out detailed planning for a demand. In resource planning, you assign suitable employees to a demand.

In the user settings, each scheduler can configure the Web-based planning board as required.

i Note

The Web-based planning board can be used on desktop only.

i Note

Depending on the type of demand, you can also use the Web-based planning board to perform capacity and demand planning. For more information, see [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#).

i Note

To display change documents for a demand or an assignment, you have to call up the demand in the SAP GUI planning board. To do so, you can for example use the transaction `/MRSS/PLBOSRV` (*Planning Board for Demands*). To call up the change document for a demand, choose *Details for Demand* in the demand context menu, then choose the *History* button. To call up the change document for an assignment, choose *Display Change Documents* from the assignment context menu.

For more information, see [Creation of Change Documents for Planning Board Objects \[page 139\]](#).

Use of the UI5 Gantt Chart

You can either use the JGantt chart or the UI5 Gantt chart to display assignments, demands, and other objects in the resource view or demand view of the Web-based planning board. For more information, see [The UI5 Gantt Chart \[page 180\]](#)

Prerequisites

- You have configured all of the required settings in Customizing for *SAP Multiresource Scheduling*. You configure the settings for the Web-based planning board under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ►.

i Note

Depending on the Gantt chart that you use (JGantt chart or UI5 Gantt chart), you only have to maintain the Customizing activities relevant for the respective Gantt chart.

- You have created the required master data.
- You have defined the objects (for example, organizational units) that you want to use for your resource planning structure.
- You have the necessary authorizations for resource planning.
- The required integration scenarios are set up correctly and demands are available for planning in SAP Multiresource Scheduling.

Process

i Note

Resource planning is a dynamic process that does not always run in the same way. Moreover, depending on the requirements of the task and the complexity of the data, this is not required or even possible. The steps described below apply to all aspects of resource planning. However, the sequence may change and the resource planner may skip or repeat some of the steps with certain assignments. Depending on the source of the demand (CRM service order, order from ERP Customer Service, project from Project System, or Plant Maintenance), additional steps may be available or necessary. These are described in the corresponding sections (for example, resource planning in the service). The following process contains the steps that may be relevant regardless of the source of the demand.

The process begins after you or the person responsible has created an order that is relevant for planning and this has been transferred to SAP Multiresource Scheduling.

1. You open the selection screen of the Web-based planning board. You select the required parameters or load a variant with the data that you use frequently, such as the planning node to which you are assigned.
2. The planning horizon is the period for which you plan assignments. You specify it on the selection screen for the resources and demands.
3. You obtain an overview of the scope of the demands to be scheduled and the available resources once you have opened the planning board. You check whether there are any demands classed as urgent.
4. You check whether there are personnel resources with a suitable qualification profile to carry out the order operations. The system displays the result of the qualification comparison as a ranking list sorted in decreasing suitability of qualifications and time availability.
5. You check the utilization of the personnel resources.
6. On the selection screen, you add personnel resources from other resource planning nodes to the planning board if your own resources do not have the required qualifications or are overloaded.
7. You create time allocations for unscheduled absences or attendances of resources. If a personnel resource is absent during normal working time, the resource planner can note this in a time allocation on the planning board.
8. You create assignments for your personnel resources, taking into account the above criteria. You can copy the dates for the assignments automatically from the order or enter them yourself.
9. If a resource does not have the necessary requirements profile, the system generates an alert.
10. You split demands if you want to distribute them across different resources or resource planning nodes.

You can assign several personnel resources to a demand. In this case, the system does not calculate the duration automatically. Instead, you enter the duration of the respective assignments based on your experience.

11. Provided that you have not yet saved your data, you can undo any planning steps you have made and repeat them if required.
12. You use the Alert Monitor to check that planning for your assignments is free of conflicts. The system runs checks while you plan your resources. It generates alerts if errors occurred during the checks and indicates the type of error and its cause in the Alert Monitor. You correct the cause of the alert. To do so, you must check the data (for example, availability) and process assignments again.

i Note

You can also confirm alerts without having corrected their cause.

13. You save your planning. Only once you have saved your changes in resource planning are they visible to other resource planners who work with the same resources.

If you work in the Web-based planning board, data can be changed in other applications (for example, new assignments or new order operations), which can affect resource planning. To include this data, update the planning board regularly. If you want to create an assignment for an order operation or resource, the order or resource may be locked. This is because another resource planner is creating assignments for the order or resource at the same time. In this case, wait and update the data in the planning board later or contact the other resource planner. Assignments, demands, and time allocations are locked as long as they are being processed by another resource planner.

Result

You have created assignments for suitable resources to carry out planning-relevant operations or suboperations. Your planning is on schedule and free of conflicts.

More Information

- [Resource Planning with the Gantt Chart \[page 187\]](#)
- [Table-Based Resource Planning \[page 192\]](#)
- [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#)

6.1 Web-Based Planning Board

Definition

The Web-based planning board is a Web-based user interface that resource planners can use as an alternative to the Scheduler Workplace (SAP GUI).

Use

SAP delivers the following views for the Web-based planning board:

- List view
- Resource view
- Demand view
- Staffing view

As the resource planner, you can use the resource view of the Web-based planning board to create assignments and time allocations for resources. For example, you can assign personnel resources, N.N. resources, teams, and tools as required. The demand view of the Web-based planning board allows you to obtain an overview of the current capacity situation for your capacity planning nodes and to perform capacity and demand planning.

The overall appearance of the Web-based planning board, such as the appearance of the bars in the Gantt charts and the quick info display, are configured in Customizing. In addition, each user can customize the appearance of the planning board in the user settings. For example, you can activate or deactivate the display of toolbar buttons, context menus, and views.

→ Recommendation

To learn more about the individual options in the user settings, right-click in a field or checkbox and choose [More Field Help](#) in the context menu.

Structure

Resource Planning with the Gantt Chart

The Gantt chart is available in the resource view and in the demand view. The following screen areas are provided:

- Gantt Chart
In the resource view, you can use the Gantt chart to plan the resources and assignments chronologically. Assignments, time allocations, travel, and processing times as well as links to teams or tools are shown as bars, for which you have defined the display settings in Customizing. You can move assignments chronologically and between different resources using drag and drop.
In the demand view, you can use the Gantt chart to show existing demands and assignments as well as the available and consumed capacity for your capacity planning nodes. If you activate the availability view in the demand view, the demands are grouped based on their associated technical objects.

i Note

You can also add custom views of the Gantt chart, for example, if you want to define that the bar height is proportional to the utilization. To define alternative views of the Gantt chart, you must implement Business Add-In [BADl: Creation of Gantt View Variants](#) (/MRSS/SGX_GANTT_VIEW) that is available in Customizing under [Enhancements](#) [Scheduler Workplace](#) [Web-Based User Interface](#). Using this BADl, you can also define different assignment descriptions and tooltip texts as well as the height and color of the bars.

- Demands
- Alerts

You can also display details for demands and assignments in a new screen area.

Table-Based Resource Planning

You can use the list view for table-based resource planning. The following screen areas are provided:

- Resources
- Assignments
- Demands
- Alerts

In addition, you can use the staffing view to obtain an overview of the resources assigned to the demands that are currently loaded in the Web-based planning board. For more information, see [Staffing View \[page 193\]](#).

More Information

- [User-Specific Configuration \[page 184\]](#)
- [Resource Planning with the Gantt Chart \[page 187\]](#)
- [Table-Based Resource Planning \[page 192\]](#)
- [Demand and Capacity Planning in the Web-Based Planning Board \[page 684\]](#)
- [Staffing View \[page 193\]](#)
- [Assignments \[page 215\]](#)
- [Demand List \[page 229\]](#)
- [Alert Monitor \[page 229\]](#)

6.1.1 The UI5 Gantt Chart

You can either use the JGantt chart or the UI5 Gantt chart to display assignments, demands, and other objects in the resource view or demand view of the Web-based planning board.

We recommend that you use the SAP UI5 Gantt chart as most browsers such as Google Chrome, Mozilla Firefox, or Microsoft Edge no longer support JGantt charts based on Java applet. For more information, see SAP note [2283330](#) .

If you want to switch from using the JGantt chart to using the UI5 Gantt chart, you can copy the existing Customizing settings used for the JGantt chart and reuse it for the UI5 Gantt chart. To do so, use the available Customizing migration report `/MRSS/SGX_CUST_MIGRATION`.

There are few differences in the functions and handling of the planning board Gantt charts depending on whether you use the JGantt chart or the UI5Gantt chart. For example, Customizing for the UI5 Gantt chart has been simplified compared to the JGantt chart. The main differences are the following:

- Using the UI5 Gantt chart, you create assignments and other bars by double-clicking in the Gantt chart.

- For the UI5 Gantt chart, Customizing has been simplified for the following areas: Formats for date, time and calendar week, scaling, font style for bars, formatting of selected bars. For more information, see the Customizing documentation in the system.
- You cannot print out the UI5 Gantt chart.
- You cannot display the Gantt chart in a separate window when using the UI5 Gantt chart.

For more information about differences in the functions and handling of the planning board Gantt charts, see the related links.

Related Information

[Resource Planning with the Gantt Chart \[page 187\]](#)

[Filtering, Sorting, and Searching of the Resource List \[page 199\]](#)

[Displaying Overlapping Bars in the UI5 Gantt Chart \[page 202\]](#)

[Creating and Editing Assignments in the Web-Based Planning Board \[page 217\]](#)

[Travel Times \[page 565\]](#)

[Capacity View in the Web-Based Planning Board \[page 690\]](#)

6.1.1.1 Setting Up the UI5 Gantt Chart

Before you can use the Web-based planning board with the UI5 Gantt chart, you must perform the setup activities described in this section. This section provides a high-level overview of the required setup activities. Detailed configuration information is available in Customizing for SAP Multiresource Scheduling (transaction / MRSS / IMG).

Prerequisites

- You have installed the required software component (MRSS_UI5GT).
For more information about software components, see the administration guide for SAP Multiresource Scheduling.
- You have set up and configured the Web-based planning board in Customizing.

Note

If you have used the Web-based planning board with the JGantt before, the required configuration settings should already be in place.

For information about mandatory and optional Customizing activities for the Web-based planning board, see the configuration guide on SAP Help Portal at <http://help.sap.com/mrs>.

- You have activated the required ICF services.
- You have made the additional configuration settings described under [Operation of the Web-Based Planning Board \[page 918\]](#).

Procedure

1. Activate the use of the UI5 Gantt chart in Customizing under ► [SAP Multiresource Scheduling](#) ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Activate UI5 Gantt Chart](#). ►
2. Define graphical elements under ► [SAP Multiresource Scheduling](#) ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define Graphical Elements Profiles \(UI5 Gantt Chart\)](#). ►

That includes defining colors or color gradients, text templates and text formatting, popover texts and other attributes for the bars to be displayed in the Gantt chart. You also use this Customizing activity to assign the defined attributes to different bar types.

Note

You can use the Customizing migration report `/MRSS/SGX_CUST_MIGRATION` to reuse the graphical elements Customizing that you have defined for the JGantt chart earlier.

3. Define user interface profiles under ► [SAP Multiresource Scheduling](#) ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define User Interface Profiles \(UI5 Gantt Chart\)](#). ►

That includes the following settings:

1. You can activate basic functions such as teams, demand bundles, map display, display of different views such as the staffing view, demand view, or capacity view.
2. You can define which bar types should be used for assignments, time allocations, demands, and collisions.
3. You can define the availability of buttons, dropdown boxes, and context menus.
4. You can define the option to navigate to the demand source.
5. You can define color profiles for the capacity view.
6. You can configure demand statuses.

Note

You can use the Customizing migration report `/MRSS/SGX_CUST_MIGRATION` to reuse the user interface profiles Customizing that you have defined for the JGantt chart.

Related Information

[Activating ICF Services \[page 916\]](#)

[Operation of the Web-Based Planning Board \[page 918\]](#)

[Administrator's Guide for SAP Multiresource Scheduling](#)

6.1.2 Functions of the Web-Based Planning Board

Use

The Web-based planning board provides many functions that speed up the work of the scheduler and improve clarity.

Features

The following basic functions are available in all views of the Web-based planning board:

Function	Description
Undo and repeat actions	Provided that you have not saved actions that you carried out on the planning board, you can undo each action one-by-one and redo them again. To do so, choose Undo or Repeat. If you have saved the data in the planning board, you can use this function only for actions that you subsequently carry out. i Note Actions can only be undone and redone if you have not set the Automatic Save option.
Refresh the workplace	To display the current planning situation including the latest changes, choose Refresh. You can refresh the workplace completely or you can choose to perform a delta refresh to shorten the time required for the refresh. For more information, see Web-Based Planning Board Refresh [page 187].
Switch between list view, resource view, demand view, and staffing view	To create assignments using drag and drop and obtain a graphical overview of the Gantt chart, choose Change View and then Resource View from the context menu. You can use this button to switch to the demand view or one of the views for table-based planning. For more information, see Table-Based Resource Planning [page 192] and Resource Planning with the Gantt Chart [page 187].
User parameters	To adjust the appearance of the Web-based planning board according to your requirements, choose Settings. For more information, see User-Specific Configuration [page 184].
Change the resource and demand selection	To add resources to the current planning board session, choose Add Resource. To add demands, choose Add Demand. You can also choose Find Objects to load additional resources and demands into the planning board. For more information, see Demand and Resource Selection [page 196].

Function	Description
Alternative time zone	You can display the planning board in an alternative time zone. To do so, choose Alternative Time Zone . You can reset the time zone by choosing this button again. For more information, see Display of the Web-Based Planning Board in an Alternative Time Zone [page 203] .

Apart from these basic functions, additional functions are available in the various screen areas and views of the Web-based planning board. You can activate and deactivate the display of these functions in the user settings.

More Information

[Table-Based Resource Planning \[page 192\]](#)

[Resource Planning with the Gantt Chart \[page 187\]](#)

6.1.2.1 User-Specific Configuration

Use

The Web-based planning board is configured based on profiles that are defined in Customizing. In addition to these configuration settings, you can also configure the user-specific settings provided in the planning board, which allow you to optimize the user interface to meet your requirements.

Prerequisites

- In Customizing for [SAP Multiresource Scheduling](#), you have carried out the following activities under [Set Up Scheduler Workplace](#):
 - [Define Planning Board Profile](#)
 - (Optional) [Define Determination of Planning Board Profile](#)
Perform this activity if you want to configure different settings for different organizational units.
- You have defined the appearance of the Web-based planning board and, for example, the color and size of the bars in the Gantt chart under ► [Set up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define Graphical Elements \(JGantt Chart\)](#) or [Define Graphical Elements \(UI5 Gantt Chart\)](#).
- You have assigned these settings to a Web UI profile under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).

Features

In the Web-based planning board, you can configure different user settings whose default values come from Customizing. You can change these default settings directly in the Web-based planning board. These settings are persistent, which means that they also apply when you next call up the Web-based planning board.

i Note

To learn more about the individual options available in the user settings, right-click on a field or checkbox and choose [More Field Help](#) from the context menu. Note that field help is not available for all options.

Under [Settings](#) the following main tabs are available:

- **General**

This tab includes the [Basic Settings](#) and [Table Functions](#) subtabs. For example, you can make the following settings:

- You can activate the display of travel and processing time details.
- You can specify which view is loaded by default when you open the Web-based planning board.
- You can activate the display of the staffing view.
- You can specify which objects are to be loaded on calling up the Web-based planning board. For example, you can specify whether only the selected demands and resources are to be displayed or whether associated demands and resources are to be displayed as well.

i Note

The changed load options take effect the next time you launch the planning board.

- You can activate the assignment-based resource selection to make further selection options available in the planning board.
- You can activate the display of the planning board in an alternative time zone.
- On the [Table Functions](#) subtab, you can specify which pushbuttons are available in the respective screen area.

- **Gantt Settings**

This tab comprises the [General](#), [Resource View](#), [Demand View](#), and [Toolbar & Context Menu](#) subtabs. Settings on these subtabs include the following:

- You can activate the custom split function.
- You can specify how non-working times are displayed in the resource Gantt chart.
- You can specify that the preselection you make in the list view is retained when you switch to the resource view.
- You can activate the display of collisions.
- You configure the appearance of the demand view.

For example, you can activate the display of complex demands in the Gantt chart. For the JGantt chart, you can also specify that a filter row is displayed at the top of the demand list.

i Note

Filtering and searching works at demand item level. That is, the system takes into account single demands only.

- You can specify which functions are available in the toolbars and whether they are displayed as icons or labeled pushbuttons (if applicable). You can also configure the context menus (if applicable) for the different planning board objects.
- **Sorting Options**
Settings on this tab include the following:
 - You can specify the sequence in which the different types of resources are displayed in the resource list.
 - You can specify sort criteria for human resources, tools, and teams.
 - You can sort the resource list manually based on the resource name.

- **Settings for Saving**

Settings on this tab include the following:

- You can specify that the system saves the planning board automatically after every action. In this case, the [Save](#) button is not active in the planning board.

i Note

You cannot undo or repeat actions if this user setting is active.

- You can specify that the planning board is saved at regular intervals.
- You can specify that the planning board is only to be saved when the [Save](#) button is chosen.

In addition to the persistent user settings, you have multiple temporary options to change the appearance of the Web-based planning board. For more information, see [Functions of the Web-Based Planning Board \[page 183\]](#).

Activities

To configure user-specific settings for the planning board, you choose [Settings](#) and the required tab page.

Recommendations

If you use the Web-based planning board for a large number of resources and assignments, we recommend that you configure the following user settings on the [Gantt Settings](#) tab page:

- On the [Resource View](#) subtab, make settings as follows:
 - Select the [List View Preselection](#) checkbox to transfer only the resources you selected in the list.
 - Choose the calendar view to display non-working times.
- Under [Gantt Settings](#) > [Toolbar & Context Menu](#) , specify that the functions are represented by icons in the Gantt toolbar (where available). This is especially important if you want to make a large number of functions available in the planning board.
- If you use the JGantt chart, deactivate the print function.

6.1.2.2 Web-Based Planning Board Refresh

Manual Refresh

As a resource planner, you can refresh the Web-based planning board manually. You have the following options:

- **Complete refresh:** All data that is available in the planning board (demands, assignments, resources, and alerts) is refreshed and all screens are regenerated completely.
- **Delta refresh:** Only objects that have been created or changed since the last refresh or the last time the Web-based planning board was called are reloaded and the screens are partially regenerated.

You can activate the delta refresh in Customizing for [SAP Multiresource Scheduling](#) by choosing [► Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board ► Workplace Profiles ► Define Planning Board Profile ►](#) and selecting the [Delta Refresh](#) checkbox.

i Note

The following restrictions apply to the delta refresh:

- If a resource has been newly transferred to SAP Multiresource Scheduling or if a resource has been modified (for example, the status of the resource has been changed) since the last refresh, you must perform a complete refresh since the bar chart must be regenerated completely. To do so, choose [► Edit ► Complete Refresh ►](#) in the menu bar.
- Due to their time dependency, alerts are always reloaded completely and a delta refresh is not possible.

Automatic Refresh

The automatic refresh of the Scheduler Workplace is configured in Customizing. You can specify the interval (in minutes) at which data is refreshed. In addition, you can specify what data to update during the automatic refresh. You can find the relevant settings under [► Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board ► Workplace Profiles ► Define Planning Board Profile ►](#) in the [Maintenance of Scheduling Engine Profile](#) area.

For more information, see the field help (F1 help) in the system.

6.1.2.3 Resource Planning with the Gantt Chart

Use

The resource view and the demand view of the Web-based planning board help you visualize the current planning situation. In the resource view, the Gantt chart provides a graphical overview of the employee utilization and allows you to create and move assignments and time allocations.

In the demand view, the Gantt chart provides an overview of the current capacity situation for your capacity planning nodes. You can also display existing assignments for demands in the demand view.

i Note

To **deselect** a resource in the JGantt chart, press the **CTRL** key and click the empty field to the left of resource icon.

If you select an assignment in the resource view of the JGantt chart and then switch to the demand view, the selected assignment is highlighted in the demand view Gantt chart.

Prerequisites

You can show and hide many of the available functions in the user settings. For more information about the available user settings, see [User-Specific Configuration \[page 184\]](#).

Features

Various functions are available in the Gantt chart, depending on whether you display the chart in the resource view or the demand view.

i Note

You can display the available toolbar buttons using icons or labeled pushbuttons (where available). In the user settings, you can specify the functions that you want to display in the toolbar and whether or not these are displayed using an icon. We recommend that you use icons if you want to show a large number of functions in the Gantt chart. You can also configure the context menu for various planning board objects. For more information, see [User-Specific Configuration \[page 184\]](#).

The following table lists functions that are available both in the resource view and in the demand view as well as functions that are only available in the resource view.

i Note

Some of the functions are only available in the JGantt chart.

Function	Description
Functions Available in Resource View and Demand View Gantt Charts	

Function	Description
Searching and filtering	You can filter the resource list and search for individual resources. For more information, see Filtering, Sorting, and Searching of the Resource List [page 199]. In the demand view, you can filter and search the demand list next to the Gantt chart. Note Demand filtering is only possible at item level. If complex and single demands are displayed in the demand list and you apply a filter, the system only takes the single demands into account.
Printing (JGantt chart only)	This function is only available in the JGantt chart. You can print out the Gantt chart. Various print options are provided, for example: • Print in portrait or landscape format • Print page numbers • Scale the chart
Go to current date	You can go to the current time segment in the Gantt chart by choosing  in the JGantt chart or  Go To Current Date in the UI5 Gantt chart.
Zooming	You can zoom in and zoom out of the Gantt chart. When you use the zooming function, the time line is scaled up or down, that is, the number of days that is displayed in the Gantt chart increases or decreases and the display of the bars changes accordingly. Note that font sizes are not increased when you use this function In the UI5 Gantt chart, a slider is available to zoom in and out. By default, the Gantt chart is always displayed with the slider on the left (i.e. completely zoomed out). The zoom percentage is not a user setting that can be saved. This means that when the planning board is called up again, the Gantt chart is always displayed zoomed out (slider on the left).
Changing the scale	You can switch between different scales, such as days, weeks, or months. Note The following feature is only available in the JGantt chart: The views can also be compressed to provide a better overview. Choose 1 Week (Collapsed) or Day View (Compressed) to display the data clearly.
Displaying the Gantt chart in a new window (JGantt chart only)	This function is only available in the JGantt chart. To display the Gantt chart in a separate window rather than in the Web-based planning board, choose . To reintegrate the Gantt in the Web-based planning board, choose this button again.

Displaying collisions	You can display conflicts in resource planning. You can set collisions to the front or to the back by choosing the toggle button. For more information, see Displaying Collisions in the Web-Based Planning Board [page 629].
Activating pre-booking mode	You can activate pre-booking mode to create preliminary assignments that are only visible to authorized resource planners and when pre-booking mode is active. For more information, see Creating and Editing Assignments in the Web-Based Planning Board [page 217].
Creating and editing assignments	You have various options to create and edit assignments. Examples: In the JGantt chart, you can create assignments by drawing them free-handedly. In the UI5 Gantt chart, you can create assignments by double-clicking in the Gantt chart. With enabling the toolbar button <i>Assign Demand Directly</i>, you can directly create assignments without the popup dialog. You can also enable the <i>Create Assignment</i> context menu for HR resources, Business Partner, team and N.N. resources in Web PLB. Here you can select multiple demands from the worklist and click on the <i>Create Assignment</i> context menu entry to directly create assignments on demand dates. For more information, see Assignments in the Web-Based Planning Board [page 215].
Additional Functions Available in the Resource View Gantt Chart	
Creating time allocations	You can create time allocations using the corresponding button and the time allocation detail screen. In the JGantt chart, you can also create time allocations by drawing them free-handedly. In the UI5 Gantt chart, you can also create time allocations by double-clicking in the Gantt chart. For more information, see Time Allocations [page 226].
Using the Optimizer	You can use the Optimizer to optimize the current planning situation. For more information, see Starting and Analyzing Optimization Runs in the Web-Based Planning Board [page 623].
Automatic scheduling of multiday assignments	You can use the <i>Automatic Assignment Creation</i> function to automatically create multiday assignments. If required, you can optimize the planning situation afterwards. For more information, see Automatic Scheduling of Multiday Assignments [page 610].

Starting the Free Employee Search	You can search for resources without selecting a demand first. For more information, see Finding Suitable Employees in the Web-Based Planning Board [page 547] .
Displaying and editing personnel resources	The context menu for personnel resources provides various functions, including the following: • You can display and edit the resource details. • You can open the employee profile. For more information, see Employee Profile [page 64]. • You can create a team. • You can create a tool link.
Displaying and editing teams	The context menu for teams provides various functions, including the following: • You can display and edit the team details. • You can delete the team. • You can create a tool link. For more information, see Creating and Editing Teams in the Web-Based Planning Board [page 575].
Displaying tool resources	The context menu for tools provides various functions, including the following: • You can display the tool resource details. • You can create a tool link. For more information, see Using Tools in the Web-Based Planning Board [page 589].
Displaying and editing N.N. resources	The context menu for N.N. resources provides various functions, including the following: • You can display and edit the N.N. resource details. • You can create a team. • You can create a tool link. For more information, see N.N. Resources [page 580].
Displaying a map with geographic information	You can show a map and use this map for resource planning. For more information, see Using a Map in the Web-Based Planning Board [page 636].

i Note

For more information about functions that are only available in the demand view Gantt chart, see [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#).

6.1.2.4 Table-Based Resource Planning

Use

As an alternative to the Gantt chart, you can display the resource planning situation and create and edit assignments using table-based resource planning. Table-based resource planning is available in the list view and in the staffing view.

Prerequisites

You have activated the display of the staffing view and list view in the user settings under ► [Settings](#) ► [General](#) ► [Basic Settings](#) ►.

Features

Various functions are available in table-based resource planning, depending on whether you use the list view or the staffing view. For more information about the staffing view, see [Staffing View \[page 193\]](#).

In the list view, the following functions are available in the [Resources](#) screen area:

Function	Description
Searching and filtering	You can use the standard ALV grid control functions to filter and sort the table entries or show and hide columns. You can also use additional filtering options. For more information, see Filtering, Extending, and Sorting of the Resource List [page 199].
Changing the scale	You can switch between different scales (dimensions), for example, daily, weekly, or monthly.
Display of available days or assigned days	You can display either the available days or the days that are planned in assignments.
Display of resource details	You can display information about a resource (personnel resource, team, N.N. resource, tool) by choosing Resource Details.
Display of the planning situation for a resource	You can display an overview of the planning situation in the table by selecting a resource and choosing Assignments.

Function	Description
Create and edit assignments	You can display, change, and delete assignments for a resource here. You can also create new assignments. For more information, see Creating and Editing Assignments in the Web-Based Planning Board [page 217].
Find qualified resources	You can use the Free Employee Search to find suitable employees for a demand using various criteria. For more information, see Employee Search for a Demand and Free Employee Search [page 547].
Create user-specific hierarchies	You can create hierarchies based on which the resources are sorted and displayed. You can expand or collapse all hierarchy nodes at once. For more information, see Creating User-Specific Hierarchies [page 205].
Calculate intermediate results for selected columns	You can calculate intermediate results. To select the columns, in the settings dialog make settings on the Calculation tab.

More Information

[Staffing View \[page 193\]](#)

[Web-Based Planning Board \[page 178\]](#)

6.1.2.5 Staffing View

Use

The staffing view is a table-based view that allows you, for example, to display a set of resources and the demands to which these resources are assigned. You can also display a set of demands and the resources that are currently assigned to them. You can change the staffing data directly in the staffing table, for example, by changing the number of assigned hours per day.

Prerequisites

- You have activated the display of the staffing view in the user settings. To make the staffing view available by default for first-time users of the Web-based planning board, a Customizing setting is provided in

Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).

- You have specified the default assignment type (capacitive or non-capacitive) for the creation of new assignments in the user settings.
- If you want to allow users to change the staffing situation directly in the staffing view, you have activated this option in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- You have configured the entries for the display of the view variants. For more information, see [Configuring the Display of Staffing View Variants \[page 920\]](#).

Features

The [Staffing View](#) screen area provides the following functions:

- You can use the standard functions that are available for the Web-based planning board. For more information, see [Functions of the Web-Based Planning Board \[page 183\]](#).
- The following view options are provided within the staffing view, allowing you to display the staffing situation either based on resources or based on demands:
 - **Default view**
You can use this view to display a list of demands and assigned resources. One row exists for each combination of demand item and resource.
 - **Resource view**
You can use this view option to display a list of resources and the demands to which the resources are currently assigned, including for how many hours per day, week, or month the resource is assigned to the demands in question. The displayed data is grouped according to the individual resources. In order to see all entries, you need to expand the top node.
 - **Demand view**
You can use this view option to display a list of demands and the resources that are currently assigned to the demands, including for how many hours per day, week, or month the resources are assigned to a given demand. The displayed data is grouped according to demand items. In order to see all entries, you need to expand the top node.

i Note

You can change the calculation logic by implementing Business Add-In [BAdI: Staffing View](#) (/MRSS/SGE_STAFFING_VIEW). The BAdI is available in Customizing under ► [Enhancements](#) ► [Scheduler Workplace](#) ► [Web-Based User Interface](#) ►.

- You can create assignments for a given resource and demand combination. To do so, you insert new staffing.
- You can edit existing assignments for a given resource and demand combination. To do so, you change the values directly in the table.
- You can print the staffing view table.
- You can export the staffing view to a Microsoft Excel spreadsheet.

- You can change the time interval in which the staffing situation is displayed. You can choose to display the staffing situation based on days, weeks, or months. In addition, you can choose to display the staffing in hours or days.
- You can expand and collapse all nodes at once.
- You can navigate to the source of a demand. For more information, see [Navigating to the Source of a Demand \[page 232\]](#).
- You can create user-specific hierarchies to sort the resources and demands. For more information, see [Creating User-Specific Hierarchies \[page 205\]](#).

In addition to the *Staffing View* screen area, the *Alerts* screen area is provided.

Activities

- You create new assignments by choosing *Insert New Staffing*. You use the input help to fill in all required fields.
- Depending on the default assignment type that is specified in the user settings and the allowed assignment types for a given demand, the system creates capacitive or non-capacitive assignments.
- You edit existing assignments by changing the assignment duration per day, week, etc. for a given demand and resource combination
- By choosing , you can simulate the new staffing situation. Depending on the result, you can undo or save your changes.

→ Recommendation

Use this function for capacitive assignments only.

By default, the following applies:

- Concrete and stretched assignments: If one underlying assignment exists per demand and resource, the new duration is set for this assignment. If multiple assignments exist per demand and resource in the given time frame, the new duration is set for the first assignment and the other assignments are removed or cut. If no assignment exists yet for the demand and resource, the system creates a new assignment starting with the beginning of the given time frame.

❖ Example

In the resource view, five assignments exist for Resource 1 and Demand 1 in calendar week 18 (8 hours/day = 40 hours for calendar week 18). Using the staffing view, you change the assignment hours for Demand 1 and Resource 1 in CW 18 from 40 to 20 hours. The system deletes the last four assignments and extends the duration of the remaining assignment to 20 hours. That is, it starts at 0:00 and ends at 20:00.

- Capacitive assignments: If the assignment duration is changed, the start and end of the remaining assignment or new assignment is set within the given time frame and the new duration is set. The parts of the remaining assignments that overlap with the first assignment are deleted.

❖ Example

In the resource view, two assignments exist for Resource 1 and Demand 1 spanning calendar weeks 16 to 18 (60 hours) and 17 to 19, respectively (60 hours). Using the staffing view, you change the

assignment hours for Demand 1 and Resource 1 in CW 18 from 40 to 20 hours. The system cuts the second assignment in a way that no hours are left in CW 18. Similarly, one of the existing assignments is cut and the remaining duration in CW 18 is changed to 20 hours.

- The system displays the updated values using the global time zone (if set in Customizing) or the user time zone. Note that this might lead to values being displayed differently for different users, depending on the time zone of the user.

i Note

You create your own implementation of Business Add-In *BAdI: Change of Staffing Data* (/MRSS/SGE_DAY_ALLOCATION) to specify how assignments are created or changed after staffing view entries have been changed. The BAdI is available in Customizing under ► *Enhancements* ► *Scheduler Workplace* ► *Web-Based User Interface* ►.

6.1.3 Demand and Resource Selection

Use

As the resource planner, you can decide how the worklist is to be generated or for which period before you call the Web-based planning board. When you access it, the system displays various options for choosing resources and demands.

Prerequisites

- You can define your own search helps for resources and demands, to be displayed in the resource and demand selection instead of the standard search helps for the *Personnel Number* and *Demand* fields before the planning board is called. To use your own search helps, configure the corresponding settings in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Define Search Helps for Resources and Demands* ►.

i Note

If you use SAP Multiresource Scheduling in a multiple back-end scenario, you must define the search helps in your local system.

- If you want to use the assignment-based resource selection options, you must make settings in Customizing under ► *Set Up Scheduler Workplace* ► *Assignment-Based Resource Selection* ►. In addition, you must activate the assignment-based resource selection in the user settings.
- You specify how resources and demands are loaded into the planning board in the user settings under ► *Settings* ► *General* ► *Basic Settings* ►.

Features

- You can select the resources via resource planning nodes and personnel numbers.
- You can select resources based on previous assignments before launching the planning board. For example, you can select all resources that had been assigned to a specific customer at a specific location. For more information, see [Assignment-Based Resource Selection \[page 515\]](#).
- You can specify a period in which the resources are planned. This period is the planning horizon.
- You can select demands using resource planning nodes, enter them directly, or restrict the selection according to the order type or user status.
- You can either copy the period and resource planning nodes for the resources or specify a different period and one or more resource planning nodes.
- You can save entries that you make regularly on the selection screen as a variant and call them when necessary. You can also call variants created by other users, provided that they have been released. If you have selected a variant as a standard variant, this data is displayed when you call the initial screen.

Specifying Multiple Selection Criteria

If you specify multiple criteria to determine which resources and demands you want the system to show in the Web-based planning board, the following applies:

- Planning node ID, service area, resource ID, and demand ID: The more criteria you specify, the greater is the results set. That is, the system just adds up the results found for each criterion.

❖ Example

On the selection screen, you specify resource planning node RP01 and demand D02. In the planning board, the system shows all demands that are assigned to RP01. The system also shows all items of demand D02, even if this demand is not assigned to RP01.

→ Recommendation

If you want to call up the planning board for a specific combination of resource planning node and demand ID, proceed as follows: Launch the planning board for the required resource planning node. In the planning board, filter the results using the required demand ID.

i Note

If you specify a demand by entering a demand ID, and you also enter a time period, the system does not take the time period into account.

- Demand type and status (inclusive and exclusive): Specifying one of these criteria reduces the results set. That is, if you specify a demand type or status, the system only shows demands of this type and / or with or without this status.

❖ Example

On the selection screen, you specify demand D02. You also specify that you want to exclude demand items that have the *Confirmed* (CONF) status. In the planning board, the system shows all items of demand D02 that do not have the *Confirmed* status.

More Information

[Planning Horizon \[page 207\]](#)

[Assignment-Based Resource Selection \[page 515\]](#)

6.1.4 Addition of Resources and Demands

Use

As the resource planner, you can add tools, personnel resources, and teams from other resource planning nodes to the planning board and include them in your resource planning. You can also add demands to the current planning board session. These functions are available to you in all views of the Web-based planning board.

For example, you can use this function if the following applies:

- Your own personnel resources are already overloaded or do not have the required qualifications to carry out a task.
- A tool has not been created in the order as an operation but is still required to carry out a task.

Features

- You can add resources to the current planning board session. To do so, choose [Add Resource](#) and the respective context menu entry.
You have the following options:
 - Add personnel resources based on the resource number
 - Add tools based on the equipment number
 - Add teams based on the description
 - Add resources based on the resource planning node ID
 - Add resources based on previous assignmentsFor more information, see [Assignment-Based Resource Selection \[page 515\]](#).
- You can add demands to the current planning board session. To do so, choose [Add Demands](#). You can add demands based on the resource planning node ID or the specific demand ID.

i Note

When you add additional resources or demands manually after filtering the currently available resources or demands, the added resources or demands are always displayed regardless of previous filter criteria.

More Information

[Assignment-Based Resource Selection \[page 515\]](#)

6.1.5 Filtering, Sorting, and Searching of the Resource List

Use

To reduce the number of resources displayed, you can filter the resource list for specific criteria. To obtain additional resources if the ones currently displayed are not suitable or sufficient, you can extend the resource list. You can also sort the resource list and search for individual resources.

i Note

The filter and sorting options differ slightly depending on whether you use the JGantt chart or the UI5 Gantt chart.

Prerequisites

- You have activated the relevant objects such as filter rows (JGantt chart only), toolbar buttons, and context menu entries in the user settings. For more information, see [User-Specific Configuration \[page 184\]](#).
- If you want to use the assignment-based resource selection options, you must have made settings in Customizing for *SAP Multiresource Scheduling* under ► [Set Up Scheduler Workplace](#) ► [Assignment-Based Resource Selection](#) ►.

Features

Filtering the Resource List

Filtering the Resource List in the List View

You can filter the resource list in the list view. To do so, choose . An additional row is displayed that you can use to enter filter criteria.

→ Recommendation

To obtain a better overview of resource planning for a large number of resources, we recommend that you filter the resource list or select the required resources before switching to the resource view. In this way, only the relevant resources are displayed in the Gantt chart. Make sure that the [List View Preselection](#) checkbox is selected in the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Resource View](#) ►.

You have various options to filter the resources that are displayed in resource view and in the demand view.

Filter Settings Dialog Box

The [Filter Settings](#) dialog box is available in the resource view and in the demand view. To call up the [Filter Settings](#) dialog box, choose . Using the dialog box, you can filter the resources by the following criteria:

- Personnel resources with specific personnel numbers
- Personnel resources for one or more resource planning nodes
- Personnel resources that belong to a specific postal code area
- If you have activated the assignment-based resource selection, you can select resources based on previous assignments. For more information, see [Assignment-Based Resource Selection \[page 515\]](#).

Column Filter (UI5 Gantt Chart Only)

In the UI5 Gantt chart, you can also filter the resources using the built-in filter function available in the column headers.

You can use the following operators to enter filter criteria:

Operator	Description
<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to

Filter Row (JGantt Chart Only)

You can filter the resources using an additional filter row that is displayed at the top of the resource list if you have activated this option in the user settings. Enter filter criteria as desired and press . You can use the following operators to enter filter criteria:

Operator	Description
<>	Exclusion of a single value
<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to
*	Wildcard for text search
" "	Wildcard for searching for empty fields

If you make entries in several fields, the system combines the filter criteria using "AND". Empty columns are not considered for filtering.

You can also use this filtering option in the demand view.

❖ Example

- You enter **<*Schmidt*>** in the *Resources* column: The system filters the list for all resources whose name does not contain "Schmidt".
- You enter **500000039** in the *Org. Unit* column: The system filters the list for all resources who belong to this organizational unit.
- You enter **" "** in the *Customer Location* column: The system filters the list for all jobs that do not have a customer location assigned.

Free Employee Search

You can use the Free Employee Search in the resource view as well as in the list view to filter the resources displayed in the Gantt chart and in the resource list.

To do so, proceed as follows:

1. Execute the Free Employee Search according to your requirements. For more information, see [Employee Search for a Demand and Free Employee Search \[page 547\]](#).
2. Select resources from the results list that is displayed in the dialog box and choose *Filter*.
The dialog box closes. The system applies the filter to the resources that are currently displayed in the planning board.
3. To remove the filter and display all loaded resources again, choose *Clear Extended Filter* if you are in the list view or  if you are in the resource view.

Sorting the Resource List

You can sort the resources that are currently displayed in the planning board by various criteria. You configure the sort settings in the user settings under ► *Settings* ► *Sorting Options* ►. You have the following options:

- You can sort the resources based on the resource type (personnel resource, N.N. resource, team, tool).

i Note

The sort settings you make here are valid for the current planning board session. In Customizing under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► *Web-Based User Interface* ► *Define UI Profiles (JGantt Chart)* ► or *Define UI Profiles (UI5 Gantt Chart)*, you define the default sequence for displaying resource types when the planning board is launched.

- You can sort the resources based on predefined criteria, for example, based on the organizational unit, resource name, or availability.
- You can sort the resources manually. That is, you can specify which resource is displayed at what position in the list.

Column Sorting (UI5 Gantt Chart Only)

In the UI5 Gantt chart, you can also sort the resources using the built-in sorting function available in the column headers.

Searching the Resource List

You can search for resources in the resource view. You can also search a filtered list. To do so, proceed as follows:

1. Choose  (JGantt chart) or  [Search](#) (UI5 Gantt chart). A dialog box appears.
2. Enter your search criteria and choose [OK](#). The system highlights the first resource that is an exact match to the search criteria.
You can use the operators described above.
3. Choose  (JGantt chart) or  [Go to Next Result](#) (UI5 Gantt chart) to highlight the next match.

The search function is also available in the demand view.

More Information

- [User-Specific Configuration \[page 184\]](#)
- [Employee Search for a Demand and Free Employee Search \[page 547\]](#)
- [Assignment-Based Resource Selection \[page 515\]](#)

6.1.6 Displaying Overlapping Bars in the UI5 Gantt Chart

To display all the bars that exist for a resource, you can expand the resource row. This way, you can see any overlapping assignments, time allocations, tool links, and team assignments that may exist for the resources.

Context

In the expanded section, the system displays the individual bars below each other. The main row still shows the overlapping bars, possibly as collision if the relevant Customizing is in place.

Procedure

1. To expand the row for one of the resources, select the checkbox to the left of the resource name and choose  [Expand](#)
2. To collapse the row, choose  [Collapse](#) or choose  in the row beneath the resource name

You can also expand or collapse all rows at the same time. To do so, select the checkbox in the header of the first column of the resource table and choose  [Expand](#) or  [Collapse](#).

6.1.7 Display of the Web-Based Planning Board in an Alternative Time Zone

Use

You can display the Web-based planning board in an alternative time zone.

Prerequisites

You have activated this function in the user settings under ► [Settings...](#) ► [General](#) ► [Basic Settings](#) ►.

Features

- You can change the time zone in which the planning board is currently displayed. To do this, you choose [Alternative Time Zone](#).
- You can reset the time zone to the system time zone by choosing [Reset Time Zone](#).
- You can display the time zone dependent details for an assignment. To do so, in the Assignments screen area of the list view, select an assignment and choose [Display Time Zone Dependent Details](#).

i Note

If the resource time zone is changed after the planning board was launched, the system does not update this information after a planning board refresh. To have this information updated, you must relaunch the planning board.

❖ Example

Resource A is created with time zone BRAZIL. You launch the planning board, select an assignment and display the time zone dependent details. The resource time zone is specified as BRAZIL.

While the planning board is still open, you change the time zone of resource A to INDIA. You refresh the planning board and display the time zone of the resource. This is still given as BRAZIL. In order for the change to become visible in the time zone dependent details, you must relaunch the planning board.

6.1.8 Demand Document Printing in the Web-Based Planning Board

Use

You can print shop papers and documents for demands from Plant Maintenance (PM) and Customer Service (CS) in the Web-based planning board.

Prerequisites

- You have activated business function `LOG_EAM_SIMPLICITY_2`.
- You have activated printing for the required demand type in Customizing for *SAP Multiresource Scheduling* under ► *Sources of Demand* ► *Activate Printing for Demand Types* ►.
- (Optional) You have implemented the Business Add-In *BAdI: Print PM/CS Orders and PM/CS Notifications* (`/MRSS/RSG_PRINT`) in Customizing for *SAP Multiresource Scheduling* under ► *Enhancements* ► *Sources of Demand* ►.

Features

- You can select one or more demands in the *Demands* screen area. By choosing the *Print Documents* pushbutton, you call a dialog box in which you can select the required documents.

i Note

Before you can call the print function, you must first save all changes.

- If you select a PM/CS order and call the print function, the system displays the documents and shop papers for this demand as well as for the associated notification in the dialog box. The same applies if you select a notification. In this case, the documents and shop papers for the associated order are also displayed.

i Note

Note the following constraints:

- It is not possible to display the documents using the print preview.
 - It is not possible to open the shop papers or documents in SAP Multiresource Scheduling.
- Once the print function has been executed for the selected demand, the system changes the request status automatically to `PRT` (*Printed*).
 - It is only possible to print documents for orders and notifications that are released in the PM/CS system at the time of printing and that are not locked by other users.

6.1.9 Creating User-Specific Hierarchies

Use

You can display resources and demands according to a specified hierarchy, for example, based on demand ID, demand bundle, or custom fields.

You can define hierarchies in the following views and screen areas:

- In the resource view, in the [Demands](#) screen area
- In the demand view, in the [Demands](#) screen area
- In the list view, in the [Resources](#) screen area and in the [Demands](#) screen area
- In the staffing view, in the [Staffing View](#) screen area

When displaying demands or resources hierarchically, you have the option to expand and collapse all hierarchy nodes at once. To use this function, you must activate the display of the [Expand Hierarchy](#) toggle button in the user settings under [General > Table Functions](#). For more information, see [User-Specific Configuration \[page 184\]](#).

Procedure

To create a new hierarchy, proceed as follows:

1. In the relevant screen area, open the settings dialog.
2. On the [Display](#) tab, select the [Hierarchy](#) checkbox and choose [Define](#)
A dialog box opens.
3. Select the column based on which you want to create the hierarchy. You can also select multiple columns if you want to create a hierarchy with multiple levels. Confirm your entries to close the dialog box.
4. In the settings dialog, choose [Apply](#) to apply the hierarchy. Choose [OK](#) to close the settings dialog.

Depending on the screen area in which you have created the hierarchy, the demands or resources are sorted and displayed based on the defined hierarchy. You can now do the following:

- You can expand and collapse all hierarchy nodes at once by choosing the respective toggle button.
- You can calculate and display intermediate results for selected columns. To do so, open the settings dialog and make settings on the [Calculation](#) tab.

6.1.10 Creating Addresses for Resources (Web)

Use

You can replace the main resource address that is transferred to SAP Multiresource Scheduling together with the resource availability. This is useful if you want to use other addresses for resource planning in SAP Multiresource Scheduling. You have the following options:

- You can define an alternative address. This option is available to you in the Scheduler Workplace (SAP GUI) only. For more information, see [Creating Addresses for Resources \(SAP GUI\) \[page 142\]](#). In the Web-based planning board, you can display the alternative address in the resource details.
- You can define one or more temporary addresses for each resource. This can be useful, for example, if resources travel between customer sites and stay at different locations while working on an assignment. You must specify a validity period for each temporary address.

i Note

You can specify temporary addresses for human resources only (HCM resources and business partners).

For more information, see [Resource Addresses in SAP Multiresource Scheduling \[page 75\]](#).

Procedure

i Note

Geocoding

If you want to use geocoding, you must integrate an external application (for example, GIS) and make settings in Customizing for *SAP Multiresource Scheduling* under ► *Optimizer and Travel Times* ► *Travel Times* ► *Define Profile for Geocoding of Addresses* ►.

If geocoding is configured and the system cannot convert an address into geographic coordinates, the system issues a warning message. In this case, you can proceed to save the address, but travel times might be calculated incorrectly.

To create one or more temporary addresses, proceed as follows:

1. Call up the resource details. You can have the following options to do so:
 - In the list view, select the resource in the table and choose [Resource Details](#).
 - In the resource view, call up the context menu for the resource and choose [Resource Details](#).The resource detail screen opens. The resource address displayed on the [Location](#) tab is the address that is currently used by the system to calculate travel times.
2. Choose [Enter New Address](#). A dialog box opens in which you can specify one or more temporary addresses. Enter the following:
 - Type of address (home address, start address, end address)
 - Address details

- Validity period

Provided that geocoding is configured in your system, the system converts the address into geographic coordinates.

3. Confirm your entries to close the dialog box.
Define more temporary addresses as required.
4. On the resource detail screen, choose [Apply](#).
5. Save the planning board to save and activate the addresses.

→ Recommendation

If you create and activate an alternative address in the Scheduler Workplace (SAP GUI), this address takes precedence over the main address, but also over existing temporary addresses. Thus, if you want replace the main resource address in SAP Multiresource Scheduling, you should either define an alternative address **or** one or multiple temporary addresses.

More Information

[Resource Addresses in SAP Multiresource Scheduling \[page 75\]](#)

[Creating Addresses for Resources \(SAP GUI\) \[page 142\]](#)

6.2 Planning Horizon

Use

To determine the periods for which the system calls the Web-based planning board, you can enter one planning horizon for demands and one for resources.

❖ Example

The time period displayed for the demands can contain four weeks, while the time period of the Gantt chart for the current resources only displays the next seven days.

Activities

You can specify the planning horizon when you start the Web-based planning board. To do so, enter the required periods for demands and resources or choose [Copy from Resources](#) so that the planning horizon for the demands matches that for the resources.

If you want to change the planning horizon for resource scheduling, choose [Selection](#) and adjust the periods.

The planning horizon for demands is used to select demands only. For all other functions in the planning board, such as checks against the planning horizon, the system uses the planning horizon for resources.

6.3 Day-Based Scheduling

Use

You can plan assignments on a daily basis so that resource planning can be displayed more easily. Day-based scheduling allows you to plan resources for entire days. Day-based scheduling must be activated in Customizing

Prerequisites

[Setting Up Day-Based Scheduling \[page 115\]](#)

Features

- You can use day-based scheduling for concrete, stretched, and capacitive assignments.
- If you have activated day-based scheduling, you cannot edit the start and end time of the assignments. The start time is set to 00:00 and the end time is set to 23:59 (except for stretched assignments). Stretched day-based assignments might extend beyond the end of the working day if the working time of the resource does not correspond to the time unit for day-based assignments specified in Customizing. Similarly, if the customized time unit is shorter than one working day, a day-based assignment might end before the end of the working day.

❖ Example

Resource A works 7.5 hours per day. In Customizing, it is defined that a day-based assignment comprises 8 hours per day. The resource planner creates a 4-day stretched day-based assignment for Resource A, starting on Monday. On Thursday, Resource A will have covered only 30 of the 32 requested hours. Therefore the assignment is extended to Friday to cover the remaining 2 hours.

- If the assignment follows demand function is active, you cannot change the assignment start and end, since the assignment dates directly depend on the demand dates. However, the system sets the assignment start time to 0:00 and the end time to 23:59 (except for stretched assignments) and rounds the assignment duration off to days, independent of the demand start and end times.
- You can configure day-based planning for a specific assignment. To do so, choose the time unit [Day](#) in the assignment details.
- If you have made the relevant Customizing settings, the system automatically creates new assignments on a day basis when you drag a demand item to the Gantt chart.
- PM integration scenario: If day-based scheduling and the integration of splits is set up, the system automatically creates a day-based assignment when an order operation split is integrated in SAP Multiresource Scheduling.

❖ Example

In the PM system, an order operation is created with a duration of 3 days. For this order operation, a split is created with a duration of 3 days. Your SAP Multiresource Scheduling system is set up so that

the duration of the split is used as demand duration when the split is transferred as an assignment to SAP Multiresource Scheduling. As a result, the SAP Multiresource Scheduling system creates an assignment with a 3-day duration (= 72 hours) for the related demand.

→ Recommendation

Show non-working times based on resource availability per day. You activate this option in the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Resource View](#) ►

Restrictions and Limitations

Day-based scheduling is subject to the following restrictions:

- You cannot use automatic assignment creation.
- Backwards integration is not carried out on a day basis.
- You cannot use the Optimizer.
- The system does not include travel times.

Related Information

[Setting Up Day-Based Scheduling \[page 115\]](#)

6.3.1 Setting Up Day-Based Scheduling

Day-based scheduling allows you to plan resources for entire days. You set up and activate day-based scheduling in Customizing.

Procedure

1. In Customizing for SAP NetWeaver under ► [General Settings](#) ► [Check Units of Measurement](#) ►, define a time unit that you want to use for day-based scheduling.

For example, you want a working day to last for 8 hours. Create a time unit for a working day and specify that this time unit comprises 28,800 seconds (= 8 hours).

2. In Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►, make the following settings:
 - Under [Maintenance of Scheduling Engine Profile](#), select the checkbox to activate day-based scheduling.
 - Under [Time Unit for Planning Board Profile](#), enter the time unit that you created in Step 1.
3. For PM integration scenario only: In Customizing for SAP Multiresource Scheduling under ► [Sources of Demand](#) ► [PM/CS Orders](#) ► [Control Integration Between MRS and PM/CS](#) ►, specify whether the work or

the duration of an order operation is used as demand duration when integrating order operations as demands in SAP Multiresource Scheduling.

4. For PM integration scenario only: In Customizing for Plant Maintenance and Customer Service under [Maintenance and Service Processing](#) > [Maintenance and Service Orders](#) > [General Data](#) > [Define Default Values for Units of Operation](#), enter the time unit to be used for a working day (Step 1). Enter the time unit either for work or duration, depending on the setting you made in Step 3.
5. Optional: To make day-based scheduling the default when creating new assignments using drag and drop, make the following settings in Customizing for SAP Multiresource Scheduling:
 - Scheduler Workplace (SAP GUI): Go to [Set Up Scheduler Workplace](#) > [Workplace Profiles](#) > [Define User Interface Profiles](#) and select the [Create Day-Based Assignments](#) checkbox.
 - Web-based planning board: Go to [Set Up Scheduler Workplace](#) > [Workplace Profiles](#) > [Web-Based User Interface](#) > [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#) and select the [Create Assignments Day-Based](#) checkbox.
6. Optional: Define a global time zone for day-based assignments. You do so in Customizing for [SAP Multiresource Scheduling](#) under [Basic Settings](#) > [Configure Basic Settings](#). The system then uses the same global time zone for all resources.
7. Recommended: To optimize the display of day-based assignments in the Scheduler Workplace (SAP GUI), specify that non-working times and the row for capacity assignments are not shown in the planning board. To do so, make the following settings under [Set Up Scheduler Workplace](#) > [Workplace Profiles](#) > [Define User Interface Profiles](#):
 - Deactivate the display of non-working times by selecting the [Hide NWork](#) checkbox.

Note

This setting can be overwritten in the user settings for the planning board.

- Activate the display of capacitive assignments in the planning row. To do so, select the relevant checkbox.
The system hides the row for capacitive assignments. Instead, capacitive assignments are displayed directly in the planning row for the resource.

6.4 Data Consistency and Locks

Use

Resources can be planned in an organization by several resource planners at the same time. Depending on their assignment, these resource planners can use the same resources (groups) or process the same orders. To ensure that all of the resource planning data remains consistent within the organization, the system generates locks for planning board elements that are currently being processed by a resource planner.

Prerequisites

In Customizing for SAP Multiresource Scheduling, you have specified whether the locks for resources and orders are active at [Define Planning Board Profile](#).

Features

Locks for Assignments and Time Allocations

The system locks assignments for other users as soon as they are processed. If a resource planner changes an assignment on the planning board, this assignment is locked. The assignment can still be viewed by other users, but they cannot change or delete it. If another resource planner attempts to change the assignment, the system generates a message with the assignment status and the name of the resource planner. The lock is removed when the planning board data is saved or updated. The system locks time allocations as soon as they are processed.

Resource Lock

Resources are locked by the system if you have configured the appropriate Customizing settings (see the "Prerequisites" section). The resource lock is set on a daily basis. Since resource planners can work in different time zones, the system determines the day and the time zone that was defined in the planning board profile. If the resource planner creates an assignment from May 1 at 08:00 to May 2 at 17:00, the resource is locked on both May 1 and May 2. If the resource planner does not set the lock at resource level, the system checks for potential conflicts when planning is saved (for example, if two users have processed a resource at the same time). The system then updates the alerts. The correct data is displayed for the resource planner who saves last.

Demand Lock

So that several resource planners cannot create assignments for the same demand simultaneously, demands can be locked by the system if you have configured the appropriate Customizing settings (see "Prerequisites"). A demand can be locked in the following cases:

- The corresponding order or network is currently being processed by another user – this is an external lock that you cannot remove in the planning board.
- You are processing a planning board element (such as an assignment), thereby locking the corresponding demand. The system removes this lock as soon as you have finished processing the planning board element by saving or updating it.
- Another resource planner is working on a demand (for example, entering resource availabilities) as part of the contact person process with manual resource confirmation.

If a demand is locked, the system issues a corresponding notification.

i Note

If a user edits a demand in the relevant transaction, you cannot create assignments in the planning board.

All changes made by a resource planner can be viewed by other resource planners only when they are saved.

Activities

- You save changes that you make when planning resources at regular intervals. This allows other resource planners to see them.
- You regularly update the planning board data. The system displays all changes that have been made by other users in the meantime.

6.5 Checks

Use

Checks are combined in a check class that refers to a specific data area (for example, resource utilization). The role of a check class is to carry out the check using attributes and methods, and to communicate with the Alert Monitor (that is, to create or remove corresponding alerts). In Customizing for the alert profiles, you can specify that the planning board is not saved if specific alerts are generated.

Prerequisites

- You have created and defined the required check classes in the Class Builder (transaction SE24). SAP delivers the following check classes:

Check Class	Meaning
/MRSS/CL_SGE_CHECK_RESCAP	Checks for resource utilization
/MRSS/CL_SGE_CHECK_RELAT	Checks for relationships between assignments
/MRSS/CL_SGE_CHECK_ASG	Checks for assignment data
/MRSS/CL_SGE_CHECK_ASG_TIME	Checks for time-dependent alerts
/MRSS/CL_SGE_CHECK_ASG_TR	Checks for demands with a date rule
/MRSS/CL_SGE_CHECK_QUAL	Checks for resource qualifications
/MRSS/CL_SGE_CHECK_DEM	Checks for demands
/MRSS/CL_SGE_CHECK_DEMAND	Checks for demands
/MRSS/CL_SGE_CHECK_DEM_T	Checks to determine whether demand was planned on time

- In Customizing for SAP Multiresource Scheduling, you have assigned the existing check classes and defined the check profile under [Check Profile](#).

Features

- **Resource Utilization**

The availability is calculated using the basis availability and the time allocations. The utilization data is calculated from the planned assignments.

- Alerts are generated whenever the resource scheduler creates an assignment for an operation before an availability date is determined.
- Alerts are generated if a personnel resource is overloaded in a specific period.

- **Capacities**

The system checks the resource capacity.

- **Relationships Between Assignments**

The system checks for condition violations between assignments for demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS). The conditions are taken from the underlying order.

The check is usually carried out for assignments. If there is no assignment for a demand, the demand data is taken from the order.

The system carries out the following checks:

- Relationships between assignments or demands
- Concurrency between assignments of several personnel resources for a demand if more than one person is required for the demand

- **Assignment Data**

- The system checks whether the assignments are within the order operation dates. For example, it checks whether an assignment is within the period between the earliest start and latest end date. It also compares the duration of all assignments of a demand with the planned duration of the order operation.
- Assignment not yet started: The system generates this alert if an assignment has not yet been started although the time of the planned start (plus a duration defined in Customizing) has been reached. To determine whether the assignment has been started, the system evaluates its status, which is determined from the time data.
- Assignment not yet finished: The system generates this alert if an assignment has not yet finished even though the planned end time has expired. To determine whether the assignment has finished, the system evaluates its status, which is determined from the time data.
- The system checks whether capacitive assignments overlap with absences or other assignments. It also generates alerts if capacitive assignments are not provided on time. This is the case if the capacitive assignment is not started on time before the scheduled end date minus the planned duration and buffer defined in Customizing.

- **Planned Working Time Frame**

The system checks whether an assignment starts between the normal working time and the planned working time, and whether the duration of the assignment is longer than the normal working time. It also

checks whether the start of the first assignment and the end of the last assignment within the planned working time frame are further apart than the duration of the normal working time.

- **Date Rules**

The system checks demands with date rules from Project System to determine whether the assignments correspond to the date rule defined in the network activity.

- **Qualifications**

When you create an assignment for a personnel resource, the system checks whether the resource's qualifications meet the mandatory requirements of the corresponding order operation.

- **Demands**

- Orders for the same customer: The system generates this alert if there are unplanned demands when you create an assignment, these demands belong to the same customer, and are within a period defined in Customizing. The system also generates an alert if there are assignments for the same customer in this period or if the resource for the assignment belongs to the same resource planning node as the resource for the new assignment. To check the customer to which a demand belongs, the system evaluates a partner role of the order.
- SLA violation: The system generates this alert if no assignment has been created in a specific period before the latest start of a demand. You can specify this period in Customizing.

- **Dates (date-based planning)**

This check is carried out at demand level from the order. The system checks whether an assignment is planned for a demand in good time before the planned start.

More Information

[Alert Monitor \[page 214\]](#)

6.6 Alert Monitor

Use

The Alert Monitor displays all alerts (such as warnings or information) that arise due to the planning situation. Alerts are generated by the system if the resource planner violates conditions when planning an assignment and this is detected when various data is checked (master data, Customizing data, and order data). This is the case, for example, if a personnel resource is overloaded. If the resource planner creates an assignment for this personnel resource, the system checks the employee's normal working time and how many hours of overtime are allowed. If the planned duration of the assignment exceeds the permitted working time, the system generates an alert. Alerts help the resource planner to plan assignments correctly and consistently. Once the resource planner has acknowledged the alerts, he or she can confirm them and thereby remove them from the Alert Monitor. Alerts can be confirmed at user level or at global level.

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, you have carried out the following activities under *Set Up Scheduler Workplace*:

- Define Alert Types
- Define Alert Profiles

Features

- There are different types of alert, which are indicated by the following icons: Information, Warning, Error.
- There are a number of different alert types that can refer to dates, capacities, or availabilities, for example. The way in which the alerts are generated and displayed depends on how the alert type is configured.
- Alerts are displayed in a list in the Alert Monitor. Each alert row contains the category and type of alert, the object (for example, the assignment) associated with the alert, as well as other contextual information.
- The current number of alerts is shown in the toolbar above the resource planning board.
- Choosing *Confirm* allows you to confirm the selected alert for your user. Choosing *Confirm Globally* allows you to confirm the selected alert for all users, that is, the entire organization. The alert is then no longer displayed.

6.7 Assignments in the Web-Based Planning Board

Use

Various functions for assignments are available for resource planning with the Web-based planning board, depending on the view you choose to get an overview of the current resource planning situation.

You can use various functions for assignments in the list view as well as in the Gantt charts shown in the resource view and in the demand view.

Prerequisites

- You have activated the relevant objects (views, toolbar buttons, and context menu entries) in the user settings. For more information, see [User-Specific Configuration \[page 184\]](#).
- If you want to create notes for assignments, you must be authorized to do so (authorization object /MRSS/NOTE). In addition, you must have activated the use of assignment notes in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Note Management Settings* ►.
- If you want to create assignments in pre-booking mode, you must be authorized to do so (authorization object /MRSS/PREB). In addition, you must have made settings in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Assign Objects* ► *Status* ► *Assign Pre-Booking Status* ►.

Features

Functions for Assignments in the List View

In the [Assignments](#) screen area that is shown in the list view, you can do the following:

- Create assignments
- Display, delete, and change existing assignments
- Display time zone dependent details for an assignment

Functions for Assignments in the Resource View

In the Gantt chart shown in the resource view, you can do the following:

- Create assignments
- Edit assignments
- Split assignments
- Copy assignments
- Cut out assignments
- Concretize assignments
- Delete assignments

Functions for Assignments in the Demand View

In the Gantt chart shown in the demand view, you can do the following:

- Create assignments
- Edit assignments
- Split assignments
- Copy assignments
- Cut out assignments
- Concretize assignments
- Delete assignments

More Information

- [Creating and Editing Assignments in the Web-Based Planning Board \[page 217\]](#)
- [Manual Splitting of Assignments \[page 223\]](#)
- [Assignment Copy \[page 223\]](#)
- [Cutting Out of Assignments \[page 224\]](#)
- [Detail View for Assignment \[page 225\]](#)

6.7.1 Creating and Editing Assignments in the Web-Based Planning Board

Use

You have different options to create and edit assignments in the Web-based planning board, depending on the view you choose.

i Note

Make sure that you are in change mode when you want to create or change assignments. If you are in display mode, choose [Change](#) from the top menu to switch to change mode.

Procedure

Creating Assignments in Pre-Booking Mode

Provided that you are authorized to do so, you can create preliminary assignments with limited visibility. Assignments that are created in pre-booking mode are allocated a special status and are only visible to authorized resource planners and only when pre-booking mode is active. You can use this function when creating assignments in the resource view and in the demand view. Proceed as follows:

1. To activate pre-booking mode, choose  [Pre-Booking Mode On](#) in the JGantt chart or  [Pre-Booking Mode On](#) in the UI5 Gantt chart.

When pre-booking mode is active, the icon changes to  [Pre-Booking Mode Off](#) in the JGantt chart or  [Pre-Booking Mode Off](#) in the UI5 Gantt chart. To deactivate pre-booking mode, choose the pushbutton again.

2. Create assignments as described below.

Creating and Editing Assignments in the List View

In the list view, you can display the details for an assignment, edit or delete an existing assignment, and create new assignments.

To **edit existing assignments** for a resource, proceed as follows:

1. Select a resource in the [Resources](#) screen area and choose [Assignments](#).
The table in the [Assignments](#) screen area is filled with data.
2. Select an assignment and choose the respective icon to edit the assignment.
The assignment detail screen opens.
3. Make entries as required.
4. To simulate the results without saving your changes, choose [Calculate](#). To save your changes, choose [Apply](#).

To **create an assignment**, proceed as follows:

1. Select the resource for which you want to create an assignment.
2. Select the demand for which you want to create an assignment.

3. Choose [Create Assignment](#).
The assignment detail screen opens.
4. Make entries as required.
You can change the resource if necessary. You can also create an assignment for multiple resources. For more information, see [Plan for Multiple Resources for a Demand \[page 219\]](#).
5. Choose [Apply](#).
The assignment is displayed in the [Assignments](#) screen area.

Creating and Editing Assignments in the Resource View

In the resource view, you can create assignments in the Gantt chart or from the [Demands](#) screen area. You can also edit or delete existing assignment directly in the Gantt chart.

To **edit existing assignments**, right-click on an assignment in the Gantt chart and choose the respective context menu entry.

i Note

If you only want to change the duration of an assignment, you can resize the assignment bar manually using the mouse cursor.

In the UI5 Gantt chart, this manual resizing is only possible for the assignment bars, but not for travel time bars or processing time bars. To change travel times or processing times, you must change the data in the assignment details screen.

To **create an assignment** in the JGantt chart, proceed as follows:

1. In the [Demands](#) screen area, select the demand for which you want to create an assignment.
2. Choose  in the [Draft](#) column.
The system creates a draft version of the assignment in the draft row of the Gantt chart.
3. Drag and drop the draft onto the required position in the Gantt chart and edit the assignment further if necessary.

You can also create an assignment by drawing it directly in the JGantt chart. To do so, proceed as follows:

1. (Optional) Select a demand in the [Demands](#) screen area.
2. Choose [Assignment](#) in the [Drawing Selection](#) dropdown box and draw the assignment in the resource row.
A dialog box appears.
3. Make entries as required on the [Assignments](#) tab.
4. Choose [Apply](#).

To **create an assignment** in the UI5 Gantt chart, proceed as follows:

1. (Optional): Select a demand in the [Demands](#) screen area.
2. Double-click at the desired position in the Gantt chart. A dialog box opens.
3. Make entries as required on the [Assignments](#) tab.
4. Choose [Apply](#).

Creating and Editing Assignments in the Demand View

To **edit existing assignments**, right-click on an assignment in the Gantt chart and choose the respective context menu entry.

To create an assignment in the JGantt chart, you can draw it directly in the Gantt chart.

To create an assignment in the UI5 Gantt chart, double-click at the desired position in the Gantt chart and make entries as required on the [Assignments](#) tab.

Creating Assignments from the Employee Search Result

You can also create assignments after you have carried out an employee search for a demand or the Free Employee Search. For more information, see [Employee Search for a Demand and Free Employee Search](#). [page 547]

1. Select a demand and perform a search for suitable resources. Alternatively, perform the Free Employee Search without selecting a demand.
2. Select an employee in the results list and choose [Create Assignment](#). The system displays the assignment detail screen.
3. Proceed as described above.

6.7.2 Plan for Multiple Resources for a Demand

Use

If you have a demand for which you have to plan multiple resources, you can do this in one step when you create a new assignment.

Activities

1. You create an assignment with the required dates from the [Assignments](#) screen area.
2. To plan multiple resources for a demand at the same time, open the [Details for Assignment](#) dialog box and call the input help (F4) for the [Resource](#) field. Select the resources that you want to plan.
3. After you have selected and confirmed multiple resources, the entry [Multiple Resources](#) appears in the [Resource Name](#) field.
4. For each of the specified resources, the system creates an assignment for the required time, date, and duration of the demand.

i Note

Assignments are independent from one another from the moment that they are created, and as such cannot be processed at the same time. Before you save, you can undo the creation.

More Information

[Creating Assignments](#) [page 217]

6.7.3 Capacitive Assignments

Use

By creating capacitive assignments, you can assign a task to an employee that must be completed within a specific period of time, but that does not require the whole timeframe. By comparison, the duration of a concrete assignment corresponds exactly to the time between the start and end of the assignment.

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, you have defined the demands for which capacitive planning is allowed by choosing ► *Sources of Demand* ► *Control Capacitive Planning* ►.

Features

- The system determines the start and end times of the capacitive assignment from the demand data.
- You can plan an assignment for which capacitive planning is allowed or intended as a non-capacitive assignment (fixed posting or reservation) as well. You do this by changing the assignment type in the assignment details. In this case, the system determines the start time from its placement on the time line and calculates the end time from the duration of the assignment.
- You can plan a concrete assignment as a capacitive assignment by changing the assignment type.
- You cannot split a capacitive assignment.

i Note

In contrast to the planning board in the SAP GUI, there is no separate row for capacitive assignments in the Web-based planning board (neither in the UI5 Gantt chart nor in the JGantt chart). Capacitive assignments are displayed in the common resource row.

Time data is not visible in the Web-based planning board at all.

Activities

1. You create an assignment.
2. In the assignment details, you choose the *Capacitive Assignment* entry under *Assignment Type*.

More Information

[Concretization of Capacitive Assignments \[page 221\]](#)

6.7.3.1 Concretization of Capacitive Assignments

Use

You can convert an assignment that you previously created as a capacitive assignment into a concrete assignment or multiple concrete assignments.

Activities

Converting a Capacitive Assignment Into Concrete Assignments

1. You select the relevant assignment in the Gantt chart.
2. You choose ► [Assignments](#) ► [Concretize Assignment](#) .
3. The system displays the [Concretize Assignment](#) screen area. In the upper area, you see the data for the capacitive assignment.
4. If you choose [Add](#), the capacitive assignment data is then copied to the lower area in change mode. The concrete assignment thus corresponds to the capacitive assignment.
5. If you choose [Add](#) again, the same data is displayed in a second line. Both lines can now be edited.
6. You can create concrete assignments for the original capacitive assignment by entering the assignment type, the start and end times, the relevant validity, and the duration for each assignment.
7. You can still add more lines and further split and concretize the capacitive assignment.
8. You choose [Apply](#) to carry out the concretization.
9. The system creates the new concrete assignments in the planning board.

Creating Regularly Made Concrete Assignments from a Capacitive Assignment

1. You select the required capacitive assignment in the Gantt chart.
2. You choose ► [Assignments](#) ► [Concretize Assignment](#) .
3. The system displays the [Concretize Assignment](#) screen area. In the upper area, you see the data for the capacitive assignment.
4. If you choose [Create Assignments](#), the system displays a dialog box in which you can specify on which weekdays and in what period the regular concrete assignments are to be made.
5. Choose [Apply](#) to carry out the concretization.
6. The system creates the new regular concrete assignments in the planning board.

6.7.4 Stretched Assignments

Use

The duration of stretched assignments is either exactly as long as or shorter than the time difference between the beginning and end of the assignment. Unlike capacitive assignments, the duration of the assignment conforms to the availability of the employee. If an employee begins an assignment at 8:00, for example, has a doctor's appointment from 10:00 to 11:00 (and is therefore not available), then finishes the assignment at

12:00, the system can display this in the planning row as a stretched assignment from 8:00 to 12:00, with an actual duration of three hours.

Prerequisites

- In Customizing under [Sources of Demand](#) [Allow Stretched Assignments](#), you have defined the order types and plants for which the system uses stretched assignments.
- The assignment that you create fulfills this condition from Customizing.

Features

- If the system creates a stretched assignment, it first determines the start and end or duration of the assignment (as is the case with concrete assignments).
- To determine the end of the stretched assignment, the system checks when the employee is available. The assignment therefore stretches over times at which the employee is absent (weekend, holiday, or other time allocations such as vacation or sickness), without the system considering these times in the duration of the assignment.

Update of Stretched Assignments If Resource Availability Changes

If the availability of the assigned resource changes, you may have to manually adjust the start and end dates of the stretched assignment. This depends on whether the resource availability is changed in SAP Multiresource Scheduling or whether it is changed in SAP ERP HCM. The following applies:

- If the availability is changed in SAP Multiresource Scheduling, the system automatically adjusts the assignment start or end.
- The system does not update stretched assignments that are in parallel with time allocations created by running report `/MRSS/WFM_MASTERDATA_ADMIN_HR`. However, the system updates the resource capacity graphs and shows the overutilization of the resource in the planning board.
- If the availability is changed in SAP ERP HCM (and transfer report `/MRSS/HCM_RPTWFMIF` is run), the system does not update the assignment dates automatically. Instead, the system raises alert 261 or 288. You must adjust the assignment start and end manually.

Activities

1. You create an assignment.
2. In the assignment details, you choose the [Stretched Assignment](#) entry under the Assignment Type.

6.7.5 Manual Splitting of Assignments

Use

You can split assignments in the resource view or in the demand view. Depending on your user settings, you can either split the assignment into two halves or you can perform a custom split, that is, you can split the assignment at any given point.

Prerequisites

If you want to perform a custom split, you must activate this function in the user settings under ► [Gantt Settings](#) ► [General](#) ►.

Activities

Proceed as follows:

1. Select an assignment in the Gantt chart.
2. Right-click on the assignment and choose [Split Assignment](#) in the context menu.
3. If you have not activated the custom split function, the system splits the assignment into two halves. If you have activated the custom split function, click on the point at which you want to split the assignment.
4. Move the assignment parts to the desired place in the Gantt chart using drag and drop.

6.7.6 Assignment Copy

Use

You use this function when the following two requirements are met:

- You want to plan a resource for an assignment that stretches over several days.
- The system does not allow splits. You must therefore create multiple assignments for the resource.

To make it easier to create assignments, you can create an initial assignment and then use it as a template for the other assignments (that can be either before or after the first assignment).

Activities

In the JGantt chart, perform the following steps:

1. You select an assignment.
2. You choose ► [Assignments](#) ► [Copy Assignment](#) ►.
3. The system creates a draft version of the assignment with the copied assignment details in the draft row of the Gantt chart.
4. You transfer the draft to the required period for the selected resource using drag and drop.

In the UI5 Gantt chart, perform the following steps:

1. Select an assignment.
2. Choose [Copy Assignment](#) from the context menu.
3. Place the cursor at the desired position and choose [Paste Assignment](#) from the context menu.

6.7.7 Cutting Out of Assignments

Use

If you want to correct your resource planning for demands, you can cut out parts of concrete or stretched assignments, which you can then delete, move to the end, or assign to a different resource. You cannot use this function for capacitive assignments.

Activities

1. To cut out assignments, select an assignment in the Gantt chart shown in the resource view or in the demand view.
2. Choose [Cut Assignment](#) in the context menu.
3. In the [Cut Assignment](#) window that opens, the system displays the current resource and the demand. Specify the following:
 - The start and end of the assignment segment you want to cut out
 - The action you want to perform with the assignment segmentFor example, you can remove the segment or attach it to the front or end of the original assignment.

Note

- In the case of stretched assignments, the total duration of the resulting assignments may differ from the duration of the original assignment.
- If a resulting assignment has zero duration, the system does not allow you to cut out the segment.

4. Choose [Cut](#).

Assign Assignment Segment to Resource

To cut out part of the assignment and assign it to a different resource, choose [Assign Assignment Segment to Resource](#). The new resource that you specify in the [For Resource](#) field must be assigned to the current resource planning node of the demand. You can use the input help to select this type of valid resource.

❖ Example

An assignment of Mr. Müller is to start at 08:00 and last until 11:00. You cut out one hour between 09:00 and 10:00 and assign it to Ms. Schmidt. Result: Mr. Müller now has two assignments, one from 08:00 to 09:00 and one from 10:00 to 12:00. Ms. Schmidt has one assignment from 09:00 to 10:00.

Attach Assignment Segment to End

To cut out part of the assignment and attach it to the end of the assignment for the same resource, choose [Attach Assignment Segment to End](#).

i Note

In the case of stretched assignments, the system determines the end date of the second resulting assignment so that the total duration remains unchanged.

❖ Example

An assignment of Mr. Müller is to start at 08:00 and last until 11:00. You cut out one hour between 09:00 and 10:00 and attach it to the end of the assignment. Result: Mr. Müller now has two assignments, one from 08:00 to 09:00 and one from 10:00 to 12:00.

Remove Assignment Segment

To cut out and delete part of the assignment, choose [Remove Assignment Segment](#).

❖ Example

An assignment of Mr. Müller is to start at 08:00 and last until 12:00. You remove one hour between 09:00 and 10:00. Result: Mr. Müller now has two assignments, one from 08:00 to 09:00 and one from 11:00 to 12:00.

6.7.8 Detail View for Assignment

Use

You can call up the detail view for the assignment in the list view, in the resource view, and in the demand view.

Features

The detail view for the assignment provides various functions, such as:

- You can allocate the assignment to another resource.

- You can change the duration and dates of the assignment.
- You can change the assignment type (see [Stretched Assignments \[page 221\]](#) and [Capacitive Assignments \[page 220\]](#)).
- You can specify the utilization of the resource by the assignment (default value is 100%).
- You can display the status list for the assignment.
- You can specify whether or not the assigned resource or the assignment dates may be changed during the optimization or the automatic creation of assignments.
- You can specify whether or not the assignment dates and the duration follow the demand dates and are therefore not editable. You must activate this function in Customizing for the Web UI profile.
- Provided that you are authorized to do so, you can also create a note for the assignment.

In addition to the [Assignment Details](#) tab, you can also display additional tabs showing the travel time details, the travel route, and the processing time details for the assignment. Note that you must activate the display of travel and processing times in the user settings.

Activities

To call up the detail view in the resource view or in the demand view, you select an assignment in the Gantt chart and choose [Edit Assignment](#) in the context menu.

To call up the detail view in the list view, select a resource in the [Resources](#) screen area and choose [Assignments](#). In the [Assignments](#) screen area, you can then display the detailed view for an assignment by choosing the [Display](#) icon.

6.7.9 Time Allocations

Use

You can manually change the availability of a resource. To do so, you can create a time allocation in the resource view of the Web-based planning board. This may be necessary if an employee becomes ill, for example. The basic availability (for example, working time and shifts) of a resource remains unaffected.

Prerequisites

- You have defined time allocations in Customizing for [SAP Multiresource Scheduling](#) under ► [Basis \(Time Allocations\)](#) ► [Define Time Allocation Types](#) ► and [Assign Time Allocation Types to Resource Types](#).
- You have assigned the time allocation types in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- You have activated the relevant objects (toolbar buttons and context menu entries) in the user settings.

Features

- When you allocate times for a personnel resource, you can choose between the various options, depending on the Customizing settings, for example:
 - Vacation
 - Illness
 - Overtime hours
- The time allocations for the individual resources are displayed in the Gantt chart shown in the resource view.
- You can move time allocations in the Gantt chart using drag and drop. You cannot move time allocations to other employees.
- You can edit and delete time allocations.

Planning Periodic Time Allocations

If you are using resources from SAP ERP HCM, you can create time allocations that are repeated at regular intervals for one or more resources using report `/MRSS/WFM_MASTERDATA_ADMIN_HR` (transaction [/MRSS/WFM_ADMIN_HR](#)).

If you are working with business partner resources, you can create recurring time allocations using report `/MRSS/WFM_MASTERDATA_ADMIN` (transaction [/MRSS/WFM_ADMIN](#)).

For more information, please see the report documentation in the system.

Activities

- To edit or delete an existing time allocation, you right-click on the time allocation bar in the Gantt chart and choose the respective entry in the context menu.
- To create a new time allocation for a resource using the JGantt chart, you have the following options:
 - You select the resource in the resource list and choose  in the Gantt chart toolbar. A detail screen opens on which you can enter the time allocation details.
 - You choose [Time Allocation](#) in the [Drawing Selection](#) dropdown box and draw the time allocation directly in the resource row. A dialog box opens in which you enter the time allocation details on the respective tab.
- To create a new time allocation for a resource in the UI5 Gantt chart, you have the following options:
 - You select the resource in the resource list and choose  [Create Time Allocation](#) in the Gantt chart toolbar. A details screen opens on which you can enter the time allocation details.
 - You choose [Time Allocation](#) in the [Creation Mode](#) dropdown box and double-click at the desired position in the Gantt chart. A dialog box opens in which you enter the time allocation details on the respective tab.

More Information

[User-Specific Configuration \[page 184\]](#)

6.8 Changing Demands in the Web-Based Planning Board

Use

If the required settings are in place, you can use the views provided in the Web-based planning board to make changes to demands:

- The **demand view** provides the widest range of demand-related functions. In this view, you can use the demand Gantt chart to display and edit demands. If you have activated the display of the demand list in the user settings, you can also use the functions provided in the demand list.
- In the **resource view**, you can use the functions provided in the demand list.
- In the **list view**, you can use the functions provided in the demand list.

What changes you can make depends on the demand type. For example, you can use capacity leveling to move demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS). For more information, see [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#).

Prerequisites

- You must activate the relevant context menu entries and buttons in the user settings. For more information, see [User-Specific Configuration \[page 184\]](#).
- Demand changes must be allowed in Customizing. You can find the relevant setting under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).

i Note

If a demand has been marked as confidential, it can only be changed by users with the relevant authorization, irrespective of whether or not demand changes have been allowed in Customizing.

Whether or not you can change a demand also depends on the type of demand. For example, you cannot make changes to demands that are based on cProjects. For other demand types, additional Customizing settings may be necessary.

- If you want to allow changes to demand dates, you must activate the backward integration of data for the appropriate demand types. You do so in Customizing under ► [Sources of Demand](#) ► [Activate Backward Integration of Data](#) ►.

Features

- To change the demand start and end dates, you have the following options:
 - You can move the demand in the demand Gantt chart by dragging and dropping it on the desired date and time.

- You can open the demand details and change the dates there.
In the demand Gantt chart, you do so by choosing the relevant context menu option. In the demand list, you do so by choosing the relevant button.
- Depending on the type of demand, you can also change other data on the demand detail screen. This may include information such as priority, work center, or scheduling type.
- For demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), you can use the functions related to capacity and demand planning to change demands. For example, you can move demands for the purpose of capacity leveling or you can create relationships between demands. For more information, see [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#).
- You can set statuses for demands. For more information, see [Setting Statuses for a Demand \[page 693\]](#).

i Note

You can also open the demand in the source system. For more information, see [Navigating to the Source of a Demand \[page 232\]](#).

More Information

- [Demand List \[page 229\]](#)
- [Navigating to the Source of a Demand \[page 232\]](#)
- [Setting Statuses for a Demand \[page 693\]](#)
- [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#)

6.8.1 Demand List

Use

The demand list is shown in the *Demands* screen area and contains all demands for which the resource planner is responsible. The demands that are assigned to the resource planner depend on a resource planning node (such as an organizational unit) and a defined period.

The demand list is available in the list view, the resource view, and the demand view.

i Note

To obtain an overview of the resources that are assigned to a given demand, you can also use the staffing view. For more information, see [Staffing View \[page 193\]](#).

Prerequisites

- To define the default layout for first-time users of the Web-based planning board, you make settings in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ►

[Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#). For more information, see the documentation in the system.

You can also customize the demand list in the user settings by activating or hiding the available buttons under ► [Settings](#) ► [General](#) ► [Table Functions](#).

- To display the demand list as part of the demand view, activate the relevant user setting under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#).
- Some of the functions described below can only be used if you have allowed demand changes in Customizing activity [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#). These functions are indicated in the table below.

Features

- The planning status of a demand (at header and item level) is displayed with the following icons:
 -  Booking status: Open
 -  Booking status: Partially Booked
 -  Booking status: Booked
- The following table shows important functions that you can use in the demand list:

Function	Can Be Activated or Hidden in User Settings	Demand Changes Need to Be Allowed	More Information
Displaying existing assignments for a demand	Yes	No	Choose the Planned Resources per Job button to display assigned resources and assignment details.
Creating draft assignments for a demand	Yes	No	Creating and Editing Assignments in the Web-Based Planning Board [page 217] i Note This function is only available in the resource view.
Splitting a demand	Yes	No	Demand Split [page 235]
Displaying the split history	Yes	No	Split History [page 237]
Displaying time rules for a demand	Yes	No	Choose the relevant button to display time rules. This function is only relevant for demands with time rules.

Function	Can Be Activated or Hidden in User Settings	Demand Changes Need to Be Allowed	More Information
Displaying and changing demand details, including custom fields	Yes	Yes, if you want to change demand dates or other fields in the demand details	Changing Demands in the Web-Based Planning Board [page 228]
Printing documents and shop papers for a demand	Yes	No	Demand Document Printing in the Web-Based Planning Board [page 204] i Note This function is only available for demands from Plant Maintenance (PM) and Customer Service (CS).
Assigning tools to demands	Yes	No	Using Tools in the Web-Based Planning Board [page 589]
Displaying, creating, and editing demand bundles	Yes	No	Bundling of Demands [page 520]
Deleting demand bundles	Yes	No	Bundling of Demands [page 520]
Removing a demand from a bundle	Yes	No	Bundling of Demands [page 520]
Displaying demands according to a user-specific hierarchy	No	No	Creating User-Specific Hierarchies [page 205]
Expanding and collapsing rows in hierarchical display	Yes	No	Creating User-Specific Hierarchies [page 205]
Calculating intermediate results for selected columns	No, available in the settings dialog directly in the demand list	No	To select the columns based on which you want to calculate the results, in the settings dialog for the demand list make settings on the <i>Calculation</i> tab.
Opening the underlying source of demand (document)	No, this function needs to be activated in Customizing Display of the context menu option must be activated in the user settings	No	Navigating to the Source of a Demand [page 232]

Function	Can Be Activated or Hidden in User Settings	Demand Changes Need to Be Allowed	More Information
Setting a status for a demand	Yes	Yes	Setting Statuses for a Demand [page 693]
Triggering the parts availability check	Yes	Yes	Parts Availability Check [page 592]
Displaying the qualifications required by a demand	Yes	No	Displaying the Required Qualifications for a Demand [page 555]
Searching for suitable employees for a demand	Yes	No	Finding Suitable Employees in the Web-Based Planning Board [page 547]

More Information

[Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#)

6.8.2 Navigating to the Source of a Demand

Use

You can open the underlying sources of demand in the Web-based planning board. You can use this function for demand items (single demands) as well as for demand headers (complex demands). You can navigate to the following sources of demand:

- Orders and operations from Plant Maintenance (PM) and Customer Service (CS)
- Notifications from Plant Maintenance (PM) and Customer Service (CS)
- Networks and activities from Project System (PS)

i Note

You cannot navigate to WBS elements and PS projects.

- Service orders and items from SAP CRM
- Requests from Web-based resource management
- cProjects roles

You can use this function in the [Demands](#) screen area and in the demand view Gantt chart. You can also navigate to the source of a demand when in staffing view.

Prerequisites

- You have activated the navigation function for the desired demand types in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► *Web-Based User Interface* ► *Define User Interface Profiles (JGantt Chart)* ► or *Define User Interface Profiles (UI5 Gantt Chart)*.

Note

If you activate this function for PS networks and operations, you automatically allow the navigation to RM Web requests.

- You have activated the respective demand context menu option in the user settings. For more information, see [User-Specific Configuration \[page 184\]](#).

Integration

The SAP GUI for HTML technology is used for displaying the “classical” SAP GUI transactions. For more information, see SAP Note [314568](#)  and [Displaying Transactions Using the SAP GUI for HTML \[page 922\]](#).

Activities

- In the demand list, you click the demand ID to open the source of the demand.
- In the demand Gantt chart, you choose *Open Document* from the context menu for the demand to open the source of demand.
- The system opens the respective transaction in the source system of the demand using the SAP GUI for HTML.

More Information

- [User-Specific Configuration \[page 184\]](#)
- [Displaying Transactions Using the SAP GUI for HTML \[page 922\]](#)
- [Table-Based Resource Planning \[page 192\]](#)
- [Demand List \[page 229\]](#)
- [Resource Planning with the Gantt Chart \[page 187\]](#)

6.8.3 Setting Statuses for a Demand

Use

You can set statuses for a demand in the Web-based planning board. You can open the status dialog box using the context menu for a demand in the demand Gantt chart or using the button in the demand list.

If the relevant Customizing settings are in place, you can also set a specific status directly from the context menu for a demand.

Prerequisites

- A status profile must be available in the source system of the demand (transaction **BS02**).
- In Customizing for SAP Multiresource Scheduling, the required settings must be in place:
 - Status mapping must be set up correctly under ► [Basic Settings](#) ► [Assign Objects](#) ► [Status](#) ►.
 - The status dialog box must be configured under ► [Set Up Scheduler Workplace](#) ► [Define Tab Pages and Buttons for User Statuses](#) ►.
 - The display of statuses in the Web-based planning board must be configured at Web UI profile level. This is done under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).For more information, see the Customizing documentation in the system.
- To display the context menu entries and the button in the Web-based planning board, the relevant user settings must be active:
 - You can activate the context menu entries under ► [Extras](#) ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#) ►.
 - You can activate the [Set Status](#) button under ► [Extras](#) ► [Settings](#) ► [Table Functions](#) ►.

Features

- You have two options to open the status dialog box:
 - In the demand Gantt chart, you choose [Set Status](#) from the context menu for a demand.
 - In the demand list, you choose the [Set Status](#) button in the toolbar.
- The status dialog box allows you to set all user statuses that are included in the status profile of the selected demand and that have been configured in Customizing for the Web UI profile:
 - Numbered statuses are listed using radiobuttons. You can only select one numbered status at a time. The number defines the possible follow-on statuses for a particular status.

Note

If the status that is currently set for a demand has not been configured for display in the status dialog box, the system shows a [Currently Active](#) radiobutton. This button is selected when you

open the status dialog box. Once you select another radiobutton, the *Currently Active* radiobutton disappears.

- Statuses without number are listed using checkboxes.
You can activate one or more of these statuses.
- If your system has been configured accordingly, you can directly set a specific status for a demand using the context menu. The system displays one context menu option for each possible status.

6.8.4 Demand Split

Use

If you want to split a demand and distribute it to different resources or resource planning nodes, use the demand split. You can split demands from both order operations and projects.

i Note

Demands from CRM service orders cannot be split.

Prerequisites

- For demands from order operations: An assignment has not yet been created for the demand.
- For demands from network activities: A date rule has not been created for the network activity.
- For demands from projects:
 - For the underlying project of the demand, the Contact Person Process with Manual Resource Confirmation process variant is not selected.
 - For the Contact Person Process Without Manual Resource Confirmation process variant, the demand split is permitted only if the demand is no longer an offer demand.

Features

Demand

This field displays the original demand.

Total Work

Total work of the demand to be split and the number of resources

Resource Planning Node 1

Data for the original demand: All fields are prefilled with the values from the original demand. You can change the start and end dates of the demand.

i Note

With demands from projects, you can also change the number of resources.

Resource Planning Node 2

Data for second demand (new demand that results from the split): The resource planning node as well as the start and end dates are prefilled with the values from the original demand. If you want to reassign the new demand to a different resource planning node, enter this node using the input help. You can also change the values for the total work.

i Note

With demands from projects, you can also change the number of resources.

Covered by Assignments

The system displays the data already covered (duration and resources), which results from assignments already planned for the demand.

Still Open

The system displays values that are still open:

- For total work: current demand less the value from existing assignments and less the value entered for the second resource planning node.
- for the number of resources: values of the current demand less the corresponding values for resource planning nodes 1 and 2.

Activities

You can carry out the demand split in the *Demands* screen area.

1. You can change the dates for the original demand and the new demand. These dates must lie within the planned start and end dates of the original demand.
2. With a demand from a project, you can change the number of resources. You can split the number of resources between the original demand and new demand.
3. When you confirm by choosing **RETURN**, the system adjusts the data in the *Still Open* line accordingly. You can check the effects of your current entries.
4. Once you have confirmed your entries, the system splits the original demand and creates two demands with the data entered.

With a demand from an order operation, the system also creates a new order operation by copying the already existing one. To determine the corresponding work center for the new resource planning node, the system uses the evaluation path defined in Customizing. If this is not clearly defined, you have to enter the work center in a dialog box.

Since a network activity does not have to exist for every demand in the project system, the system assigns the new demand to the network activity of the original demand instead of creating a new network activity.

More Information

[Split History \[page 237\]](#)

6.8.5 Split History

Use

The system creates change documents when a demand is split. For the new demand created, information about the original demand from which it was created is saved. For the original demand, information about the demands into which it was split is also saved.

Features

You call the split history in the [Demands](#) screen area. For each demand split, the system displays a table with the following information:

[Relationships](#)

The entry in the relationships column indicates for which demand the change document information applies.

i Note

You split demand x into demands x' and y. You then split demand y again into demands y' and z. If you now call up the creation of change documents for demand y', the system displays the relationship of demand x as the predecessor and demand z as the successor.

[Demand](#)

Demand ID (for order or project)

[ID](#)

Demand item ID (for order or project)

[Sub ID](#)

ID of demand subitem (suboperation of order or project)

[Duration and duration unit](#)

Demands from order operations

[Total work and total work unit](#)

For demands from projects:

[Start date and time](#)

Current start time of the object or last start time if the object was deleted

End date and time

Current end time of the object or last end time if the object was deleted

Object type

Indicates whether the object to which the split demand was reassigned is a resource planning node or an organizational unit.

Object ID

Indicates the ID of the resource planning node or organizational unit to which the split demand may have been reassigned.

Description

Indicates the name of the resource planning node or organizational unit to which the split demand may have been reassigned.

7 Resource Planning in Plant Maintenance (PM) and Customer Service (CS)

Use

SAP Multiresource Scheduling helps you find and assign suitable resources for demands from the areas of Plant Maintenance (PM) and Customer Service (CS). You can use SAP Multiresource Scheduling with PM and CS orders as well as notifications from these areas.

Since resource planning differs for orders and notifications, only a basic overview of the general process for resource planning in Plant Maintenance and Customer Service is provided at this point.

i Note

We recommend that you set up a global time zone, since there is no time zone support for work centers in SAP ERP. You can find the relevant setting in Customizing for SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►. For more information, see the documentation in the system.

Process

1. As the requester, you create a notification or order relevant for resource planning (for example, with data on the reference object and sold-to party) in SAP ERP (using the [Plant Maintenance](#) or [Customer Service](#) component).
2. The system transfers the data relevant for resource planning to SAP Multiresource Scheduling and creates a demand automatically for each order operation or notification.
3. As the resource planner, you plan resources in the planning board by assigning suitable resources that are required to carry out the tasks to the demands created by the system.
4. You monitor the progress of the execution.
5. If there are variances between the planning situation and the execution situation, you correct your planning.

More Information

- [Resource Planning for Orders from Plant Maintenance \(PM\) and Customer Service \(CS\) \[page 240\]](#)
- [Resource Planning for Notifications from Plant Maintenance \(PM\) and Customer Service \(CS\) \[page 256\]](#)

7.1 Resource Planning for Orders from Plant Maintenance (PM) and Customer Service (CS)

Use

Work packages are planned at operation or suboperation level for orders from the areas of Plant Maintenance (PM) and Customer Service (CS). The process models the collaboration between the requester and the resource planner in the system. During the process, the system transfers planning-relevant demand information to resource planning, and can also update information in the order once the assignment has been created.

Note

If an order operation has suboperations, these are integrated as demand subitems in SAP Multiresource Scheduling. You can use the regular resource planning functions for subitems. For example, you can create assignments for demand subitems. If the transfer of assignment information back to the PM/CS order is set up correctly, the system creates a split for each assignment at the level of the suboperation in SAP ERP.

By contrast, capacity planning is always performed at item level. For example, in the demand planning layout of the planning board, you cannot move subitems independently of the associated demand item or assign different work centers to subitems of the same item. For more information, see [Capacity Planning of Demands from Service and Project System \[page 694\]](#).

Prerequisites

- You must complete the required activities in Customizing for [SAP Multiresource Scheduling](#) under [► Sources of Demand ► PM/CS Orders](#) .
- If you want to allow the creation of capacitive assignments, you must configure the appropriate settings under [► Sources of Demand ► Demand Settings ► Control Capacitive Planning \(ERP\)](#) .
- If you want to update the order in PM/CS once resource planning has been completed successfully in SAP Multiresource Scheduling, you must activate the backward integration of data under [► Sources of Demand ► Activate Backward Integration of Data](#) .
- Make sure that all relevant SAP Multiresource Scheduling users have the required authorizations in the source system of the demand.

Example

If you want splits to be integrated from SAP Multiresource Scheduling back to PM/CS, you must make sure that resource planners are authorized to change PM/CS orders (transaction **IW32**).

If you want to integrate PM order confirmation (transaction **IW41**) data from PM/CS to SAP Multiresource Scheduling, resource planners must also be authorized to use transaction **IW33** ([Display Order](#)). For more information about the integration of confirmation data in SAP Multiresource Scheduling, see SAP Note [1635455](#) .

- You must read and (if applicable) implement SAP Note [2164319](#) .

Process

The process can run as follows, for example:

1. You (or the service employee responsible) create a service order relevant for resource planning and specify the required data:
 - So that the system creates a demand with suitable requirements, you can enter a requirements profile directly in the order operation under [General Operation Data](#).
The system specifies the requirements profile defined in the equipment or material master as the default value, provided that this requirements profile exists. If you have changed the requirements profile manually, automatic determination is deactivated. To determine the default requirements profile again, choose .
 - To enable the system to assign the operation to a resource planner, you have to enter a work center that is assigned to a resource planning node. You can use the input help to select a work center from the resource planning structure.
2. At the header level of the order, you choose the [Scheduling](#) pushbutton to create the completion deadlines for the order. Depending on the system setting, one of the following applies:

- **Resource planning without system-supported appointment booking (internal scheduling)**

The system determines the sequence of operations and proposes basic dates for carrying out the order. Depending on the scheduling direction, a start or end date is determined.

i Note

Internal scheduling is a standard SAP function and is not modified by SAP Multiresource Scheduling. You can use the [Utilization of Personnel Resources](#) function (transaction /MRSS/UTILREP) to help you define the basic dates and select work centers. For more information, see [Utilization of Personnel Resources \[page 171\]](#).

- **Resource planning with appointment booking (external scheduling)**

The system determines basic dates for the start and end of the order. The system also determines and proposes potential start and end dates based on the available capacity. For more information, see [Appointment Booking with a PM/CS Order \[page 254\]](#).

3. As soon as you save or release the order (depending on the Customizing setting), the system transfers the following information to SAP Multiresource Scheduling and creates a demand for each planning-relevant operation:
 - Start and end date (from operation dates)
 - Duration of the demand (from work of operation)
If a value is not specified for the work in the operation, the system uses the default value specified in Customizing.
 - Number of resources
 - Requirements profile
 - Resource planning node of demand (from work center)
 - Operation user status:
 - Fixed date

- Date agreement required
- Required date
- Capacitive planning

i Note

The system sets the *Capacitive?* indicator if capacitive planning is to be used for the operation in accordance with the Customizing settings. If a fixed date is set, the system excludes capacitive planning from the outset.

- SLA dates
The SLA dates are taken from the header notification of the order (planned start and end date). To ensure that the system uses the correct header task, the task code for the task relevant to SAP Multiresource Scheduling is defined in Customizing under ► [Basic Settings](#) ► [Assign Objects](#) ►.
- Status
- Partner

i Note

Exactly what information is displayed to the resource planner in the *Scheduler Workplace* depends on the worklist profile configured in the Customizing settings.

- As the resource planner, you create one or more assignments for the demand.
If backward integration is activated, the system can update the following data in the order or order operation:
 - Status (for example, order contains assignments, assignment is capacitive) if a corresponding ERP status is assigned
For more information, see [Backward Integrating SAP Multiresource Scheduling Data to PM/CS](#). [page 249]
 - Work center of the employee or original work center for the resource planning node if an assignment has been deleted
 - Work
 - Header notification if an item task for assignments is defined for the affected notification type

i Note

For each assignment that belongs to the demand of an order, the system creates an item with an item task in the relevant header notification, or deletes it if assignments have been deleted. The item number is determined using a Business Add-In (*BAdI: Tasks for Notification* /MRSS/ RAC_NOTIF). If this BAdI has not been implemented, the system uses the operation task that belongs to the assignment as the default value.

The task in which the assignment is written depends on your Customizing settings. The planned start and end dates of the task are determined using the corresponding assignment information (date and time).

- Site Supervisor indicator on the *Enhancements* tab page if this has been set for the demand.
The field name is determined with the BAdI *Determination of Technical Field Names* (/MRSS/ RSG_TECH_FIELD_DET).
- Changed dates and work
These changes cause the order to be rescheduled.

Other Cases

Automatic Assignment Creation

For more information, see [Automatic Assignment Creation \[page 250\]](#).

1:1 Relationship Between Assignment and Demand

You can activate the following system behavior in Customizing for SAP Multiresource Scheduling by choosing

► *Sources of Demand* ► *Activate 1:1 Relationship of Assignments and Demands for Order Types* ►:

- If assignments are created for several resources, for example, the system automatically creates new demands for these assignments to ensure a 1:1 relationship between demand and assignment. It also deletes demands if assignments are deleted.
- If a demand is created automatically, the system creates the corresponding operation in the service order as part of backwards integration.
- If a demand is deleted automatically, the system deletes the corresponding operation in the service order. The system does not delete the operation if it is already confirmed or if the operation status prevents the deletion action.

Assignment Transfer from Existing Demand

With cross-functional resource processing, it may be necessary to transfer assignments from existing demands. Using the BAdI [Control of Cross-Functional Resource Processing \(/MRSS/INTER_COMPANY\)](#), the system decides whether cross-functional resource processing is required.

If so, it takes the following steps:

1. It determines an “original operation” based on the operation information.
2. It assigns the assignments of the original demand to the new demand.
3. It closes the original demand.

This function is executed only when a demand is created for the corresponding operation for the first time.

Notes on the Update of Demand Data

If you change the service order in SAP ERP (PM/CS), the system updates the demand in SAP Multiresource Scheduling without locking the corresponding service order in SAP ERP. For more information, see SAP Note [2221941](#) .

If your system is set up so that data is sent from SAP Multiresource Scheduling to SAP ERP (PM/CS) using asynchronous processing (multi back-end system landscape), the following applies: If you have carried out actions for a demand and want to continue processing this demand immediately after saving the planning board, you must refresh the planning board completely. Only then can you be sure to be working with the latest demand data in the planning board.

More Information

[Integrating Operation Data into SAP Multiresource Scheduling \[page 247\]](#)

[Backward Integrating SAP Multiresource Scheduling Data to PM/CS \[page 249\]](#).

7.1.1 Integration of Splits

Use

You can transfer assignments that are created for PM/CS demands from the SAP Multiresource Scheduling system into the SAP ERP system. During the backward integration, for each assignment a split is created in the corresponding order operation. The system determines the correct split number when creating an assignment and transfers this information back into the SAP ERP system.

Similarly, you can transfer splits, that is, employee requirements records, from the SAP ERP system to the SAP Multiresource Scheduling system. During the forward integration, an assignment is created for each split in SAP Multiresource Scheduling.

Prerequisites

- If you want to use the backward integration of splits, you must activate the backward integration of data in Customizing under ► [Sources of Demand](#) ► [Activate Backward Integration of Data](#) ►.
- You have activated the forward and backward integration of splits (as required) in Customizing under ► [Sources of Demand](#) ► [PM/CS Orders](#) ► [Activate 1:1 Relationship of Assignments and Demands for Order Types \(ERP\)](#) ► [Control Integration Between MRS and PM/CS \(ERP\)](#) ►.
- The 1:1 relationship between assignments and demands is **not active** for demands that originate from PM/CS orders. You can check this in Customizing for [SAP Multiresource Scheduling](#) under ► [Sources of Demand](#) ► [PM/CS Orders](#) ► [Activate 1:1 Relationship of Assignments and Demands for Order Types \(ERP\)](#) ► and ► [Sources of Demand](#) ► [Activate 1:1 Relationship of Assignments and Demands for Demand Categories](#) ►.

Features

- If the forward integration is active, the system integrates splits that are created for PM/CS order operations in the SAP ERP system as assignments into SAP Multiresource Scheduling. If you have activated the forward integration of splits without activating the backward integration of splits, the following applies:
 - All splits that are created on the [Requirements Assignment](#) tab in SAP ERP are integrated into SAP Multiresource Scheduling along with the split number.
 - If you change the assignments in the planning board and save your changes, the assignment data is overwritten with the original split data, thus making your changes practically ineffective.
 - Assignments that you create in the planning board for the respective PM/CS order are never integrated into SAP ERP and are not reflected as splits on the [Requirements Assignment](#) tab. Therefore, you can change these assignments as desired in the planning board.
- If the backward integration is active, the system integrates assignments that are created for a PM/CS demand in the SAP Multiresource Scheduling system as splits into the SAP ERP system. Each split is assigned a split number.

i Note

You can create a maximum of 255 split numbers for one order operation. Make sure to keep the number of splits as low as possible. A high number of splits might lead to performance issues in SAP Multiresource Scheduling as well as in the Plant Maintenance processes. Besides, a high number of splits is also hard to handle from a business perspective. To avoid high numbers of splits, we recommend to create a new order or additional order operations. Alternatively, you can use stretched assignments in SAP Multiresource Scheduling to reduce the number of splits.

If you have activated the backward integration of splits without activating the forward integration of splits, the following applies:

- Splits that are created on the [Requirements Assignment](#) tab in SAP ERP are not integrated into the SAP Multiresource Scheduling system.
- If you create assignments for the respective PM/CS demand in the planning board, the assignments are integrated as splits into SAP ERP, thus overwriting the splits that were created on the [Requirements Assignment](#) tab in SAP ERP.

❖ Example

In SAP ERP, an order is created with two split entries both assigned to resource A. The order is integrated as a demand into SAP Multiresource Scheduling, but the splits are not represented as assignments in SAP Multiresource Scheduling.

In the planning board, you create one assignment for the demand for resource B. After saving the planning board, the system transfers the assignment to SAP ERP. On the [Requirements Assignment](#) tab, the first split entry is overwritten with the information coming from SAP Multiresource Scheduling (that is, assignment made to resource B). The second split entry is deleted since only one split was transferred from SAP Multiresource Scheduling to SAP ERP.

- When you create an assignment for a demand that already has assignments (that is, splits already exist for the corresponding PM/CS operation), the system reads the existing split numbers and determines the next available number. On integrating the assignment information back into the SAP ERP system, the system assigns this number to the split that it creates for the assignment.

❖ Example

- You create 4 assignments for a demand that is based on a PM/CS orders. In SAP ERP, 4 splits with split numbers 1 to 4 are created. You then delete the assignment corresponding to split number 2 in the planning board. On the [Requirements Assignment](#) tab, 3 splits with numbers 1, 3, and 4 are displayed for the order operation.
You then create a new assignment for the same demand. The system reassigns split number 2 to the newly created demand.

- When you split, cut, or copy assignments in the SAP Multiresource Scheduling planning board, the system creates new splits for the corresponding order operation using the next available split number.
- You can use the [Check and Correction of Split Numbers](#) report (`/MRSS/TLS_CHECK_SPLIT_NUMBERS`) to check for inconsistencies between the split numbers that exist in SAP Multiresource Scheduling (in database table `/MRSS/D_ASGN_INF`) and in SAP ERP (database table `KBED`). For more information, see the report documentation in the system.

Process

The overall process can be as follows:

1. A PM/CS order is created in the SAP ERP system. The system creates a corresponding demand in SAP Multiresource Scheduling.
2. You create two assignments for the demand in the planning board.
3. When you save the planning board, the system transfers the assignment information back to the SAP ERP system and creates one split for each assignment at operation level. The following information is written back to the PM/CS order operation:
 - Assignment start date and time
 - Assignment duration
 - Assigned resource (must be an HR person)

i Note

Information about teams, tools, and business partners are not written back into the PM/CS order operation.

You can display the splits that exist for a PM/CS operation on the [Requirements Assignment](#) tab that is available in the order transactions (for example, `IW33`)

4. A technician executes the assignments and confirms the completion at split level using transaction `IW41`. Alternatively, the technician could use a mobile device to confirm that the assignments are completed.

i Note

You must create your own implementation if you want to send split information to mobile devices. Mobile device integration is not included in the functions of SAP Multiresource Scheduling.

5. The system sets the status `SPLIT_CONF` for the completed assignments. The assignment can no longer be edited in the planning board.

i Note

If the completion is confirmed at operation level, that is, without the split number being entered in `IW41`, the system does not set this status for the assignment.

6. The order is technically completed. You set the `TECO` status for the PM/CS order and release the order in SAP ERP. In SAP Multiresource Scheduling, the system sets the corresponding status for the demand. You can no longer change the demand or the assignments in the planning board. Depending on the Customizing settings, the system deletes or retains the related assignments in SAP Multiresource Scheduling.
7. You cancel the technical completion of the order in SAP ERP. The system recreates the splits in SAP ERP and the assignments in SAP Multiresource Scheduling (depending on Customizing setting). The demand and the related assignments can be changed again in the planning board.

7.1.2 Integrating Operation Data into SAP Multiresource Scheduling

If the operation is relevant for resource planning, it is integrated from PM/CS to SAP Multiresource Scheduling as soon as the order is saved. You specify exactly which data is to be integrated in Customizing.

The following fields are significant when operation data is transferred to SAP Multiresource Scheduling:

PM/CS → SAP Multiresource Scheduling

PM/CS	SAP Multiresource Scheduling	Comment
Operation Dates	Start/End Date of Demand	Depending on the scheduling type, the system uses the earliest or latest scheduled start/end time.
Work of Operation	Duration of Demand	If the operation does not contain a duration, the system determines a default value from Customizing.
Number of Resources	Number of Resources	
Requirements Profile	Requirements Profile Is Assigned to Demand	
Work Center	Resource Planning Node for Demand	The resource planning node is determined using the evaluation path.
Operation Status	Operation Status Is Displayed for Demand	
Status – Fixed Date	Worklist Field for Demand	In Customizing, you specify whether the field should be displayed.
Status – Required Date	Worklist Field for Demand	In Customizing, you specify whether the field should be displayed.
Status – Consultation Required	Worklist Field for Demand	In Customizing, you specify whether the field should be displayed.
"Capacitive Allowed" Indicator	Worklist Field for Demand	In Customizing, you specify whether the field should be displayed.
SLA Dates from Task of Related Notification	Worklist Field for Demand	In Customizing, you specify whether the field should be displayed. The header task of the notification is defined in Customizing. The SLA dates are read from the header task and transferred to SAP Multiresource Scheduling.

PM/CS	SAP Multiresource Scheduling	Comment
Split Number	Split Number	For more information, see Integration of Splits [page 244] .

Integrating operation data when assignments are created automatically

When assignments are created automatically, data is transferred from the following fields:

PM/CS → SAP Multiresource Scheduling

PM/CS	SAP Multiresource Scheduling	Comment
Operation Dates	Start/End Date of Assignment	Depending on the scheduling type, the system uses the earliest or latest scheduled start/end time. With capacitive assignments, the dates can be changed by the number of days specified in Customizing.
Operation Duration	Duration of Assignment	
Order Number/Operation Number	Description of Assignment	The description is provided by default but can be changed as required using the BAdI.
Type of Assignment	"Capacitive Assignment" Indicator	Customizing settings determine whether a capacitive assignment is to be planned.
Resource	Derived from the partner role "First Technician" or "Work Center"	Customizing
Status in Customizing	Status of assignment	A status can be set automatically for the assignment depending on the Customizing settings.
Split Number	Split Number	For more information, see Integration of Splits [page 244] .

If no assignment can be created, the system generates an alert.

7.1.3 Backward Integrating SAP Multiresource Scheduling Data to PM/CS

The system carries out backward integration from SAP Multiresource Scheduling to PM/CS if the planning board is saved with changed objects (demand/assignment).

You specify exactly which data is to be integrated in Customizing. When data is transferred back to the order, the following fields are significant:

i Note

Make sure that all relevant SAP Multiresource Scheduling users have the appropriate authorization to change data in the source system of the demand (for example, authorization required for using transaction [IW32](#)).

SAP Multiresource Scheduling to PM/CS

SAP Multiresource Scheduling	PM/CS	Comment
Resource for Assignment	Work Center in Operation	The resource's work center is determined for the planned resource and is written back to the operation under the following conditions: • An assignment has been created for a demand and this assignment is not relevant for cross-business-area processes. • You have completely activated backward integration in Customizing (not only for reassignment to other resource planning nodes). If the assignment has been deleted, the resource's work center is deleted and the original work center for the resource planning node is written back to the operation.
Existence Assignment	Header Status	Provided that assignments are planned for a demand, they are displayed as the header status in the order. You can configure which status is to be displayed in Customizing.
Assignment Available for Demand	Operation Status	For each operation, the operation status indicates whether assignments are already planned for the associated demand. The status may be different depending on whether the assignment was planned exactly, with excess, or with shortage. You can configure which status is to be displayed in Customizing.

SAP Multiresource Scheduling	PM/CS	Comment
Cross-Business-Area Procurement	Operation Status	The relevance for cross-business-area processes can be determined using a BAdI. If relevant, the corresponding operation status is set.
Assignment Is Capacitive	Operation Status	The operation is set if at least one assignment is capacitive.
Status of Demand	The statuses set in SAP Multiresource Scheduling are written back to the operation status.	
Changed Dates and Duration for Demand / Assignment	Operation Dates and Work	For active backward integration: - Duration or Work (Rescheduling) For activated "Demand Follows Assignment" function: - Dates from Assignment
Per Assignment	For every assignment, a new item with an item task is created in the associated header notification if it does not yet exist for the relevant operation.	If the item already exists, it is used. If the item has to be created, the order number, operation number, and short text of the order operation are entered in the item text. A BAdI is also provided that can be used to override the item text. Planned dates are transferred from the assignment.
Split Number	Split Number	For more information, see Integration of Splits [page 244] .

7.1.4 Automatic Assignment Creation

Use

You can specify that the system automatically searches for resources for specific orders from the areas of Plant Maintenance (PM) and Customer Service (CS) and creates assignments as soon as the demand has been created. As a resource planner, you can also start automatic assignment creation for a demand directly in the item worklist.

Prerequisites

- You have configured the following Customizing settings under ► [SAP Multiresource Scheduling](#) ► [Sources of Demand](#) ► [PM / CS Orders](#) ►:
 - [Control Automatic Assignment Creation](#)
 - [Define Search Strategy for Automatic Assignment Creation](#)
- You have **not** activated the assignment follows demand function in Customizing under [Sources of Demand](#). This function takes precedence over all other automatic assignment creation options.
- An assignment has not been created for the demand yet.
- The demand is from a service or maintenance order operation. You **cannot** use automatic assignment creation for network activities (Project System).

Features

- Depending on the search strategy, the system can determine resources for automatic assignment creation from the following sources:
 - Partners of the order
 - Work center of the operation
 - Entire resource planning node of the demand, taking into account the qualifications
- Based on these resources, the system determines the resources to be used for the assignment and takes into account the availability.

i Note

Teams are not taken into account for automatic assignment creation.

- If the determined resources were not previously in the resource list of the planning board, the system adds these automatically.
- To start automatic assignment creation for a demand in the planning board, choose [Automatic Assignment Creation](#) from the context menu in the item worklist for the desired demand.
- In item worklist, the system displays the following icons in the [Icon for Automatic Scheduling](#) column if automatic resource planning could not be carried out:
 -  The automatic creation of assignments was deactivated by the implementation of the customer exit.
 -  Automatic assignment creation failed.
 -  Self-planning failed.
Self-planning is a special form of automatic assignment creation. Through the implementation of an exit (method CHECK_SELF_PLAN in BAdI /MRSS/RAC_SEARCH_ALG), the system identifies that this function is carried out. In this case, a special search strategy entry for resource determination is used.

i Note

If you restore an automatic assignment creation that was undone by choosing ► [Edit](#) ► [Repeat](#) ►, the system deletes the previous redo history. This means that you cannot redo any other steps. This is because

the planning situation can change when an assignment is created again automatically and subsequent steps do not need to be restored.

❖ Example

1. You create an automatic assignment in the planning board and move it afterwards.
2. You undo both actions and repeat the automatic assignment creation user action (by redo).
3. The system now determines the most suitable resources based on the search strategy. Since another user has meanwhile changed the availability of the employee found previously, the system determines a different resource.
4. If you also wanted to repeat the assignment movement that was previously undone, the system could not do this since the user action uses a completely different resource for the assignment.

7.1.5 Utilization-Based Automatic Assignment Creation

Use

Utilization-based planning is available for demands from Plant Maintenance (PM) and Customer Service (CS). It allows you to plan resources automatically for one or more demands based on the optimum utilization of suitable employees.

This function is available in the resource planning layout of the Scheduler Workplace (SAP GUI).

i Note

The system does not take into account travel times during the utilization-based automatic assignment creation.

Prerequisites

- In Customizing for *SAP Multiresource Scheduling* under **Sources of Demand** > **PM/CS Orders** > **Define Search Strategy for Automatic Assignment Creation** , you have selected the **Conc. Slot** checkbox.
- You have **not** activated the assignment follows demand function in Customizing under *Sources of Demand*. This function takes precedence over all other automatic assignment creation options.

Features

- You can create only one assignment for each demand.
- The system takes into account only the mandatory qualifications when it checks the suitability of the resources.

- If you select the [Use Demand Date/Time](#) indicator in the planning parameters, the system uses the basic dates of the order operation as date restrictions. However, you can also enter another period. If you specify another period, the system plans the demand regardless of the order operation dates.
- The system generates the assignments for utilization-based resource planning sequentially; the [Undo](#) function reverses an individual planning step in each case.
- Since the demands can be planned individually, the system can assign the individual operations of an order to different resources.

Activities

1. In the resource planning board, you can select specific personnel resources that the system is to include. If you do not select a person, the system includes all personnel resources that are displayed in the planning board.
2. Select the relevant demands in the item worklist and choose the relevant entry from the context menu.

Note

If you want to allow multiple demands to be selected at once, you must activate this function in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ► for each relevant UI profile.

3. A window appears that contains a list of:
 - Selected demands
 - Selected personnel resources

You can still delete entries from either list. You can also add any personnel resources that are currently in the planning board to the personnel resources list.
4. You can also enter:
 - Utilization threshold values (in percent) for the maximum utilization for each day and week. You can define default values for these values in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►.
 - If you select the [Use Demand Date/Time](#) indicator, the system uses the basic dates from the order operation as date restrictions. If you do not select the indicator, four input fields appear in which you can enter the planning period (start date/time and end date/time) as required.
5. The system plans the demand(s) on the basis of this information in such a way that the threshold value for the maximum utilization is not exceeded:
 - If you have multiple several demands at the same time, the system processes these in the sequence in which they appear in the [Selected Demands](#) list. During this process, it takes into account the existing assignments and time allocations of the resources, and selects those personnel resources who have the lowest level of utilization.
 - The system creates assignments only if there is sufficient capacity for a demand. If there is insufficient capacity, a notification window appears that lists the unplanned demands and the corresponding error messages. You can use the [Reschedule](#) function to start planning again using different parameters. Choose [Complete](#) to end utilization-based planning.

7.1.6 Appointment Booking with a PM/CS Order

Use

Customer service employees can use an appointment booking to book appointments for orders from Plant Maintenance (PM) or Customer Service (CS). First the customer reports the demand and the required period in which the service should be carried out. Then the service employee determines a suitable appointment and informs the customer of it.

i Note

You can only book appointments for one operation per order. Appointment booking for multiple operations of an order is not supported.

Prerequisites

- You have configured the required settings for external scheduling in Customizing for *Plant Maintenance and Customer Service* under ► *Maintenance and Service Processing* ► *Maintenance and Service Orders* ► *Scheduling* ► *External Scheduling* .
- You have configured the required settings for appointment booking in Customizing for *SAP Multiresource Scheduling* under ► *Appointment Booking* .
- You are using the *Automatic Assignment Creation for Planning Node, Resource Capacity*, or *Planning Node Capacity* appointment booking type. For more information, see Customizing under ► *SAP Multiresource Scheduling* ► *Appointment Booking* ► *Determine Appointment Booking Type* .
- You have set up the system according to the information about operating the solution. For more information, see [Appointment Booking \[page 928\]](#).

Activities

1. A customer reports a demand, for example, by phone.
2. The service employee creates an order in the PM/CS system with data about the customer, the customer's demand, and the required time frame in which the service should be carried out.
3. The service employee then selects the *Schedule* pushbutton at header level in the PM/CS order. The system displays a dialog box for the appointment booking.
4. The service employee selects a search strategy and date interval group.
 - **Search strategy**
The service employee uses the search strategy to determine the criteria according to which the system searches for available resources.

i Note

For the *Planning Node Capacity* appointment booking type, only the *Planning Node of Resource Planner* search strategy can be selected.

For the [Automatic Assignment Creation for Planning Node](#) and [Resource Capacity](#) appointment booking types, various search strategies are available for searching for available resources.

Depending on the Customizing setting, the following search strategies can be selected:

- **Zip code**
With this search strategy, the system determines resources that are in the same zip code area as the order demand.
- **Service area**
With this search strategy, the system determines available resources within the service area of the order. For more information, see [Assigning Service Areas \[page 936\]](#).
- **Partner role**
If a preferred resource is entered in the order, the system determines the available appointments. The preferred resource must be identified with the partner role `TECH_1ST` (*First Technician*).
- **Resource ID**
With this search strategy, the service employee can use the resource ID to search for free appointments for the technician.
- **Planning node of resource planner**
With this search strategy, the system searches for the resources that are assigned to the planning node of the resource planner.
- **Work center of technician**
With this search strategy, the system searches for resources that are assigned to the work center of the technician.

For more information, see [Search Strategies for Appointment Booking \[page 937\]](#).

- **Date interval group**
The appointments can also be filtered by interval groups over a period of several weeks or months. Interval groups can be defined in Customizing as, for example, entire day intervals from 08:00 until 17:00, morning intervals from 08:00 until 12:00, or afternoon intervals from 13:00 until 17:00. If the service employee selects an entire day interval, a general search for availability between 08:00 and 17:00 is carried out. The service employee can also select the interval more specifically. If filtering is carried out by morning interval, all availabilities can be displayed that are within this time interval and the selected period.
 - **Qualification category**
The service employee can restrict the search for available appointments according to the required qualification category. This field is only available if the following prerequisites have been met:
 - The appointment booking type is [Planning Node Capacity](#).
 - [Planning Node + Qualification of Resources](#) has been selected as a pot scenario.
You configure this setting in Customizing under ► [Appointment Booking](#) ► [Appointment Booking for Resource Planning Node](#) ► [Select Scenario for the Use of Capacity Pots](#) ►.
 - **Resource ID**
The service employee can search for available appointments of a certain technician. This field is only available when [6 Search Resource by ID](#) is selected as the search strategy.
5. The service employee chooses the [Proposed Appointments](#) pushbutton.
 6. The service employee selects a suitable appointment from the list and saves the service order.
 7. The service employee informs the customer of the service appointment.

The demand is created in SAP Multiresource Scheduling with the selected appointment time frame.

With the *Planning Node Capacity* appointment booking type, the demand is not assigned to a resource. However, as the demand is assigned to a planning node, the capacity of this planning node is reduced.

If the appointment time frame is longer than the actual duration of the demand, the resource planner can use the optimization function to carry out detailed scheduling and the actual resource allocation at a later time.

7.2 Resource Planning for Notifications from Plant Maintenance (PM) and Customer Service (CS)

Use

You can use SAP Multiresource Scheduling for resource planning for notifications from Plant Maintenance (PM) and Customer Service (CS). This is an advantage, for example, when you have to quickly respond to malfunctions for which the cause is initially unknown and dispatch resources to analyze the problem, without creating a service or maintenance order.

Prerequisites

- You have implemented SAP Note 1697623.
- You have completed the required activities in Customizing for *SAP Multiresource Scheduling* under **► Sources of Demand ► PM/CS Notifications ►**.
- If you want to update the notification once resource planning has been completed, you have activated the backward integration of data in Customizing for *SAP Multiresource Scheduling* as follows:
 - Under **► Sources of Demand ► Activate Backward Integration of Data ►**, you have activated backward integration for PM/CS notifications.
 - Under **► Sources of Demand ► Activate 1:1 Relationship of Assignments and Demands for Demand Categories ►**, you have activated the 1:1 relationship between assignments and demands for PM/CS notifications.
 - Under **► Sources of Demand ► PM/CS Notifications ► Define Integration of PM/CS Notifications ►**, you have made the required settings.
- If you have activated the backward integration of data from SAP Multiresource Scheduling to the PM/CS system, make sure that all relevant SAP Multiresource Scheduling users (resource planners) are authorized to change notification data in PM/CS (for example, authorization to use transaction **IW52**).
- You can specify if the system takes the malfunction dates or the required dates from the notification as the earliest possible start date and latest possible end date for the demand. To do so, make the required settings under **► Sources of Demand ► PM/CS Notifications ► Define Date Types for Notification Integration ►**.

Process

The process can run as follows:

1. A customer or employee reports a malfunction.
2. You create a service notification in SAP ERP (using the *Plant Maintenance* or *Customer Service* component) and enter the following data:
 - Object and partner data (for example, responsible work center, sold-to party)
 - Problem and damage data (including start of malfunction or requested start date)
 - Execution data (start of malfunction or requested start date, priority)
3. Once you have saved the notification, the system transfers the relevant data to SAP Multiresource Scheduling automatically and creates a demand for the notification.

i Note

In Customizing under ► *Sources of Demand* ► *PM/CS Notifications* ► *Define Date Types for Notification Integration* , you can specify for any combination of notification type and plant if the system considers the malfunction dates or the required dates as the earliest possible start date and latest possible end date in the demand.

4. You or the resource planner responsible search for suitable resources and create one or more assignments for the demand in the planning board.

i Note

If you want to update the notification in SAP ERP once resource planning has been completed, you may only create one assignment for the demand. If you create multiple assignments for each demand, it is not possible to backward integrate the assignment data into the notification.

5. If backward integration is activated, the system can update the following data from the assignment in the notification:
 - Start and end of the malfunction
 - Responsible partner
 - Status in the notification header

i Note

Due to the fact that date and time are written back, you cannot use the Optimizer to its full extent since changes are only still possible in the predefined time frame.

More Information

- [Transfer of Notification Data Between SAP ERP and SAP Multiresource Scheduling \[page 258\]](#)
- [Resource Planning for an Order with the SAP GUI \[page 82\]](#)
- [Resource Planning for an Order with the Web-Based Planning Board \[page 176\]](#)

7.2.1 Transfer of Notification Data Between SAP ERP and SAP Multiresource Scheduling

If a service or maintenance notification is relevant for resource planning, the notification data is transferred to SAP Multiresource Scheduling when the notification is saved. The system automatically creates a demand for the notification. If backward integration has been activated, the data for the assignment that you created for the demand in SAP Multiresource Scheduling can be updated by the system in the notification in SAP ERP.

The following overviews show which notification data is relevant for integration to SAP Multiresource Scheduling and which is relevant for backward integration to SAP ERP.

Integration of Notification Data from SAP ERP to SAP Multiresource Scheduling

i Note

Only the notification data at header level is considered for integration.

Notification in SAP ERP (PM or CS)	Demand in SAP Multiresource Scheduling	Comment
Start of malfunction (date and time) or required start (date and time)	Earliest possible start	If there is neither a start of malfunction date nor a required start date specified in the notification, the system nevertheless integrates the notification data into SAP Multiresource Scheduling. The earliest possible start date will be left empty in the demand in this case.
End of malfunction (date and time) or required end (date and time)	Latest possible end	If the end of the malfunction or the required end date is not specified in the notification, you can define a standard duration for the respective notification type in Customizing. Starting from the beginning of the malfunction, the system calculates the end of the malfunction using this defined value.
Status (notification header)	Status of demand	Which status is displayed in SAP Multiresource Scheduling depends on the settings in Customizing.

Notification in SAP ERP (PM or CS)	Demand in SAP Multiresource Scheduling	Comment
Responsible work center	Organizational unit	The work center must be specified so that an organizational unit can be assigned in SAP Multiresource Scheduling.
Description (notification header)	Description	
Priority (notification header)	Priority	
Sold-to party	Address	

Integration of Assignment Data from SAP Multiresource Scheduling to SAP ERP

Note

The notification can be updated with the assignment data only if the following prerequisites have been met:

- You have configured the following settings for backward integration in Customizing for *SAP Multiresource Scheduling*:
 - You have activated backward integration for PM/CS notifications under ► *Sources of Demand* ► *Activate Backward Integration of Data* .
 - You have activated the 1:1 relationship between assignments and demands for PM/CS notifications under ► *Sources of Demand* ► *Activate 1:1 Relationship of Assignments and Demands for Demand Categories* .
 - You have made the required settings for backward integration under ► *Sources of Demand* ► *PM/CS Notifications* ► *Define Integration of PM/CS Notifications* .
- You have created only one assignment for each demand.
- All relevant SAP Multiresource Scheduling users (resource planners) must be authorized to change notification data in PM/CS (for example, authorization for using transaction **IW52**).

Note the following:

- When malfunction data or the responsible partner is changed in the notification, the assignment data in SAP Multiresource Scheduling is not updated automatically. Assignments can be created, changed, or deleted in SAP Multiresource Scheduling only.
- The planned resource can only be written back as the responsible partner to the notification using SAP HR.

Assignment in SAP Multiresource Scheduling	Notification in SAP ERP (PM or CS)	Comment
Start of assignment (date and time)	Malfunction start	As soon as an assignment with a different start or end is created in SAP Multiresource Scheduling or the start or end date in the assignment is changed, the data that originally existed in the notification and in the demand for the notification is overwritten.
End of assignment (date and time)	Malfunction end	
		i Note Even if the assignment is deleted, the system does not remove the start and end date from the notification or from the demand created for the notification.
Planned resource	Responsible partner (notification header)	If you use SAP HR for your personnel resources, the planned resource is written back to the notification as the responsible partner as soon as an assignment is created for the demand. If a responsible partner has already been specified in the notification, it is overwritten with the resource that belongs to the assignment.
		i Note When the assignment is deleted, the system removes the responsible partner from the notification.
Status	Status (notification header)	If an assignment is created for the demand, it is visible as a status at header level of the notification. Which status is displayed depends on the settings in Customizing.

8 Resource Planning in Projects

Use

You can use SAP Multiresource Scheduling for resource planning for network activities from Project System (PS).

i Note

SAP Multiresource Scheduling does not support the integration of network activity elements.

Depending on the process variant, employees are involved in the process in different roles (requester, contact person, resource planner) and with different authorizations. You have the following options:

- **Resource planner process**

In PS, the requester assigns network activities to a contact person or directly to a specific resource planner. If the requester assigns the activities directly to a resource planner, the system creates demands for this resource planner in SAP Multiresource Scheduling. The requester can also assign activities to a contact person first. In this case, the contact person chooses the resource planner. Note that only one resource planner can be specified for each activity.

In SAP Multiresource Scheduling, the resource planner assigns resources to the demands shown in his or her worklist. Depending on how the process is configured in Customizing, the planner can also use capacity planning for PS demands. For more information, see [Capacity Planning of Demands from Service and Project System \[page 694\]](#).

- **Contact person process**

In PS, the requester assigns network activities to a contact person. The contact person then creates offer demands for one or more resource planners. In the contact person process, you can activate or deactivate manual resource confirmation. Manual resource confirmation means that the requester confirms or rejects the resource planners' offers manually. If you do not activate manual resource confirmation, the system automatically accepts the first offer from a resource planner.

In SAP Multiresource Scheduling, the resource planner assigns resources to the demands shown in his or her worklist. Capacity planning is not possible in this process variant.

The steps described below apply to both process variants. For information about additional options in the contact person process, see [Resource Planning in Projects: Contact Person Process \[page 267\]](#).

Prerequisites

For more information, see [Setting Up the PS Integration \[page 265\]](#).

Process

i Note

The following is an example of what the process may look like. The actual process flow depends on how the PS integration scenario is configured in your system.

Process Steps in Project System

The process starts in Project System (PS). As a requester, you proceed as follows:

1. You create a network using the Project Builder (transaction **CJ20N**).
The fields that are relevant for planning in SAP Multiresource Scheduling are on the [Cust. Enhancement](#) tab page.
2. You enter the desired process variant at the level of the network header. The following applies:
 - The system automatically enters this process variant for all activities of the network. By default, the system enters [Not Relevant to Resource Planning](#) in the process variant field.
 - To use SAP Multiresource Scheduling for resource planning, you must set the process variant to [Resource Planner Process](#) or to [Contact Person Process](#). Only then can planners create assignments for the network activities in SAP Multiresource Scheduling.
 - To use SAP Multiresource Scheduling for capacity planning, you can leave the default option [Not Relevant to Resource Planning](#). In this case, planners cannot create assignments for the network activities in SAP Multiresource Scheduling. However, planners can use capacity planning for the network and its activities if the relevant Customizing settings are in place.
 - To use SAP Multiresource Scheduling for both resource planning and capacity planning, you must set the process variant to [Resource Planner Process](#). In this case, planners can create assignments for the network activities in SAP Multiresource Scheduling. They can also perform capacity planning for the network and its activities.
 - Once you save the network, you can no longer change the process variant.
3. So that the system can assign the activities to a resource planner or contact person, you enter a resource planning node on the [Cust. Enhancement](#) tab page in the network header. In the resource planner process variant, the following applies:
 - The system transfers the resource planning node from the network header to the activities and automatically displays the assigned resource planners in the resource overview.
Once the network is saved and the activities are integrated as demands in SAP Multiresource Scheduling, the resource planners can see the demands in their worklist when launching the planning board for the resource planning node.
 - You can enter a work center at network activity level. If the relevant Customizing setting is in place, the system enters the resource planning node associated with this work center on the [Cust. Enhancement](#) tab page for the network activity. In this case, the following applies:
 - The resource planning node entered at activity level takes precedence over the resource planning node entered at network level. You cannot delete the resource planning node on the [Cust. Enhancement](#) tab page for the network activity. In addition, you cannot manually add a resource planning node or resource planner on this tab page.
 - If you do not enter a work center at activity level, the system uses the resource planning node associated with the network header when integrating the activity as a demand in SAP Multiresource Scheduling.

- The network activity is **not** integrated as a demand in SAP Multiresource Scheduling if one of the following applies:
 - If you do not enter a resource planning node at network level and you do not enter a work center at activity level
 - If the work center entered at activity level does not have a resource planning node associated with it
 - If the resource planning node associated with the work center does not have a resource planner assigned
- If you change the work center for the network activity, the system changes the resource planning node accordingly on the [Cust. Enhancement](#) tab page.

i Note

If assignments already exist for the activity, the system does **not** change the resource planning node for these existing assignments. On the [Cust. Enhancement](#) tab page, the system shows all assignments, irrespective of whether or not they belong to the current resource planning node.

4. You specify whether the network is a reservation or a posting. If the network is a reservation, you can also specify an order probability. The specified value appears as the default setting in the network activities, but can be changed there. If the network is a posting, you cannot specify an order probability.
5. On the [Cust. Enhancement](#) tab page for the network activity, the system shows the single work (total work divided by the number of resources) and the current remaining demand of the network activity.

i Note

Remaining demand processing is only relevant in the contact person process with manual resource confirmation. For more information, see [Processing of Remaining Demand \[page 269\]](#).

6. You can make several additional settings on the [Cust. Enhancement](#) tab page for the activity:
 - To create a periodically recurring demand, you can define a date rule by choosing  ([Period](#)). For more information, see [Long-Term Planning for Network Activities with Date Rules \[page 275\]](#).
 - You can specify the number of site supervisors.
 - You can define a requirements profile. You can create a new requirements profile or adjust an existing one. If you want to change an existing profile that is already used in another network activity, the system creates a copy of the requirements profile and saves it with a new profile number.
7. You select the [Start of Planning](#) checkbox and save the network. The network and network activities are transferred as demands to SAP Multiresource Scheduling.

i Note

If your system is set up in a way that allows both resource planning and capacity planning for this combination of network and activity type, the network and activities are transferred to SAP Multiresource Scheduling once the requester saves the network, even if the [Start of Planning](#) checkbox is not selected. In this case, you can perform capacity planning in SAP Multiresource Scheduling. However, you cannot create assignments for the demands in SAP Multiresource Scheduling.

Process Steps in SAP Multiresource Scheduling

Resource planning takes place in SAP Multiresource Scheduling. As a resource planner, you proceed as follows:

1. The system creates a demand for every resource planner who was newly assigned to a resource planning-relevant activity. Your demands are shown in your worklist in the planning board.
2. You assign resources to the demands. For example, you can use the resource Gantt chart in the Scheduler Workplace (SAP GUI). Alternatively, you can use the demand Gantt chart in combination with the dispatching view.

If the relevant Customizing setting is in place and the system uses the resource planning node associated with the work center of the network activity when integrating the activity as a demand in SAP Multiresource Scheduling, the following applies:

- If the work center of the demand changes and assignments already exist for the demand, the system does **not** change the resource planning node for the existing assignments.

In PS, on the [Cust. Enhancement](#) tab page for the network activity, the resource planning node associated with the new work center is shown. The system shows all assignments, regardless of whether or not they belong to this resource planning node.

i Note

You can only change the work center for the demand if the new work center has a resource planner assigned to it.

- The same applies if you create an assignment for a resource that belongs to a different work center. In PS, the requester can see the assignment on the [Cust. Enhancement](#) tab page for the network activity. However, the displayed resource planning node is the one associated with the current work center of the activity.
3. If the process variant is set to [Resource Planner Process](#) and capacity planning is allowed for this combination of network type and activity type, you can also perform capacity planning. The following applies:
 - If you assign the demand to a different work center (for example, using the dispatching view), the system transfers the new work center back to PS once you save the planning board. On the [Cust. Enhancement](#) tab page for the network activity, the resource planning node associated with the new work center is shown.
 - If you change the demand dates in SAP Multiresource Scheduling, the data is updated accordingly in PS.
 - You cannot perform demand splits in a capacity planning scenario.

Result

As a resource planner, you can create assignments for network activities in SAP Multiresource Scheduling. As a requester, you can see that the resource planner has accepted the demand and assigned resources to the demand.

More Information

- [Capacity Planning of Demands from Service and Project System \[page 694\]](#)

- [Resource Planning in Projects: Contact Person Process \[page 267\]](#)

8.1 Setting Up the Project System (PS) Integration

Use

i Note

To use SAP Multiresource Scheduling for capacity planning for PS networks and activities, additional set-up activities are required. For more information, see [Setting Up Capacity and Demand Planning \[page 698\]](#).

Pre-Configuration Steps

i Note

For information about prerequisites, such as the required software components, see the *Administrator's Guide for SAP Multiresource Scheduling* available on SAP Help Portal at <http://help.sap.com/mrs>.

- Assign the required authorizations to change data in the PS system to all relevant SAP Multiresource Scheduling users. For example, resource planners must be authorized to create or change data using transaction **CJ20N**.
For more information about the authorization concept used in SAP ERP, see the relevant documentation at <http://help.sap.com/erp>.
- Create the required organizational assignments in transaction **PPOME** (*Organization and Staffing Change*):
 - If you want to use the resource planner process, you must assign users as resource planners to the relevant organizational units (resource planning nodes).
 - If you want to use the contact person process, you must assign users as contact persons to the relevant organizational units (resource planning nodes).
- Implement SAP Note [1380853](#).
- The system determines the user from infotype 105, subtype 0001. Make sure that this infotype is set up for all relevant users (in the role of resource planner) by linking the user ID to the personnel number in this infotype.

Customizing Settings

i Note

See the documentation in the system for more detailed information.

Mandatory Customizing Settings

- Make settings under **Sources of Demand** > **Networks (Projects and WBS Elements)** > **Define Resource Planning Relevance for Networks**. For example, you must specify the following:
 - What type of networks and activities you want to integrate as demands into SAP Multiresource Scheduling
 - Whether you want to use capacity planning or resource planning for the respective combination of network and activity type

The resource planner process variant allows you to activate both options.

- Configure the required statuses under ► [Basic Settings](#) ► [Assign Objects](#) ► [Status](#) ►:
 - In activity [Define Abstract Status](#), create the abstract status `START_PLAN` (*Start of Planning*).
 - In activity [Assign Status for Demands \(ERP\)](#), map the abstract status `START_PLAN` (*Start of Planning*) to a concrete SAP ERP status.
- Activate the backward integration of data under ► [Sources of Demand](#) ► [Activate Backward Integration of Data](#) ►. This setting is required so that data can be transferred between Project System and SAP Multiresource Scheduling.
- Specify how the system calculates the planning node capacity. You do so under ► [Settings for Capacity and Demand Overview](#) ► [Configure Planning Node Capacity Calculation](#) ►.
- Specify which fields are displayed and can be edited on the [Cust. Enhancement](#) tab page in PS (transaction [CJ20N](#)). To do so, make settings under ► [Sources of Demand](#) ► [Networks \(Projects and WBS Elements\)](#) ►:
 - In activity [Define Field Control in Relation to Authorizations](#), you define field groups and specify the authorization a user needs to display or edit certain field groups in networks. You need to make settings in this activity if you want to display any SAP Multiresource Scheduling-related fields in PS.
 - In activity [Define Field Control in Relation to Process Progress](#), you can further restrict authorizations depending on where in the process the user currently is. For each combination of network type, process variant, and status, you can specify which fields are displayed or hidden at network and activity level.

Whether certain fields are visible or hidden also depends on the process variant that is selected when a network is created using the Project Builder ([CJ20N](#)).

❖ Example

The manual resource confirmation option is only relevant in the contact person process. If a network is created and the process variant is set to [Resource Planner Process](#), the fields related to the manual resource confirmation are not displayed.

If the process variant is set to [Not Relevant to Resource Planning](#), the process variant field is the only field that is displayed on the [Cust. Enhancement](#) tab page.

i Note

For some fields, restrictions may exist, regardless of the settings you make in Customizing.

Additional Customizing Settings

To configure the PS integration according to your requirements, you can make further settings in the activities under ► [Sources of Demand](#) ► [Networks \(Projects and WBS Elements\)](#) ►. For example, you can do the following:

- In activity [Control Integration of Projects and WBS Elements into MRS](#), you can specify which types of WBS elements and projects are to be integrated as complex demands into SAP Multiresource Scheduling. These demands are displayed as demand headers in the planning board.
- In activity [Deactivate Process Variants](#), you can deactivate certain process variants. The deactivated variants cannot be selected by the requester in the Project Builder (transaction [CJ20N](#)).

More Information

- [Resource Planning in Projects \[page 261\]](#)
- [Setting Up Capacity and Demand Planning \[page 698\]](#)

8.2 Resource Planning in Projects: Contact Person Process

Use

In contrast to the resource planning process, the responsible employee (contact person) has the following additional options in this process variant:

- They can suggest resources.
- They can request resource offers from several resource planners.
- When the requester has activated the manual resource confirmation option, the contact person can compare the offers from different resource planners and accept or reject them individually or together.

i Note

If the requester activates the manual confirmation of resources at network header level, the system defaults this value for the network activities. The requester can change this value individually for each network activity. For example, the requester can activate the manual resource confirmation for one network activity and use automatic resource confirmation for all other network activities.

Process

Regardless of whether or not the requester sets the manual resource confirmation option, the contact person can take following steps on the *Customer Enhancement* tab page in Project System:

1. The contact person can add specific resources to the network activity using one of the following options:
 - The contact person can find suitable resources using the employee search. This option is available by choosing .
For more information about the employee search, see [Finding Suitable Employees in the Scheduler Workplace \(SAP GUI\) \[page 534\]](#).
 - The contact person can select the required resources using the resource planning structure. These resources appear in the offer demands and are suggested to the resource planners when they plan assignments in SAP Multiresource Scheduling.
2. The contact person can split the demands among different resources. To do so, the contact person changes the work effort (total work) and the number of resources.
3. The contact person checks the sum of the efforts by choosing .

4. The contact person can enter a long text. To do so, enter your text in the line that is ready for input under the resource overview. Note that this text can no longer be changed or deleted after you have chosen  **Copy** and saved the network. If the log text is not displayed, choose  or  to view the text.

Once the network is saved in PS, the system creates demands in SAP Multiresource Scheduling. The responsible resource planners can make offers or reject offer demands in the planning board if, for example, they have no suitable resources.

If the requester accepts or rejects offers in PS or the resource planner changes assignments in SAP Multiresource Scheduling, the system recalculates the remaining demand.

The following steps depend on whether or not the requester activates the manual resource confirmation option:

Automatic Resource Confirmation

If manual resource confirmation is not active, the system automatically accepts the first offer of a resource planner. The system automatically deletes all other offer demands.

Manual Resource Confirmation

If manual resource confirmation is active, the following steps can be part of the contact person process:

1. The requester can accept or reject one or more offers from resource planners.
2. Once all offers have been accepted or rejected, the requester can convert the offer demands that have already been (partially) planned into normal demands by choosing .
If the sum of all assignments is less than the work for the demand, the system also updates the work so that the work corresponds to the sum of all assignments accepted. This is the prerequisite for correctly processing the remaining work. The resource planner can create additional assignments to the normal demand if required.
3. Once all of the offers have been accepted or rejected, the contact person can include an existing remaining demand in the planning process again. To do so, the contact person starts the processing of remaining demands by choosing .
If demands are still open, the contact person is notified by the system. If the contact person proceeds with remaining demand processing, the system automatically sets all offer demands that are still open to completed. For more information, see [Processing of Remaining Demand \[page 269\]](#).
4. If the BAdI /MRSS/MESSAGES is implemented accordingly, the system sends messages to the resource planners involved as soon as it has approved the acceptance.
5. Accepting offers from different resource planners must be excluded under certain circumstances to ensure consistency in the follow-on processes. If the BAdI /MRSS/ INTER_COMPANY is implemented accordingly, the system checks whether all resources of the accepted offers can be processed together using just one operation.

Result

Resource assignments are created for your network.

More Information

- [Finding Suitable Employees in the Scheduler Workplace \(SAP GUI\) \[page 534\]](#)
- [Processing of Remaining Demand \[page 269\]](#)
- [Long-Term Planning for Network Activities with Date Rules \[page 275\]](#)

8.2.1 Processing of Remaining Demand

Use

As part of the contact person process with manual resource confirmation, you (the requester) may have already accepted or rejected all existing resource offers for a demand, but the total work for the network activity was not fully covered.

Prerequisites

- You have selected the *Contact Person Process with Manual Resource Confirmation* process variant.
- No more resource offers are open (you have rejected or accepted all existing offers).
- You have set offer demands that are still open to completed by choosing  in the resource overview.

Features

- You can process the remaining demand for the network activity by choosing . If offer demands are still open, you are notified by the system. If you proceed with remaining demand processing, the system sets demands that are still open to completed. A dialog box opens in which you can adjust the following data:
 - The remaining demand to be fed back into the resource planning process (default value is the remaining demand calculated for the network activity)
 - Number of resources
 - Earliest start and end date (including time)
 - Latest start and end date (including time)
- If you (the requester) have saved the network, the contact person processes the remaining demand. As usual, he or she searches for resource planning nodes from the resource planner that contain new offer demands. In contrast to the standard procedure, the system proposes only the remaining demand defined by the requester as work, instead of the total demand and number of resources for the network activity. The same applies for the number of resources. For these offer demands, the resource planners can now offer resources, which in turn, the requester can accept or reject.

8.2.2 Contact Person Process with Remaining Demand Processing

Use

In the contact person process with manual resource confirmation, the requester can add a remaining demand to the planning process again. The steps below provide an example of how a remaining demand can be processed in this way.

Activities

As a requester, you perform the following steps in the project system:

1. You create a network with a network activity that is relevant for resource planning.
2. At network header level, you select the *Contact Person Process* process variant on the *Customer Enhancement* tab page.
3. To activate manual resource confirmation, select the *Yes* radio button.
4. To assign a contact person, specify the resource planning node of the required contact person.
5. At network activity level, enter the following values on the *Internal* tab page:
 - *Work*: 8 hours
 - *Required Capacity* (resources): 2
 - *Duration*: 2 days
6. At network activity level, select the *Contact Person Process* process variant on the *Customer Enhancement* tab page and activate manual resource confirmation.
7. The system displays the following values on the *Customer Enhancement* tab page:
 - *Total Work*: 8 hours
 - *Number of Resources*: 2
 - *Single Work*: 4 hours (total work divided by the number of resources)
 - *Remaining Demand*: 8 hours (since resource planning has not yet started, the remaining demand is still equal to the total work)
8. You specify a requirements profile.
9. You save the network. The next steps are performed by the contact person of the specified resource planning node.

As the contact person, you perform the following steps in the project system:

1. You find suitable resources for the requirements profile. As resource proposals, you enter two resources that belong to resource planning node A and two resources that belong to resource planning node B.
The resource planners have  status, the anonymous resources have  status.
2. You also enter a third resource planner (C). Since the resource has not been defined yet, the system displays the  icon.
3. In the resource overview, the network activity values are displayed for every resource.
 - *Total Work*: 8 hours
 - *Number of Resources*: 2

- *Single Work*: 4 hours (total work divided by the number of resources)
 - *Remaining Demand*: 8 hours
4. To start resource planning for the operation, set the *Start of Planning* indicator and save the network.
 5. The system creates the relevant demands for the three resource planners. These resource planners can now offer resources for the demands, a phase that is indicated in the resource overview by the  icon in the *Status* column for the resource planner. The next steps are performed by the three resource planners, each in the scheduler workplace.

As resource planner A, you carry out the following steps in the scheduler workplace:

1. In your worklist, you find the new offer demand together with Uri Mikovics and Donna Smith as the proposed resources.
2. For the offer demand, you create a 4-hour assignment for Uri Mikovics.
3. You do not create an assignment for Donna Smith since she is not available.

As resource planner B, you carry out the following steps in the scheduler workplace:

1. In your worklist, you find the new offer demand together with Kattia Mishra and Hans Bosch as the proposed resources.
2. Since you do not have any available resources for the requested period, you reject the demand without creating assignments.
3. After you have saved and updated the planning board, the demand disappears from your worklist.

As resource planner C, you carry out the following steps in the scheduler workplace:

1. You find the new offer demand in your worklist.
2. You search for suitable resources and create an assignment of over 6 hours for Kai Schmidt and Suzanne Lopez.

As the requester, you perform the following steps in the project system:

1. You see that resource planner A has offered a resource. In the resource overview, resource planner A has  status and Uri Mikovics (resource) has  status. Since you have not accepted the offer yet, the *No. of Assignments* column still contains a zero. The *Single Work* column contains 4 hours and the remaining demand for the resource planner is now only 4 hours (since he or she already made an offer in a 4-hour assignment).
2. You accept the resource. The icon changes to . The *No. of Assignments* column displays a 1. The value of the *Remaining Demand* field for the network activity is also adjusted from 8 to 4 hours. You save. When you open the network activity again, the system displays the  icon.
3. You see that resource planner B rejected the demand and has not offered any resources. The resource planner has  status.
4. You see that resource planner C has offered two resources for 6 hours each. Since this is equal to 12 hours, the system displays -4 in the *Remaining Demand* column for resource planner C. You reject both resources and save the network. The resources then have  status.
5. You have accepted only the resource from resource planner A with the 4-hour assignment. For this reason, you still have a remaining demand of 4 hours. Since you do not want to wait to see whether resource planner A makes you another offer, you decide to add the remaining demand to the resource planning process again. To do this, you use remaining demand processing.
6. You remove the offer ID for resource planner A by choosing ; the  icon is displayed for the resource planner. When you save, the system converts the offer demand into a normal demand and adjusts it so that

the work corresponds to the sum of all assignments accepted. The sum of all assignments must be less than the work for the demand.

7. To send the demand to resource planner B again, select remaining demand processing. In the dialog box for remaining demand processing, select 1 as the number of resources. This value is also displayed in the *Remaining Demand: No of Resources* field.
8. You include resource planner B in the resource list again. The system displays the following: Number of Resources 1, Total Work 4, Single Work 4, Remaining Demand 4.
9. Resource planner B receives the demand again with the adjusted values in his or her worklist and can submit offers.

8.3 Resource Overview

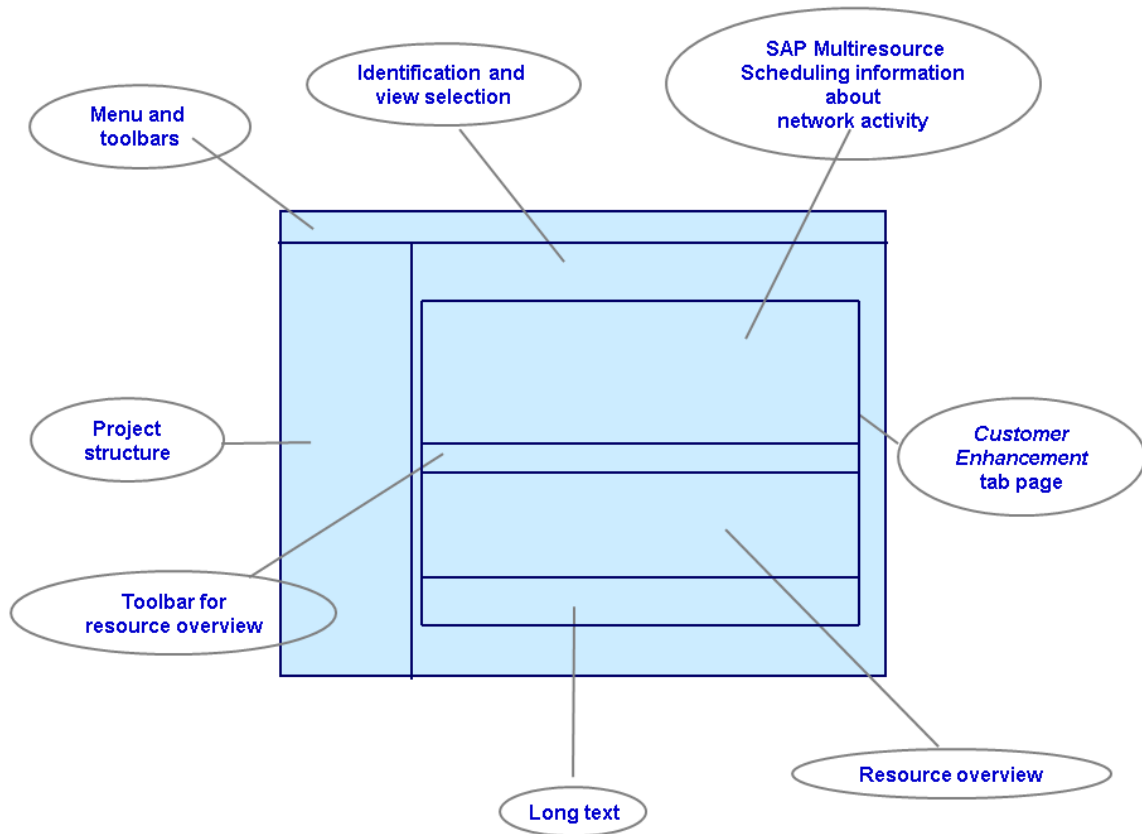
Definition

The resource overview is an area of the *Customer Enhancement* tab page for a network activity.

Use

The resource overview of a network activity provides an overview of the selected resource planners and current resource situation for all process variants. As part of the contact person process with manual resource confirmation, you can accept or reject offers from resource planners here.

Structure



Resource Overview for Network Activity

You can find the resource overview on the *Customer Enhancement* tab page under *MRS* (SAP Multiresource Scheduling information for network activity). It comprises a toolbar with the resource overview functions and the actual overview table with the following columns:

- **Name of Resource Planner/Resource Name**
The name of the resource is displayed anonymously, provided that the resource planner has not offered a specific resource yet. As soon as the resource name is displayed, you can branch to the corresponding employee profile by choosing .
- **Type**
Icons:  and .
- **Status** (see [Status in the Resource Overview \[page 274\]](#))
- **Qualifications**
If you have specified a requirements profile and added a resource via the employee search, the system displays the employee's degree of suitability for the demand (a percentage that corresponds to how well the employee profile covers the qualifications of the requirements profile). If you have changed the requirements profile, you can update the degree of suitability for resources by choosing .
- **Indicator: Relevant for Cross-Area Resource Processing**

- Indicator: No Travel Expenses
- Number of Site Supervisors
- Earliest Start Date
- Latest Finish Date

i Note

As soon as you add a resource planner for the operation, the system copies the *Earliest Start Date* and *Latest Finish Date* to the corresponding resource planning line in the resource overview. For resources found that are not yet offered by the resource planner, the system does not display the start, end, and duration. In the case of resources for which an offer or assignment exists, the system displays the dates from the SAP Multiresource Scheduling assignment.

- Number of Resources
- Number of Assignments
- Total Work
- Single Work
- Remaining Demand

The system displays the remaining demand in hours for every assigned resource planner. It is calculated according to the following formula: Remaining demand = work from the demand - total work of the assignments allocated to the demand.

When the remaining demand is calculated, offers are also taken into account for each resource planner and reduce the remaining demand.

i Note

In the *MRS Information for Network Activity* area above the resource overview, the system displays the remaining demand with reference to the network activity. It is calculated according to the following formula: Remaining demand = work from the network activity - total work of the assignments allocated to the demands of the network activity.

Offers are not included in the calculation.

- Unit

By choosing , you can select a layout that sorts the resources in the resource overview by qualification in descending order. Furthermore, you can define and save layouts for the resource overview. In Customizing, you can define in which sequence the cross-user layouts appear in the dropdown list by choosing ► [SAP Multiresource Scheduling](#) ► [Sources of Demand](#) ► [Networks](#) ► [Control Display of Cross-User Layouts for Resource Overview \(ERP\)](#) .

8.4 Status in the Resource Overview

Use

The different statuses in the resource overview show the current status of the resource planners and resources within the resource planning or contact person processes.

Features

Status Table: Resources Overview

Sy	Status	Meaning
m		
bo		
I		
	Added	Resource planner has been added
	Resource Found	Resource has been found and added using the employee search, that is, by choosing  .
	Dummy	Resource has been added indirectly by the resource planner by choosing  .
	Offer	The network activity has been saved. This starts the phase during which resources are offered by the resource planner(s).
	Complete	The demand has been fully processed. This means that the requester or the system has removed the offer ID of the demand.
	Processed	The resource planner has offered resources.
	Offered	The resource planner has offered a resource but the requester has not yet accepted or rejected it.
i Note To switch between the "offered", "accepted", and "rejected" statuses, double-click the icon that is currently displayed.		
	Accepted	The requester has accepted the resources but not yet saved.
	Assigned	The requester has accepted a resource and saved the network.
	Rejected	The requester has rejected the resources but not yet saved.
	Deleted	The requester has rejected a resource and saved the network.

8.5 Long-Term Planning for Network Activities with Date Rules

Demands can be made regularly (for example, once a week). For this, you (as the requester) can use the date rule editor of the standard SAP system to define rules for the periodic dates in the network activity. As the resource planner, you then plan assignments for these demands. This function therefore includes the areas:

- [Creation of Date Rules for Network Activities \[page 276\]](#)

- [Creation of Assignments for Demands with Date Rules \[page 277\]](#)

8.5.1 Creation of Date Rules for Network Activities

Use

In the network activity, you can use the date rule editor of the standard SAP system to define rules for periodic dates.

i Note

The system uses the default time zone selected by the user. However, you can change the time zone in the date rule editor.

Prerequisites

- The network activity for which you want to specify a date rule contains an earliest start date or an earliest finish date.
- Scheduling was carried out for the network and scheduling-relevant data was not changed afterwards.
- An SAP Multiresource Scheduling demand has not been created yet for the network activity.

Features

- As with standard network activities, the system displays the number of assignments for a resource in the resource overview for the network activity.
- If you change the date rule later and existing assignments then fall outside of the intervals defined by the date rules, the system generates corresponding alerts. The assignments, however, are not changed.
- If a remaining demand cannot be covered for a network activity with date rules, you cannot use the [Processing of Remaining Demand](#) function for the remaining demand. Instead, you create a new network activity for the remaining demand with date rules that are adjusted to the remaining demand. To avoid conflicts between the old and new date rules, you also have to adjust the date rule of the original network activity accordingly.
- It is also not possible for the contact person to split the work manually.

Activities

1. To create rules for periodic dates, go to the [Customer Enhancement](#) tab page in the network activity and choose .

2. The [Date Rule](#) dialog box opens with the date rule editor. By default, the system enters the earliest start date as the start of the date rule and the earliest finish date from the network activity as the end of the date rule. The planned duration specified in the network does not affect the time intervals.
3. You can change the time period, but the specified time interval must be within the time frame of the network activities. If incorrect dates are entered, the system prevents you from saving and displays a message specifying the network activities involved.
4. You enter a rule for the periodic date (such as weekly).
5. You can specify which calendar you want the system to use. The system specifies the factory calendar from the work center of the network activity by default (if one exists). If a factory calendar is not maintained for the work center, the system checks whether one is defined in the network activity itself and enters this by default. If a factor calendar is also not defined in the network activity, the system enters the factor calendar defined for the plant.
6. As soon as you have defined a date rule for a network activity, the system sets the [Date Rule Exists](#) indicator.
7. To delete a date rule, choose .

8.5.2 Creation of Assignments for Demands with Date Rules

Use

You can create assignments in SAP Multiresource Scheduling for demands from the Project System (PS) for which date rules exist. The planning board in SAP GUI and the Web-based planning board are both provided for this purpose.

Note

In SAP Multiresource Scheduling, the term “time rule” is used in a general sense. The term “date rule” is used to denote time rules that exist for PS demands. These rules are created in the PS source system for the network activities on which the demands are based. For more information, see [Creation of Date Rules for Network Activities \[page 276\]](#).

Features

- The system creates multiple assignments in the planning board for demands for which date rules have been defined in PS.
- If a date rule was defined for a network activity, you can identify this in the item worklist of the Scheduler Workplace by the indicator set in the [Date Rule](#) column.
- You can display existing date rules for demands. Note that the display of complex date rules is only possible in the Scheduler Workplace (SAP GUI).

Activities

Creation of Assignments in the Planning Board (SAP GUI)

You can create assignments for demands for which date rules have been defined.

- If a date rule was defined for a network activity, you can identify this in the item worklist of the scheduler workplace by the indicator set in the [Date Rule](#) column.
- To display existing date rules for demands, choose [Display Date Rule](#) in the context menu of the demand in the order or item worklist.
- When you move the demand to the planning board using drag & drop or choose the pushbutton for creating assignments in the toolbar, the system opens a dialog box. You can restrict the time period in which the intervals are to be covered by assignments. The following applies:
 - The default start date value is either the start date for the current planning horizon of the planning board or the start date of the date rule if this is a later date. If the start date of the date rule is before the start date of the planning horizon, you can also enter a start date between these dates. In this case, the system adjusts the planning horizon accordingly (see [Adjustment of Planning Horizon \[page 124\]](#)).
 - The default end date value is either the end date for the current planning horizon of the planning board or the end date of the date rule if this is an earlier date. If the end date of the date rule is after the end date of the planning horizon, you can also enter an end date between these dates. In this case, the system also adjusts the planning horizon accordingly.

Creation of Assignments in the Web-Based Planning Board

You can create assignments for demands for which date rules have been defined.

- To display the date rules for a demand, choose the [Display Time Rules](#) pushbutton in the [Demands](#) screen area. Note that you cannot display complex date rules in the Web-based planning board.
- You can select whether the assignments are to be created in capacitive or non-capacitive mode using a list field in the Gantt chart.
- You can create draft assignments for demands in the Gantt chart. The bar for each assignment draft is labeled with the demand ID and the start and end of the time rule.

For more information about how to create and edit assignment drafts, see [Creating Assignments \[page 217\]](#).

i Note

In this case, the assignments lose their attachment to the time rule. This means that if you have already created assignments for the demand from a draft and you choose the pushbutton for creating a draft in the [Demands](#) screen area once more, the system creates the same assignment draft again.

9 Web-Based Resource Management in Project Systems

Use

Using Web-based resource management (RM), you can create requests, search for candidates and assign them to projects using a Web interface. The search can take place across departments and you can include third party vendors and e-mail groups as searching parties. You can also publish open roles so that employees can get an overview of open demands and apply directly. The different tasks are carried out by users with different roles. That means for example that requests and roles are created by a requester. Resource managers look for suitable candidates and propose them to the requester. If resource managers can't find suitable candidates, they can forward the roles to searching parties who will help them find suitable and available candidates for the roles. When a candidate is found and accepted by the requester, resource managers and the employees themselves can create and refine assignments. The line managers can check the availability of their team members and create or refine assignments.

i Note

When a request is created in Web-based resource management, the system creates a Project System network in the corresponding back-end system. To work with Web-based resource management, you don't need to call up or work directly in the PS networks. Since the functions of Web-based resource management and the Project System are not identical, we do not recommend to use the SAP GUI interface of the PS network to change RM Web requests.

As of SAP Multiresource Scheduling 10.0, you can either use the Web Dynpro version of the application or the new resource management (RM) apps to carry out the mentioned tasks. However, the RM apps do not cover the entire scope of the Web Dynpro version of the application and vice versa:

Features Specific to the Web Dynpro Version of the Application

If you want to use one of the following features, you need to use the Web Dynpro version of the application:

- Create requests offline using a PDF form
- Use reporting functions
- Mark roles as confidential so that users in the SAP Multiresource Scheduling planning board need specific authorizations to display all demand details.
- Use extended candidate search functions such as the following:
 - Preselection based on obligatory qualifications or job text
 - Exclusion of specific terms when using unstructured qualifications
 - Extension of the search to neighboring levels of the qualification catalog ("fuzzy search").

Features Specific to the RM Apps

If you want to use the following features, you need to use the RM apps:

- Team schedule to view the assignments and availability of a group of resources who belong together
- Global demand search

- Simulate assignments
- Reassign assignments and time allocations from one resource to another
- Create multiple other bookings for multiple resources at once
- Define recurrence patterns for other bookings
- Create self-bookings for existing requests
- Change candidate status from assignment
- Perform mass change of candidate status

Combining the Use of Web-based Resource Management UI and Multiresource Scheduling Planning Board UI

We recommend to only use the Web-based resource management UIs for the whole process of creating requests, searching for candidates and assigning them to projects. If you want to combine the use of the UIs, make sure to read the information under [Combined Use of Web-based RM UI and MRS Planning Board UI \[page 283\]](#).

Restrictions and Limitations

Web-based resource management is subject to the following restrictions:

- SAP Multiresource Scheduling and SAP ERP must be installed on the same system. Distributed system scenarios are not supported.
- Only resources from SAP HR and N.N. resources are supported. Other resource types, such as business partners, are not supported.
- Only qualifications from SAP Multiresource Scheduling are supported. Qualifications from SAP HR are only supported if they were migrated into SAP Multiresource Scheduling.
- Orders are only locked in Web-based resource management while they are being saved. For the Web Dynpro version of the application, you can activate pessimistic locking in Customizing under [Basic Settings](#). When pessimistic locking is active, the system sets a lock on the Web request as soon as a user opens the request for editing. This setting prevents data inconsistencies or locks that might occur if more than one user opens a request for editing.
- For accessibility according to the respective SAP Accessibility Status Document for SAP Multiresource Scheduling, use the Web Dynpro version of Web-based resource management instead of the RM apps.
- It is not possible to create an assignment using drag & drop.
- The number of hours for a full-day assignment is defined by the HR availability of the candidate.
- It is not possible to create individual concrete assignments stretching over several days.
- The following functions of SAP Multiresource Scheduling are not supported:
 - Team functions and team assignments as used in the SAP Multiresource Scheduling planning board (see [Teams \[page 571\]](#)):

i Note

The teams of project resources that can be created by line managers in the app [RM Team Schedule](#) serve a different purpose: The line manager creates them to display the team schedule and manage the team availability by creating or refining assignments of the individual team members. It is not possible to create team assignments for the teams of project resources created within the app [RM Team Schedule](#).

- Working with tool demands
- Creating links between tools and HR resources

- Travel times
- Automatic assignment creation
- Time allocations such as on-call availability and HR info types, for example, 2001, 2002, and so on
- Qualification matrices with two dimensions
- Undoing and redoing actions

Limitations Specific to the RM Apps

For the Web-based resource management apps, the following limitations apply:

- When two users open a request for editing at the same time, there might be situations where the system cannot merge the changed request details and therefore only accepts the changes that were saved first. The user who tries to save his changes later than the other user would then not be able to save his changes. This applies for example if the two users both want to change data in the request header or in the same role of a request. If in your business scenario the same request might be frequently opened by two users in parallel, we recommend that you use the Web Dynpro version of the application and activate pessimistic locking.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under **Basic Settings** > **Configure Basic Settings**. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose **System** > **User Profile** > **Own Data**, open the **Defaults** tab page and enter the required time zone in the **Time Zone** field in the **Personal Time Zone** group box.
- Nonvisual feedback of the system (such as audio sounds) is not supported.
- If you want to change the look and feel of the apps, for example adapt the visualization to your corporate identity, you can only do so for all users at once. It is not possible for the individual user to personalize the look and feel of the apps.
- To modify the look and feel of the UI RM apps, you can use the UI Theme Designer. However, for some controls supplementary style attributes were introduced that overwrite the standard SAP Blue Crystal theme. For those controls, you don't only have to change the style attributes that can be set by the UI Theme Designer but also the added custom style attributes. Controls that have not been enhanced by RM-specific style attributes do not need any additional changes and can be customized using the UI Theme Designer alone.
- It is not possible to format the browser print preview or the actual printout. Therefore you might have to adjust the page layout in the print preview or even to copy and paste the web page into another desktop text formatting tool and do manual adjustments before printing.
- Exporting tables to spreadsheet applications as CSV files is only possible for the following tables: the team schedule calendar and the results tables of the candidate search and the global demand search.

Prerequisites

You have set up Multiresource Scheduling including the PS integration and have configured the Customizing settings under **Multiresource Scheduling** > **Web-Based Resource Management**.

→ Recommendation

To ensure that times are displayed consistently, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* .

If you have activated the backward integration of data from SAP Multiresource Scheduling to the source system of the demand, all relevant SAP Multiresource Scheduling users must have the appropriate authorization to change data in this system.

Demands created using the Web interface become Project System networks. Therefore, resource planners using the Web-based interface require the authorization to change data in PS (for example, for creating or changing data in transaction CJ20N).

For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Process

The process can for example run as follows:

1. The requester applies for resources by creating a request and a role on the Web interface and sending it to the request owner. Specific candidates and groups for the resource search can be proposed.
2. The system creates a PS network. Depending on the organizational assignment of the requester, the system forwards the request to the relevant group of request owners.
3. The appropriate request owner validates the request and looks for suitable candidates. He or she decides whether the search is to be forwarded to searching parties or if he wants to publish the role to specific resource groups so that possible candidates can apply directly for the role.
4. The searching party looks for candidates and also has the option to publish the role to specific resource groups so that possible candidates can apply directly for the role.
5. The searching party proposes the candidates to the resource manager (by choosing the *Proposed to Requester* candidate status and saving).
6. The request owner checks the list of candidates proposed by the searching parties and proposes one or more of the candidates to the requester.
7. The requester gives feedback by phone or e-mail and accepts or rejects the candidate.
8. The request owner changes the candidate status accordingly. If the requester has accepted a candidate, the resource manager checks the availability, sets the status to *Hardbooking Accepted*, and creates an assignment.
9. The assigned resource, request owner, or line manager refines the assignment.
10. The request owner sets the status of the role to *Staffed*. In case the request has been broadcast to other searching parties, the searching parties are informed of the status change and stop the search.

More Information

[Apps for Web-based Resource Management \[page 294\]](#)

[Web-Based Resource Management Using the Web Dynpro Version \[page 442\]](#)

9.1 Combined Use of Web-based RM UI and MRS Planning Board UI

Use

You can combine the use of Web-based Resource Management UI (Web Dynpro version or RM apps) and SAP Multiresource Scheduling planning board UI for example in the following way: A request can be created using Web-based Resource Management and then staffed using the scheduler workplace (SAP GUI planning board) or the Web-based planning board.

If you also want to use the Web-based Resource Management UIs to change assignments that were created in the SAP Multiresource Scheduling planning board UI, you need to be aware of the different logic that is used in the different UIs:

- If you have changed assignments using the SAP Multiresource Scheduling planning board, these changes will be reflected in the Web-based Resource Management UI. But if you edit assignments using the Web-based Resource Management UI (apps or Web Dynpro version), the system will change the assignments according to the RM logic.

❖ Example

If you create a concrete assignment using Web-based RM for multiple days, the system will create one assignment per day. If you now go to the SAP Multiresource Scheduling planning board and extend the last assignment by another day, the system creates one long assignment. If you then edit this long assignment in Web-based RM, the RM logic applies again and the system splits up the assignment between the two days.

❖ Example

If you create a capacitive assignment in the SAP Multiresource Scheduling planning board with a specific start time (let's say 8 a.m.) and then edit this assignment using the Web-based RM UIs (let's say you only change the title of the assignment), then the system changes the start date of the capacitive assignment to midnight according to the RM logic.

Prerequisites

If you want to combine the use of Web-based Resource Management (apps or Web Dynpro version) and the SAP Multiresource Scheduling planning board, the following settings have to be in place:

- You have specified that the object types for resource planning nodes and resource groups are the same. To do this, call up the SAP Multiresource Scheduling Customizing (transaction `/MRSS/IMG`), choose **SAP Multiresource Scheduling** > **Basic Settings** > **Define Resource Planning Nodes and Evaluation Paths**, scroll down to the area **RM-Specific Evaluation Paths** and select the **Indicator** checkbox. When this checkbox is selected, the system will use the same object type that is specified in the **Resource plng node** field in the **Basic Object Types** group box also as object type for the resource groups.

- You have selected the *Plb Interoperability* checkbox in the RM Customizing under ► *Basic Settings* ► *Configure Basic Settings* ►.
- You have defined a global time zone Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►. Enter the required value in the *Global Time Zone* field. The system then uses the same, global time zone for all resources.

Automatic Creation of RM Candidates after Assignment Updates in the Planning Board

If you create an assignment using the SAP Multiresource Scheduling planning board UI, the system adds the assigned resource as a candidate to the role in the RM Web UI.

i Note

If you are using Z-classes in the change framework, you must have adjusted your Z-classes according to the implementation in class `/MRSS/CL_RMS_ON_CHANGE_ASGN` to make this feature work. For more information, see the *Administrator's Guide for SAP Multiresource Scheduling* available on SAP Help Portal at <http://help.sap.com/mrs>.

You can use the BAdI method `GET_DEFAULT_CANDIDATE_STATUS` of *BAdI: Handling of Candidate Status on UI* `/MRSS/CANDIDATE_STATUS_ON_UI` to define the default candidate status for the automatically added candidates.

9.2 Setting Up Web-based Resource Management

Use

General Settings

To set up Web-based Resource Management, make the following general settings:

- Create number range intervals for the delivered RM-specific number range object keys `/MRSS/PSTA`, `/MRSS/PRES`, and `/MRSS/TEND` (transaction `SNRO`).
- Assign appropriate authorizations to your users (authorization objects `/MRSS/PB1` and `/MRSS/WRM`).
- Create resource management groups using transaction `PPOME`.
- Create aspects (using transaction `KCA0`) and broadcast hierarchies (using transaction `KCJ1`) for each of the broadcast scenarios you want to use.
- Make long text field settings for SAPscript (comments fields) using transaction `SE75`.
- Maintain BDS (Business Document Server) settings for attachments under ► *SAP NetWeaver* ► *Application Server* ► *Basis Services* ► *Business Document Services* ► *Maintain Assignment of Business Objects to Document* ►.

- Configure the delivered SAP Business Workflows or create new ones if required.

Configure Project System Integration

To configure the project system integration, you need to make settings in the Standard Implementation Guide, in Customizing of SAP Multiresource Scheduling, and in the Customizing trees specific to Web-based Resource Management.

The following settings have to be made in the Standard Implementation Guide (transaction SPRO):

- Define RM-specific plant under [Enterprise Structure > Definition > Logistics > General Define, copy, delete, check plant](#).
- Maintain production scheduler group under [Production > Capacity Requirements Planning > Planning > Operations > Scheduling > Set up production scheduler group](#).
- Maintain scheduling parameters under [Production > Capacity Requirements Planning > Operations > Scheduling > Define scheduling parameters for networks](#).
- Maintain the units of measurement for days and workdays under [SAP NetWeaver > General Settings > Check Unit of Measurement](#).
- Create network type under [Project System > Structures > Operative Structures > Network > Settings for Networks > Maintain Network Types](#).
- Create keyword text ID for PS user fields under [Project System > Structures > Templates > Standard Network > General Settings for Standard and Operative Networks > Define User Fields for Networks](#).

The following settings have to be made in the SAP Multiresource Scheduling Customizing (transaction /MRSS/IMG under [Sources of Demand > Networks \(Projects and WBS Elements\)](#)):

- [Control Integration of Projects and WBS Elements into MRS \(ERP\)](#)
- [Define Resource Planning Relevance for Networks \(ERP\)](#)
- [Define Field Control in Relation to Authorization \(ERP\)](#): You can change the delivered settings if required.
- [Define Field Control in Relation to Process Progress \(ERP\)](#): You can change the delivered settings if required.
- Optional: [Deactivate Process Variants \(ERP\)](#)
- Optional: [Define Threshold for "Partially Planned" Status \(ERP\)](#)

For the following RM-specific Customizing activities in /MRSS/RM_IMG, there is Customizing delivered which you can change if required:

- [PS Integration > Create User Status Profile](#)
- [Basic Settings > Status Configuration > Assign Candidate Status Profiles to Request Types](#)
- [PS Integration > Manage RM Request and Role Status](#)

The following settings have to be made in the RM-specific Customizing tree /MRSS/RM_IMG_R3:

- Configure network type and network profile under [PS Integration > Maintain PS settings for RM](#).

Settings in the RM Customizing /MRSS/IMG_RM

The following Customizing activities are mandatory:

- Configure Basic Settings
- Specify Evaluation Paths for Authorization Checks
- Dropdown List Value Configuration

- Status Configuration
- Define Super Regions and Subregions
- Maintain Unstructured Qualification Types
- Routing
- Broadcasting
- Portal Broadcast

The following Customizing activity is optional:

- Configure Additional Basic Settings
Here you can specify for example if the system uses days or hours as duration unit for displaying the requested duration and staffed duration for the assignments.

Settings Specific to the Web Dynpro Version of Web-based Resource Management

If you want to use the Web Dynpro version of the application, make the following additional settings:

- Activate the ICF services for the Web Dynpro application (transaction `SICF`).
- If you want to use the offline form scenario, define the recipient's address in the [Business Communication Services - Administration](#) (transaction `SCOT`).
- Maintain settings under ► [Resource Management](#) ► [Settings Specific to Web Dynpro Application](#) ►.

Settings Specific to the Apps for Web-based Resource Management

If you want to use the RM apps instead of the Web Dynpro version of the application, read the additional implementation steps in the app documentation under [Installation and Implementation \[page 723\]](#).

More Information

For more information about the configuration of Web-based resource management, see the Customizing documentation in the system.

9.3 Using N.N. Resources in Web-based Resource Management

In both the Web Dynpro version as well as the RM apps, you can use N.N. resources that were created using the Web-based N.N. Resource Maintenance application (`/MRSS/WD_NN_RES_MAINT`). N.N. resources are usually used in the following context: If employees are not yet created in SAP HR, you can create them as N.N. resources with basic information. It's not possible to create qualifications for N.N. resources.

In Web-based Resource Management, you can display N.N. resources, you can search for them and add them to roles as candidates, and you can create assignments for them. You can also display basic information for the N.N. resources and create notes for them.

You can use the BAdI [BAdI: Additional Details for HR Resource or N.N. Resource](#) to display additional information for the N.N. resource when resource managers or line managers use the search functions to add N.N. resources as members for a team or as candidates for a role.

Related Information

[N.N. Resources \[page 580\]](#)

9.4 Long-Term Planning with Time Rules in Web-Based Resource Management

Use

When you create a resource request in Web-based resource management, you can define time rules at role level for demands that arise periodically. Time rules allow you, for example, to specify that employees assigned to a role are required for a specific number of hours on certain days of the week. You can display the time rules and create assignments for these demands in the planning boards of SAP Multiresource Scheduling (SAP GUI or Web-based planning board) or directly in the Web-based Resource Management UIs (Web Dynpro or apps).

Prerequisites

You have made the following settings in the RM Customizing (/MRSS/RM_IMG):

- You have activated the use of time rules by selecting the corresponding checkbox under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►
- Optional: You can define default values for creating time rules under ► [Basic Settings](#) ► [Specify Default Values for Time Rules](#) ►.

Features

- You can create one or more time rules for a role. For each time rule, you can specify how many hours per day or how many hours in total resources are required. You can also specify the weekdays on which resources are required.

Note

It's not possible to define an individual number of resources for each time rule.

- You can define time rules for overlapping periods

Example

You require a resource from October 22 to November 2. You create two time rules for this period: Time rule 1 states that the resource must be available during this period on Mondays, Wednesdays, and

Fridays for 8 hours each day. Time rule 2 states that the resource is required during the same period for 5 hours on Tuesdays and Thursdays.

Constraints

- You cannot use the Optimizer for demands with time rules.
- If you use the SAP Multiresource Scheduling reports for demands with time rules (for example, the schedule compliance report `/MRSS/SGR_SCHEDULE_COMPLIANCE` or the POWL reports), the time rules are not taken into consideration. This means that the results of the report may be incorrect. An exception to this is the utilization report (`/MRSS/UTILREP`), which supports demands with time rules.

More Information

- [Creation of Assignments for Demands with Time Rules \[page 290\]](#)

9.4.1 Creating Time Rules for Roles using the Web Dynpro version of RM

Activities

1. Scroll down to the [Time Rules](#) screen area on the [Role Details](#) tab.
2. Add one or more time rules. Once you've added a time rule to the table, the system disables certain fields in the role details from being edited. The values for these fields are automatically filled by the system depending on the data that you specify with the created time rules. For each time rule, make the following entries:
 1. Enter the required period for the time rule by directly typing the values in the table or by selecting the period from the calendar. The system adapts the role start and role end in the role details accordingly.
 2. If required, change the defaulted value for hours per day. If you change the value, the system adapts the requested duration in the role details accordingly
 3. If you want to specify the total hours instead of the hours per day, choose the [Total Hours](#) option on the right-hand side and enter a value. The system adapts the requested duration in the role details accordingly.
 4. Change the defaulted selection of weekdays as required. If you change the weekday selection, the system adapts the value in the [Days/Week](#) field in the role details accordingly.
3. Save the role.

More Information

- [Web-Based Creation of a Resource Request \[page 444\]](#)
- [Creation of Assignments for Demands with Time Rules \[page 290\]](#)
- [Creating Assignments for Demands with Time Rules in Web-based RM \(Web Dynpro\) \[page 293\]](#)

9.4.2 Creating Time Rules for Roles Using RM Apps

When you create a role, you can use time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.

Procedure

1. On the *Scheduling* tab of the role, choose *Maintain Time Rules*.
2. In the *Define Time Rules* screen, choose the + icon to add a new line.
3. Enter a title for the time rule.
4. Click the calendar icon to choose a start and end date and select the weekdays on which resources are required.
5. Specify how many hours per day or how many hours in total resources are required.
6. If you want to add another time rule, choose the + icon and add the information for the next time rule.
7. Save your entries.

Results

The system adapts the field values on the *Scheduling* tab based on the time rule information. When you close the detail role view, you can see that the role now has a time rule icon to indicate that at least one time rule was created.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

9.4.3 Creation of Assignments for Demands with Time Rules

Use

You can create assignments for demands from Web-based resource management for which time rules have been defined. You can use one of the following UIs to create assignments for requests with time rules:

- the SAP GUI planning board
- the Web-based planning board
- the Web Dynpro version of Web-based resource management
- all RM apps that can be used to create assignments

Prerequisites

- You have created an order for a resource request in Web-based resource management and defined at least one time rule.

Prerequisite specific to Web Dynpro version of the application:

- If you want to use time rules within the Web Dynpro version of the application, you cannot have the Customizing set up in a way that assignments are displayed as full day and half day assignments. You need to select *Show Assignment in Hours* in Customizing for *Resource Management* under ► *Basic Settings* ► *Configure Basic Settings* ►.

Features

- If a time rule exists for a demand, the system creates multiple assignments for the demand in the planning board. Depending on the assignment type selected, this is done as follows:
 - **Concrete Assignments**
One assignment is created for each day in the period defined in the time rule. The system determines the start time based on the first basic availability of the resource after the start of the time rule. If there is no information about resource availability, the system creates the assignment at the start time defined in the time rule.
The duration for each day is determined from the time rule. If a total duration (total number of hours) is specified in the time rule, the system determines the daily duration as follows: total number of hours divided by the number of days.
 - **Stretched Assignments**
If the period defined in the time rule stretches over consecutive days, a stretched assignment is created for the whole period, which means that the assignment starts with the start of the time rule and ends with the end of the time rule. If there is a day within the defined period on which the resource is not required, the system creates two assignments: the first assignment ends on the day before the interruption and the second assignment starts on the following day. The defined number of hours per day is not taken into account for stretched assignments.

- **Capacitive Assignments**

If the period defined in the time rule stretches over consecutive days, a capacitive assignment is created for the whole period, which means that the assignment starts with the start of the time rule and ends with the end of the time rule. If there are days within the defined period on which the resource is not required, the system creates multiple capacitive assignments: the first assignment ends on the day before the interruption and the next assignment starts on the following day. The system calculates the number of hours as follows: total number of hours divided by the total number of days.

i Note

The logic used for time rules also applies when you search for suitable resources. When you start to search, you can change the start and end date of the time period. However, the system retains the total duration calculated from the time rule as well as the duration each day.

Example: The assignment lasts for three weeks from July 1, 2012 to July 22, 2012. The relevant time rule states that the resource is required for a total of 30 hours. This results in a daily assignment duration of 2 hours. If you now search for suitable resources and change the time period to July 9 to July 22, but the total duration remains 30 hours, the system does not adjust the daily assignment duration but retains the duration of 2 hours per day. This means that during this time period, the total duration is only 20 hours.

9.4.4 Creating Assignments for Demands with Time Rules (SAP GUI Planning Board)

You can create assignments as usual for demands for which time rules have been defined.

Procedure

1. To display the time rules for a demand, choose the *Display Time Rule* entry from the context menu in the item worklist or order worklist.

The system opens a dialog box in which the following information is displayed:

- Validity period
 - Duration
 - Type of duration
 - D: Duration per day
 - C: Total duration
 - Weekdays on which the resource is required
 - Start and end time
2. Move the demand to the planning board using drag & drop or choose the pushbutton for creating assignments in the toolbar.
 3. Enter the following information in the dialog box:
 - Type of assignments to be created (capacitive or concrete)

- o Exact time frame in which the assignments are to be created

Results

The system creates the assignments using the logic described under [Creation of Assignments for Demands with Time Rules \[page 290\]](#).

9.4.5 Creating Assignments for Demands with Time Rules (Web-Based Planning Board)

You can create assignments in the Web-based planning board for demands for which time rules have been defined.

Context

Procedure

1. To display the time rules for a demand, choose the corresponding pushbutton in the [Demands](#) screen area.

The system opens a dialog box in which the following information is displayed:

- Validity period
 - Duration
 - Type of duration
 - D: Duration per day
 - C: Total duration
 - Weekdays on which the resource is required
 - Start and end time
2. Select whether the assignments are to be created in capacitive or non-capacitive mode using a list field in the Gantt chart.
 3. Optional: You can create draft assignments for demands in the Gantt chart. The bar for each assignment draft is labeled with the demand ID and the start and end of the time rule.

For more information about how to create and edit assignment drafts, see [Creating Assignments \[page 217\]](#).

i Note

In this case, the assignments lose their attachment to the time rule. This means that if you have already created assignments for the demand from a draft and you choose the pushbutton for creating a draft in the *Demands* screen area once more, the system creates the same assignment draft again.

9.4.6 Creating Assignments for Demands with Time Rules in Web-based RM (Web Dynpro)

You can create assignments in Web-based resource management as usual for demands for which time rules have been defined.

Procedure

1. In the dialog box for creating assignments, enter the time period (start and end date) in which the assignments are to be created.

The system creates the assignments using the logic described under [Creation of Assignments for Demands with Time Rules \[page 290\]](#). In the assignment overview for the resource, the system displays the number of hours per day that the resource is required for each assignment.

2. If you want to edit the assignment, select the row in the assignment overview and choose *Refine Assignment*.

You cannot use the *Edit* pushbutton for assignments that are based on time rules.

Related Information

[Web-Based Creation of Assignments \[page 462\]](#)

[Web-Based Postprocessing of Assignments \[page 467\]](#)

[Display of Assignment Details \[page 464\]](#)

9.4.7 Creating Assignments for Demands with Time Rules in Web-Based RM (RM apps)

You can create assignments in the RM apps as usual for demands for which time rules have been defined.

Procedure

1. Optional: Check the candidate's schedule to display the simulated assignments based on the time rules.
2. Add an assignment for the desired candidate.
3. Select the desired assignment type.
4. Optional: In the assignment creation screen, choose [Display Time Rules](#) to get an overview of the time rules maintained for the role
5. Select the [Use Time Rules](#) checkbox if you want the system to consider the time rules while creating the assignments.

Once you've selected the checkbox, you cannot change the duration fields for the assignment anymore. The system calculates the values based on the time rule data.

9.5 Apps for Web-based Resource Management

Use

SAP Multiresource Scheduling provides several apps that you can use to perform tasks related to the Web-based resource management. You can use these resource management (RM) apps as an alternative to the Web Dynpro version of the Web-based resource management application.

i Note

You can only use the apps for Web-based resource management with the SAP Multiresource Scheduling add-on based on SAP ERP.

The RM apps can be used on desktop only. They do not follow the SAP Fiori design paradigm. However, you need to integrate them into an existing SAP Fiori system landscape. You access these apps from the SAP Fiori launchpad.

i Note

To display change documents for an RM Web request or an assignment, you have to call up the demand in the SAP GUI planning board. To do so, you can for example use the transaction `/MRSS/PLBOSRV` ([Planning Board for Demands](#)). To call up the change document for a demand, choose [Details for Demand](#) in the demand context menu, then choose the [History](#) button. To call up the change document for an assignment, choose [Display Change Documents](#) from the assignment context menu.

For more information, see [Creation of Change Documents for Planning Board Objects](#) [page 139].

Browser Support

Internet Explorer 9 (IE9) is not supported for the RM apps.

More Information

For more information about prerequisites, installation, and implementation requirements, see [Installation and Implementation \[page 723\]](#).

For more information about the individual RM apps, see:

- [My Requests \[page 295\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [Role Overview \[page 341\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Global Demand Search \[page 726\]](#)

9.5.1 My Requests

Use

With the transactional app [My Requests](#), you can get an overview of all requests you created or that were created on your behalf so you can have an overview of all projects that are in the pipeline or you have to work on. You also use the app to create and update requests and roles.

Key Features

- Display, filter, search, and sort the request overview
- Create requests
- Create roles
- Display details of requests and roles
- Define time rules for a role
- Edit and delete requests or roles
- Show request status history

- Propose searching parties
- Send request information to e-mail recipients

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: My Requests \[page 298\]](#).

Note

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Related Apps

- [Staffing Requests \[page 310\]](#)
- [Role Overview \[page 341\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: My Requests \[page 298\]](#)

[App Extensibility: My Requests \[page 302\]](#)

9.5.1.1 App History: My Requests

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The [My Requests](#) app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

My Requests MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Create roles You can now create time rules for roles. You can now also search for N.N. resources. • Display details of requests and roles In the request details, you can now see the remaining duration for each role.
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours.

Enhancement	Description
New Extensibility Options	New extensibility options: - You can use the BApI: Update of E-Mail Information / MRSS/RM_EMAIL_INFO to change the list of recipients and provide default text and subjects for e-mails. - You can now use the following new view and its extension points: - CandidateDisplayEditPopover.fragment.xml - You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code>

9.5.1.2 App Implementation: My Requests

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver - SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Required SAP Notes

For the *My Requests* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

i Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *My Requests* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_REQUESTER
Business Catalog	/MRSS/RM_REQUESTER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_REQUESTER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in grey color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. The setting can be made in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Optional Activities

Create BAdI Implementation to Change Request Default Values

You can use Business Add-In (BAdI) *BAdI: Default Values for Request* (/MRSS/RM_UI5_SET_DEF) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► *Enhancements* ► *Enhancements for RM Apps* ►.

The default implementation class of this BAdI is /MRSS/CL_RM_UI5_DEFAULTS_REQ. For more information, see the documentation in the system.

Create BAdI Implementation to Change The List of Recipients and Provide Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) *BAdI: Update of E-Mail Information* (/MRSS/RM_EMAIL_INFO) to change the list of recipients and provide default text and subjects for e-mails..

More Information

- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: My Requests \[page 302\]](#)

9.5.1.3 App Extensibility: My Requests

Use

You can extend the *My Requests* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more filters, controls and data to the filter bar in the Request Overview page.
- You can add more controls and data to the filter popover in the Request Overview page.
- You can add more controls and data to the skills tab view in the roles details view.
- You can add more controls and data to the skill proficiency popover for any structured skill for a role.
- You can add more controls and data to the skill category popover for any unstructured skill for a role.
- You can add more controls and data to the prefill skill dialog in the skill tab view under role details view.
- You can add more attributes to the requests table column of the Requests screen.
- You can add more attributes to the requests list item of the Requests Overview screen.
- You can add more controls to the Request Attachment view.
- You can add more controls to the request summary title line in the summary view
- You can add more controls or data to the request summary details part of the summary view.
- You can add more controls to the request creation/edit view.
- You can add more controls to the request header part of the request creation/edit view.

- You can add more controls and attributes to the request attributes part of the request creation/edit view.
- You can add more controls and attributes to the request status history list item.
- You can add more controls and attributes to the Assignment Table in the Calendar View.

Extension Points

The following extension points are available:

View	Extension Point	Use
RequestFilterBar.view.xml	RequestFilterHBoxExtension	This extension point allows you to add more filters to the filter bar in Request Overview page.
RequestFilterBar.view.xml	RequestFilterExtension	This extension point allows you to add more controls, data to the filter bar in Request Overview page.
RequestFilterPopover.fragment.xml	RequestFilterPopoverExtension	This extension point allows you to add more controls, data to the filter popover in Request Overview page.
RequestDetailsRoleSkills.fragment.xml	RoleSkillsExtension	This extension point allows you to add more controls, data to the skill tab view in role details view.
RequestDetailsRoleProficiencyPopover.fragment.xml	RoleSkillProficiencyPopoverExtension	This extension point allows you to add more controls, data to the skill proficiency popover for any structured skill for a role.
RequestDetailsRoleCategoryPopover.fragment.xml	RoleSkillCategoryPopoverExtension	This extension point allows you to add more controls, data to the skill category popover for any unstructured skill for a role.
PrefillSkillDialog.view.xml	RolePrefillSkillDialogExtension	This extension point allows you to add more controls, data to the prefill skill dialog in the skill tab view under role details view.
RequestTable.view.xml	requestListCols	This extension point allows you to add more attributes to the requests table column of the Request screen

View	Extension Point	Use
RequestTable.view.xml	requestListCells	This extension point allows you to add more attributes to the requests list item of the Request Overview screen
RequestDetailsAttachment.view.xml	RequestDetailsAttachmentExtension	This extension point allows you to add more controls to the Request Attachment view
RequestDetailsSummary.view.xml	requestSummaryTitleExtension	This extension point allows you to add more controls to the request summary title Line in the Summary View
RequestDetailsSummary.view.xml	requestSummaryDetailsExtension	This extension point allows you to add more controls or data to the request summary details part of the summary view
RequestHeaderChange.view.xml	RequestChangeViewExtension	This extension point allows you to add more controls to the request creation/edit view
RequestHeaderChange.view.xml	RequestChangeHeaderViewExtension	This extension point allows you to add more controls to the request header part of the request creation/edit view
RequestHeaderChange.view.xml	RequestChangeAttributesExtension	This extension point allows you to add more controls/attributes to the request attributes part of the request creation/edit view
RequestStatusHistoryPopover.fragment.xml	requestStatusHistoryListItemExtension	This extension point allows you to add more attributes/controls to the request status history list item
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayHeader	This extension point allows you to add more attributes/controls to the header of the assignment table in calendar view
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayColumn	This extension point allows you to add more attributes/controls to the table column of the assignment table in calendar view
CandidateDisplayEditPopover.fragment.xml	AssignmentDisplayEditPopoverExtension	This extension point allows the user to add more attributes/controls to the popover of the assignment table in calendar view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► [UI Development Toolkit for HTML5 \(SAP UI5\)](#) ► [Extending Applications](#) ► [View Extension](#) ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► [SAP Gateway Developer Guide](#) ► [SAP Gateway Cookbooks](#) ► [OData Channel Cookbooks](#) ► [Getting Started With the Service Builder](#) ► [Redefining Services](#) ►.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code.

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	extCreateCsvColumns	This controller hook allows you to extend the export column.

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► [UI Development Toolkit for HTML5 \(SAP UI5\)](#) ► [Extending Applications](#) ► [Controller Extension](#) ► [Providing Hooks in the Standard Controller](#) ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► [UI Development Toolkit for HTML5 \(SAP UI5\)](#) ► [Extending Applications](#) ►.

9.5.1.4 Working in the My Requests Overview

The request overview shows all requests that were created by you or were assigned to you as a requester.

You can filter and sort the request overview to find requests more easily. In the *Status* filter, you can also combine two or more of the available filter options. When you close the current session, the system saves the filter values you have chosen so that the list will be filtered the same way when you open the list the next time. You can use the search function. If you have applied filters to the list, the system will only search in the filtered requests. You can also open a specific request if you know the request number.

You can display the request details from the request overview.

9.5.1.5 Creating a Request

Use

You create a request to get staffing for a customer project (service request) or an internal project (corporate request). The request needs to have one or several roles. A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a request from scratch or copy an existing request to use the data as template.

Procedure

Creating a request includes the following mandatory steps:

1. Enter a request title.
2. Fill out at least the mandatory fields in the request header: requester, responsible RM organization, requesting country, customer name, request type, and languages. Based on the Customizing settings, the system will use some of your entered information to determine the resource management group that receives your request once you have submitted it.
3. Add at least one role and fill out at least the mandatory fields on role level. You can also copy an existing role and use the copied data as the basis for your new role.

In addition, you can add internal comments and attachments to give the resource manager additional context information to help with staffing decisions.

Saving and Submitting

If you do not have all of the required information yet, you can save the request as draft version. The system sets the request status *Not Yet Submitted*. If you want to forward the request to the request owner group or request owner to start the staffing process, you submit the request. The system assigns a request number and forwards the request. The request status is changed to *Newly Submitted*.

9.5.1.6 Creating Roles as Requester

Use

A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a role from scratch or copy an existing role to use the data as template.

Procedure

Creating a request includes the following steps:

1. Enter a role description.
2. Enter at least the mandatory information on the tabs *Details* and *Location*.
3. Enter the role start and end date and the number of requested days on the *Scheduling* tab. If required, you can change the number of requested resources or days per week. The system then recalculates the total number of requested days. You can still change the total number of requested days manually, but it must not exceed the value calculated by the system.
4. Optional: You can create time rules for the role if you need a resource for a specific number of hours on certain days of the week.
5. Optional: You can enter more information about the role on the *Scope* tab and the *Comments* tab.
6. Optional: You can add skills, candidate proposals, and broadcast target proposals.

Saving and Submitting

Save or Submit the role. If you do not have all of the required information yet, you can save the role as draft version. The system sets the role status *Not Yet Submitted*. If you want to forward the role to the role owner group or role owner, submit the role. The system assigns a role number and forwards the role. If your request has more than one role, you can also just forward one specific role. It depends on Customizing settings if the system submits the whole request as soon as the first role is submitted or only after all roles have been submitted.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

[Adding Skills to a Role as Requester \[page 308\]](#)

[Adding Candidates to a Role as Requester \[page 308\]](#)

[Proposing Searching Parties as Requester \[page 309\]](#)

9.5.1.7 Creating Time Rules for Roles Using RM Apps

When you create a role, you can use time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.

Procedure

1. On the *Scheduling* tab of the role, choose *Maintain Time Rules*.
2. In the *Define Time Rules* screen, choose the + icon to add a new line.
3. Enter a title for the time rule.

4. Click the calendar icon to choose a start and end date and select the weekdays on which resources are required.
5. Specify how many hours per day or how many hours in total resources are required.
6. If you want to add another time rule, choose the + icon and add the information for the next time rule.
7. Save your entries.

Results

The system adapts the field values on the [Scheduling](#) tab based on the time rule information. When you close the detail role view, you can see that the role now has a time rule icon to indicate that at least one time rule was created.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

9.5.1.8 Adding Skills to a Role as Requester

You can add skills to the role so that the resource manager can look for candidates with matching qualifications. You have the following options:

- You can add structured skills to the role as requirements. Structured skills are predefined skills from a catalog. The catalogs are maintained outside the RM app in the transaction [Qualification Catalogs](#) /MRSS/SQM_CAT.
- You can add unstructured skills to a role as requirements. Unstructured skills are skill requirements entered as free text based on a category.
- You can add skills from an existing requirements profile to the role. These requirements profiles are templates that fill in the structured and unstructured skills. The requirements profiles are maintained outside the RM app using the MRS standard transaction [Requirements Profile](#) /MRSS/REQM.

Note

In the RM apps, the term "skill" is used as a synonym for "qualification".

9.5.1.9 Adding Candidates to a Role as Requester

To add candidates, you have the following options:

- Adding internal candidates: You can use the simple search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-

specific comments for the candidate. You have to choose a candidate status. Choose [Preferred](#), if you don't know if the desired candidate will be available for the requested time frame. The resource manager or searching party will check the availability for you. Choose [Named](#), if you already agreed upon a candidate with the resource manager.

- Adding external candidates: It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name. You have to choose a candidate status. Choose [Preferred](#), if you don't know if the desired candidate will be available for the requested time frame. The resource manager or searching party will check the availability for you. Choose [Named](#), if you already agreed upon a candidate with the resource manager.

When you have added the candidates, the system displays the candidate with its name, status, and status history in the candidate list. You can call up more information about the candidate by clicking the [i](#) icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers. You can find the relevant setting in the Customizing of SAP Multiresource Scheduling (/MRSS/IMG) under ► [Basic Settings](#) ► [Configure Note Management Settings](#) ►.

Proposing Candidates to the Resource Manager

As soon as you submit the role, the resource manager can see the proposed candidates. For candidates that you suggested, you can still change the proposed start date and proposed end date as well as proposed staffed days after the role was submitted.

9.5.1.10 Proposing Searching Parties as Requester

As a requester, you can add one or more broadcasts to the role to suggest searching parties. You add a broadcast with a target type and target group and save it. When you have submitted the role, the resource manager can submit the broadcast to the searching party in order to get help finding suitable candidates.

9.5.1.11 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose [Email](#) from the [Request Details](#) screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose [Create Email](#). Your default mail program opens. The body and subject of the e-mail are predefined by the system.

4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

9.5.2 Staffing Requests

Use

With the transactional app [Staffing Requests](#), you can get an overview of the requests that are in the pipeline or that you have to work on as a resource manager. The request overview shows all requests that were assigned to you as request owner or to one of the resource management groups that you belong to. You also use the app to create and update requests, roles and assignments and to broadcast roles to searching parties.

Key Features

- Display, filter, search, and sort the request overview
- Create requests
- Create roles
- Edit and delete requests or roles
- Display details of requests and roles
- Send request information to e-mail recipients
- Validate requests or roles
- Show request status history
- Broadcast roles
- Book resources
- Create assignments
- Edit and delete assignments
- Complete the staffing process for requests and roles
- Send request information to e-mail recipients

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system

landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Staffing Requests \[page 298\]](#).

i Note

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Related Apps

- [My Requests \[page 295\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Staffing Requests \[page 313\]](#)

[App Extensibility: Staffing Requests \[page 319\]](#)

<http://help.sap.com/fiori>

9.5.2.1 App History: Staffing Requests

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been

enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The *Staffing Requests* app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Staffing Requests MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Create roles: You can now create time rules for roles. When you perform an advanced candidate search, you can now see additional search results and you can export the candidate search result list to a CSV file. You can now also search for N.N. resources. • Edit roles: When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role under specific conditions. • Display details of requests and roles: In the request details, you can now see the remaining duration for each role. In the candidate calendar, you can display the assignments for each day as a list. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.

Enhancement	Description
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Basic Settings Configure Additional Basic Settings. You can use the Customizing activity Define Time Frame for Resource Validity Check to define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps Define Time Frame for Resource Validity Check.
New Extensibility Options	New extensibility options: - You can use the BAAdI: Update of E-Mail Information / MRSS/RM_EMAIL_INFO to provide the list of recipients as well as default text and subjects for e-mails. - You can use the BAAdI: Additional Details for HR Resource or N.N. Resource to display additional information about the resource. - You use the BAAdI: Calculation of Remaining Duration to exclude assignments from the calculation of the remaining duration - You can now use the following new view and its extension points: <code>CandidateDisplayEditPopover.fragment.xml</code> <code>AdvConsultSrchDialog.view.xml</code> - You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code>

9.5.2.2 App Implementation: Staffing Requests

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* ►. In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Required SAP Notes

For the *Staffing Requests* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Staffing Requests* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Even if you change the UI theme, the configured assignment colors remain as defined in Customizing.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. You can make the setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Define Time Frame for Resource Validity Check

You can define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Optional Activities

Create BAdI Implementation to Change Request Default Values

You can use Business Add-In (BAdI) [BAdI: Default Values for Request](#) (/MRSS/RM_UI5_SET_DEF) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#). ►

The default implementation class of this BAdI is /MRSS/CL_RM_UI5_DEFAULTS_REQ. For more information, see the documentation in the system.

Create BAdI Implementation to Determine and Display Role Statuses

You can use Business Add-In (BAdI) *BAdI: Display of Role Statuses* (/MRSS/BADI_RM_UI5_ROLE_STATUS) to determine and display the role statuses that the request owner can choose in the RM app *Staffing Requests*.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#) ►.

SAP delivers a default implementation class that also serves as an example implementation: /MRSS/CL_RM_UI5_ROLE_STATUSES. For more information, see the documentation in the system.

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. Resource

You can use the *BAdI: Additional Details for HR Resource or N.N. resource* to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class /MRSS/CL_RM_UI5_PERSON_SEARCH reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#) ►.

Create BAdI Implementation to Provide The List of Recipients As Well As Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) *BAdI: Update of E-Mail Information* (/MRSS/RM_EMAIL_INFO) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Requests](#) ►.

Create BAdI Implementation to Exclude Assignments from Remaining Duration Calculation

You use Business Add-In (BAdI) *BAdI: Calculation of Remaining Duration* to exclude assignments from the calculation of the remaining duration.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Assignments](#) ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Staffing Requests \[page 319\]](#)

9.5.2.3 App Extensibility: Staffing Requests

Use

You can extend the [Staffing Requests](#) app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more filters, controls and data to the filter bar in the Request Overview page.
- You can add more controls and data to the filter popover in the Request Overview page.
- You can add more controls and data to the skills tab view in the roles details view.
- You can add more controls and data to the skill proficiency popover for any structured skill for a role.
- You can add more controls and data to the skill category popover for any unstructured skill for a role.
- You can add more controls and data to the prefill skill dialog in the skill tab view under role details view.
- You can add more attributes to the requests table column of the Requests screen.
- You can add more attributes to the requests list item of the Requests Overview screen.
- You can add more controls to the Request Attachment view.
- You can add more controls to the request summary title line in the summary view
- You can add more controls or data to the request summary details part of the summary view.
- You can add more controls to the request creation/edit view.
- You can add more controls to the request header part of the request creation/edit view.
- You can add more controls and attributes to the request attributes part of the request creation/edit view.
- You can add more controls and attributes to the request status history list item.
- You can add more UI attributes or controls to the header or the table columns of the assignment table in the calendar view.

Extension Points

The following extension points are available:

View	Extension Point	Use
RequestFilterBar.view.xml	RequestFilterHBoxExtension	This extension point allows you to add more filters to the filter bar in Request Overview page.
RequestFilterBar.view.xml	RequestFilterExtension	This extension point allows you to add more controls, data to the filter bar in Request Overview page.
RequestFilterPopover.fragment.xml	RequestFilterPopoverExtension	This extension point allows you to add more controls, data to the filter popover in Request Overview page.

View	Extension Point	Use
RequestDetailsRoleSkills.fragment.xml	RoleSkillsExtension	This extension point allows you to add more controls, data to the skill tab view in role details view.
RequestDetailsRoleProficiencyPopover.fragment.xml	RoleSkillProficiencyPopoverExtension	This extension point allows you to add more controls, data to the skill proficiency popover for any structured skill for a role.
RequestDetailsRoleCategoryPopover.fragment.xml	RoleSkillCategoryPopoverExtension	This extension point allows you to add more controls, data to the skill category popover for any unstructured skill for a role.
PrefillSkillDialog.view.xml	RolePrefillSkillDialogExtension	This extension point allows you to add more controls, data to the prefill skill dialog in the skill tab view under role details view.
RequestTable.view.xml	requestListCols	This extension point allows you to add more attributes to the requests table column of the Request screen
RequestTable.view.xml	requestListCells	This extension point allows you to add more attributes to the requests list item of the Request Overview screen
RequestDetailsAttachment.view.xml	RequestDetailsAttachmentExtension	This extension point allows you to add more controls to the Request Attachment view
RequestDetailsSummary.view.xml	requestSummaryTitleExtension	This extension point allows you to add more controls to the request summary title Line in the Summary View
RequestDetailsSummary.view.xml	requestSummaryDetailsExtension	This extension point allows you to add more controls or data to the request summary details part of the summary view
RequestHeaderChange.view.xml	RequestChangeViewExtension	This extension point allows you to add more controls to the request creation/edit view
RequestHeaderChange.view.xml	RequestChangeHeaderViewExtension	This extension point allows you to add more controls to the request header part of the request creation/edit view

View	Extension Point	Use
RequestHeaderChange.view.xml	RequestChangeAttributesExtension	This extension point allows you to add more controls/attributes to the request attributes part of the request creation/edit view
RequestStatusHistoryPopover.fragment.xml	requestStatusHistoryListItemExtension	This extension point allows you to add more attributes/controls to the request status history list item
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayHeader	This extension point allows you to add more attributes/controls to the header of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayColumn	This extension point allows you to add more attributes/controls to the table column of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	AssignmentDisplayEditPopoverExtension	This extension point allows you to add more attributes/controls to the popover of the assignment table in calendar view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code.

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	extCreateCsvColumns	This controller hook allows you to extend the export column.

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.2.3.1 App Extensibility: Candidates

You can extend the candidate-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can add more data to the advanced search dialog before the search input field.
- You can add more data to the advanced search dialog between the search input field and the filter list.
- You can add more data to the advanced search dialog between the filter list and the results list.
- You can add more data to the advanced search dialog between after the results list.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more column definitions (column header) to the result list.
- You can add more column contents to the result list.
- You can extend the request internal candidate view to the top of the form.
- You can extend the request internal candidate view to just below the Search Multi Input area of the form.
- You can extend the request internal candidate view to the bottom of the form.
- You can extend the external candidate form of a role.
- You can add data to the candidate attachment list view at the top.
- You can add more controls and data to the assignment dialog view for the candidate.
- You can add more data about the assignment details for the candidate.

Extension Points

The following extension points are available:

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeSearchTool-bar	Using this extension point, you can add the data to the advanced search dialog before the search input field.
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeFilterList	Using this extension point, you can add the data to the advanced search dialog between the search input field and the filter list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterResultList	Using this extension point, you can add the data to the advanced search dialog after the results list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterFooterTool-bar	Using this extension point, you can add the data to the advanced search dialog inside the footerbar after the add candidate button.
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListColumn-Definition	Using this extension point, you can add more column definitions (column header) to the result list.
i Note This extension must be synchronized with the extension "Advanced-ConsultantResultListCellContents" (for every new header added, the corresponding content/field also needs to be added).		
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListCellContents	Using this extension point, you can add more column contents to the result list.
i Note This extension must be synchronized with the extension "Advanced-ConsultantResultListColumnDefinition" (for every new content/field added the corresponding header also needs to be added).		

View	Extension Point	Use
RequestInternalCandidate.view.xml	requestAddInternalCandidateTopExtension	Using this extension point, you can extend the request internal candidate view to the top of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBelowSearchExtension	Using this extension point, you can extend the request internal candidate view to just below the Search Multi Input area of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBottomFormExtension	Using this extension point, you can extend the request internal candidate view to the bottom of the form.
RoleExternalCandidate.view.xml	RoleExternalCandidateForm	Using this extension point, you can extend the external candidate form of a role.
CandidateAttachment.view.xml	CandidateAttachmentExtension	Using this extension point, you can add data to the Candidate attachment list view at the top.
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can add more controls and data to the assignment dialog view for the candidate.
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can add more data about the assignment details for the candidate.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code:

Candidates UI Controller Hooks

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	mrs.resourcemanagement.view.request.AdvConsultSrchDialog~extCreateCsvColumns	Enhance csv export of the result list with custom fields

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.2.3.2 App Extensibility: Assignments

You can extend the assignment-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the assignment details view.
- You can extend the edit assignment view.
- You can extend the create assignment menu.
- You can extend the create assignment views for concrete, capacitive, and stretched assignments.
- You can extend the create other booking view.
- You can extend the assignment wizard view.

Extension Points

The following extension points are available:

View	Extension Point	Use
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can extend the bottom of the assignment detail view
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can extend the candidate assignment details dialog
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeFirstPage	Using this extension point, you can extend before the first Assignment Menu Page view
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeCreateList	Using this extension point, you can extend before the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterCreateList	Using this extension point, you can extend after the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterLastPage	Using this extension point, you can extend after the last Assignment Menu Page view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveTop	Using this extension point, you can extend at the top of the view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeAssignmentDates	Using this extension point, you can extend above the Assignment Date column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBottom	Using this extension point, you can extend at the bottom of the view
CreateConcreteAssignment.view.xml	CreateConcreteTop	Using this extension point, you can extend at the top of the view

View	Extension Point	Use
CreateConcreteAssignment.view.xml	CreateConcreteBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeCandidates	Using this extension point, you can extend above the Candidates name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeBottom	Using this extension point, you can extend at the bottom of the view
CreateOtherBooking.view.xml	OtherBookingTop	Using this extension point, you can extend at the top of the view
CreateOtherBooking.view.xml	OtherBookingBeforeDates	Using this extension point, you can extend Extends above the Assignment Date column
CreateOtherBooking.view.xml	OtherBookingBottom	Using this extension point, you can extend at the bottom of the view
CreateStretchedAssignment.view.xml	ScretchTop	Using this extension point, you can extend at the top of the view
CreateStretchedAssignment.view.xml	ScretchBeforeDates	Using this extension point, you can extend above the Assignment Date column
CreateStretchedAssignment.view.xml	ScretchBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateStretchedAssignment.view.xml	ScretchBeforeRequestRoles	Using this extension point, you can extend above the Request / Role name column
CreateStretchedAssignment.view.xml	ScretchBeforeBottom	Using this extension point, you can extend at the bottom of the view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeFirstPage	Using this extension point, you can extend before the first wizard page view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeRequestRole-Select	Using this extension point, you can extend before the request number selection view

View	Extension Point	Use
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterRequestRole-Select	Using this extension point, you can extend after the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterCreateList	Using this extension point, you can extend after the list of assignment types view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterLastPage	Using this extension point, you can extend after the last wizard page view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.2.4 Working in the Staffing Requests Overview

The request overview shows all requests that are in the pipeline or that you have to work on. That means all requests that were assigned to you as request owner or to one of the resource management groups that you belong to.

You can filter and sort the request overview to find requests more easily. Except for the date filters, you can also combine two or more of the available filter options. You can use the search function. If you have applied filters to the list, the system will only search in the filtered requests. You can also open a specific request if you know the request number.

You can display the request details from the request overview.

9.5.2.5 Creating a Request

Use

You create a request to get staffing for a customer project (service request) or an internal project (corporate request). The request needs to have one or several roles. A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a request from scratch or copy an existing request to use the data as template.

Procedure

Creating a request includes the following mandatory steps:

1. Enter a request title.
2. Fill out at least the mandatory fields in the request header: requester, responsible RM organization, requesting country, customer name, request type, and languages. Based on the Customizing settings, the system will use some of your entered information to determine the resource management group that receives your request once you have submitted it.
3. Add at least one role and fill out at least the mandatory fields on role level. You can also copy an existing role and use the copied data as the basis for your new role.

In addition, you can add internal comments and attachments to give the resource manager additional context information to help with staffing decisions.

Saving and Submitting

If you do not have all of the required information yet, you can save the request as draft version. The system sets the request status *Not Yet Submitted*. If you want to forward the request to the request owner group or request owner to start the staffing process, you submit the request. The system assigns a request number and forwards the request. The request status is changed to *Newly Submitted*.

9.5.2.6 Creating Roles as Resource Manager

Use

A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a role from scratch or copy an existing role to use the data as template.

Procedure

Creating a request includes the following steps:

1. Enter a role description.
2. Enter at least the mandatory information on the tabs *Details* and *Location*.
3. Enter the role start and end date and the number of requested days on the *Scheduling* tab. If required, you can change the number of requested resources or days per week. The system will recalculate the total number of requested days. You can still change the total number of requested days manually, but it must not exceed the value calculated by the system.
4. Optional: You can create time rules for the role if you need a resource for a specific number of hours on certain days of the week.
5. Optional: You can enter more information about the role on the *Scope* tab and the *Comments* tab.
6. Optional: You can add skills, candidates and broadcast targets.

Saving and Submitting

Save or Submit the role. If you do not have all of the required information yet, you can save the role as draft version. The system will set the role status *Not Yet Submitted*. If you want to forward the role to the role owner group or role owner, submit the role. The system assigns a role number and forwards the role. If your request has more than one role, you can also just forward one specific role. It depends on Customizing settings if the system submits the whole request as soon as the first role is submitted or only after all roles have been submitted.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

9.5.2.7 Creating Time Rules for Roles Using RM Apps

When you create a role, you can use time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.

Procedure

1. On the *Scheduling* tab of the role, choose *Maintain Time Rules*.
2. In the *Define Time Rules* screen, choose the + icon to add a new line.
3. Enter a title for the time rule.
4. Click the calendar icon to choose a start and end date and select the weekdays on which resources are required.
5. Specify how many hours per day or how many hours in total resources are required.

6. If you want to add another time rule, choose the + icon and add the information for the next time rule.
7. Save your entries.

Results

The system adapts the field values on the [Scheduling](#) tab based on the time rule information. When you close the detail role view, you can see that the role now has a time rule icon to indicate that at least one time rule was created.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

9.5.2.8 Adding Skills to a Role as Resource Manager

To find candidates with matching qualifications, you can add skills to the role. You have the following options to do this:

- You can add structured skills to the role as requirements. Structured skills are predefined skills from a catalog. The catalogs are maintained outside the RM app in the transaction [Qualification Catalogs](#) (/MRSS/SQM_CAT).
- You can add unstructured skills to a role as requirements. Unstructured skills are skill requirements entered as free text based on a category.
- You can add skills from an existing requirements profile to the role. These requirements profiles are templates that fill in the structured and unstructured skills. The requirements profiles are maintained outside the RM app using the MRS standard transaction [Requirements Profile](#) /MRSS/REQM.

Note

In the RM apps, the term “skill” is used as a synonym for “qualification”.

9.5.2.9 Adding Candidates to a Role as Resource Manager

To add candidates, you have the following options:

Adding Internal Candidates

- Using the simple search:
 - You can search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-specific comments for the candidate.

- Using the advanced search:
 - If you want the system to look for candidates with specific skills, you can use the advanced search. You can specify a set of skills and let the system use these skills to look for candidates. If there are prefilled skills from the skills tab, you can remove or adapt these as required.
 - You can export the candidate search result list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.
 - In addition to the total matching result, you can now see separate results for the qualification matching for structured and unstructured qualifications and the availability. You can sort the advanced candidate search results list by each of the results columns.
 - If the role has time rules and the role has already been saved before, the system considers the time rules when it calculates the availability matching.
 - Using the calendar icon in the [Schedule](#) column of the results list, you can simulate the assignments that would be created.

Adding External Candidates

It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name.

Working in the Candidate List

When the candidates are added to the candidate list, the system displays the candidate with its name, status, status history, and availability information. The availability information is only displayed if you have authorization for the candidate. The following tasks can be carried out from the candidate list:

- You can call up more information about the candidate by clicking the  icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers.
- You can display the existing assignments for candidates for which you have authorization. In the candidate calendar, you can display the assignments for a day as a list by clicking the date.
- For both internal or external candidates, you can add attachments after they have been added to the candidate list.
- You can export the candidate list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.

Proposing Candidates to the Requester

If you want to inform the requester of your proposal, set the candidate status to [Proposed to Requester](#) and save. When the requester rejects or accepts a candidate (via e-mail or phone) you need to change the candidate status accordingly. The requester cannot change the status. If the requester has accepted a candidate, you can check the availability, change the status to [Hardbooking Approved](#) and create an assignment.

9.5.2.10 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the [Candidates](#) tab or by clicking the calendar icon in the [Schedule](#) column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type [Simulated](#).

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type [Simulated](#) under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for Assignment Display](#) ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field [Def. Assignment Type](#) defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace \(SAP GUI and Web-based Planning Board\)](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).

- The settings under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ► define if non-capacitive assignments are created as concrete or stretched assignments.

9.5.2.11 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose [Email](#) from the [Request Details](#) screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose [Create Email](#). Your default mail program opens. The body and subject of the e-mail are predefined by the system.
4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

9.5.2.12 Validating a Role

When a role was submitted to you, you first check the role information and get in touch with the requester if any further clarification is needed. Before you start to search or assign candidates, you validate the role so that the requester knows that the staffing process has started. As soon as you have set the role status to [Validated](#), the requester is no longer able to make critical changes to the role.

i Note

Depending on the Customizing settings you have made under ► [Resource Management](#) ► [Basic Settings](#) ► [PS Integration](#) ► [Manage RM Request and Role Status](#) ►, the request status is set to [Validated](#) as soon as the first role has been validated or once all roles of the request have been validated.

9.5.2.13 Getting Help to Find Suitable Candidates for a Role

If you cannot find a suitable candidate for a role, you can add broadcast information and forward it to searching parties or resource groups to get help finding suitable candidates.

Forwarding a Role to Searching Parties

If you need a searching party to help you find suitable candidates, take the following steps:

1. Add a broadcast and select a target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast the system determines the RM group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the searching party know that a candidate was found and they can stop looking, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

Forwarding the Role to Resource Groups So the Members Can Apply Directly

If you want to publish a role and thus allow possible candidates to apply directly, take the following steps:

1. Add a broadcast and select *Resource Group* as target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast, the system determines the resource group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the resources know that a candidate was found and they cannot apply any longer, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

9.5.2.14 Booking Resources as Resource Manager

Note

This section describes the booking process using the candidate status profiles and booking types assignments that are part of the sample Customizing delivered by SAP (status profiles RM_CAND1 and RM_CAND2). You can create customer-specific candidate status profiles in Customizing for *Resource Management* under ► *PS Integration* ► *Create User Status Profile* ►.

Booking a candidate means that you change the candidate status to *Hardbooking Approved* or *Softbooking Approved* before you create assignments. It is not mandatory to set the booking statuses before creating the assignments for a role, but if you don't set them the system does not take these assignments into account for the availability of the candidate.

When a candidate was accepted by the requester, proceed as follows:

1. You confirm the availability of the candidate. While you are checking the availability, you can set the candidate status to *Checking Availability* to let other resource managers in your group know what you are doing.
2. You book the candidate by changing the candidate status to *Hardbooking Approved* or *Softbooking Approved*. If the required Customizing settings are in place, the system sends out a notification to the candidate when he or she has been soft-booked or hard-booked for an assignment. As a resource manager, you can set the candidate status to *Hardbooking Approved* or *Softbooking Approved* only for candidates you are responsible for. For other candidates, you can only set the status to *Softbooking Approval Required* or *Hardbooking Approval Required*. The responsible resource manager of the candidate will set the status to *Hardbooking Approved* or *Softbooking Approved* and create the assignments.

i Note

If a candidate has applied to one of your roles directly but you are not responsible for this candidate as a resource manager, you need to broadcast the role to the responsible resource manager so he or she can do the booking and assignment creation.

Planning

If you are still in a planning phase, you can set the candidate status to *Forecasted* before you actually book candidates. Assignments created for a candidate with status *Forecasted* have the booking type *Planned* and do not affect the availability of the candidate.

Softbooking

If you are not sure about the final assignment of a candidate to a role, you might want to preliminarily block his or her availability by soft-booking the candidate. You do this by changing the candidate status to *Softbooking Approved*. The assignments created for a soft-booked candidate also have the booking type *Soft-booked*. To indicate that a role was soft-booked with candidates, you can set the role status to *Non-Binding Scheduled*.

Setting a Softbooking Expiration Date

After you have changed the candidate status to *Softbooking Approved*, you can enter a softbooking expiration date for the candidate. If the required Customizing settings are in place, the system will send you a workflow notification when the softbooking expiration date is reached.

Withdrawing Bookings

If required you can change the candidate status from *Hardbooking Approved* to *Hardbooking Withdrawn* or from *Softbooking Approved* to *Softbooking Withdrawn*. If there are already assignments created, the system removes these assignments automatically when you withdraw the booking.

9.5.2.15 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► *System* ► *User Profile* ► *Own Data* ►, open the *Defaults* tab page and enter the required time zone in the *Time Zone* field in the *Personal Time Zone* group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status *Hard-booking Approved* or *Soft-booking Approved*. However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status *Proposed to Requester* for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

i Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose [Other Booking](#). For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either [Softbooking Approved](#) or [Hardbooking Approved](#) is not allowed. If the status is changed to [Softbooking Withdrawn](#) or [Hardbooking Withdrawn](#), the system deletes the corresponding assignments automatically.

9.5.2.15.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).
6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose [Create](#).

9.5.2.15.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.

2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

9.5.2.15.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

9.5.2.15.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

9.5.2.16 Completing the Staffing Process

Completing the Staffing Process for a Role

When the role is staffed, set the role status to [Staffed](#). When the role could not be staffed (because no matching candidate was found for example), set the role status to [Closed](#). If you have broadcast the role to searching parties, the searching parties will be informed of the status change and know that they can stop the search.

Completing the Staffing Process for a Role Quickly

If you want to shorten the process (for example to meet the demands of time-critical projects), you can set the status of a role to [Quick Close](#) or [Quick Staffing](#) or [Quick Hard-booking](#) without performing all the intermediate status changes. If you choose one of these statuses, you need to specify a reason. The system checks if the status change is possible. You cannot set a role to [Quick Close](#) if there is a hard-booked candidate assigned to the role for example.

i Note

Once you have closed all roles belonging to a request, the system will set the request status to *Completed* automatically.

9.5.3 Role Overview

Use

With the transactional app *Role Overview*, you can get an overview of all roles assigned to you as a resource manager.

Key Features

- Display, filter, search, and sort the role overview
- Create roles
- Edit and delete roles
- Display details of requests and roles
- Validate roles
- Show request status history and role status history
- Send request information to e-mail recipients
- Broadcast roles
- Booking resources
- Create assignments
- Complete the staffing process for requests and roles

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Role Overview \[page 344\]](#).

i Note

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Role Overview \[page 344\]](#)

[App Extensibility: Role Overview \[page 349\]](#)

9.5.3.1 App History: Role Overview

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The [Role Overview](#) app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Role Overview MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Create roles: You can now create time rules for roles. When you perform an advanced candidate search, you can now see additional search results and you can export the candidate search result list to a CSV file. You can now also search for N.N. resources. • Filter the role overview: You can now use the new <i>Staffing</i> filter to filter the worklist for roles that are not yet staffed, partially staffed, fully staffed, or overstaffed. • Edit roles: When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role under specific conditions. • Display details of requests and roles: In the request details, you can now see the remaining duration for each role. In the candidate calendar, you can display the assignments for each day as a list. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.

Enhancement	Description
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Configure Additional Basic Settings You can use the Customizing activity Define Time Frame for Resource Validity Check to define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps > Define Time Frame for Resource Validity Check .
New Extensibility Option	New extensibility options: - You can use the BAAd: Update of E-Mail Information / MRSS/RM_EMAIL_INFO tto change the list of recipients and provide default text and subjects for e-mails. - You can use the BAAd: Additional Details for HR Resource or N.N. Resource to display additional information about the resource. - You use the BAAd: Calculation of Remaining Duration to exclude assignments from the calculation of the remaining duration - You can now use the following new view and its extension points: <code>CandidateDisplayEditPopover.fragment.xml</code> <code>AdvConsultSrchDialog.view.xml</code> - You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code>

9.5.3.2 App Implementation: Role Overview

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Required System Landscape](#) ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Configuration Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [Configuration of SAP Fiori Infrastructure](#) ► [Setup of SAP Fiori Launchpad](#) ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Required System Landscape](#) ►. In the documentation for your SAP NetWeaver version, choose ► [Setup of SAP Fiori System Landscape](#) ► [\(Installation\)](#) ► [Virus Scanning](#) ►.

Required SAP Notes

For the [Role Overview](#) app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the [Role Overview](#) app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating OData Services](#) ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating ICF Services of UI5 Application](#) ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Even if you change the UI theme, the configured assignment colors remain as defined in Customizing.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Define Time Frame for Resource Validity Check

You can define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Optional Activities

Create BAdI Implementation to Change Request Default Values

You can use Business Add-In (BAdI) [BAdI: Default Values for Request](#) (/MRSS/RM_UI5_SET_DEF) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#). ►

The default implementation class of this BAdI is /MRSS/CL_RM_UI5_DEFAULTS_REQ. For more information, see the documentation in the system.

Create BAdI Implementation to Determine and Display Role Statuses

You can use Business Add-In (BAdI) *BAdI: Display of Role Statuses* to determine and display the role statuses that the request owner can choose in the RM app *Role Overview*.

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. Resource

You can use the *BAdI: Additional Details for HR Resource or N.N. resource* to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class `/MRSS/CL_RM_UI5_PERSON_SEARCH` reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#) ►.

Create BAdI Implementation to Change The List of Recipients and Provide Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) *BAdI: Update of E-Mail Information* (`/MRSS/RM_EMAIL_INFO`) to change the list of recipients and provide default text and subjects for e-mails..

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Requests](#) ►.

Create BAdI Implementation to Exclude Assignments from Remaining Duration Calculation

You use Business Add-In (BAdI) *BAdI: Calculation of Remaining Duration* to exclude assignments from the calculation of the remaining duration.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Assignments](#) ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Role Overview \[page 349\]](#)

9.5.3.3 App Extensibility: Role Overview

Use

You can extend the *Role Overview* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add toolbar controls to the RoleOverview view.
- You can add more attributes to the roles table column and the roles list item of the Role Overview screen.

- You can add more filters and more controls and data to the filter bar in the Role Overview screen.

Extension Points

The following extension points are available:

View	Extension Point	Use
RoleOverview.view.xml	requestsToolBar	This extension point allows you to add toolbar controls to the RoleOverview view.
RoleTable.view.xml	roleListCols	This extension point allows you to add more attributes to the roles table column of the Role Overview screen
RoleTable.view.xml	roleListCells	This extension point allows you to add more attributes to the roles list item of the Role Overview screen
RoleFilterBar.view.xml	RoleFilterHBoxExtension	This extension point allows you to add more filters to the filter bar in Role Overview screen
RoleFilterBar.view.xml	RoleFilterExtension	This extension point allows you to add more controls, data to the filter bar in Role Overview screen.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.3.3.1 App Extensibility: Candidates

You can extend the candidate-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can add more data to the advanced search dialog before the search input field.
- You can add more data to the advanced search dialog between the search input field and the filter list.
- You can add more data to the advanced search dialog between the the filter list and the results list.
- You can add more data to the advanced search dialog between after the results list.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more column definitions (column header) to the result list.
- You can add more column contents to the result list.
- You can extend the request internal candidate view to the top of the form.
- You can extend the request internal candidate view to just below the Search Multi Input area of the form.
- You can extend the request internal candidate view to the bottom of the form.
- You can extend the external candidate form of a role.
- You can add data to the candidate attachment list view at the top.
- You can add more controls and data to the assignment dialog view for the candidate.
- You can add more data about the assignment details for the candidate.

Extension Points

The following extension points are available:

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeSearchTool-bar	Using this extension point, you can add the data to the advanced search dialog before the search input field.
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeFilterList	Using this extension point, you can add the data to the advanced search dialog between the search input field and the filter list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterResultList	Using this extension point, you can add the data to the advanced search dialog after the results list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterFooterTool-bar	Using this extension point, you can add the data to the advanced search dialog inside the footerbar after the add candidate button.

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListColumnDefinition	Using this extension point, you can add more column definitions (column header) to the result list.
		i Note This extension must be synchronized with the extension "AdvancedConsultantResultListCellContents" (for every new header added, the corresponding content/field also needs to be added).
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListCellContents	Using this extension point, you can add more column contents to the result list.
		i Note This extension must be synchronized with the extension "AdvancedConsultantResultListColumnDefinition" (for every new content/field added the corresponding header also needs to be added).
RequestInternalCandidate.view.xml	requestAddInternalCandidateTopExtension	Using this extension point, you can extend the request internal candidate view to the top of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBelowSearchExtension	Using this extension point, you can extend the request internal candidate view to just below the Search Multi Input area of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBottomFormExtension	Using this extension point, you can extend the request internal candidate view to the bottom of the form.
RoleExternalCandidate.view.xml	RoleExternalCandidateForm	Using this extension point, you can extend the external candidate form of a role.
CandidateAttachment.view.xml	CandidateAttachmentExtension	Using this extension point, you can add data to the Candidate attachment list view at the top.

View	Extension Point	Use
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can add more controls and data to the assignment dialog view for the candidate.
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can add more data about the assignment details for the candidate.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* 🔍.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* 🔍.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code:

Candidates UI Controller Hooks

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	mrs.resourcemanagement.view.request.AdvConsultSrchDialog~extCreateCsvColumns	Enhance csv export of the result list with custom fields

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* 🔍.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* 🔍.

9.5.3.3.2 App Extensibility: Assignments

You can extend the assignment-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the assignment details view.
- You can extend the edit assignment view.
- You can extend the create assignment menu.
- You can extend the create assignment views for concrete, capacitive, and stretched assignments.
- You can extend the create other booking view.
- You can extend the assignment wizard view.

Extension Points

The following extension points are available:

View	Extension Point	Use
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can extend the bottom of the assignment detail view
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can extend the candidate assignment details dialog
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeFirstPage	Using this extension point, you can extend before the first Assignment Menu Page view
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeCreateList	Using this extension point, you can extend before the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterCreateList	Using this extension point, you can extend after the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterLastPage	Using this extension point, you can extend after the last Assignment Menu Page view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveTop	Using this extension point, you can extend at the top of the view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column

View	Extension Point	Use
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBottom	Using this extension point, you can extend at the bottom of the view
CreateConcreteAssignment.view.xml	CreateConcreteTop	Using this extension point, you can extend at the top of the view
CreateConcreteAssignment.view.xml	CreateConcreteBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeCandidates	Using this extension point, you can extend above the Candidates name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeBottom	Using this extension point, you can extend at the bottom of the view
CreateOtherBooking.view.xml	OtherBookingTop	Using this extension point, you can extend at the top of the view
CreateOtherBooking.view.xml	OtherBookingBeforeDates	Using this extension point, you can extend Extends above the Assignment Date column
CreateOtherBooking.view.xml	OtherBookingBottom	Using this extension point, you can extend at the bottom of the view
CreateStretchedAssignment.view.xml	ScretchTop	Using this extension point, you can extend at the top of the view
CreateStretchedAssignment.view.xml	ScretchBeforeDates	Using this extension point, you can extend above the Assignment Date column
CreateStretchedAssignment.view.xml	ScretchBeforeCandidate	Using this extension point, you can extend above the Candidates name column

View	Extension Point	Use
CreateStretchedAssignment.view.xml	ScretchBeforeRequestRoles	Using this extension point, you can extend above the Request / Role name column
CreateStretchedAssignment.view.xml	ScretchBeforeBottom	Using this extension point, you can extend at the bottom of the view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeFirstPage	Using this extension point, you can extend before the first wizard page view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeRequestRole-Select	Using this extension point, you can extend before the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterRequestRole-Select	Using this extension point, you can extend after the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterCreateList	Using this extension point, you can extend after the list of assignment types view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterLastPage	Using this extension point, you can extend after the last wizard page view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.3.4 Working in the Role Overview

The role overview shows all roles that are in the pipeline or that you have to work on. That means all roles that were assigned to you as request owner or to one of the resource management groups that you belong to.

The *Requested Duration* column shows how much work is planned for the role. The *Remaining Duration* column shows how much work has not yet been assigned to candidates. If a role is overstaffed, the remaining duration is negative.

You can filter and sort the role overview to find requests more easily. Except for the date filters, you can also combine two or more of the available filter options. When you close the current session, the system saves the filter values you have chosen so that the list will be filtered the same way when you open the list the next time. You can also use the search function to find roles. If you have applied filters to the list, the system will only search in the filtered roles.

You can display the request and role details from the role overview.

Displaying Role Status History

The status history shows the status, when it was set, and who set the status.

9.5.3.5 Creating Roles as Resource Manager

Use

A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a role from scratch or copy an existing role to use the data as template.

Procedure

Creating a request includes the following steps:

1. Enter a role description.
2. Enter at least the mandatory information on the tabs *Details* and *Location*.
3. Enter the role start and end date and the number of requested days on the *Scheduling* tab. If required, you can change the number of requested resources or days per week. The system will recalculate the total number of requested days. You can still change the total number of requested days manually, but it must not exceed the value calculated by the system.
4. Optional: You can create time rules for the role if you need a resource for a specific number of hours on certain days of the week.
5. Optional: You can enter more information about the role on the *Scope* tab and the *Comments* tab.

6. Optional: You can add skills, candidates and broadcast targets.

Saving and Submitting

Save or Submit the role. If you do not have all of the required information yet, you can save the role as draft version. The system will set the role status *Not Yet Submitted*. If you want to forward the role to the role owner group or role owner, submit the role. The system assigns a role number and forwards the role. If your request has more than one role, you can also just forward one specific role. It depends on Customizing settings if the system submits the whole request as soon as the first role is submitted or only after all roles have been submitted.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

9.5.3.6 Creating Time Rules for Roles Using RM Apps

When you create a role, you can use time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.

Procedure

1. On the *Scheduling* tab of the role, choose *Maintain Time Rules*.
2. In the *Define Time Rules* screen, choose the + icon to add a new line.
3. Enter a title for the time rule.
4. Click the calendar icon to choose a start and end date and select the weekdays on which resources are required.
5. Specify how many hours per day or how many hours in total resources are required.
6. If you want to add another time rule, choose the + icon and add the information for the next time rule.
7. Save your entries.

Results

The system adapts the field values on the *Scheduling* tab based on the time rule information. When you close the detail role view, you can see that the role now has a time rule icon to indicate that at least one time rule was created.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

9.5.3.7 Validating a Role

When a role was submitted to you, you first check the role information and get in touch with the requester if any further clarification is needed. Before you start to search or assign candidates, you validate the role so that the requester knows that the staffing process has started. As soon as you have set the role status to *Validated*, the requester is no longer able to make critical changes to the role.

Note

Depending on the Customizing settings you have made under [► Resource Management ► Basic Settings ► PS Integration ► Manage RM Request and Role Status ►](#), the request status is set to *Validated* as soon as the first role has been validated or once all roles of the request have been validated.

9.5.3.8 Adding Candidates to a Role as Resource Manager

To add candidates, you have the following options:

Adding Internal Candidates

- Using the simple search:
 - You can search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-specific comments for the candidate.
- Using the advanced search:
 - If you want the system to look for candidates with specific skills, you can use the advanced search. You can specify a set of skills and let the system use these skills to look for candidates. If there are prefilled skills from the skills tab, you can remove or adapt these as required.
 - You can export the candidate search result list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.
 - In addition to the total matching result, you can now see separate results for the qualification matching for structured and unstructured qualifications and the availability. You can sort the advanced candidate search results list by each of the results columns.
 - If the role has time rules and the role has already been saved before, the system considers the time rules when it calculates the availability matching.
 - Using the calendar icon in the *Schedule* column of the results list, you can simulate the assignments that would be created.

Adding External Candidates

It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name.

Working in the Candidate List

When the candidates are added to the candidate list, the system displays the candidate with its name, status, status history, and availability information. The availability information is only displayed if you have authorization for the candidate. The following tasks can be carried out from the candidate list:

- You can call up more information about the candidate by clicking the *i* icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers.
- You can display the existing assignments for candidates for which you have authorization. In the candidate calendar, you can display the assignments for a day as a list by clicking the date.
- For both internal or external candidates, you can add attachments after they have been added to the candidate list.
- You can export the candidate list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.

Proposing Candidates to the Requester

If you want to inform the requester of your proposal, set the candidate status to *Proposed to Requester* and save. When the requester rejects or accepts a candidate (via e-mail or phone) you need to change the candidate status accordingly. The requester cannot change the status. If the requester has accepted a candidate, you can check the availability, change the status to *Hardbooking Approved* and create an assignment.

9.5.3.8.1 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the [Candidates](#) tab or by clicking the calendar icon in the [Schedule](#) column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type [Simulated](#).

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type [Simulated](#) under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for Assignment Display](#) ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field [Def. Assignment Type](#) defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace \(SAP GUI and Web-based Planning Board\)](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- The settings under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ► define if non-capacitive assignments are created as concrete or stretched assignments.

9.5.3.9 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the [Candidates](#) tab or by clicking the calendar icon in the [Schedule](#) column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type [Simulated](#).

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type [Simulated](#) under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for Assignment Display](#) ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field [Def. Assignment Type](#) defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace \(SAP GUI and Web-based Planning Board\)](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- The settings under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ► define if non-capacitive assignments are created as concrete or stretched assignments.

9.5.3.10 Adding Skills to a Role as Resource Manager

To find candidates with matching qualifications, you can add skills to the role. You have the following options to do this:

- You can add structured skills to the role as requirements. Structured skills are predefined skills from a catalog. The catalogs are maintained outside the RM app in the transaction [Qualification Catalogs](#) (/MRSS/SQM_CAT).
- You can add unstructured skills to a role as requirements. Unstructured skills are skill requirements entered as free text based on a category.
- You can add skills from an existing requirements profile to the role. These requirements profiles are templates that fill in the structured and unstructured skills. The requirements profiles are maintained outside the RM app using the MRS standard transaction [Requirements Profile](#) /MRSS/REQM.

i Note

In the RM apps, the term “skill” is used as a synonym for “qualification”.

9.5.3.11 Getting Help to Find Suitable Candidates for a Role

If you cannot find a suitable candidate for a role, you can add broadcast information and forward it to searching parties or resource groups to get help finding suitable candidates.

Forwarding a Role to Searching Parties

If you need a searching party to help you find suitable candidates, take the following steps:

1. Add a broadcast and select a target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast the system determines the RM group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the searching party know that a candidate was found and they can stop looking, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

Forwarding the Role to Resource Groups So the Members Can Apply Directly

If you want to publish a role and thus allow possible candidates to apply directly, take the following steps:

1. Add a broadcast and select [Resource Group](#) as target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast, the system determines the resource group that receives the broadcasted role based on Customizing settings.

4. If you have already submitted a broadcast and you want to let the resources know that a candidate was found and they cannot apply any longer, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

9.5.3.12 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose [Email](#) from the [Request Details](#) screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose [Create Email](#). Your default mail program opens. The body and subject of the e-mail are predefined by the system.
4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

9.5.3.13 Booking Resources as Resource Manager

Note

This section describes the booking process using the candidate status profiles and booking types assignments that are part of the sample Customizing delivered by SAP (status profiles RM_CAND1 and RM_CAND2). You can create customer-specific candidate status profiles in Customizing for [Resource Management](#) under ► [PS Integration](#) ► [Create User Status Profile](#) ►.

Booking a candidate means that you change the candidate status to [Hardbooking Approved](#) or [Softbooking Approved](#) before you create assignments. It is not mandatory to set the booking statuses before creating the assignments for a role, but if you don't set them the system does not take these assignments into account for the availability of the candidate.

When a candidate was accepted by the requester, proceed as follows:

1. You confirm the availability of the candidate. While you are checking the availability, you can set the candidate status to *Checking Availability* to let other resource managers in your group know what you are doing.
2. You book the candidate by changing the candidate status to *Hardbooking Approved* or *Softbooking Approved*. If the required Customizing settings are in place, the system sends out a notification to the candidate when he or she has been soft-booked or hard-booked for an assignment. As a resource manager, you can set the candidate status to *Hardbooking Approved* or *Softbooking Approved* only for candidates you are responsible for. For other candidates, you can only set the status to *Softbooking Approval Required* or *Hardbooking Approval Required*. The responsible resource manager of the candidate will set the status to *Hardbooking Approved* or *Softbooking Approved* and create the assignments.

i Note

If a candidate has applied to one of your roles directly but you are not responsible for this candidate as a resource manager, you need to broadcast the role to the responsible resource manager so he or she can do the booking and assignment creation.

Planning

If you are still in a planning phase, you can set the candidate status to *Forecasted* before you actually book candidates. Assignments created for a candidate with status *Forecasted* have the booking type *Planned* and do not affect the availability of the candidate.

Softbooking

If you are not sure about the final assignment of a candidate to a role, you might want to preliminarily block his or her availability by soft-booking the candidate. You do this by changing the candidate status to *Softbooking Approved*. The assignments created for a soft-booked candidate also have the booking type *Soft-booked*. To indicate that a role was soft-booked with candidates, you can set the role status to *Non-Binding Scheduled*.

Setting a Softbooking Expiration Date

After you have changed the candidate status to *Softbooking Approved*, you can enter a softbooking expiration date for the candidate. If the required Customizing settings are in place, the system will send you a workflow notification when the softbooking expiration date is reached.

Withdrawing Bookings

If required you can change the candidate status from *Hardbooking Approved* to *Hardbooking Withdrawn* or from *Softbooking Approved* to *Softbooking Withdrawn*. If there are already assignments created, the system removes these assignments automatically when you withdraw the booking.

9.5.3.14 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► *System* ► *User Profile* ► *Own Data* ►, open the *Defaults* tab page and enter the required time zone in the *Time Zone* field in the *Personal Time Zone* group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status *Hard-booking Approved* or *Soft-booking Approved*. However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status *Proposed to Requester* for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

i Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose [Other Booking](#). For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either [Softbooking Approved](#) or [Hardbooking Approved](#) is not allowed. If the status is changed to [Softbooking Withdrawn](#) or [Hardbooking Withdrawn](#), the system deletes the corresponding assignments automatically.

9.5.3.14.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).
6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose [Create](#).

9.5.3.14.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.

2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

9.5.3.14.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

9.5.3.14.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

9.5.3.15 Completing the Staffing Process

Completing the Staffing Process for a Role

When the role is staffed, set the role status to [Staffed](#). When the role could not be staffed (because no matching candidate was found for example), set the role status to [Closed](#). If you have broadcast the role to searching parties, the searching parties will be informed of the status change and know that they can stop the search.

Completing the Staffing Process for a Role Quickly

If you want to shorten the process (for example to meet the demands of time-critical projects), you can set the status of a role to [Quick Close](#) or [Quick Staffing](#) or [Quick Hard-booking](#) without performing all the intermediate status changes. If you choose one of these statuses, you need to specify a reason. The system checks if the status change is possible. You cannot set a role to [Quick Close](#) if there is a hard-booked candidate assigned to the role for example.

i Note

Once you have closed all roles belonging to a request, the system will set the request status to *Completed* automatically.

9.5.4 Broadcasted Roles

Use

With the transactional app *Broadcasted Roles* you can get an overview of all roles that were broadcasted to you as a searching party. You use the app to look for suitable candidates for the roles broadcasted to you and propose them to the resource manager.

Key Features

- Display, filter, search, and sort the broadcasted roles overview
- Display details of requests and roles
- Copy request
- Show request status history
- Send request information to e-mail recipients
- Search for suitable candidates and propose them to the resource manager
- Broadcast roles to other searching parties
- Book resources based on the feedback from the request owner
- Create assignments for the proposed candidates
- Edit and delete assignments for the proposed candidates

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Broadcasted Roles \[page 373\]](#).

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content. For more information about virus scanning and scan profiles for SAP Fiori apps, see <http://help.sap.com/fiori> ► [System Landscape Required for SAP Fiori](#) ► [Setup of SAP Fiori System Landscape with ABAP Environment](#) ► [Installation](#) ► [Virus Scanning](#) ►.

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [Role Overview \[page 341\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Broadcasted Roles \[page 373\]](#)

[App Extensibility: Broadcasted Roles \[page 378\]](#)

9.5.4.1 App History: Broadcasted Roles

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The *Broadcasted Roles* app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Broadcasted Roles MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Search for candidates: When you perform an advanced candidate search, you can now see additional search results and you can export the candidate search result list to a CSV file. You can now also search for N.N. resources. • Filter the role overview: You can now use the new <i>Staffing</i> filter to filter the worklist for roles that are not yet staffed, partially staffed, fully staffed, or overstaffed. • Edit roles: When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role under specific conditions. • Display details of requests and roles: In the request details, you can now see the remaining duration for each role. In the candidate calendar, you can display the assignments for each day as a list. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.

Enhancement	Description
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Configure Additional Basic Settings You can use the Customizing activity Define Time Frame for Resource Validity Check to define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps > Define Time Frame for Resource Validity Check .
New Extensibility Option	New extensibility options: - You can use the BAAdI: Update of E-Mail Information / MRSS/RM_EMAIL_INFO to change the list of recipients and provide default text and subjects for e-mails. - You can use the BAAdI: Additional Details for HR Resource or N.N. Resource to display additional information about the resource. - You use the BAAdI: Calculation of Remaining Duration to exclude assignments from the calculation of the remaining duration - You can now use the following new view and its extension points: - CandidateDisplayEditPopover.fragment.xml - You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code> <code>AdvConsultSrchDialog.view.xml</code>

9.5.4.2 App Implementation: Broadcasted Roles

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* ►. In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Required SAP Notes

For the *Broadcasted Roles* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Broadcasted Roles* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Even if you change the UI theme, the configured assignment colors remain as defined in Customizing.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in grey color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Define Time Frame for Resource Validity Check

You can define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Optional Activities

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. Resource

You can use the [BAdI: Additional Details for HR Resource or N.N. resource](#) to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class /MRSS/CL_RM_UI5_PERSON_SEARCH reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#). ►

Create BAdI Implementation to Change The List of Recipients and Provide Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) *BAdI: Update of E-Mail Information* (/MRSS/RM_EMAIL_INFO) to change the list of recipients and provide default text and subjects for e-mails.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Requests](#) ►.

Create BAdI Implementation to Exclude Assignments from Remaining Duration Calculation

You use Business Add-In (BAdI) *BAdI: Calculation of Remaining Duration* to exclude assignments from the calculation of the remaining duration.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Assignments](#) ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Broadcasted Roles \[page 378\]](#)

9.5.4.3 App Extensibility: Broadcasted Roles

Use

You can extend the *Broadcasted Roles* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add data to the group selection dialog: at the top of the page, above the search input field or below the search input field.
- You can add data to the create broadcasting view: at the top of the page, after the [Add Broadcast](#) button, after the create broadcast list, before the existing broadcast list, after the existing broadcast list.

Extension Points

The following extension points are available:

View	Extension Point	Use
BroadcastTreeTable.view.xml	BroadcastGroupBeforeSearch	Using this extension point, you can add data to the group selection dialog to the top of the page.
BroadcastTreeTable.view.xml	BroadcastGroupInsideSearch	Using this extension point, you can add data to the group selection dialog, at the top above the search input field.
BroadcastTreeTable.view.xml	BroadcastGroupAfterSearch	Using this extension point, you can add data to the group selection dialog, just below the search input field.
RequestCreateBroadcast.view.xml	BroadcastCreateBeforeNewButton	Using this extension point, you can add data to the create broadcasting view at the top of the page.
RequestCreateBroadcast.view.xml	BroadcastCreateAfterNewButton	Using this extension point, you can add data to the create broadcasting view right after the create new broadcast button.
RequestCreateBroadcast.view.xml	BroadcastCreateAfterTable	Using this extension point, you can add data to the create broadcasting view after the create broadcast list.
RequestShowBroadcast.view.xml	BroadcastShowBeforeTable	Using this extension point, you can add data to the create broadcasting view before the existing broadcast list.
RequestShowBroadcast.view.xml	BroadcastShowAfterTable	Using this extension point, you can add data to the create broadcasting view after the existing broadcast list.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.4.3.1 App Extensibility: Candidates

You can extend the candidate-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can add more data to the advanced search dialog before the search input field.
- You can add more data to the advanced search dialog between the search input field and the filter list.
- You can add more data to the advanced search dialog between the the filter list and the results list.
- You can add more data to the advanced search dialog between after the results list.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more column definitions (column header) to the result list.
- You can add more column contents to the result list.
- You can extend the request internal candidate view to the top of the form.
- You can extend the request internal candidate view to just below the Search Multi Input area of the form.
- You can extend the request internal candidate view to the bottom of the form.
- You can extend the external candidate form of a role.
- You can add data to the candidate attachment list view at the top.
- You can add more controls and data to the assignment dialog view for the candidate.
- You can add more data about the assignment details for the candidate.

Extension Points

The following extension points are available:

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeSearchToolbar	Using this extension point, you can add the data to the advanced search dialog before the search input field.

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeFilterList	Using this extension point, you can add the data to the advanced search dialog between the search input field and the filter list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterResultList	Using this extension point, you can add the data to the advanced search dialog after the results list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterFooterTool-bar	Using this extension point, you can add the data to the advanced search dialog inside the footerbar after the add candidate button.
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListColumn-Definition	Using this extension point, you can add more column definitions (column header) to the result list.
i Note This extension must be synchronized with the extension "Advanced-ConsultantResultListCellCon-tents" (for every new header added, the corresponding content/field also needs to be added).		
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListCellCon-tents	Using this extension point, you can add more column contents to the result list.
i Note This extension must be synchronized with the extension "Advanced-ConsultantResultListColumnDefini-tion" (for every new content/field added the corresponding header also needs to be added).		
RequestInternalCandidate.view.xml	requestAddInternalCandidateTopExten-sion	Using this extension point, you can extend the request internal candidate view to the top of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBelowS-earchExtension	Using this extension point, you can extend the request internal candidate view to just below the Search Multi In-put area of the form.

View	Extension Point	Use
RequestInternalCandidate.view.xml	requestAddInternalCandidateBottom-FormExtension	Using this extension point, you can extend the request internal candidate view to the bottom of the form.
RoleExternalCandidate.view.xml	RoleExternalCandidateForm	Using this extension point, you can extend the external candidate form of a role.
CandidateAttachment.view.xml	CandidateAttachmentExtension	Using this extension point, you can add data to the Candidate attachment list view at the top.
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can add more controls and data to the assignment dialog view for the candidate.
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can add more data about the assignment details for the candidate.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code:

Candidates UI Controller Hooks

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	mrs.resourcemanagement.view.request.AdvConsultSrchDialog~extCreateCsvColumns	Enhance csv export of the result list with custom fields

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.4.3.2 App Extensibility: Assignments

You can extend the assignment-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the assignment details view.
- You can extend the edit assignment view.
- You can extend the create assignment menu.
- You can extend the create assignment views for concrete, capacitive, and stretched assignments.
- You can extend the create other booking view.
- You can extend the assignment wizard view.

Extension Points

The following extension points are available:

View	Extension Point	Use
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can extend the bottom of the assignment detail view
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can extend the candidate assignment details dialog
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeFirstPage	Using this extension point, you can extend before the first Assignment Menu Page view
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeCreateList	Using this extension point, you can extend before the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterCreateList	Using this extension point, you can extend after the list of Assignments view

View	Extension Point	Use
CreateAssignmentMenu.view.xml	AssignmentMenuAfterLastPage	Using this extension point, you can extend after the last Assignment Menu Page view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveTop	Using this extension point, you can extend at the top of the view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBottom	Using this extension point, you can extend at the bottom of the view
CreateConcreteAssignment.view.xml	CreateConcreteTop	Using this extension point, you can extend at the top of the view
CreateConcreteAssignment.view.xml	CreateConcreteBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeCandidates	Using this extension point, you can extend above the Candidates name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeBottom	Using this extension point, you can extend at the bottom of the view
CreateOtherBooking.view.xml	OtherBookingTop	Using this extension point, you can extend at the top of the view
CreateOtherBooking.view.xml	OtherBookingBeforeDates	Using this extension point, you can extend Extends above the Assignment Date column
CreateOtherBooking.view.xml	OtherBookingBottom	Using this extension point, you can extend at the bottom of the view

View	Extension Point	Use
CreateStretchedAssignment.view.xml	ScretchTop	Using this extension point, you can extend at the top of the view
CreateStretchedAssignment.view.xml	ScretchBeforeDates	Using this extension point, you can extend above the Assignment Date column
CreateStretchedAssignment.view.xml	ScretchBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateStretchedAssignment.view.xml	ScretchBeforeRequestRoles	Using this extension point, you can extend above the Request / Role name column
CreateStretchedAssignment.view.xml	ScretchBeforeBottom	Using this extension point, you can extend at the bottom of the view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeFirstPage	Using this extension point, you can extend before the first wizard page view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeRequestRole-Select	Using this extension point, you can extend before the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterRequestRole-Select	Using this extension point, you can extend after the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterCreateList	Using this extension point, you can extend after the list of assignment types view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterLastPage	Using this extension point, you can extend after the last wizard page view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.4.4 Working in the Broadcasted Roles Overview

The request overview shows all roles that were broadcasted to you as a searching party.

The *Requested Duration* column shows how much work is planned for the role. The *Remaining Duration* column shows how much work has not yet been assigned to candidates. If a role is overstaffed, the remaining duration is negative.

You can filter and sort the request overview to find roles more easily. Except for the date filters, you can also combine two or more of the available filter options. When you close the current session, the system saves the filter values you have chosen so that the list will be filtered the same way when you open the list the next time. You can also use the search function to find roles. If you have applied filters to the list, the system will only search in the filtered roles.

You can display the role details from the role overview.

Note

If a broadcasted role has the status *Search Canceled*, the resource manager has canceled the broadcast for the time being. That means you don't have to look for suitable candidates for this role at the moment. The request may be rebroadcasted at a later point in time.

Displaying Role Status History

The status history shows the status, when it was set, and who set the status.

Informing the Resource Manager about Unavailability of Resources

If you don't have a suitable candidate to suggest, you change the broadcast status to *No Candidate*. This way, you inform the resource manager that there is no suitable resource available in your group for this role.

9.5.4.5 Adding Candidates to a Role as Resource Manager

To add candidates, you have the following options:

Adding Internal Candidates

- Using the simple search:
 - You can search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-specific comments for the candidate.
- Using the advanced search:
 - If you want the system to look for candidates with specific skills, you can use the advanced search. You can specify a set of skills and let the system use these skills to look for candidates. If there are prefilled skills from the skills tab, you can remove or adapt these as required.
 - You can export the candidate search result list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.
 - In addition to the total matching result, you can now see separate results for the qualification matching for structured and unstructured qualifications and the availability. You can sort the advanced candidate search results list by each of the results columns.
 - If the role has time rules and the role has already been saved before, the system considers the time rules when it calculates the availability matching.
 - Using the calendar icon in the [Schedule](#) column of the results list, you can simulate the assignments that would be created.

Adding External Candidates

It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name.

Working in the Candidate List

When the candidates are added to the candidate list, the system displays the candidate with its name, status, status history, and availability information. The availability information is only displayed if you have authorization for the candidate. The following tasks can be carried out from the candidate list:

- You can call up more information about the candidate by clicking the  icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers.
- You can display the existing assignments for candidates for which you have authorization. In the candidate calendar, you can display the assignments for a day as a list by clicking the date.
- For both internal or external candidates, you can add attachments after they have been added to the candidate list.
- You can export the candidate list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.

Proposing Candidates to the Requester

If you want to inform the requester of your proposal, set the candidate status to [Proposed to Requester](#) and save. When the requester rejects or accepts a candidate (via e-mail or phone) you need to change the candidate status accordingly. The requester cannot change the status. If the requester has accepted a

candidate, you can check the availability, change the status to *Hardbooking Approved* and create an assignment.

9.5.4.6 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the *Candidates* tab or by clicking the calendar icon in the *Schedule* column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type *Simulated*.

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type *Simulated* under ► *Settings Specific to RM Apps* ► *Configure Color Codes for Assignment Display* ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field *Def. Assignment Type* defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace (SAP GUI and Web-based Planning Board)* ► *Workplace Profiles* ► *Web-based User Interface* ► *Define User Interface Profiles (JGantt Chart)* ► or *Define User Interface Profiles (UI5 Gantt Chart)*.
- The settings under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ► define if non-capacitive assignments are created as concrete or stretched assignments.

9.5.4.7 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose *Email* from the *Request Details* screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose *Create Email*. Your default mail program opens. The body and subject of the e-mail are predefined by the system.
4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

9.5.4.8 Getting Help to Find Suitable Candidates for a Role

If you cannot find a suitable candidate for a role, you can add broadcast information and forward it to searching parties or resource groups to get help finding suitable candidates.

Forwarding a Role to Searching Parties

If you need a searching party to help you find suitable candidates, take the following steps:

1. Add a broadcast and select a target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast the system determines the RM group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the searching party know that a candidate was found and they can stop looking, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

Forwarding the Role to Resource Groups So the Members Can Apply Directly

If you want to publish a role and thus allow possible candidates to apply directly, take the following steps:

1. Add a broadcast and select *Resource Group* as target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast, the system determines the resource group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the resources know that a candidate was found and they cannot apply any longer, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

9.5.4.9 Booking Resources as Resource Manager

Note

This section describes the booking process using the candidate status profiles and booking types assignments that are part of the sample Customizing delivered by SAP (status profiles RM_CAND1 and RM_CAND2). You can create customer-specific candidate status profiles in Customizing for *Resource Management* under ► *PS Integration* ► *Create User Status Profile* ►.

Booking a candidate means that you change the candidate status to *Hardbooking Approved* or *Softbooking Approved* before you create assignments. It is not mandatory to set the booking statuses before creating the assignments for a role, but if you don't set them the system does not take these assignments into account for the availability of the candidate.

When a candidate was accepted by the requester, proceed as follows:

1. You confirm the availability of the candidate. While you are checking the availability, you can set the candidate status to *Checking Availability* to let other resource managers in your group know what you are doing.
2. You book the candidate by changing the candidate status to *Hardbooking Approved* or *Softbooking Approved*. If the required Customizing settings are in place, the system sends out a notification to the candidate when he or she has been soft-booked or hard-booked for an assignment. As a resource

manager, you can set the candidate status to *Hardbooking Approved* or *Softbooking Approved* only for candidates you are responsible for. For other candidates, you can only set the status to *Softbooking Approval Required* or *Hardbooking Approval Required*. The responsible resource manager of the candidate will set the status to *Hardbooking Approved* or *Softbooking Approved* and create the assignments.

i Note

If a candidate has applied to one of your roles directly but you are not responsible for this candidate as a resource manager, you need to broadcast the role to the responsible resource manager so he or she can do the booking and assignment creation.

Planning

If you are still in a planning phase, you can set the candidate status to *Forecasted* before you actually book candidates. Assignments created for a candidate with status *Forecasted* have the booking type *Planned* and do not affect the availability of the candidate.

Softbooking

If you are not sure about the final assignment of a candidate to a role, you might want to preliminarily block his or her availability by soft-booking the candidate. You do this by changing the candidate status to *Softbooking Approved*. The assignments created for a soft-booked candidate also have the booking type *Soft-booked*. To indicate that a role was soft-booked with candidates, you can set the role status to *Non-Binding Scheduled*.

Setting a Softbooking Expiration Date

After you have changed the candidate status to *Softbooking Approved*, you can enter a softbooking expiration date for the candidate. If the required Customizing settings are in place, the system will send you a workflow notification when the softbooking expiration date is reached.

Withdrawing Bookings

If required you can change the candidate status from *Hardbooking Approved* to *Hardbooking Withdrawn* or from *Softbooking Approved* to *Softbooking Withdrawn*. If there are already assignments created, the system removes these assignments automatically when you withdraw the booking.

9.5.4.10 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► *System* ► *User Profile* ► *Own Data* ►, open the *Defaults* tab page and enter the required time zone in the *Time Zone* field in the *Personal Time Zone* group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status *Hard-booking Approved* or *Soft-booking Approved*. However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status *Proposed to Requester* for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► *Basic Settings* ► *Configure Basic Settings* ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose *Other Booking*. For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either *Softbooking Approved* or *Hardbooking Approved* is not allowed. If the status is changed to *Softbooking Withdrawn* or *Hardbooking Withdrawn*, the system deletes the corresponding assignments automatically.

9.5.4.10.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).
6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the *Use Time Rules* checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose *Create*.

9.5.4.10.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.

5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

9.5.4.10.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

9.5.4.10.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

9.5.5 RM Team Schedule

Use

With the transactional app [RM Team Schedule](#), you can view the assignments and availability of a group of resources who belong together so you can assess their utilization over a given time period. This app is typically used by line managers.

Key Features

- Create new teams and manage existing teams
- Delete a team
- Display team schedule to check availability of team members
- Create assignments or other bookings
- Perform single or mass change of candidate status for assignments
- Export content of the team schedule to a spreadsheet application as a CSV file

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: RM Team Schedule \[page 298\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: RM Team Schedule \[page 398\]](#)

[App Extensibility: RM Team Schedule \[page 402\]](#)

9.5.5.1 App History: RM Team Schedule

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The *Team Schedule* app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Team Schedule MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Change candidate status from a single assignment • Perform mass change of candidate status for all assignments in the currently displayed time frame Enhanced key features: • Creating and managing teams: You can now also add N.N. resources to your team. • Display team schedule: The system can now visualize in red if a resource is overbooked. You can prevent weekends from being displayed in the team schedule. Nonworking days such as weekends or holidays are displayed in light gray. If a person has not yet started working for the company or has left the company, these times are displayed using a dark gray. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.
New/Changed Implementation Details	You can use the Customizing activity Define Threshold for Overbooking to define when the system is to visualize in red color if a resource is overbooked. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps Define Threshold for Overbooking. You can use the Customizing activity Define Time Frame for Resource Validity Check to determine which resources are displayed in the team schedule. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps Define Time Frame for Resource Validity Check.

Enhancement	Description
New Extensibility Options	New extensibility options: You can use the BAPI: Additional Details for HR Resource or N.N. Resource to display additional information about the resource.

9.5.5.2 App Implementation: RM Team Schedule

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver - SAP Multiresource Scheduling 10 add-on based on SAP ERP
Front-End Components Delivered With	- User Interface Add-On for SAP Multiresource Scheduling 10 - User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Required SAP Notes

For the *RM Team Schedule* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *RM Team Schedule* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating ICF Services of UI5 Application](#) ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSTeamOfProjectResources
Business Role	/MRSS/RM_CONSULTING_MANAGER
Business Catalog	/MRSS/RM_CONSULTING_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_CONSULTING_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Define Time Frame for Resource Validity Check

In this Customizing activity, you can define the time frame for which the system checks the validity of resources. Based on this check, the system determines which resources are displayed in the team schedule. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Define Threshold for Overbooking

In this Customizing activity, you can define threshold values for overbooking. The system uses the threshold values in the RM Team Schedule app to visualize if a resource is overbooked. Only if the extra work assigned to a resource exceeds the specified threshold, the system displays the availability information in red color. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Threshold for Overbooking](#). ►

Optional Activities

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. resource

You can use the [BAdI: Additional Details for HR Resource or N.N. resource](#) to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class `/MRSS/CL_RM_UI5_PERSON_SEARCH` reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under [Enhancements](#)  [Enhancements for RM Apps](#) .

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori>  [SAP Fiori Implementation Information](#)  [App Implementation Information](#) .
Check the documentation for your SAP NetWeaver version.
- [App Extensibility: RM Team Schedule \[page 402\]](#)

9.5.5.3 App Extensibility: RM Team Schedule

Use

You can extend the [RM Team Schedule](#) app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more controls or data to the header bar of the team schedule calendar view.
- You can add more filters to the filter bar of the team schedule calendar view.
- You can add more controls or data to the team management organizational unit search within the team management dialog (before, inside or after the search field?).
- You can add more controls or data to the header bar of the team member list of the team schedule view.
- You can add more controls or data to the team member details panel of the team schedule view.
- You can add more controls or data to the footer bar of the team member details panel of the team schedule view.
- You can add data to add a new tab to the search bar in the team management dialog view
- You can add more controls or data to the team list item in the team management dialog view.
- You can add more buttons to the footer toolbar of the team management dialog view
- You can add more controls or data to the team selection list item in the team schedule view.
- You can add more buttons to the footer toolbar of the team selection list popover

Extension Points

The following extension points are available:

View	Extension Point	Use
TeamSchedule.view.xml	TeamScheduleCalendarHeaderExtension	This extension point allows you to add more controls, data to the header bar of the Team Schedule calendar view.
TeamScheduleFilterBar.view.xml	TeamScheduleFilterExtension	This extension point allows you to add more filters to the filter bar of the team schedule calendar view.
OrgUnitTree.view.xml	TeamManagementOrgBeforeSearch	This extension point allows you to add more controls, data to the team management org unit search within the team management dialog.
OrgUnitTree.view.xml	TeamManagementOrgInsideSearch	This extension point allows you to add more controls, data to the team management org unit search within the team management dialog.
OrgUnitTree.view.xml	TeamManagementOrgAfterSearch	This extension point allows you to add more controls, data to the team management org unit search within the team management dialog.
TeamMemberListHeader.fragment.xml	TeamScheduleResourceExtension	This extension point allows you to add more controls, data to the header bar of the team member list of Team Schedule view.
TeamMemberListItem.fragment.xml	TeamScheduleResourceExtension	This extension point allows you to add more controls, data to the team member details panel of the Team Schedule view.
TeamMemberListItemFooter.fragment.xml	TeamScheduleResourceFooterExtension	This extension point allows you to add more controls, data to the footer bar of the team member details panel of the Team Schedule view.
TeamManagementDialog.view.xml	teammanagementTabBar	This extension point allows you to add a new tab to the search bar in the team management dialog view.

View	Extension Point	Use
TeamManagementDialog.view.xml	teammanagementListControllItem	This extension point allows you to add more control, data to the team list item in the team management dialog view.
TeamManagementDialog.view.xml	teammanagementToolbar	This extension point allows you to add more buttons to the footer toolbar of the team management dialog view.
TeamSelectionPopover.fragment.xml	teammanagementSelectionList	This extension point allows you to add more control, data to the team selection list item in team schedule view.
TeamSelectionPopover.fragment.xml	teammanagementSelectionPopover-Toolbar	This extension point allows you to add more buttons to the footer toolbar of the team selection list popover.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* .

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* .

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* .

9.5.5.4 Creating and Managing Teams

Before you can display a team schedule, you need to create at least one team. If you need to work with more than one team, you can create several teams. You can mark a team as default team if you want the system to display it whenever you call up the *RM Team Schedule* app. To prevent weekends from being displayed in the team schedule, you can choose to hide weekends for this team. The system determines the weekend days based on the factory calendar that you specify for this feature. You can also change existing teams and remove or add team members.

Note

You can only add resources for which you have authorization.

9.5.5.5 Working in the Team Schedule

The team schedule shows the name of the resources, the first availability (first date in the currently shown time period where there is no assignment), name of the assignments, and duration of the assignment. Nonworking days such as weekends or holidays are displayed in light gray. If a person has not yet started working for the company or has left the company, these times are displayed using a dark gray. If a resource is overbooked, the system displays the availability text in red if a certain threshold is exceeded.

To get displayed the information you want, you can do the following in the team schedule:

- Display data for the desired month and year
- Choose between days, weeks, and months view
- Narrow down or expand the displayed time frame using the slider
- Use filters in the title bar so that you see only matching assignments. You can also combine two or more of the available filter options within each of the filters.
- If you want to use the search functions to filter the displayed data, you can choose if the system looks for the search term in the team member data or in the assignment data.
- Flag team members to create your own filter
- Sort the list based on the resource name, first availability, or job title
- Switch to today's date
- You can call up more information about the team member by clicking the *i* icon. In the resource information popup, you can add notes for the team member (also possible for N.N resources). These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers

Creating Assignments

You can create assignments or other bookings for the team members from the team schedule.

i Note

The colors for the different assignment types and statuses can be configured in Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Export Data to Excel

You can export the content of the assignment calendar to an Excel spreadsheet for the selected time period.

Changing the Candidate Status from a Single Assignment

In the assignment details, you can change the candidate status. If you choose a candidate status that affects the assignment booking type, this also changes the booking type for all other assignments that exist for this candidate for the role

Performing Mass Change of Candidate Status

You can simultaneously change the candidate status for all assignments that lie completely or partially within the currently displayed time frame. Note that the system considers only the filtered assignments. That means it changes the status only for the resources and assignments that are currently displayed based on applied filters and search results. To change the candidate status for all assignments visible in the team schedule, choose [Mass Status Change](#) in the footer bar, set the status, and choose [Apply](#)

9.5.5.6 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for [SAP Multiresource Scheduling](#) under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► [System](#) ► [User Profile](#) ► [Own Data](#) ►, open the [Defaults](#) tab page and enter the required time zone in the [Time Zone](#) field in the [Personal Time Zone](#) group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status [Hard-booking Approved](#) or [Soft-booking Approved](#). However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status [Proposed to Requester](#) for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

i Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose [Other Booking](#). For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either [Softbooking Approved](#) or [Hardbooking Approved](#) is not allowed. If the status is changed to [Softbooking Withdrawn](#) or [Hardbooking Withdrawn](#), the system deletes the corresponding assignments automatically.

9.5.5.6.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).

6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose [Create](#).

9.5.5.6.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

9.5.5.6.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the

assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

9.5.5.6.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

9.5.6 My Schedule

Use

With the transactional app [My Schedule](#), you can display all your current assignments and other bookings so you know your schedule for a certain time period. You can update existing assignments and create new

bookings or self-booking requests so that the line manager and resource managers are aware of changes in your schedule and can plan accordingly. You can also create self-bookings for existing requests.

Key Features

- Display all current assignments and other bookings
- Filter assignments
- Create and update other bookings (for example education, administration, meeting, or absence)
- Create self-booking requests
- Create self-bookings for existing requests

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: My Schedule \[page 412\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: My Schedule \[page 412\]](#)

[App Extensibility: My Schedule \[page 416\]](#)

9.5.6.1 App History: My Schedule

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The [My Schedule](#) app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

My Schedule MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Create self-bookings for existing requests Enhanced key features: • Create other booking: When you create other bookings, you can define a recurrence pattern. • Working in my schedule: In the calendar, you can display the assignments for each day as a list.
New/Changed Implementation Details	You can use a new Customizing setting to choose if the system displays a search help for the requests when an employee creates a self-booking for an existing request. You can make this setting in RM Customizing under Basic Settings Configure Additional Basic Settings.

Enhancement	Description
New Extensibility Options	New extensibility options: - You can use the BAdI: Filter for Requests /MRSS/ BADI_RM_UI5_GET_REQUEST to implement a different filter logic for requests within the self-booking scenario. - You can now use the following new view and its extension points: <code>CandidateDisplayEditPopover.fragment.xml</code>

9.5.6.2 App Implementation: My Schedule

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver - SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component)

MRSS_UI

Required SAP Notes

For the *My Schedule* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *My Schedule* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* . In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* .

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementatin Information* . In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* .

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSHumanResourceSchedule
Business Role	/MRSS/RM_RESOURCE
Business Catalog	/MRSS/RM_RESOURCE
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* . Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

i Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Optional Activities

Create BAdI Implementation to Filter Requests

You can use the [BAdI: Filter for Requests](#) to implement a different filter logic for requests within the self-booking scenario.

The BAdI is called when an employee wants to create a self-booking for an existing request. The system uses the BAdI to check if the resource is allowed to create assignments for the specified request. If Customizing is set up in a way that the system provides a search help for the request, the system also uses this BAdI to determine the requests to be displayed in the search help.

Display Request Search Help for Self-Booking

You can choose if the system displays a search help for the requests when an employee creates a self-booking for an existing request. You can activate the search help in *RM Customizing* under ► *Basic Settings* ► *Configure Additional Basic Settings* ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: My Schedule \[page 416\]](#)

9.5.6.3 App Extensibility: My Schedule

Use

You can extend the *My Schedule* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more controls and data to the MySchedule view.
- You can add data more buttons to the toolbar of the MySchedule view.
- You can add more filters to the filter bar of the MySchedule view.
- You can add more UI controls to the create selfbooking request view.
- You can add more UI controls to the request header of the selfbooking request view
- You can add more UI attributes or controls to the header or the table columns of the assignment table in the calendar view.

Extension Points

The following extension points are available:

View	Extension Point	Use
MySchedule.view.xml	MyScheduleViewExtension	This extension point allows you to add more controls, data to the MySchedule view of the resource.

View	Extension Point	Use
MyScheduleOverview.view.xml	myScheduleToolBar	This extension point allows you to add more buttons to the toolbar of the My-Schedule view.
MyScheduleFilterBar.view.xml	MyScheduleFilterExtension	This extension point allows you to add more filters to the filter bar for My-Schedule view
RequestCreateSelfBooking.view.xml	RequestCreateSelfBookingExtension	This extension point allows you to add more UI controls to the request create selfbooking view.
RequestCreateSelfBooking.view.xml	RequestChangeHeaderViewExtension	This extension point allows you to add more UI controls to the request header of the selfbooking view.
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayHeader	This extension point allows you to add more attributes or controls to the header of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayColumn	This extension point allows you to add more attributes or controls to the table column of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	AssignmentDisplayEditPopoverExtension	This extension point allows you to add more attributes/controls to the popover of the assignment table in calendar view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.6.4 Working in My Schedule

In the *My Schedule* overview, you can see all your current assignments and other bookings. You can update existing assignments and create new bookings or self-booking requests so that the line manager and resource managers are aware of changes in your schedule and can plan accordingly.

To filter the *My Schedule* overview, apply one or several of the filters available in the title bar.

Self-Bookings

You can either create a self-booking for an existing project request or a self-booking request. A self-booking request is a new project request to be assigned only to yourself. Self-booking requests can for example be useful to reduce the processing time for staffing a spot request.

Creating a Self-Booking for an Existing Request

1. Choose ► *Create Self-Booking* ► *For Existing Project Request* ► in the footer bar.
2. Enter the request and role number.
3. Choose the desired assignment type and make the required entries
4. Choose *Create*.

Result: The system creates an assignment for you for the specified request with the status *Hard-booked*.

Creating a Self-Booking Request

1. Choose ► *Create Self-Booking* ► *Create New Project Request* ► in the footer bar.
2. Make the required entries for the request, role, and assignment details.
3. Choose *Submit*.

Result: The system creates a request. The statuses are determined by Customizing settings. They might be for example *Staffed* for the request and the role, and *Hardbooking Approved* for the candidate.

9.5.6.5 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose *Define Recurrence*. In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the *Full Working Day* option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

9.5.7 Published Roles

Use

With the transactional app [Published Roles](#), you can get an overview of all roles that were broadcast to your resource group by resource managers so that you can check the requirements and apply if you think you're a suitable candidate. From the role details, you can apply for a role or withdraw your application so the resource manager will be notified to not take your submission into consideration.

Key Features

- Display the published roles overview
- Filter and sort the published roles overview. Using the [Status](#) filter, you can also combine two or more of the available filter options.
- Search for published roles. If you have applied filters to the list, the system will only search in the filtered requests.
- Display request and role details
- Apply for a role
- Withdraw your application

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Published Roles \[page 298\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Published Roles \[page 420\]](#)

[App Extensibility: Published Roles \[page 425\]](#)

<http://help.sap.com/fiori>

9.5.7.1 App Implementation: Published Roles

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Required System Landscape](#) ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Configuration Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [Configuration of SAP Fiori Infrastructure](#) ► [Setup of SAP Fiori Launchpad](#) ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Required System Landscape](#) ►. In the documentation for your SAP NetWeaver version, choose ► [Setup of SAP Fiori System Landscape](#) ► [\(Installation\)](#) ► [Virus Scanning](#) ►.

Required SAP Notes

For the *Published Roles* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Published Roles* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE
Business Catalog	/MRSS/RM_RESOURCE
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

i Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Published Roles \[page 425\]](#)

9.5.7.2 App Extensibility: Published Roles

Use

You can extend the *Published Roles* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add toolbar controls to the RoleOverview view.
- You can add more attributes to the roles table column and to the roles list item of the Role Overview screen.

Extension Points

The following extension points are available:

View	Extension Point	Use
RoleOverview.view.xml	requestsToolbar	This extension point allows you to add toolbar controls to the RoleOverview view.
RoleTable.view.xml	roleListCols	This extension point allows you to add more attributes to the roles table column of the Role Overview screen
RoleTable.view.xml	roleListCells	This extension point allows you to add more attributes to the roles list item of the Role Overview screen

For more information about extension points, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► *Extensibility Information for SAP Fiori* ►. In SAP Library, choose ► *Extending the UI Layer* ► *UI Extensibility Workflow* ► *Checking the SAP-Enabled Extension Options* ► *Extension Points* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► *Extensibility Information for SAP Fiori* ►. In SAP Library, choose ► *Extending the SAP NetWeaver Gateway Layer* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

9.5.8 Alerts & Notifications

Use

With the transactional app [Alerts & Notifications](#), you can see workflow notifications triggered by the RM process. The app informs resource managers, line managers, searching parties and project resources about changes and conflicts so they can react accordingly.

i Note

The alerts displayed in the [Alerts & Notifications](#) app are not the same as the alerts that are shown in the alert monitor of the scheduler workplace in Multiresource Scheduling. The [Alerts & Notification](#) app does not use the alert profiles and check profiles defined in Customizing of SAP Multiresource Scheduling. Instead, it uses SAP Business Workflow notifications.

Key Features

- Show all alerts concerning the requests and roles assigned to you
- Typical alerts are for example:
 - New submitted role (alert for a resource manager)
 - Hardbooking approved (alert for a resource)
 - Deadline expired
- Navigate from the alert to the request or role or candidate for which the alert is for
- Filter the alerts so that you see only those alerts that match certain criteria.
- Acknowledge alerts to confirm that you have seen them and make sure that those alerts are no longer shown to you.

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Alerts & Notifications \[page 427\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)

- [Role Overview \[page 341\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Alerts & Notifications \[page 427\]](#)

[App Extensibility: Alerts and Notifications \[page 431\]](#)

9.5.8.1 App Implementation: Alerts & Notifications

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose  [SAP Fiori Implementation Information](#)  [Required System Landscape](#) . Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* . In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* .

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

Required SAP Notes

For the *Alerts & Notifications* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

i Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Alerts & Notifications* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSWorkflowMessage
Business Role	/MRSS/RM_RESOURCE_MANAGER
	/MRSS/RM_CONSULTING_MANAGER
	/MRSS/RM_RESOURCE
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
	/MRSS/RM_CONSULTING_MANAGER
	/MRSS/RM_RESOURCE

Component	Technical Name
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business roles: /MRSS/RM_RESOURCE_MANAGER /MRSS/RM_CONSULTING_MANAGER /MRSS/RM_RESOURCE or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Mandatory Activities

Configure Notification Type Filter

In this Customizing activity, you specify which kind of notifications are displayed in the RM app *Alerts & Notifications*. You do this in Customizing for Web-based Resource Management under ► *Settings Specific to RM Apps* ► *Configure Notification Type Filter* ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Alerts & Notifications \[page 431\]](#)

9.5.8.2 App Extensibility: Alerts & Notifications

Use

You can extend the *Alerts & Notifications* app according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the individual RMNotification list item shown on the AlertsList view.
- You can add more controls and data to the AlertsList view.
- You can add a new filter to the filter bar in the Alerts and Notification view.
- You can add more controls and data to the filter bar in the Alerts and Notification view

Extension Points

The following extension points are available:

View	Extension Point	Use
AlertsList.view.xml	RMNotificationItemExtension	This extension point allows you to extend the individual RMNotification list item shown on AlertsList view.
AlertsList.view.xml	RMNotificationViewExtension	This extension point allows you to add more controls or data to the AlertsList view.

View	Extension Point	Use
AlertsFilterBar.view.xml	RMNotificationFilterHBoxExtension	This extension point allows you to add a new filter to the Filter Bar in Alerts and Notification view.
AlertsFilterBar.view.xml	RMNotificationFilterExtension	This extension point allows you to add more controls or data to the Filter Bar in Alerts and Notification view.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* .

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* .

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* .

9.5.9 Create Multiple Bookings

With the transactional app *Create Multiple Bookings* , you can create multiple other bookings for multiple resources at once. The app cannot be used to create HR-relevant time allocations.

Key Features

- Select time allocation type and create bookings for the specified time frame and employees.
- Define recurrence by specifying weekdays and hours per day

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see .

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Create Multiple Bookings \[page 434\]](#)

[App Extensibility: Create Multiple Bookings \[page 437\]](#)

<http://help.sap.com/fiori>

9.5.9.1 App Implementation: Create Multiple Bookings

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	• SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver • SAP Multiresource Scheduling 10 add-on based on SAP ERP
Front-End Components Delivered With	• User Interface Add-On for SAP Multiresource Scheduling 10 • User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher
Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.	
Front-End Server: Front-End Component of App (Software Component)	MRSS_UI

Required SAP Notes

For the *Create Multiple Bookings* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Create Multiple Bookings* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the SAP Library documentation for your SAP NetWeaver version.
- [App Extensibility: Create Multiple Bookings \[page 437\]](#)

9.5.9.2 App Extensibility: Create Multiple Bookings

You can extend the *Create Multiple Bookings* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more controls and data to the header in the Create Multiple Booking page.
- You can add more controls and data to the form in the Create Multiple Booking page.

Extension Points

The following extension points are available:

View	Extension Point	Use
MultiBooking.view.xml	OtherBookingTop	This extension point allows you to add more filters to the header in the Create Multiple Booking page.
MultiBooking.view.xml	OtherBookingBeforeDates	This extension point allows you to add more controls and data to the form in Create Multiple Booking.

For more information about extension points, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► [Extensibility Information for SAP Fiori](#) ►. In SAP Library, choose ► [Extending the UI Layer](#) ► [UI Extensibility Workflow](#) ► [Checking the SAP-Enabled Extension Options](#) ► [Extension Points](#) ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► [Extensibility Information for SAP Fiori](#) ►. In SAP Library, choose ► [Extending the SAP NetWeaver Gateway Layer](#) ►.

More Information

For a general description of the extensibility options and procedures of SAP Fiori apps, see the appropriate documentation on SAP Help Portal at <http://help.sap.com/fiori> ► *Extensibility Information for SAP Fiori* ►.

9.5.10 Reassign Assignments

With the transactional app *Reassign Assignments*, you can move assignments and time allocations from one resource to another. You might want to use this app for example when a new resource was hired and initially introduced as N.N. resource and you now want to move the schedule from the N.N. resource to a “real” SAP HR resource. SAP HR time allocations are not copied.

Key Features

- Move assignments or time allocations within a specified period
- Move assignments between HR resources and N.N. resources and vice versa.

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see .

Related Apps

- [My Requests \[page 295\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

<http://help.sap.com/fiori>

9.5.10.1 App Implementation: Reassign Assignments

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Required System Landscape](#) ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Configuration Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [Configuration of SAP Fiori Infrastructure](#) ► [Setup of SAP Fiori Launchpad](#) ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

Required SAP Notes

For the *Reassign Assignments* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

i Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Reassign Assignments* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the SAP Library documentation for your SAP NetWeaver version.
- [App Extensibility: Reassign Assignments \[page 442\]](#)

9.5.10.2 App Extensibility: Reassign Assignments

SAP does not provide any extensibility options for this app.

9.6 Web-Based Resource Management Using the Web Dynpro Version

The following chapters describe the functions of the Web Dynpro version of Web-based Resource Management.

i Note

To display change documents for an RM Web request or an assignment, you have to call up the demand in the SAP GUI planning board. To do so, you can for example use the transaction /MRSS/PLBOSRV (*Planning*

[Board for Demands](#)). To call up the change document for a demand, choose [Details for Demand](#) in the demand context menu, then choose the [History](#) button. To call up the change document for an assignment, choose [Display Change Documents](#) from the assignment context menu.

For more information, see [Creation of Change Documents for Planning Board Objects](#) [page 139]

9.6.1 Requester Workplace

Definition

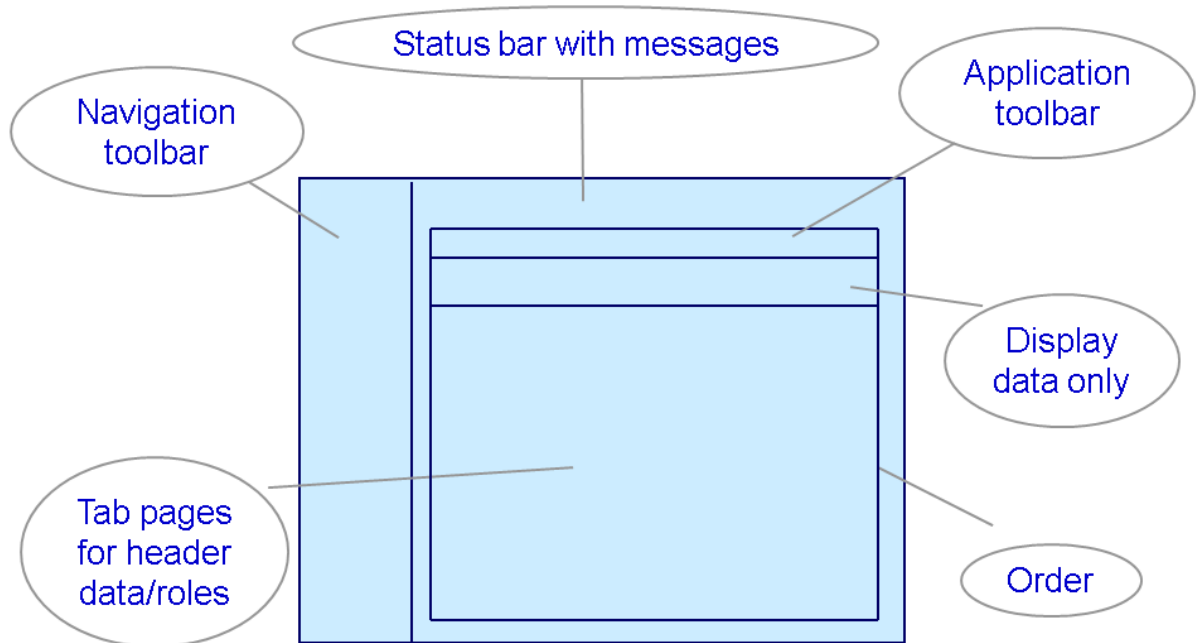
The Requester Workplace is a Web interface that the responsible employee (requester) uses to create requests that are displayed as demands in the planning board for SAP Multiresource Scheduling. It provides the following functions:

- Create and submit a request
- Propose named or preferred candidates and searching parties (searching parties are groups to which the request owner is to forward the demand if he or she cannot find an available candidate).
- Enter comments

Depending on your authorization, you can use the following links in the navigation bar:

- [Open Request/Role](#): With the relevant authorization, you can use this link to call a certain request or role.
- [Open Employee Profile](#): With the relevant authorization, you can use this link to call the profile of an employee.
- [My Profile](#): If you select this link, the system opens a new window with the profile information. To display or change your employee profile, you need the relevant authorization.
- [My View](#): If you have the relevant authorization, you can use this to display and change your assignments for a month starting from the current date. You can also create new assignments or carry out other bookings. By default, the system displays only hardbooked assignments. To create new requests or roles and assign them to yourself, choose . By default, the new request is assigned the status [Closed](#), the role is assigned the status [Staffed](#), and the candidate status is set to [Hardbooking Approved](#).

Structure



Requester Workplace

The Requester Workplace is divided into the navigation bar on the left, which can be hidden, and the main area. The main area contains the request with the two tab pages [Request Header](#) and [Roles](#). Above this is the toolbar for managing the request, and at the top is the status line in which the system displays messages.

9.6.2 Web-Based Creation of a Resource Request

Use

As the requester, you want to request a resource. You therefore create a request in the [Requester Workplace](#), enter the necessary data, and submit the request to the request owner.

Features

There are two types of request:

- Field Service Requests: You create a field service request if you are searching for employees for a customer project.
- Corporate requests: You create a corporate request if you are searching for employees for internal projects.

As the requester, you have the following ways of creating a request:

- Online using the [Requester Workplace](#)
- Offline using a PDF form

Activities

Creating a Request Online

- You open the [Requester Workplace](#) and choose [Create FS Request](#) or [Create Corp Request](#) from the navigation bar. You enter the necessary data in the order header.

i Note

Some fields may be completed automatically depending on your logon ID. Depending on your Customizing settings, these fields may be:

- Request type
- Name of requester
- Requesting country
- Name of request
- Name of customer

Required entry fields are marked with a red asterisk (*). You can also enter additional header data such as an internal comment for the request owner and the searching parties, or an external comment than can be viewed generally. You can also enter information about the project details and add attachments.

- Depending on whether you want to find one or more resources, you create one or more roles. You can also copy an existing role and use the copied data as the basis for your new role.

i Note

If Customizing has been configured accordingly, you can indicate a role as confidential. This means that the resource planner must have specific authorizations in SAP Multiresource Scheduling to display all of the demand details in the order worklist in the planning board. If this function is activated, you can select the corresponding checkbox on the [Role Details](#) tab page.

- You enter a planned start and end date, along with the number of required days and resources. You can create one or more time rules for the role, for example, if you regularly want to plan assignments over a longer period of time. For more information, see [Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#).
- You can enter the required qualifications when you search for candidates. You can enter both structured and unstructured qualifications. You can also restrict the number of resources displayed by carrying out a

qualification check or availability check (or both) before qualification matching occurs. For more information, see [Extended Candidate Search \[page 456\]](#).

- To propose specific candidates, enter one or more required resources on the [Candidates](#) tab page and choose the status [Preferred](#). If you have already received confirmation for the assignment, choose the status [Named](#) for the candidate.
- To propose specific groups such as organizational units to whom the request owner is to broadcast the request, choose the required groups from the broadcast worklist on the [Broadcast](#) tab page.
- You can enter an internal comment for the request owner and searching parties, or an external comment that can be viewed generally.
- If you do not have all of the required information, you can save the request, add the data at a later point in time, and then submit it to the request owner. As soon as you have saved a request, it is assigned a request number and appears in the request list that you can access using the [Requests](#) link in the navigation bar.
- To forward the entire request to the request owner, navigate to header level of the request and choose [Submit Request](#). To forward just one specific role, navigate to the [Roles](#) tab page, select the role, and choose [Submit Role](#). As soon as all of the roles have been submitted individually, the entire request is also forwarded.

i Note

As soon as the request owner has started to process and validate a role, you cannot edit the data of the submitted role or the header data of the request.

Creating a Request Offline

To create a request offline, you can download an interactive request form in PDF format and complete it offline. Once you are online again, choose [Submit](#) in the form to send the request by e-mail. The relevant e-mail recipient is determined by the form.

More Information

- [Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)
- [Extended Candidate Search \[page 456\]](#)

9.6.3 Status-Dependent Demand Processing in Requester Workplace

Use

Requesters who do not belong to a resource management (RM) group can carry out the following activities (these may be limited depending on the demand status):

- Create, copy, change (may be limited), delete (may be limited), save, submit, submit demands and roles by e-mail
- Add global broadcast targets to roles

- Add named/preferred candidates to roles
- Display own demands and roles

Requesters who belong to an RM group can carry out all of the activities listed above and also have full access to Resource Management.

Prerequisites

As a requester, you are authorized to process a demand based on:

- Your user ID and personnel number associated with it in HR
- Whether your personnel number is assigned to an RM group and if so, to which group
- The demand status (for example, "Saved", "Submitted", "In Process")

Features

The following table shows actions that the requester can take depending on the status of the demand header:

Demand Header Status	Meaning	Requester Is Able to...
Not Yet Submitted	You have saved the demand but not yet submitted it.	Change, delete, submit, add or delete roles, add candidates with the status "Named" or "Preferred", delete candidates with the status "Named" or "Preferred" that you have added, save broadcast targets (global entries)
Newly Submitted	You have submitted at least one role in the demand.	Change or add roles, submit new roles, add candidates with the status "Named" or "Preferred", delete candidates with the status "Named" or "Preferred" that you have added, save broadcast targets (global entries)
In Process	Validation has started for at least one role.	Add internal comments, delete non-validated roles, add roles, copy roles, add candidates with status "Named" or "Preferred" to non-validated roles, delete candidates with status "Named" or "Preferred" from non-validated roles, save broadcast targets (global entries) for non-validated roles
Validated	All roles have been validated by the demand owner and the search begins.	Change internal comments, add roles, copy roles
Completed	All roles are "Staffed" or "Closed (Not Staffed)".	Accept or reject candidates and enter confirmations (outside the system by e-mail), add roles, copy roles

The following table shows actions that the requester can take depending on the status of the role:

Role Status	Meaning	Requester Is Able to...
Not Yet Submitted	You have saved the role but not yet submitted it.	Change, submit, add or delete roles, add candidates with the status "Named" or "Preferred", delete candidates with the status "Named" or "Preferred" that you have added, save broadcast targets (global entries)
Newly Submitted	You have submitted the role.	Change, add or delete roles, submit new roles, add candidates with the status "Named" or "Preferred", delete candidates with the status "Named" or "Preferred" that you have added, save broadcast targets (global entries)
Validation in Process	The demand owner validates the role.	Change internal comments
Validation Delayed	The demand owner has insufficient information to validate the role.	Change internal comments
Validated	The role has been validated by the demand owner and the search begins.	Change internal comments
Proposed to Requester	The demand owner has proposed a candidate to you.	Accept or reject candidates and provide confirmation (outside the system by e-mail)
Staffed	Candidate has been accepted and is hardbooked.	Change internal comments
Non-Binding Scheduled	Used if staffing has taken place and a candidate has been soft-booked.	Change internal comments
Closed (Not Staffed)	Role status has been set to "Closed (Not Staffed)" and a reason for closing has been specified (for example, rejected by the customer).	Change internal comments

9.6.4 Request Management Workplace

Definition

The Request Management Workplace is the Web interface that employees (request owners and searching parties) use to find suitable candidates for requests. It provides the following functions:

- Display the alert overview and acknowledge alerts
- Assign a request to a request owner or searching party
- Validate and change requests
- Find and propose candidates
- Send requests or roles to other searching parties (broadcasting)
- Check availability
- Change the status of requests and candidates
- Book resources and create assignments
- Close the request
- Create requests (main task of the requester)

Depending on your authorization, you can use the following links in the navigation bar:

- [Open Request/Role](#): With the relevant authorization, you can use this link to call a certain request or role. As a searching party, if you want to open a request, you must enter the role number and searching party group in addition to the request number.
- [Open Employee Profile](#): With the relevant authorization, you can use this link to call the profile of an employee.
- [My Profile](#): If you select this link, the system opens a new window with the profile information. To display or change your employee profile, you need the relevant authorization.
- [My View](#): If you have the relevant authorization, you can use this to display and change your assignments for a month starting from the current date. You can also create new assignments or carry out other bookings. By default, the system displays only hardbooked assignments. To create new requests or roles and assign them to yourself, choose [Self Booking](#). By default, the new request is assigned the status [Closed](#), the role is assigned the status [Staffed](#), and the candidate status is set to [Hardbooking Approved](#).

Structure

The Request Management Workplace is divided into the navigation bar on the left, which can be hidden, and the main area. The main area contains the various tab pages that are displayed depending on the link that you select in the navigation bar. For example, the main area displays the worklists for requests or roles.

Configure and Filter the Worklists

You can configure the worklists to show or hide columns or change their sequence. If you want to reuse a specific layout, you can save it and select it the [View](#) drop down field in the request list.

You can filter both the request worklist and the role worklist by date range. To do this, you can enter either the creation date or the planned start date. The default values are based on the current date plus or minus a certain number of days and are specified in Customizing for [SAP Multiresource Scheduling](#) under ► [Web-Based](#)

[Resource Management](#) > [Configure Settings for Web-Based Resource Management](#) > [Resource Management](#) > [Work-list Management](#) > [Maintain Default Date Ranges](#) . The Customizing settings also specify a limit for the number of rows that can be displayed in the worklist (under ► [Web-Based Resource Management](#) > [Configure Settings for Web-Based Resource Management](#) > [Resource Management](#) > [Master Data Settings](#) > [Maintain Settings for Resource Management](#) ►).

Tab Pages in the Request Worklist

In the request worklist, you can choose between the following tab pages:

- Request Owner Requests: Displays the requests for which the request owner group is assigned to one of your RM groups.
- My Created Requests: Displays the requests that you have created (or requests that have been created on behalf of the requester).

An icon in the Alert column of the worklist indicates whether there is an alert for this request. You can display a list of alerts for this request by selecting the request row.

Tab Pages in the Role Worklist

In the role worklist, you can choose between the following tab pages:

- Request Owner Roles: Displays all roles for which you are the request owner or that belong to the request owner group for the role.
- Searching Party Roles: Displays all roles for which you are the searching party or that belong to the searching party group for the role.
- RO/SP Roles: All open roles for which you are the request owner or searching party, or that belong to the request owner or searching party group for the role.

Display Options for Filtering the Worklists

Both worklists contain a dropdown list with display options. These options control which requests or roles are displayed. For example:

- "All Open": All open roles that are assigned to your RM group
- "My Owned Open": Open roles that are assigned to you
- "Non-Assigned Open": Open roles that are not assigned to a request owner or searching party within the authorized group.
- "All Completed": Staffed or closed roles that are assigned to your group
- "Non-Assigned Completed": Staffed or closed roles that are not assigned to a request owner or searching party within the authorized group.
- "My Owned Completed": Staffed or closed roles that are assigned to you
- "No Candidate": Roles that are not closed but whose status has been set to "No Candidate" by the searching party.

9.6.5 Web-Based Request Management

Use

As the request owner, you work in the [Request Management Workplace](#) where you can use the following functions:

- You obtain an overview of the current alerts and acknowledge them.
- You accept requests or assign them to other request owners.
- You check the entries made by the requester and validate the requests.
- You find candidates and suggest (additional) candidates.
- You forward the validated requests to other searching parties.
- You change the status of the candidates if they are rejected by the requester, for example.
- You check the availability of the candidates.
- You create assignments and time allocations.
- If required, you create your own requests.

Features

- As the requester owner, you can display and change all request data assigned to your group in the [Request Management Workplace](#).
- You can choose [Status History](#) to call any changes made at request level or to call the individual roles.

Displaying and Acknowledging Alerts

The alert overview opens by default in the [Request Management Workplace](#). The system displays the following here, for example:

- Roles that must be processed urgently since the deadline entered has already passed
- Roles for which comments have been entered or changed
- Roles that have been added to requests

You can navigate to the corresponding role directly from the alert list. To remove an alert from the list, select the alert row in the overview table and choose the [Acknowledge](#) pushbutton. The system also removes the alert automatically when you navigate from the overview screen to the request or role.

Specifying the Request Owner

- To assign requests to yourself or other request owners, open the Request Management Workplace and choose one of the following links in the navigation bar:
 - To navigate to the list of requests that are assigned to your group, choose [Requests](#). This allows you to enter a request owner by selecting the relevant row and entering the name of the request owner in the corresponding column. Alternatively, you can enter the request owner on the [Request Header](#) tab page.
 - To navigate to the list of roles that are assigned to your group, choose [Roles](#). This allows you to enter a role owner by selecting the relevant row and entering the name of the role owner in the corresponding column. Alternatively, you can enter the request owner on the [Role Details](#) tab page.
- You can filter the lists by displaying only those requests or roles that are not yet assigned.

- Each role of a field service request must have an owner. The assignment of an owner to the higher-level request is optional. The roles of a request can be assigned to different request owners.

Note

Corporate requests and roles do not have an owner. The entire RM group is responsible for these requests.

Validating Requests or Roles

- To validate a request or a role, change the status to *Validated*. Provided that the request check has not been completed, you can also change the status to *Validation in Process* and save the role.
- You cannot validate the request as a whole. A request is only validated in full once all of its roles have been validated.
- As soon as you have validated at least one role of a request, the requester can no longer process the request or its roles. He or she can only enter comments or add roles.

Proposing Candidates

- To propose candidates for a role (if necessary, in addition to those proposed by the requester), add them to the role on the *Candidates* tab page. You can add one or more suitable candidates directly to the candidate list or first search for candidates and assign them from the results list. For more information, see [Web-Based Candidate Search \[page 455\]](#).
- You can also add external candidates (that is, candidates who do not have an employee data record in SAP HR). In this case, you must also enter the rate classification and the currency for the external candidate.
- Once you have added a candidate, the system displays the candidate on the *Candidates* tab page with the following data: name, ID, status, comments, selected employee master data, change history of the status, and availability information (only for internal candidates).
- If you want to inform the requester of your proposal, choose the *Proposed to Requester* candidate status and save. You can also send an e-mail containing the candidate's information to the requester by choosing the *Email Cand. Info* pushbutton.

Note

You can control the dependency between the candidate status and the visibility of the candidate for the requester, request owner, or searching party in Customizing for *SAP Multiresource Scheduling* under

► [Web-Based Resource Management](#) ► [Configure Settings for Web-Based Resource Management](#) ► [Resource Management](#) ► [Worklist Management](#) ► [Maintain Worklists](#) ►.

Broadcasting Requests or Roles to Other Searching Parties

- To broadcast a role to other searching parties who are to search for suitable candidates, choose the *Broadcast* tab page. Select the required searching party from the searching party hierarchy and add it to the *Broadcast Worklist*. Then choose *Broadcast Role*.
- Once all roles have been staffed, change the status of the request to *Completed*.

Accepting or Rejecting Candidates

- If you have received feedback about the candidates from the requester (by e-mail or phone), change the candidate status:
 - If the requester rejects the candidate, change the status to *Rejected by Requester* and enter a value in the *Rejection Code* field.

- If the requester accepts the candidate, check the availability, set the status to *Hardbooking Accepted*, and create an assignment. For more information, see [Availability Data Display \[page 461\]](#) and [Web-Based Creation of Assignments \[page 462\]](#).

Closing Requests

If all roles are staffed, change the status of the request to "Closed". You can use the "Quick Save" function to close a request more quickly and therefore avoid the intermediate steps. From a request with the status "Newly Submitted," you can carry out the following in a session:

- Add a resource to the role
- Change the status of the resource to "Hardbooked" and complete the assignment data
- Create the assignment for the resource
- Set the request status to "Closed"

If you choose *Quick Save*, the system automatically adds all of the required statuses (such as "Validated" or "Proposed to Requester").

Creating Your Own Requests

As the request owner, you can create and broadcast new requests. This is an exceptional case since this is usually the task of the requester. To create your own request, choose *Create Request* from the navigation bar. If you have created your own requests, they are displayed on a separate tab page that you can access by choosing *Requests*.

9.6.6 Status-Dependent Request Processing in Request Management Workplace

Use

If you belong to the resource management (RM) group to which the request is assigned, you can:

- Change all roles and the request header
- Broadcast to global and regional groups
- Add candidates and update the candidate status

If you belong to one or more RM groups that have been assigned as searching parties, you can:

- Display roles that are assigned to your RM group
- Broadcast to regional groups
- Add candidates and change the candidate status

You may also act as the requester. If you create requests that belong to other RM groups, you have the same access to these as a requester (see [Status-Dependent Request Processing in Requester Workplace \[page 446\]](#)).

Prerequisites

As the request owner or searching party, your processing authorizations are controlled by:

- Your user ID and personnel number associated with it in HR
- The profit center that is linked to your HR number
- The RM group(s) to which you are assigned
- Your role as a requester, request owner, or searching party
- The request status (for example, "Saved", "Broadcast", "In Process")

Features

The following table shows the possible request management actions depending on the status of the request header:

Request Header Status	Requester Is Able to...	Searching Parties Are Able to...
Request Not Yet Submitted	Nothing – the request can only be displayed	Nothing – the request is not yet displayed
Request Resubmitted	Full change access	Nothing – the request is not yet displayed
Request in Process	Full change access	Nothing – the request is not yet displayed
Request Validated	Full change access	Once the role has been broadcast: Display request header; add broadcast targets and regional broadcast; add candidates; propose candidates to the request owner
Request Completed	Add internal comments; add new roles	Display

The following table shows the possible request management actions depending on the status of the roles:

Role Status	Role Owners Are Able to...	Searching Parties Are Able to...
Not Yet Submitted	Nothing – the role can only be displayed	Nothing – the request is not yet displayed
Newly Submitted	Full change access	Nothing – the request is not yet displayed
Validation in Process	Full change access	Nothing – the request is not yet displayed
Validation Delayed	Full change access	Nothing – the request is not yet displayed

Role Status	Role Owners Are Able to...	Searching Parties Are Able to...
Validated	Full change access	Once the role has been broadcast: Display request header; add broadcast targets and regional broadcast; add candidates; propose candidates to the request owner
Proposed to Requester	Full change access	See above.
Staffed	Display, add internal comments, set role status to "Reopened"	See above.
Non-Binding Scheduled	Display, add internal comments, set role status to "Reopened"	See above.
Closed (Not Staffed)	Display, add internal comments, set role status to "Reopened"	See above.

9.6.7 Web-Based Candidate Search

Use

If you are searching for suitable candidates for a role, you can use two types of candidate search:

- Simple candidate search: This is based on the requirements profile of the role.
- Extended candidate search: This offers the search function with additional requirements and the option of a "fuzzy" search.

The search result for both variants is a list of candidates ranked by their suitability. This list also shows the availability overview of the candidates. You can select one or more names from the results list and add them to the candidates list as candidates. If you add a candidate to the candidate list, the candidate does not have a default status. You must set the status of each candidate manually.

You can display the employee profiles from the results list.

More Information

[Simple Candidate Search \[page 456\]](#)

[Extended Candidate Search \[page 456\]](#)

[Candidate Status \[page 458\]](#)

9.6.7.1 Simple Candidate Search

Use

If you are searching for suitable candidates, you can first try to find them with the simple candidate search. This means that you do not change the default search criteria in the requirements profile of the role.

Features

On the [Candidate Search](#) tab page, the system fills the corresponding fields with the values from the role.

i Note

The value for the preselection depends on the current user parameter. You can display the user parameter currently configured for your user by calling your user data in transaction SU01 in the SAP GUI. On the [Parameters](#) tab page, you can display the settings for /MRSS/RMS_PRESEL_DEF. To be able to work with the preselection options, you must have implemented BAdI /MRSS/RM_PRESELECTION accordingly.

Activities

To start the simple candidate search, choose [Search](#).

9.6.7.2 Extended Candidate Search

Use

If the simple search is not sufficient for you to find suitable candidates for your role, you can use the extended candidate search. Unlike the simple search, the extended search allows you to overwrite all of the requirements from the role to adapt your search. To enter search criteria for the extended search, choose the [Candidate Search](#) tab page and expand the required screen areas.

Features

- If the /MRSS/RM_PRESELECTION BAdI is implemented accordingly, you can make a preselection to limit the number of resources that the system includes in the search. This preselection can be as follows, for example:
 - Preselection based on obligatory qualifications

This option ensures that the system includes only those candidates who meet all of the obligatory qualifications of the role.

- Preselection based on job text
This option ensures that only candidates with exactly the same job text as specified in the requirements profile or hits at a higher level appear in the hit list.
- To change the limit for the size of the results list, you can enter a maximum value in the *Max. Hits* field. The default value is defined in Customizing.
- You can search in all organizations for which you have authorization.
- You can specify additional structured and unstructured qualifications. When entering unstructured qualifications you can use an inclusive or exclusive search for search terms, meaning that you can include or exclude specific terms.
- You can enter a threshold value for both the qualification and the availability of resources. Only resources for which at least the threshold value is reached are included in qualification matching and output in the results list.
- You can extend the search to neighboring levels of the qualification catalog. To do this, select the *Fuzzy Search* checkbox in the *Selection Screen* screen area.

Activities

- Make the required entries in the selection area. Define the maximum number of hits, for example.
- Also decide whether the system should carry out a qualification check, availability check, or both before qualification matching and enter a corresponding threshold value for each.
If a qualification check is performed, the system first checks the structured qualifications, then the unstructured qualifications, and finally, customer-specific fields.

i Note

You must select at least one of the checkboxes. By default, both checkboxes are selected and the corresponding fields contain the threshold value 0. If you do not change the threshold value, the system includes all candidates in qualification matching.

❖ Example

You define a threshold value of 85% for the qualification check. You are searching for a consultant with a structured qualification "STR1" and an unstructured qualification "USTRK1". Consultant A has both qualifications. This candidate therefore meets 100% of the requirements of the qualification check. Consultant B has the structured qualification only. This candidate therefore only meets 50% of the requirements. Based on the threshold values defined, the system only includes Consultant A in qualification matching and the results list.

- Specify the required structured and unstructured qualifications that the candidate should have. To do so, use the *Skill Catalog* screen area to enter structured qualifications and the *Non-Catalog Skill* screen area to enter unstructured qualifications. To switch between the exclusive and inclusive search when entering unstructured qualifications, choose the pushbutton with the relational operator. If the inclusive search is active, the pushbutton has an "equals" sign. If the exclusive search is active, the pushbutton has a "not equal to" sign.
The system performs qualification matching and determines the extent to which the candidate meets the required qualifications as a percentage.

i Note

As soon as a negative criterion is met (that is, the exclusive search returns a hit for a search term in the unstructured qualifications), the matching result for this criterion is 0%.

❖ Example

You specify the automotive industry in required project experience by including the search term "Automotive". At the same time, you want to exclude customer experience at the VW company. You therefore use "VW" as a negative search term. For a resource that has experience in the automotive industry and has worked for the customer VW, the result of qualification matching in this case is 100% for the project experience criterion and 0% for the customer experience area. For a resource that has experience in the automotive industry but has not worked for VW, the result of qualification matching is 100% for both criteria.

9.6.8 Candidate Status

You can define the candidate status in Customizing for *SAP Multiresource Scheduling* under [Web-Based Resource Management](#) > [Configure Settings for Web-Based Resource Management](#) > [Resource Management](#) > [Basic Settings](#) > [Status Configuration](#) > [Configure Candidate Status](#). Depending on your assignment to the request types, you can specify which users can set which candidate status.

Examples of statuses:

Set by the requester:

- Rejected by requester
 - Not selected by requester
-

Set by the request owner:

- Proposed to requester
 - Rejected by request owner
 - Approval required for shortlisting
 - Approval required for softbooking
 - Approval required for hardbooking
 - Hardbooking withdrawn by requester
 - Softbooking withdrawn by requester
 - Hardbooking accepted
 - Not selected by request owner
-

Set by the searching party:

- Softbooking approved
 - Softbooking not approved
 - Softbooking withdrawn by searching party
 - Hardbooking approved
 - Hardbooking not approved
 - Hardbooking withdrawn by searching party
 - Shortlisting approved
 - Shortlisting not approved
 - Shortlisting withdrawn
 - Proposal withdrawn
 - Forecasted
 - Not available
 - Proposed to requester
 - Checking availability
-

9.6.9 Web-Based Request Processing Using Searching Parties

Use

As a request owner, if you have received a request from a request owner in another group for support as a searching party, you also work in the [Request Management Workplace](#).

Note

If you find resources for a role as the searching party, you also have a worklist containing the roles that are assigned to you (SP worklist). However, you are not the request owner. You can only make limited changes to a role for which you, as the searching party, are searching for resources.

You can use the following functions:

- You accept roles yourself or assign them to other members of your group.
- You find suitable candidates and propose them to the request owner.
- You send roles to other searching parties.
- You book resources based on the feedback from the request owner.
- You can create, edit, and delete assignments for the proposed candidates.

Features

Specifying the Searching Parties

To assign a searching party to a role, choose [SP Worklist](#) in the Request Management Workplace. You can assign a searching party in two ways:

- Select the relevant list entry on the [Roles for Searching Party](#) tab page and enter the name of the searching party directly in the column.
- Open the role and enter the searching party in the relevant field on the [Candidates](#) tab page.

Candidate Search

See [Web-Based Candidate Search \[page 455\]](#).

Proposing Candidates

To propose candidates in a role, add them to the role on the [Candidates](#) tab page. To ensure that the request owner sees the proposal, choose the candidate status [Proposed to Request Owner](#). Since the request owner is not automatically informed of the status change, it is useful to send an e-mail. To do so, choose [E-Mail Candidate Information](#). You can also attach the candidate's resume to the e-mail.

Sending Requests or Roles to Other Searching Parties

To send a role to other searching parties who are to find suitable candidates, add the required searching parties to the "Broadcast Worklist" from the searching party hierarchy and choose [Broadcast Role](#).

More Information

[Status-Dependent Request Processing in the Request Management Workplace \[page 453\]](#)

[Web-Based Creation of Assignments \[page 462\]](#)

[Web-Based Postprocessing of Assignments \[page 467\]](#)

9.6.10 Web-Based Resource Staffing

Use

The resource staffing process often includes steps that are carried out outside the system (for example, sending resumes to the requester, or discussions with the requester or with the candidates and their managers). The four main activities in resource staffing at role level are:

- Softbooking candidates
- Receiving confirmations
- Hardbooking candidates and creating an assignment
- Closing the request

Process

The resource staffing process can therefore be as follows:

1. The request owner checks the list of candidates that has been proposed by various searching party groups. If the list contains a suitable candidate, the resource owner can propose the candidate to the requester for confirmation. The demand owner can also reject a candidate.
2. If the request owner receives a confirmation from the requester, approval for hardbooking or softbooking the candidate is requested from the searching party.
3. The searching party can approve or withdraw the proposal if the candidate is not longer available.
4. The request owner can create an assignment for the candidate.
5. The request owner sets the status of the role to "Staffed" or "Closed (Not Staffed)". The searching parties are informed of the status change and stop the search.

9.6.11 Availability Data Display

Use

Depending on your user role, you can display various information about the availability of resources: the daily work schedule, weekly availability for a three-month period in the availability overview, and the individual assignments and time allocations for each day in the assignment details.

Features

Daily Work Schedule

On the tab pages [Candidates](#) and [Candidate Search](#), you can call the daily work schedule for a selected resource.

Availability Overview

The availability overview shows the days on which your selected resources are available over the next three months. One column represents one week. The default starting month is the current month. To select a new three-month period, you can enter a new starting month. Each week column contains either the number of booked days or the number of available days for each week. To switch between these views, choose [Available Days](#) or [Assigned Days](#) in the [Show](#) field. A negative number indicates that the resource is overbooked in the week (for example, -1 means that the resource is overbooked by one day). The system highlights a 4 * 10 hour assignment.

You can scroll to the availability overview in the results list on the [Candidate Search](#) tab page. You can also call the three-month availability overview directly from the navigation toolbar:

- If you choose [RM View](#) as the request owner, the system displays the resources that are assigned to your resource planning node. You can also enter qualifications for a new resource search and display the three-month availability overview for the candidates found.
- If you choose [CM View](#) (consultant manager view) as a manager, the system displays the employees directly subordinate to you and their availability. To display the subordinate employees, specify the relevant

organizational unit for which you are acting as a consulting manager and search for the candidate. You can also enter qualifications for a new resource search and display the three-month availability overview for the candidates found.

Assignment Details

The assignment overview below the search results displays in more detail the assignments and time allocations that have already been created for the resources and the times at which the resources are still available. A distinction is made between half-days and full days.

- You can download assignments in iCalendar files to import them as appointments in Microsoft Outlook. To do so, choose [Export](#).
- You can display all the assignments for all resources that are working on the same project on a specific day. To do so, choose [Other Resources](#).

More Information

[Web-Based Creation of Assignments \[page 462\]](#)

[Web-Based Creation of Time Allocations \[page 466\]](#)

9.6.12 Web-Based Creation of Assignments

Use

The request owner creates assignments to book a selected candidate. As soon as an assignment has been created, the availability of the resource changes accordingly.

i Note

You can only create assignments manually. Changing the status does not automatically create assignments. However, if you set a status that indicates that a candidate has been withdrawn or not approved, the system can automatically delete assignments.

Prerequisites

- The resource must exist in SAP Multiresource Scheduling. You cannot create assignments for external resources.
- The request owner has checked the candidate list for the request and has selected one or more suitable resources together with the requester.

Features

Assignment Overview

- If you select a resource from the candidate list, the system displays the existing assignments for this resource in the assignment overview. The assignment list contains the role-based assignments and time allocations.
- You can postprocess assignments. For more information, see [Web-Based Postprocessing of Assignments \[page 467\]](#).

Details for the Assignment

- If you select an assignment, the day view of the assignment is displayed in the *Details for Assignment* screen area. For more information, see [Display of Assignment Details \[page 464\]](#).
- As long as a resource is proposed for a role as a candidate only, there are no assignments for this role. However, the system displays the candidates in a separate partner row in the assignment details.

Activities

- To create an assignment, select the candidate from the candidate list for a specific role and choose [Create Assignment](#).
- If you want to create assignments for other roles, you can either navigate to the other roles or create the assignments from the availability overview.
- The following information belongs to the assignment:
 - Date range
 - Week days
 - Type of assignment: full-time assignment, half-day assignment, or 4 * 10 assignment
For 4 * 10 assignments, you can add a comment to indicate which day is the free day.
 - Duration of the assignment in hours per day (based on the corresponding Customizing setting)

More Information

- [Display of Assignment Details \[page 464\]](#)
- [Web-Based Postprocessing of Assignments \[page 467\]](#)
- [Creation of Assignments for Demands with Time Rules \[page 290\]](#)

9.6.12.1 Display of Assignment Details

Use

Details about an assignment or about multiple assignments belonging to one demand are displayed in the *Details for Assignment* screen area.

Prerequisites

To display the duration of the assignment in hours for each day in the assignment overview, you have selected the *Show Assignment in Hours* checkbox in Customizing for *Resource Management* under ► *Basic Settings* ► *Configure Basic Settings* .

→ Recommendation

To access the Customizing settings for *Resource Management*, navigate to Customizing for *SAP Multiresource Scheduling* and choose ► *Web-Based Resource Management* ► *Configure Settings for Web-Based Resource Management* .

Features

- If you have not configured the system to display the assignment duration in hours, the assignment overview shows an assignment of half a day indicated by / and a full day indicated by x.
- If you have configured the system to display the assignment duration in hours and assignments exist for a demand that stretch over several days, the assignment overview shows how many hours the resource is used and on which days. The display is based on the type of assignment according to the following logic:
 - **Concrete Assignments**
For concrete assignments that stretch over several days, the system divides the duration of the assignment across the individual days and calculates the number of hours each day from the start time on the start date to the start time on the next day, and continues until the end of the assignment.

❖ Example

You have create a concrete assignment that begins on Monday at 22:00 and ends on the following Tuesday at 04:00. In the assignment overview, the system displays an assignment duration of 2 hours on Monday (from 22:00 to 00:00) and an assignment duration of 4 hours on Tuesday (from 00:00 to 04:00).

	Monday	Tuesday	Wednesday	Thursday	Friday
Assignment duration per day (in hours)	2	4	0	0	0

- **Stretched Assignments**

In the case of stretched assignments that cover several days, the system divides the assignment duration across the individual days based on the availability of the resources.

♣ Example

You have created an assignment that covers a total of 20 hours. The resource is available for 8 hours per day. The system displays the assignment duration in hours as follows:

	Monday	Tuesday	Wednesday	Thursday	Friday
Resource availability (in hours)	8	8	8	8	8
Assignment duration per day (in hours)	8	8	4	0	0

♣ Example

You have created an assignment that covers a total of 20 hours. The resource is available for 8 hours per day but there is a time allocation of 6 hours for Tuesday. The system displays the assignment duration in hours as follows:

	Monday	Tuesday	Wednesday	Thursday	Friday
Resource availability (in hours)	8	8	8	8	8
Time allocation (in hours)	0	6	0	0	0
Assignment duration per day (in hours)	8	2	8	2	0

i Note

If the availability of the resource has been updated using the HCM report, the assignment details may be displayed incorrectly.

- **Capacitive Assignments**

In the case of capacitive assignments that stretch over several days, the system divides the total duration of the assignment equally among the total number of days.

♣ Example

You have create a capacitive assignment that begins on Monday at 22:00, ends on the following Tuesday at 04:00, and lasts for a total of 6 hours. In the assignment overview, the system displays a duration of 3 hours for both Monday and Tuesday.

	Monday	Tuesday	Wednesday	Thursday	Friday
Assignment duration per day (in hours)	3	3	0	0	0

9.6.13 Web-Based Creation of Time Allocations

Use

You can also create time allocations from the Web interface. These allow you to keep the availability data up to date if, for example, resources accept tasks that are not related to the requests or if they are simply absent. To define the corresponding color coding for the availability overview, the time allocations are assigned to booking types in Customizing for [Resource Management](#).

More Information

[Time Allocations \[page 136\]](#)

9.6.14 Web-Based Postprocessing of Assignments

Use

When the request owner creates assignments for a resource, the data is often only tentative. It can later be refined by the request owner, the candidate, or the manager of the candidate. Request owners, managers, and candidates can also restrict the times of the assignments.

Features

- You can postprocess assignment data by choosing the [Refine Assignment](#) pushbutton.

i Note

If you want to edit assignments for demands for which the assignment duration per day is displayed in hours, you can do so by choosing the [Refine Assignment](#) pushbutton. For more information, see [Display of Assignment Details \[page 464\]](#) and [Refining Assignments \[page 467\]](#).

- You can choose the [Edit](#) pushbutton to make simple changes such as changing a half-day assignment into a full-day assignment.
- You can restrict the times of assignments. To do so, choose the [Delimit Assignment](#) pushbutton.
- You can delete assignments by choosing the [Delete](#) pushbutton.
- The system displays the existing assignment data and the new (changed) data so that you can compare it. As soon as you save the changes, the system accepts the new data.

9.6.14.1 Refining Assignments

Use

You can postprocess assignments by changing the time period, for example. The procedure for postprocessing assignments depends on whether the system has been configured to display the assignment duration in hours. For more information, see [Display of Assignment Details \[page 464\]](#).

Procedure

Variant 1: Assignment Duration Is Displayed in Hours

Proceed as follows:

- In the assignment overview, select the row containing the demand for which you want to edit assignments and choose [Refine Assignment](#).
The system opens a dialog box containing the assignments that belong to the demand.

2. Select the assignment that you want to refine and choose [Edit](#).
A dialog box appears.
3. Make changes as required. For example, you can enter a comment for the assignment or change the time period of the assignment.
4. Confirm your entries.

Variant 2: Assignment Duration Is Not Displayed in Hours

Proceed as follows:

1. In the assignment overview, select the row containing the assignment that you want to edit and choose [Refine Assignment](#). A dialog box appears.
2. Make changes as required. For example, you can enter a comment for the assignment or change the time period of the assignment.
3. Confirm your entries.

More Information

- [Web-Based Postprocessing of Assignments \[page 467\]](#)
- [Display of Assignment Details \[page 464\]](#)

9.6.15 Reports for Web-Based Resource Management

Various reports are available as part of Web-based resource management.

POWL Reports

Limited Demand Report

This report provides an instant overview of the selected requests and roles. You can choose various options on the selection screen to improve performance:

- You can include or exclude completed demands.
- You can include or exclude roles that have not been submitted yet.
- You can show or hide broadcast information.
- You can show or hide candidate information.

The output of the report is based on the selected option in the dropdown menu of the [Display Broadcast Group](#) selection field.

Detailed Demand Report

This report shows all of the detailed information regarding a request, such as

- Request header information

- Role information
- Broadcast information
- Candidate information

The output of the report is based on the selected option in the dropdown menu of the *Display Broadcast Group* field.

Since this report processes a large volume of data, the selection criteria include the option of running the report in the background. The results are then sent as an e-mail attachment.

Candidate Report

This report shows the candidate details for every selected request and role. The selection criteria include fields at request, role, and candidate level. The output of the report is based on the selected option in the dropdown menu of the *Candidate Selection Type* selection field.

- Blank: Displays both roles with assigned candidates and those to which no candidates have been assigned.
- Roles with Candidate: Displays all roles that have been assigned candidates.
- Roles with no Candidate: Displays all roles that have not been assigned candidates.

To improve performance, you can include various other selection criteria such as:

- Include or exclude completed requests
- Include or exclude external candidates

Partner Broadcast Detail Report

This report shows all of the broadcast partner information for each order and role as well as the candidate information for each partner.

The broadcast partner information is displayed according to the authorizations assigned in the RM application.

Assignment Report

- This report shows all assignment types for all booking types: Free, planned, softbooked, hardbooked.
- You can display the data at day, week, or month level. The following periods are set by default:
 - Day view: For seven days starting from the current date
 - Week view: For twelve weeks starting from the current date
 - Month view: For three months starting from the current date
- You can limit the display to time allocations or assignments.

Project Availability/Bench Report

- This report shows the availability of each candidate in the selected period. If you do not specify a period in the *Assignment Date* selection field, the system uses the next three months starting from the current date as the assignment date.
- The report shows the first available date of the candidate and the availability in percent within the selected period.
- The report shows when the candidate is hardbooked and softbooked in the selected period.
- The report also shows candidates without assignments (or with booking type FREE).

Other Reports

Report: Softbooked Expiration Report

This report shows a list of requests, roles, and candidates that have a certain candidate status. You can change the candidate status or the date on which the softbooking for the candidate expires.

Detailed Assignment Report

This report shows the assignments and their bookings for a specific candidate in a specific period.

10 Resource Planning with SAP Portfolio and Project Management

Use

You can use SAP Multiresource Scheduling for resource planning for roles in SAP Portfolio and Project Management (SAP PPM).

i Note

As of release 5.0, SAP cProject Suite is integrated in SAP Portfolio and Project Management (SAP PPM). You can use SAP Multiresource Scheduling together with SAP cProject Suite 4.5 as well as with SAP Portfolio and Project Management 5.0.

The system supports you at role level by providing various process variants:

- Resource planner process
In the resource planner process, you can define a fixed resource planner to whom all corresponding project roles involved in the resource process can be assigned.
- Contact person process
In the contact person process, you can assign one or more resource planners.

The following options are available for both variants:

- Manual confirmation
- Automatic selection
- Automatic posting
- Direct quota for each project manager

Prerequisites

- You have configured the relevant settings under ► [Sources of Demand](#) ► [SAP Portfolio and Project Management \(Collaboration Projects\)](#) ►.
- You have implemented the Business Add-In (BAI) `DPR_EVENT`.

Process

The process can run as follows, for example:

i Note

The following process overview applies to both process variants (resource planner process and contact person process) equally. For information about how the process variants differ from each other, see

Creation of an SAP Multiresource Scheduling Demand in the Project [page 473] and Demand Closure in the Contact Person Process [page 486].

1. The requester (project manager) creates a project with one or more roles and begins planning.
2. The system transfers the roles to SAP Multiresource Scheduling as demands. The resource planner assigned to the resource planning node of the demand then sees the demand in his or her worklist in the planning board for SAP Multiresource Scheduling.
3. The resource planner finds suitable resources and creates assignments for them.
 - **Manual confirmation:** If you have selected the "Manual Confirmation" variant for the role, the following steps are executed: The requester sees the proposals from the resource planner on the *MRS* tab page of the role in the project. The requester then decides which resources to select and reject. Resources can also be reserved, meaning that the resource planner cannot hardbook them. Until this point, assignments are handled as "softbookings". The resource planner then hardbooks the resources selected by the requester. They are subsequently assigned the status *Allocated*. For more information about the manual confirmation process, see [Resource Proposal Processing \[page 484\]](#).
 - **Automatic selection:**
The assignments are created directly with the status *Selected* (softbooking). The resource planner then hardbooks the resources. They are subsequently assigned the status *Allocated*.
 - **Automatic posting:**
The assignments are created directly with the status *Posted*. This means that when this variant is used, softbooking is omitted completely.
 - **Direct quota for each project manager**
The requester (project manager) controls hardbooking the resource for the project. Since the requester selects the resources that are proposed by the resource manager, the resource is hard booked for the project.

i Note

For more information about the different combinations of process type, process variants, and staffing type, see [Process Variant Overview for Contact Person Process \[page 475\]](#) and [Process Variant Overview for Resource Planner Process \[page 478\]](#).

4. In the project, the assignment is displayed on the *Staffing* tab page.

i Note

In Customizing, you can specify the process steps at which the system automatically sends e-mails to the employees involved. This informs a selected resource about the assignment, for example.

More Information

- [Process Variant Overview for Contact Person Process \[page 475\]](#)
- [Process Variant Overview for Resource Planner Process \[page 478\]](#)
- [Employee Search for a Demand and Free Employee Search \[page 534\]](#)
- [Long-Term Planning with Time Rules \[page 480\]](#)

10.1 Creation of an SAP Multiresource Scheduling Demand in the Project

Use

If you create a project in SAP Portfolio and Project Management (SAP PPM) with project type relevant for SAP Multiresource Scheduling, the system displays the corresponding *MRS* tab page at role level. The *Staffing* tab page is available in display mode only.

i Note

As of release 5.0, SAP cProject Suite is integrated in SAP Portfolio and Project Management (SAP PPM). You can use SAP Multiresource Scheduling together with SAP cProject Suite 4.5 as well as with SAP Portfolio and Project Management 5.0.

Prerequisites

To create demands with time rules, you must have activated work distribution at role level and configured the corresponding settings in Customizing for *Collaboration Projects* under **► Resource Management ► Basic Settings for Project Roles** .

Activities

i Note

You can hide some of the following fields in Customizing for *SAP Multiresource Scheduling* under **► Sources of Demand ► Collaboration Projects ► Configure Interface Elements in cProjects**  or define them as required entry or read-only fields.

1. As the requester, you create a project with the project type relevant to SAP Multiresource Scheduling. On the **► Structure ► Basic Data**  tab page, define the time frame of the project. The organizational unit is assigned differently depending on the process variant:
 - **Resource planner process:**
On the **► Structure ► Additional Data**  tab page, you assign a responsible organizational unit. The organizational unit must be defined as an SAP Multiresource Scheduling resource planning node. It corresponds to the resource planning node for roles that are assigned to the resource planner process.
 - **Contact person process:**
The organizational unit maintained at project level is independent of the organizational unit at role level.
2. On the *Resources* tab page, you create one or more roles for the project. During the resource planner process, the roles must be assigned to the role type that has been assigned to the resource planner

process in Customizing. During the contact person process, the roles must be assigned to the role type that has been assigned to the contact person process in Customizing.

3. On the [General](#) tab page, you enter the required project role type that is relevant for SAP Multiresource Scheduling along with the work. With the relevant Customizing setting, you can define the period-based work distribution. In this case, the system creates time rules for the demand when the demand is integrated into SAP Multiresource Scheduling. For more information, see [Long-Term Planning with Time Rules \[page 480\]](#).
4. On the [MRS](#) tab page, you define the number of required resources. You can specify a requirements profile with the required qualifications. The following prerequisites must be met:
 - You can enter only reusable requirements profiles. If you edit a requirements profile for your project role, the system creates a copy of the requirements profile that is valid only for this project. You can also enter the proficiency level for the requirements profile as a whole.

i Note

Instead of using qualifications from SAP Multiresource Scheduling, you can use standard HR qualifications in SAP PPM on the [Qualifications](#) tab page. For more information, see [Use of HR Qualifications in cProjects \[page 479\]](#).

5. The next step depends on the process variant:
 - **Resource planner process:**
The demand details that you entered (such as role type and organizational unit) are displayed on the [MRS](#) tab page.
 - **Contact person process:**
You must still assign the organizational units for which demands are to be created on the [MRS](#) tab page. You have the following options:
 - To find organizational units directly, choose the  pushbutton.
 - To find the organizational units using a requirements profile, open the dialog box for the free employee search by choosing the  pushbutton.
You can use a requirements profile to find the organizational units only if a requirements profile has been assigned to the role. You can also search for certain employees directly in the free employee search dialog box and, if the relevant prerequisites are fulfilled, create assignments for the employees found in the assignment calendar. For more information, see [Assignment Calendar \[page 477\]](#).

Depending on the process flow, you may also have to enter a status for the demand such as [Demand Newly Created](#).

6. To release the demand for resource planning in SAP Multiresource Scheduling, select the [Start of Planning](#) checkbox and save the project.

i Note

For the purpose of preliminary planning in the early phases of a project, you can also save the project initially without selecting the checkbox. In this way, you can first look for suitable employees within SAP PPM as part of the Contact Person Process and simulate planning. The system does not create the relevant assignments in SAP Multiresource Scheduling until you select the [Start of Planning](#) checkbox and save the project.

7. To close a demand that has already been released, choose  [Cancel](#).

More Information

- [Assignment Calendar \[page 477\]](#)
- [Use of HR Qualifications in cProjects \[page 479\]](#)
- [Employee Search for a Demand and Free Employee Search \[page 534\]](#)
- [Long-Term Planning with Time Rules \[page 480\]](#)

10.1.1 Process Variant Overview for Contact Person Process

Prerequisites

You have configured the necessary settings in Customizing for *SAP Multiresource Scheduling* under ► *Sources of Demand* ► *Collaboration Projects* ► *MRS-Relevant Settings for Project Role Type* ►.

Procedure

Staffing by Requester (Project Manager):

Automatic Posting

1. The project manager creates a role in the cProject and searches for suitable employees, who can be selected from the hit list.
2. When the project manager saves, the system hard books the resource. The resource is then assigned the status .
3. The system automatically creates an assignment in the planning board for SAP Multiresource Scheduling.

Direct Allocation for Each Project Manager (Requester)

1. The requester creates a role in the cProject and searches for suitable resources. The system displays suitable resources with the status  in the *Assignment Status* column. The requester can then select a resource from the hit list.
2. Depending on the requester's authorization, the following processes can be triggered upon saving:
 1. OPTION A:

The project manager is assigned to the organizational unit to which the resource belongs as the resource planner, and is authorized to plan the resource:

 - The project manager selects the suitable resource from the hit list and chooses *Save*.
 - The resource is then assigned the status .
 - The resource planner can accept the resource proposal in the planning board for SAP Multiresource Scheduling and create an assignment. Alternatively, the resource can be rejected. If the resource planner accepts the proposal, he or she can hard book or reserve the resource in the assignment context menu.

The resource planner can also submit a new resource proposal, which the project manager (requester) can again accept or reject.

For more information, see [Processing Resource Proposals in the cProject \[page 484\]](#).

2. OPTION B:

The project manager is not the resource planner:

- The project manager selects the suitable resource from the hit list and chooses [Save](#).
- The resource is then assigned the status [Resource Requested](#).
- The resource planner can accept (softbooking) or reject the resource in the planning board for SAP Multiresource Scheduling. If the resource planner accepts the proposal, he or she can hard book or reserve (soft book) the resource in the assignment context menu.
The resource planner can also submit a new resource proposal, which the project manager (requester) can again accept or reject.

Manual Confirmation

1. The requester creates a role in the cProject and searches for suitable resources. The system displays suitable resources with the status  in the [Assignment Status](#) column. The requester can then select a resource from the hit list and save the data.
The system displays the resource in the planning board with the status [Resource Found](#).
2. The resource planner (resource manager) can accept or reject this resource. If the resource is rejected, another resource can be proposed. If the resource is accepted, it is proposed in the cProject with the status .
3. The project manager (requester) can then select or reject the proposed resource.
4. If the proposed resource is accepted by the project manager, the resource planner can reserve (soft book) or hard book the resource for an assignment in the planning board.

i Note

For more information, see [Status in the Resource Overview \[page 274\]](#).

Automatic Selection

1. The requester creates a role in the cProject and searches for suitable resources. The system displays suitable resources with the status  in the [Assignment Status](#) column. The requester can then select a resource from the hit list and save the data.
The system displays the resource in the planning board with the status [Resource Found](#).
2. The resource planner (resource manager) can accept or reject this resource. If the resource is rejected, another resource can be proposed. If the resource is accepted, it is proposed in the cProject with the status .
3. The project manager (requester) can then select or reject the proposed resource.
If the project manager selects the proposed resource, it is automatically hard booked for the assignment in the planning board.

Standard Process for Staffing (by Resource Manager)

Automatic Posting

The resource planner finds a suitable resource and creates assignments for it.

The system automatically hard books the resource for this assignment, meaning that the softbooking step is omitted.

Manual Confirmation

1. The resource planner finds a suitable resource and proposes it to the project manager. The proposal is displayed on the [MRS](#) tab page of the role in the cProject.
2. The project manager decides whether to select or reject the resource. However, he or she can also choose to simply reserve it.
Until this point, the resource is handled as a softbooking.
3. The resource planner can hard book or reserve the resource selected or reserved by the project manager in the planning board. If the resource planner hard books the resource, the softbooking is converted to a hardbooking and the resource is assigned the status [Allocated](#).

Automatic Selection

1. The resource planner (resource manager) searches for a suitable resource and can accept or reject it. If the resource is accepted, it is proposed to the requester (project manager) in the cProject.
2. The project manager (requester) can then select or reject the proposed resource.
3. The resource manager (resource planner) can hard book the resources selected in the planning board for the assignment.

More Information

[Resource Planning with Collaboration Projects \[page 471\]](#)

[Resource Proposal Processing in cProject \[page 484\]](#)

[Status in the Resource Overview \[page 274\]](#)

[Employee Search for a Demand and Free Employee Search \[page 534\]](#)

10.1.1.1 Assignment Calendar

Use

You can use the assignment calendar to create assignments and plan resources in cProjects more effectively. This function is relevant only for the [Staffing by Requester](#) scenario in the Contact Person Process process variant.

Prerequisites

- You have activated the assignment calendar in Customizing for Multiresource Scheduling under ► [Sources of Demand](#) ► [Collaboration Projects](#) ► [MRS-Relevant Settings for Project Role Type](#) ►.
- You have defined the color scheme for the calendar view in Customizing for Multiresource Scheduling under ► [Sources of Demand](#) ► [Collaboration Projects](#) ► [Define Color Code for Assignment Calendar](#) ►.

Features

- After you search for an employee on the [MRS](#) tab page, the system displays the assignment calendar for the first employee under the results list. To display the calendar for a different resource, choose the resource in the results list. The system shows all of the days for the current project role as checkboxes in the calendar. Existing assignments belonging to the resource for the current project role are color coded according to non-working times, time allocations, available times, and other assignments depending on the settings in Customizing.
- You can also call up the assignment calendar for a specific employee by selecting an assignment in the assignment table and choosing .
- You can create new assignments or change existing ones from this calendar. Assignments created in this way are assigned [Requested](#) or [Proposed](#) status, depending on the authorization of the user creating them. The resource scheduler can then directly change the status of these assignments to "Hardbooked". You can only make changes to assignments in the calendar if they do not have [Hardbooked](#) status.
- Assignments are created until the remaining calculated working time is equal to 0. The interval created last is adjusted in such a way that the working time is utilized completely and overbooking avoided. Based on the requested capacity of the project role, the system displays the remaining and planned working times in hours. It calculates the remaining working time by deducting the duration of all assignments for all resources in the role from the requested capacity. In this way, the resources found are also included in the calculation.

10.1.2 Process Variant Overview for Resource Planner Process

Prerequisites

You have configured the necessary settings in Customizing for [SAP Multiresource Scheduling](#) under ► [Sources of Demand](#) ► [Collaboration Projects](#) ► [MRS-Relevant Settings for Project Role Type](#) ►.

In the cProject, you have assigned an organizational unit that is to be used for the resource planner process on the tab page ► [Structure](#) ► [Additional Data](#) ►.

Procedure

Standard Process for Staffing (by Resource Manager)

In this process, the demand is assigned immediately to the resource planner of the organizational unit from the project.

Automatic Posting

The resource planner finds a suitable resource and creates assignments for it.

The system automatically hard books the resource for this assignment, meaning that the softbooking step is omitted.

Manual Confirmation

1. The resource planner finds a suitable resource and proposes it to the project manager. The proposal is displayed on the [MRS](#) tab page of the role in the cProject.
2. The project manager decides whether to select or reject the resource. However, he or she can also choose to simply reserve it.
Until this point, the resource is handled as a softbooking.
3. The resource planner can hard book or reserve the resource selected or reserved by the project manager in the planning board. If the resource planner hard books the resource, the softbooking is converted to a hardbooking and the resource is assigned the status [Allocated](#).

Automatic Selection

1. The resource planner (resource manager) searches for a suitable resource and can accept it.
It is then proposed to the requester (project manager) in the cProject.
2. The project manager (requester) can then select or reject the proposed resource.
3. The resource manager (resource planner) can hard book the resources selected in the planning board for the assignment.

More Information

[Process Variant Overview for Contact Person Process \[page 475\]](#)

10.1.3 Use of HR Qualifications in cProjects

Use

Alongside SAP Multiresource Scheduling qualifications, you can also use standard HR qualifications in cProjects.

Prerequisites

You have maintained qualification catalogs and employee profiles in your HR system.

You use report `/MRSS/HCM_RPTWFMIF` to transfer the availability information of the resources from SAP HR to MRS Basis and cProjects.

In Customizing for [SAP Multiresource Scheduling](#), the [MRS Qualifications](#) indicator is not selected under [Basic Settings](#) > [Configure Basic Settings](#) .

Features

As the requester, you can assign the HR qualifications as a qualification requirement of the role in your cProject.

The resource planner can then display the requested qualifications in the planning board or search for suitable resources for the demand.

Activities

On the [Qualifications](#) tab page, the requester (project manager) assigns an HR qualification from the HR qualification catalog to a role in the cProject as a requirement.

The resource planner can find suitable resources for a demand by choosing  in the planning board.

 enables the resource planner to display the qualifications required to process the demand.

More Information

[Creation of an SAP Multiresource Scheduling Demand in the cProject \[page 473\]](#)

10.2 Long-Term Planning with Time Rules

Use

When creating a project in SAP Portfolio and Project Management, you can define the period-based work distribution at role level. When a demand is integrated into SAP Multiresource Scheduling, the system creates time rules for this demand.

i Note

As of release 5.0, SAP cProject Suite is integrated in SAP Portfolio and Project Management (SAP PPM). You can use SAP Multiresource Scheduling together with SAP cProject Suite 4.5 as well as with SAP Portfolio and Project Management 5.0.

As the resource planner, you can create assignments for the demand in the planning board and display the work distribution.

Prerequisites

To create demands with time rules, you must have activated work distribution at role level and configured the corresponding settings in Customizing for *Collaboration Projects* under ► *Resource Management* ► *Basic Settings for Project Roles* ►.

More Information

- [Creation of Time Rules \[page 481\]](#)
- [Creation of Assignments for Demands with Time Rules \[page 482\]](#)

10.2.1 Creation of Time Rules

Use

When creating projects in SAP Portfolio and Project Management, you can define the period-based work distribution at role level. This means that, depending on Customizing settings, you can specify how much resource capacity you require for each period (week, month, or individually selected period category). When a demand is integrated into SAP Multiresource Scheduling, the system creates time rules for this demand.

Note

As of release 5.0, SAP cProject Suite is integrated in SAP Portfolio and Project Management (SAP PPM). You can use SAP Multiresource Scheduling together with SAP cProject Suite 4.5 as well as with SAP Portfolio and Project Management 5.0.

Features

- You can specify how much resource capacity you require for each period on the *General* tab page in the *Period-Based Work Distribution* screen area.
- When the demand is integrated into SAP Multiresource Scheduling, the system creates a time rule for each period as follows:
 - The start time of the time rule is the start of the period.
 - The end time of the time rule is the end of the period.
 - The system determines the total number of hours for each time rule based on the total work requested for each period divided by the number of resources (specified on the *MRS* tab page).

More Information

- [Creation of an SAP Multiresource Scheduling Demand in the Project \[page 473\]](#)
- [Creation of Assignments for Demands with Time Rules \[page 482\]](#)

10.2.2 Creation of Assignments for Demands with Time Rules

Use

When demands from SAP Portfolio and Project Management for which a work distribution for each period has been defined are integrated into SAP Multiresource Scheduling, the system creates time rules. You can create assignments for these demands. You can use both the Scheduler Workplace (SAP GUI) and the Web-based planning board.

i Note

As of release 5.0, SAP cProject Suite is integrated in SAP Portfolio and Project Management (PPM). You can use SAP Multiresource Scheduling together with SAP cProject Suite 4.5 as well as with SAP Portfolio and Project Management 5.0.

Prerequisites

You have created a project and defined a period-based work distribution at role level.

Features

- The system creates multiple assignments in the planning board for demands with time rules. Depending on the assignment type selected, this is done as follows:
 - **Capacitive Assignments**
If the period defined in the time rule stretches over consecutive days, a capacitive assignment is created for the whole period, which means that the assignment starts with the start of the time rule and ends with the end of the time rule. If there are days within the defined period on which the resource is not required, the system creates multiple capacitive assignments: the first assignment ends on the day before the interruption and the next assignment starts on the following day. The resource availability corresponds to the number of hours per day.

i Note

If time rules exist for a demand, you should always select the assignment type *Capacitive* to ensure effective, consistent resource planning.

- **Concrete Assignments**

One assignment is created for each day in the period defined in the time rule. The system determines the start time based on the first basic availability of the resource after the start of the time rule. If there is no information about resource availability, the system creates the assignment at the start time defined in the time rule.

The duration for each day is determined from the time rule. If a total duration (total number of hours) is specified in the time rule, the system determines the daily duration as follows: total number of hours divided by the number of days

- **Stretched Assignments**

If the period defined in the time rule stretches over consecutive days, a stretched assignment is created for the whole period, which means that the assignment starts with the start of the time rule and ends with the end of the time rule. If there is a day within the defined period on which the resource is not required, the system creates two assignments: the first assignment ends on the day before the interruption and the second assignment starts on the following day. The defined number of hours per day is not taken into account for stretched assignments.

Activities

Creation of Assignments in the Planning Board (SAP GUI)

You can create assignments for demands for which time rules have been defined.

- To display the time rules for a demand, choose the [Display Work Distribution](#) entry from the context menu in the item worklist or order worklist.

The system opens a dialog box in which the following information is displayed:

- Validity period
- Duration
- When you move the demand to the planning board using drag & drop or choose the pushbutton for creating assignments in the toolbar, the system opens a dialog box. Here you can enter the following:
 - Type of assignments to be created
 - Exact time frame in which the assignments are to be created
- The system creates the assignments using the logic described above.

Creation of Assignments in the Web-Based Planning Board

You can create assignments as usual in the Web-based planning board for demands for which time rules have been defined.

- To display the time rules for a demand, choose the [Display Time Rules](#) pushbutton in the [Demands](#) screen area.

The system opens a dialog box in which the following information is displayed:

- Validity period
- Duration
- You can select whether the assignments are to be created in capacitive or non-capacitive mode using a list field in the Gantt chart.
- You can create draft assignments for demands in the Gantt chart. The bar for each assignment draft is labeled with the demand ID and the start and end of the time rule.

For more information about how to create and edit assignment drafts, see [Creating Assignments \[page 217\]](#).

Note

In this case, the assignments lose their attachment to the time rule. This means that if you have already created assignments for the demand from a draft and you choose the pushbutton for creating a draft in the *Demands* screen area once more, the system creates the same assignment draft again.

More Information

[Creation of Time Rules \[page 481\]](#)

10.3 Resource Proposal Processing in cProject

Use

As a requester, you can process resource proposals only if “Manual Confirmation” is activated for the process variant. In this case, choose the *MRS* tab page of the project role to view the resources proposed by the resource planner and either accept or reject them. A table is provided for this, which lists the respective resource planners and the resources they have proposed. The resource planner rows are indicated by the  icon in the *Object Type* column, and the resource rows by the  icon in the *Object Type* column.

Features

Provided that you have not edited the resource proposals, the system displays the icon  in the *Assignment Status* column of the resource row. You now have the following options:

- To accept a resource proposal, select the resource row and choose .
Once you have accepted the proposal, the status symbol changes to .
- To reject a resource proposal, select the resource row and choose . A dialog box then appears in which you must select a reason for the rejection. Once you have rejected the proposal, the status symbol changes to .
- To first reserve a resource proposal, choose . This means that the resource is earmarked but the resource planner cannot book it definitely. Once you have reserved the proposal, the status symbol changes to .
- You can send an e-mail to a resource. To do so, select the resource row and choose .
- You can display the corresponding employee profile for the resources displayed. To do so, select the resource row and choose .

- You can display details about the resource planners. To do so, select the resource planner row and choose .

The status icon  is displayed only once a resource that you have selected is definitely planned in the planning board by the resource planner.

10.4 Status Overview in cProjects

Assignment Status

An assignment can be allocated the following statuses, which are especially relevant for cProjects:

Status	Description
Proposed	The assignment has been created by the resource planner, but the requester has not yet confirmed or rejected it.
Accepted	The requester has accepted the assignment planned for the resource.
Rejected	The requester has rejected the assignment planned for the resource. The assignment has been deleted but can still be seen in the SAP Multiresource Scheduling view of the project as a rejected assignment.
Reserved	The requester can indicate a resource assignment as reserved. Provided that the assignment is reserved, it cannot be hardbooked by the resource planner. The resource planner can enter a hardbooking only once the requester has accepted the assignment (this does not apply to the "Automatic Posting" variant).
Allocated	This status is set manually by the resource planner or automatically by the system if the "Automatic Posting" variant is used.
Requested	The system uses this status in the "Staffing by Requester" scenario. The requester can request a resource but is not authorized to create an assignment.
Resource Selected	The system uses this status in the "Staffing by Requester" scenario as long as the requester has not yet started the planning.

The terms "softbooking" and "hardbooking" which are used frequently in the project environment, as defined as follows:

- Softbooking: *Proposed, Accepted, Reserved*
- Hardbooking: *Allocated*

Demand Status

A demand can be allocated the following statuses, which are especially relevant for cProjects:

- Offer: A role in the contact person process is assigned the offer status until the requester removes it manually.

You can define additional user statuses for the demand in Customizing and use them in the project. The *Status* field on the *MRS* tab page of the project role is intended for this.

Note

You can hide this field in Customizing for SAP Multiresource Scheduling under ► *Sources of Demand* ► *Collaboration Projects* ► *Configure Interface Elements in cProjects* ► or define it as a required entry or read only field.

10.5 Demand Closure in the Contact Person Process

Use

Once the requester has created a demand in the contact person process, the system processes the demand as an offer for various resource planners. As soon as resources have been assigned to a demand, the demand is in process. The demand can then be closed in two ways:

- The requester closes the demand manually.
- The system closes the demand automatically. This occurs only if the demand is completely covered by assignments.

Features

- If the requester creates a role for the contact person process, the system indicates this on the *MRS* tab page with . You can find the icon in the resource-planner and resource overview table in the *Assignment Status* column.
- As soon as the resource planner has created an assignment with the status *Proposed*, *Selected*, or *Allocated* for the demand, the system displays the  icon in the *Assignment Status* column instead of the offer icon.
- As the requester, you can close the demand manually at an earlier time. To do so, choose . The system then responds as follows:
 - If there are currently only open assignments for the demand, the system deletes the demand and all associated open assignments ("softbookings"), that is, assignments with the status *Selected*, *Reserved*, or *Proposed*.

- If there are assignments that have already been posted for the demand ("hardbookings", that is, assignments with the status *Allocated*), the system removes the offer indicator from the demand and closes the demand. If there are any open assignments for this demand, the system deletes them.
- The system closes the demand automatically as soon as planning is complete. This is the case if there are no more open assignments for the demand.

11 Resource Planning for SAP CRM Service Orders

Use

SAP Multiresource Scheduling allows you to plan resources for service order items from your SAP Customer Relationship Management (SAP CRM) system. You can use the Scheduler Workplace (SAP GUI) and the Web-based planning board to assign suitable personnel resources to the demand.

Prerequisites

- You have implemented the Business Add-In (BAI) `CRM_SRV_SDL` in your SAP CRM system with an implementation relevant for SAP Multiresource Scheduling.
- You have released at least one SAP CRM service order item.
- In Customizing for *SAP Multiresource Scheduling*, you have executed the following activities under **Sources of Demand** **CRM Service Orders**:
 - *Determine CRM Service Orders for Resource Planning*
 - *Define Date Types for Demand*
 - *Determine Usage Site of Service Order*
 - (Optional) *Set Up Assignment Status Integration*
You only need to make settings in this activity if you want to exchange assignment status information between SAP Multiresource Scheduling and SAP CRM.
- In Customizing for *SAP Multiresource Scheduling*, you have executed the activity *Configure Multiple Back-End Systems* under *Basic Settings*.
In this activity, you must enter the logical system and the RFC destination for the SAP CRM system.

i Note

You must make settings in this activity regardless of whether you connect SAP Multiresource Scheduling with a remote SAP CRM system (multi back-end system landscape) or whether you install SAP Multiresource Scheduling and SAP CRM in the same system (single back-end system landscape).

- If resource planners shall be able to change the CRM service order in the source system, make sure that all relevant SAP Multiresource Scheduling users have the appropriate authorizations to make these changes.
- If you want to write data back from SAP Multiresource Scheduling to SAP CRM, you must set up the backward integration of data. For more information, see [Setting Up Backward Integration of Data for SAP CRM Service Orders \[page 491\]](#).

Features

- In SAP Multiresource Scheduling, a service order is represented as a complex demand, and a service order item is represented as a single demand.
- You can create resource assignments for the items of a service order.
After you have saved the planning board, you can see the assignment on the [Assignments](#) tab in the service order item in SAP CRM. When you open the service order in SAP CRM, the SAP CRM system reads the assignment information from SAP Multiresource Scheduling.
- The system can automatically calculate the travel times for the demand. For more information, see [Travel Times \[page 565\]](#).
- You can use the Optimizer for resource planning. For more information, see [Optimizer for Resource Planning \[page 617\]](#).
- You can use standard qualifications from SAP ERP HCM to define qualification requirements in a CRM service order. For more information, see [Use of Qualifications in SAP CRM Service Orders \[page 496\]](#).
- You can use appointment booking to book appointments from customer service employees. For more information, see [Appointment Booking with SAP CRM Service Orders \[page 497\]](#).
- You can set up your SAP Multiresource Scheduling system so that the assignments you create in the planning board are proposed in the service confirmation process for the related service order in SAP CRM. In addition, the system can lock an assignment for editing in SAP Multiresource Scheduling once a confirmation is created for the related service order in the SAP CRM system. For more information, see [Setting Up Assignment Status Integration \[page 495\]](#).
- Changes to a service order are only possible in SAP CRM. You can open the service order from the planning board in SAP Multiresource Scheduling.

i Note

- To change a service order from the planning board, select the corresponding demand and choose [Change Document](#) in the context menu.
The system opens the service order in the SAP CRM system, where you can make the required changes. After saving the order, the system updates the changes first in SAP CRM and then in SAP Multiresource Scheduling. Refresh the planning board to display the changes.
- If you change the service order in SAP CRM, the system updates the corresponding demand in SAP Multiresource Scheduling without locking the service order in SAP CRM. For more information, see SAP Note [2221941](#).

Constraints

- You cannot use requirements profiles or employee profiles from SAP Multiresource Scheduling (SAP Multiresource Scheduling qualifications) for SAP CRM service orders.
- You cannot use tool resources for resource planning for SAP CRM service orders.

More Information

- [Data Integration in SAP Multiresource Scheduling and SAP CRM \[page 490\]](#)
- [Resource Planning with the SAP GUI \[page 82\]](#)
- [Resource Planning with the Web-Based Planning Board \[page 176\]](#)

11.1 Data Integration in SAP Multiresource Scheduling and SAP CRM

Use

This document provides an overview of how data is integrated in SAP Multiresource Scheduling and SAP CRM.

Prerequisites

You must implement SAP Notes [2226584](#) and [2221941](#).

For more information, see the following sections:

- [Resource Planning for an SAP CRM Service Order \[page 488\]](#)
- [Setting Up Backward Integration of Data for SAP CRM Service Orders \[page 491\]](#)
- [Setting Up Assignment Status Integration \[page 495\]](#)

Features

Forward Integration: Transfer of Data from SAP CRM to SAP Multiresource Scheduling

When you create and save a service order in SAP CRM, the order including the relevant items is transferred as a demand to SAP Multiresource Scheduling. In SAP Multiresource Scheduling, a service order (header) is represented as a complex demand, and a service order item is represented as a single demand.

If you subsequently change the service order in SAP CRM, the system first updates the order data in SAP CRM. The system then transfers the changed data to SAP Multiresource Scheduling.

The data update in SAP CRM and in SAP Multiresource Scheduling happens in two separate sessions. This means that In SAP Multiresource Scheduling, data is not created or updated at the same point in time as in SAP CRM. Instead, the data in SAP Multiresource Scheduling is created or updated in a new session after the service order has been saved in SAP CRM. Therefore, if you implement a Business Add-In (BAI) in SAP CRM (such as `ORDER_SAVE`), make sure not to read or update data in SAP Multiresource Scheduling.

Note

Between SAP Multiresource Scheduling and SAP CRM, data is exchanged by means of queued Remote Function Call (qRFC). The following applies:

- If you change the service order in SAP CRM, the system updates the demand in SAP Multiresource Scheduling without locking the corresponding service order in SAP CRM. For more information, see SAP Note [2221941](#) and [Use of Multiple Back-End Systems \[page 958\]](#).
- The forward integration of data from SAP CRM to SAP Multiresource Scheduling does not trigger a backward integration of data. Instead, data integration stops after the second session. Similarly, the backward integration of data from SAP Multiresource Scheduling to SAP CRM does not trigger a forward integration of data.

For more information, see SAP Note [2226584](#).

Backward Integration: Transfer of Data from SAP Multiresource Scheduling to SAP CRM

In the Scheduler Workplace (SAP GUI) and the Web-based planning board, you can create assignments for service order items. If you have set up your system accordingly, information about the assigned resource (= partner) is transferred back to SAP CRM. For more information, see [Setting Up Backward Integration of Data for SAP CRM Service Orders \[page 491\]](#).

If you change an assignment for a service order item, for example, by assigning another resource in SAP Multiresource Scheduling, the system first updates the assignment data in SAP Multiresource Scheduling. The system then transfers the changed assigned resource to SAP CRM.

The data update in SAP CRM and in SAP Multiresource Scheduling happens in two separate sessions. This means that in SAP CRM, data is not created or updated at the same point in time as in SAP Multiresource Scheduling. Instead, the data in SAP CRM is created or updated in a new session after the planning board has been saved in SAP Multiresource Scheduling. Therefore, if you implement a Business Add-In (BAdI) or custom classes in SAP Multiresource Scheduling (as part of the change framework), make sure not to read or update data in SAP CRM.

i Note

You can only change service orders in SAP CRM, but not in SAP Multiresource Scheduling. However, you can open the order from the planning board in SAP Multiresource Scheduling. For more information, see [Resource Planning for SAP CRM Service Orders \[page 488\]](#).

More Information

- [Resource Planning for an SAP CRM Service Order \[page 488\]](#)
- [Setting Up Backward Integration of Data for CRM Service Orders \[page 491\]](#)
- [Use of Multiple Back-End Systems \[page 958\]](#)
- [Setting Up Assignment Status Integration \[page 495\]](#)

11.2 Setting Up Backward Integration of Data for SAP CRM Service Orders

Use

This document gives an overview of the steps required to set up the backward integration of data for demands from SAP CRM.

i Note

For more detailed information, see the Customizing documentation in the system.

Prerequisites

- Make sure that all resource planners who are working with SAP CRM demands are authorized to make changes to service orders in SAP CRM. For more information about the SAP CRM authorization concept, see SAP Help Portal at <http://help.sap.com/crm> ► [Security](#) ►.
- If you have connected SAP Multiresource Scheduling with a remote SAP CRM system (multi back-end system landscape), you must make sure that both systems use the same SAP business partner numbers.
- If you have installed SAP Multiresource Scheduling in an SAP ERP system and you are using resources from SAP ERP HCM, you must make sure that the HR persons are available as SAP business partners in the SAP CRM system.

Features

Displaying the Assigned Resource(s) in the Service Order Item

When you create an assignment for an SAP CRM demand in SAP Multiresource Scheduling and save the planning board, you can see the assigned resource or resources on the [Assignments](#) tab in the service order item. This information is not integrated in SAP CRM. Instead, when you open the service order item in SAP CRM, the SAP CRM system reads this information from SAP Multiresource Scheduling.

To see the assigned resource or resources in SAP CRM, you do not need to make any additional settings.

Updating the Service Order with Additional Data

You can set up backward integration of the following data:

SAP Multiresource Scheduling	SAP CRM	Comment
Resource that is assigned to the demand	Employee responsible (main partner) for a service order and the associated item	When an assignment is created or changed in SAP Multiresource Scheduling, the system updates the partner for the corresponding service order (at header and item level).

i Note

You do not need to set up partner integration to see this information in SAP CRM.

For more information, see the relevant section below.

SAP Multiresource Scheduling	SAP CRM	Comment
Demand status	Status of service order item	You can set user statuses for CRM demands in SAP Multiresource Scheduling and send this information back to SAP CRM. For more information, see the relevant section below.
Notes that are created for the demand	Notes for a service order item	You can create notes in SAP Multiresource Scheduling and send this information back to SAP CRM. For more information, see the relevant section below.

In addition, you can set up SAP Multiresource Scheduling so that the assignments you create in the planning board are proposed in the service confirmation process for the related service order in SAP CRM. For more information, see [Setting Up Assignment Status Integration \[page 495\]](#).

Procedure

Activate Backward Integration

Start by activating the backward integration of data under **Sources of Demand** > **Activate Backward Integration of Data**.

Set Up Partner Integration

Proceed as follows:

- Under **Basic Settings** > **Assign Objects** > **Partner Functions**, make the following settings:
 - In the **Define Abstract Partner Roles** activity, create an entry for the partner role **TECH_1ST (First Technician)**. This role represents the resource that is assigned to the demand in SAP Multiresource Scheduling.
 - In the **Assign Partner Roles for SAP NetWeaver** activity, map the abstract partner role **TECH_1ST (First Technician)** to the concrete partner function **Employee Responsible**.
The **Employee Responsible** is the partner function commonly used in SAP CRM to represent the resource assigned in SAP Multiresource Scheduling.
- Under **Appointment Booking** > **Appointment Booking at Resource Level** > **Specify Preferred Resource for Second Visit**, you enter the **Employee Responsible** partner function that is used in SAP CRM.

Note

The system updates the employee responsible as the main partner in SAP CRM. You can see this information on the **Parties Involved** tab at header and item level. Only changes to this partner role are written back from SAP Multiresource Scheduling to the service order.

In the service order, the employee responsible is shown both at header and at item level. Consequently, in the default scenario, a service order can have exactly one service item for which you can create exactly one assignment in SAP Multiresource Scheduling. If you were to create multiple resource assignments per service order, the system would not be able to identify the resource to be updated in the service order.

Depending on your business requirements, you can use one of the following Business Add-Ins to control partner integration:

- If you want to prevent resource planners from creating multiple assignments per service order in SAP Multiresource Scheduling, you can use Business Add-In `/MRSS/SGE_ASS_CHECK` accordingly.
- If you have multiple items per service order in SAP CRM, and you want to create one assignment for each of these items in SAP Multiresource Scheduling, you can use Business Add-In `/MRSS/SGD_PARTNER_MODIFY`. This BAdI allows you to prevent the integration of partner information at header level. In this case, the system updates the employee responsible as main partner for the service order item in SAP CRM.

Partner Integration and Appointment Booking

When setting up appointment booking in SAP Multiresource Scheduling, you can configure a resource capacity scenario or a planning node capacity scenario. Depending on which scenario you choose, you must set up partner integration as follows.

Appointment Booking Based on Resource Capacity

In this scenario, during appointment booking in SAP CRM, the system assigns the employee responsible (using the *Employee Responsible* partner function) to the service order. The system uses the resource chosen in the appointment booking dialog and assigns this resource as the main partner to the service order header and item.

If you want to use this scenario, you must set up partner integration as described above.

Appointment Booking Based on Planning Node Capacity

In this scenario, during appointment booking in SAP CRM, the system uses either the service employee group or the organizational unit for the service order. In SAP Multiresource Scheduling, the system assigns the service order to the corresponding planning node (organizational unit).

In this scenario, the system does not assign the employee responsible to the service order since no concrete resource has been chosen during appointment booking in SAP CRM. The resource is assigned in SAP Multiresource Scheduling at a later point in time.

If you want to use this scenario, you must make settings in Customizing under  *Sources of Demand*  *CRM Service Orders*  *Determine Origin of Organizational Unit Information* .

In addition, you can set up partner integration as described above. If you do so, the employee responsible is updated in the service order using the resource that is assigned in SAP Multiresource Scheduling.

For more information, see [Appointment Booking with SAP CRM Service Orders \[page 497\]](#).

Set Up Demand Status Integration

1. Under  *Basic Settings*  *Assign Objects*  *Status* , make the following settings:
 1. In the *Define Abstract Status* activity, you create the required abstract statuses.
 2. In the *Assign Status (to Use Demands from SAP NetWeaver)* activity, you map the required abstract statuses used in SAP Multiresource Scheduling to the appropriate concrete statuses used in SAP CRM.

i Note

You can only write back demand user statuses (at header and item level) from SAP Multiresource Scheduling to SAP CRM. The mapping of system statuses is only relevant for the forward integration of statuses from SAP CRM to SAP Multiresource Scheduling.

2. Under ► [Set Up Scheduler Workplace](#) ► [Define pushbuttons for user statuses](#) ►, you create tab pages and buttons for the newly created user statuses. This allows users to set these statuses for CRM demands in the planning board.

Set Up Notes Integration

Make settings under ► [Sources of Demand](#) ► [CRM Service Orders](#) ► [Set Notes Function](#) ►.

More Information

[Setting Up Assignment Status Integration \[page 495\]](#)

11.3 Setting Up Assignment Status Integration

Use

You can set up your SAP Multiresource Scheduling system so that the assignments you create in the planning board are proposed in the service confirmation process for the related service order in SAP CRM. In addition, the system can lock an assignment for editing in the planning board if a confirmation is created for the related service order in the SAP CRM system.

i Note

For more information about the order confirmation process in SAP CRM, see the application help at <http://help.sap.com/crm>. Choose your release and then [Application Help](#). In SAP Library for SAP CRM, choose ► [Service](#) ► [Service Confirmations](#) ►.

Prerequisites

- Backward integration is active.
You activate the backward integration of data in Customizing for SAP Multiresource under ► [Sources of Demand](#) ► [Activate Backward Integration of Data](#) ►.
- Status mapping is set up correctly.
The relevant SAP CRM statuses (of type [Service Agreement](#)) must be mapped to the corresponding abstract statuses in SAP Multiresource Scheduling.

Activities

You set up the status integration in Customizing for SAP Multiresource Scheduling under ► [Sources of Demand](#) ► [CRM Service Orders](#) ► [Set Up Assignment Status Integration](#) ►:

- To ensure that SAP Multiresource Scheduling and SAP CRM can exchange assignment status information, select the checkbox to activate the integration.
The SAP CRM system creates a [Service Assignment](#) status object for the SAP Multiresource Scheduling assignment. As a result, the assignments you create in SAP Multiresource Scheduling are proposed in the service confirmation process for the related service order in SAP CRM.
- To lock an assignment in SAP Multiresource Scheduling once a confirmation is created for the related service order in the SAP CRM system, specify the abstract status that you want the system to set for a completed assignment.
As a result, the system sets the corresponding status for the assignment in SAP Multiresource Scheduling once the confirmation is created in SAP CRM.

You can find more detailed information about these settings in the Customizing activity documentation in your system.

11.4 Use of Qualifications in CRM Service Orders

Use

You can use the SAP standard qualifications to define qualification requirements in a CRM service order.

Prerequisites

- You have created standard qualification catalogs in your CRM system using transaction [OOQA](#).
- In Customizing for [SAP Multiresource Scheduling](#), the [MRS Qualifications](#) indicator is not selected under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.
- You have activated the qualifications at operation level in Customizing for [SAP Customer Relationship Management](#) under ► [Workforce Deployment](#) ► [General Settings for Service Resource Planning](#) ► [Qualifications](#) ► [Define Parameters for Qualifications Requirements for Item Category](#) ►.
- If you have installed SAP Multiresource Scheduling in your CRM system, the following applies:
 - You create employee profiles for resources using transaction [PPPM](#).
 - You can only transfer resources as SAP business partners.
- If you have installed SAP Multiresource Scheduling as a multiple back-end solution in a separate system, the following applies:
 - If you have transferred the resources as SAP HR persons, you create employee profiles for the SAP HR persons using transaction [PPPM](#).

Note

The SAP HR persons can come from a separate SAP HR system or the same system on which SAP Multiresource Scheduling is installed.

- If you have transferred the resources as SAP business partners, you create employee profiles for the SAP business partners using transaction **PPPM**.
- You have transferred the resource availability information to SAP Multiresource Scheduling. The following applies:
 - You use report `/MRSS/HCM_RPTWFMIF` to transfer availability information for SAP HR persons to SAP Multiresource Scheduling.
 - You use report `/MRSS/WFM_MASTERDATA_ADMIN` to transfer availability information for SAP business partners to SAP Multiresource Scheduling.

Features

When creating CRM service orders, you can define the required qualifications at operation level on the [Qualifications](#) tab page. During subsequent resource planning with mit SAP Multiresource Scheduling, you can display the required qualifications in the planning board by choosing the  pushbutton or search for suitable resources for the demand by choosing the  pushbutton.

11.5 Appointment Booking with SAP CRM Service Orders

Use

Customer service employees can use appointment booking to book appointments for service orders. First the customer reports the demand and the required period in which the service should be carried out. Then the service employee determines a suitable appointment and informs the customer of it.

Prerequisites

- You have made the required settings in Customizing for [SAP Multiresource Scheduling](#) under [Sources of Demand](#) [CRM Service Orders](#) . For more information, see [Resource Planning for SAP CRM Service Orders \[page 488\]](#).
- You have set up the backward integration of data from SAP Multiresource Scheduling to SAP CRM. For more information, see [Setting Up Backward Integration of Data for SAP CRM Service Orders \[page 491\]](#).
- You have made the required settings for appointment booking in Customizing for [SAP Multiresource Scheduling](#) under [Appointment Booking](#) . For more information, see [Appointment Booking \[page 928\]](#)

i Note

You must use either the *Resource Capacity* or *Planning Node Capacity* appointment booking type. The *Automatic Assignment Creation for Planning Node* appointment booking type is not supported for CRM service orders.

Activities

The process may run as follows:

1. A customer reports a demand, for example, by phone.
2. The service employee creates a service order in SAP CRM with data about the customer, the customer's demand, and the required time frame in which the service should be carried out.
3. The service employee selects the *Appointments* pushbutton located at item level. The system displays the dialog for selecting the search strategy and interval group for appointment allocation.
 - **Interval groups**

Interval groups can be defined in Customizing as, for example, full day intervals from 08:00 until 17:00, morning intervals from 08:00 until 12:00, or afternoon intervals from 13:00 until 17:00.

If the service employee selects a full day interval, a general search for availability between 08:00 and 17:00 is carried out. The service employee can also select the interval more specifically. If a morning interval is required, all availabilities can be displayed that are within this time interval.

The appointments are determined for the range requested by the customer.
 - **Search strategies**

The service employee can use the search strategy to determine the criteria according to which the system searches for availability.

If the appointment booking type is *Resource Planning Node Capacity*, service employees can only choose the search strategy *Planning Node of Resource Planner*. Using this search strategy, the system checks whether the planning node associated with the service employee group or the organizational unit is available. As a result, the system does not show available resources, but the availability of a group of resources that are assigned to the resource planning node in SAP Multiresource Scheduling.

If in Customizing the appointment booking type is *Resource Capacity*, service employees can choose between the following search strategies:

i Note

The appointment booking type is specified in Customizing.

Search Strategy	Description
Zip code	With this search strategy, the system determines resources that are in the same zip code area as the order demand. A prerequisite is that the resources have been assigned to a zip code area.

Search Strategy	Description
Service area	With this search strategy, the system determines available resources within a service area of the order. The service area of the order can be determined, for example, using geographic criteria. The resources are firmly assigned to the service area. For more information, see Assign Service Areas [page 936] .
Partner role	If a preferred resource is entered in the order, the system then determines the available appointments. . i Note The preferred resource must be identified with the <i>First Technician</i> (TECH_1ST) partner role. That is, in Customizing for SAP Multiresource Scheduling, you must create this abstract partner role and assign it to the concrete partner role used in SAP CRM.
Resource ID	If, for example, a customer asks for a specific technician, the service employee can search for available appointments for this technician using the resource ID.
Planning node of resource planner	Select this search strategy so that the system searches for the resources that are assigned to the planning node of the resource planner.
Work center of technician	With this search strategy, the system searches for resources that are assigned to the work center of the technician.
i Note You can only book appointments for one service item per service order. Appointment booking for multiple items of a service order is not supported.	

For more information, see [Search Strategies for Appointment Booking \[page 937\]](#) and [Appointment Booking Types \[page 928\]](#).

4. The service employee chooses the *Get Appointments* pushbutton in the appointment booking dialog. The system displays a list of available appointments with the date and time details. Depending on how appointment booking is implemented, the system shows additional details. For example, if the appointment booking type is *Resource Capacity*, the system shows the resource name. For more information, see SAP Note [2191334](#).
5. The service employee selects a suitable appointment from the list and saves the service order. Depending on the appointment booking type, the system sets the following data in the service order (on header and item level):
 - If the appointment booking type is *Resource Capacity*, the system sets the main partner in the service order (on header and item level).

- If the appointment booking type is *Planning Node Capacity*, the system does not set any partner for the service order. Instead, the system uses the service employee group (or the organizational unit) that is assigned to the service order and determines the relevant resource planning node for transferring the service order to SAP Multiresource Scheduling.

i Note

By default, the system uses the service employee group to determine the relevant resource planning node. You can change this setting in Customizing for SAP Multiresource Scheduling under [► Sources of Demand ► CRM Service Orders ► Determine Origin of Organizational Unit Information ►](#).

6. The service employee informs the customer of the service appointment.

In SAP Multiresource Scheduling, the system creates a demand with the selected appointment time frame. The system creates an assignment for the demand and reduces the resource availability depending on the appointment booking type configured in Customizing:

- If the appointment booking type is *Resource Capacity*, the following applies:
 - If the resource is an external service provider, the system assigns the demand to this resource immediately and reduces the number of orders to which this external service provider can still be assigned. If the number reaches the maximum order limit, the external service provider is no longer available.

i Note

The external service provider can be overbooked up to a certain limit. Only service employees with special authorization can offer and book appointments for this external service provider as long as the limit for overbooking has not been reached. The employees must be assigned to roles using the following authorization objects:

- CRM_MRS_OV in the SAP CRM system and
- /MRSS/OVB in the system where SAP Multiresource Scheduling is installed

For authorized users, the system shows an overbooking indicator in the appointment booking dialog. This indicator is set for those appointments that would lead to an overbooking.

- If the resource is an internal or external time-based resource, the system does not create an assignment. Instead, the resource is marked as a must technician for the demand. The system reduces the resource capacity within the appointment time frame.
If the appointment time frame is longer than the actual duration of the demand, the resource planner can carry out detailed scheduling within the appointment time frame at a later point in time using the optimization function. This way the demand can be assigned to the resource, for example, in consideration of an optimized travel route.
- If the appointment booking type is *Planning Node Capacity*, the system assigns the demand to a resource planning node and reduces the capacity of this planning node accordingly.
If the appointment time frame is longer than the actual duration of the demand, the resource planner can use the Optimizer to carry out detailed scheduling and create an actual resource assignment at a later point in time.

11.6 Resource Planning Using Mobile Devices with SAP CRM Service Manager

Use

Using SAP CRM Service Manager, service technicians can get their assignments directly from SAP Multiresource Scheduling and display them on their mobile devices. When the service technician changes the assignment status on the mobile device, the system updates the assignment status in the SAP Multiresource Scheduling planning board.

i Note

Refer to SAP note [2014454](#) to check for which SAP CRM Service Manager release the functions are available.

Prerequisites

- You have created abstract statuses for the mobile integration in Customizing of SAP Multiresource Scheduling under ► *Basic Settings* ► *Assign Objects* ► *Status* ► *Define Abstract Status* and assigned corresponding concrete assignment statuses under ► *Basic Settings* ► *Assign Objects* ► *Status* ► *Define Abstract Status*. For more information on prerequisites and the maintaining of status Customizing in SAP CRM Service Manager, refer to SAP note [2014454](#).
- To enable the notification of SAP CRM Service Manager in case of changes in SAP MRS, you have activated the BAdI implementation /MRSS/MOB_SYC_UPDATE (BAdI /MRSS/MESSAGES).

Process

Depending on the Customizing settings, the process could run as follows:

1. The resource planner creates assignments in the SAP Multiresource Scheduling planning board for demands originating from SAP CRM.
2. The service technician displays his or her assignments from SAP Multiresource Scheduling on his mobile device (to get the assignments, the system uses the API /MRSS/MOB_API_ASSIGNMENT_GET).
3. Based on the assignments, the mobile client retrieves detail service order information from the SAP CRM system.
4. The service technician accepts or rejects a service assignment based on his or her current work load, availability, location and so on. Based on the decision the assignment status is changed on the mobile client and is updated in the SAP MRS planning board (for the status update, the system uses the APIs /MRSS/MOB_API_ASSIGNMENT_UPD and /MRSS/MOB_API_SAVE).
5. If the resource planner changes the assignment in the SAP Multiresource Scheduling planning board, the system automatically updates the assignment on the mobile device (if the BAdI implementation /MRSS/MOB_SYC_UPDATE is active).

6. The service technician works on the assignment and updates the status. Every status change is updated in the SAP Multiresource Scheduling planning board.

12 Resource Planning for Work Tickets from SAP Cloud for Customer

Use

You can integrate SAP Multiresource Scheduling with SAP Cloud for Customer. This allows you to perform resource planning for work tickets that are created in SAP Service Cloud. SAP Service Cloud comprises the services features offered by SAP Cloud for Customer.

i Note

For more information about SAP Cloud for Customer, see the documentation on SAP Help Portal at <http://help.sap.com/cloud4customer>.

The mapping of key concepts is as follows:

Concept in SAP Service Cloud	Concept in SAP Multiresource Scheduling
Work ticket	Complex demand
Service item	Single demand
Service technician team	Resource planning node
Visit	Assignment

Prerequisites

[SAP Cloud for Customer Integration: Set-Up and Prerequisites \[page 504\]](#)

Process

i Note

The following is an example of what the process may look like. The actual process flow depends on how the integration scenario is configured in your system.

The process starts in SAP Cloud for Customer.

1. The service agent creates a ticket. She indicates that the ticket requires service and repair.
A ticket that requires work is called a work ticket.

2. The agent assigns a service technician team to the ticket.
The service technician team corresponds to a resource planning node in SAP Multiresource Scheduling.
3. The agent adds at least one scheduling-relevant service item to the ticket. She adds information, such as the start and end dates, the type of service that is required and the required quantity (for example, required number of hours).
4. The agent releases the service item for scheduling and saves the work ticket.

i Note

For more detailed information about the process in SAP Service Cloud, see the solution guide for SAP Service Cloud on SAP Help Portal at <http://help.sap.com/cloud4customer>.

After the work ticket has been released for scheduling in SAP Cloud for Customer, the system transfers the relevant information to SAP Multiresource Scheduling.

1. The system creates a complex demand of the type *Work Ticket*. The associated service item is represented as a single demand.
The system determines the responsible resource planner based on the resource planning node that is mapped to the service technician team.
2. The responsible resource planner opens the planning board. He can see the new complex demand and the associated single demand in his worklist.
3. The resource planner assigns a suitable resource to the single demand and saves the assignment.
4. The resource planner saves the planning board.
The system transfers the relevant assignment information back to SAP Cloud for Customer.

In the work ticket, the assignment is represented as a visit. The service agent can change the status of the visit in SAP Cloud for Customer. Status information is again transferred back and updated in SAP Multiresource Scheduling.

Related Information

[SAP Cloud for Customer Integration: Set-Up and Prerequisites \[page 504\]](#)

[Functions Available for Demands from SAP Cloud for Customer \[page 511\]](#)

12.1 SAP Cloud for Customer Integration: Set-Up and Prerequisites

Use

You must complete the prerequisites and set-up activities described in this document before you can plan resources for work tickets from SAP Cloud for Customer in SAP Multiresource Scheduling.

Prerequisites

- You have set up the integration with SAP Multiresource Scheduling in SAP Cloud for Customer. For more information, see the following documentation for SAP Cloud for Customer, which is available on SAP Help Portal at <http://help.sap.com/cloud4customer>:
 - *Solution Guide for SAP Service Cloud*
 - *Integrate with SAP ERP*
- You have set up the use of resources from SAP ERP HCM (resource class *HR Resource*).
- SAP ERP HCM and SAP Multiresource Scheduling are installed in the same system. If you use a remote SAP ERP HCM system, you must make sure that the HR mini master record and the organizational structure are available in your local SAP Multiresource Scheduling system.
- You have configured the web service runtime in SAP Multiresource Scheduling (report `SRT_ADMIN`). This is required to allow the exchange of web service messages between the systems. For more information, see the documentation for SAP NetWeaver on SAP Help Portal. Go to <http://help.sap.com/nw>, open the product page for your SAP NetWeaver release (for example, SAP NetWeaver 7.4) and type **Operating Web Services** into the search bar.
- If you want to use functions that require geocoding, such as the calculation of travel times, you must make sure that addresses are validated in SAP Hybris Cloud for Customer before they are transferred to SAP Multiresource Scheduling. For more information, see [Best Practices for the Use of Geographic Information \[page 631\]](#).

Note

You may have to extend SAP Cloud for Customer to implement an address validation solution. You can do so using the SAP Cloud Applications Studio. For more information, see the documentation on SAP Help Portal at http://help.sap.com/studio_cloud.

- To see how much capacity is used by demands from SAP Cloud for Customer, you must set up the capacity graph so that the capacity is calculated based on the capacity of individual human resources. For more information, see [Setting Up the Capacity and Demand Overview \[page 659\]](#).
- If you want to use custom demand types, you must set up a status profile (transaction **BS02**) in your SAP Multiresource Scheduling system. For more information, see [Creating a Status Profile for Work Tickets \[page 509\]](#).

Procedure

Note

The following procedure refers to the settings you make in SAP Multiresource Scheduling.

Set up the Customizing according to your requirements. This includes the following activities:

Activity	Required or Recommended	Path in Customizing
Specify the priority values that are used in SAP Cloud for Customer.	Required	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG) under Sources of Demand Work Tickets Specify Priority Values
Define the relevant abstract statuses and assign them to the concrete statuses that are used in SAP Cloud for Customer.	Required	Customizing for SAP Multiresource Scheduling under Basic Settings Assign Objects Status : Define Abstract Status Assign Status (to Use Demands from SAP NetWeaver) i Note If you want to use custom demand types, you must set up a status profile using transaction BS02.
Activate the backward integration of data to enable the transfer of assignment data between SAP Multiresource Scheduling and SAP Cloud for Customer.	Required	Customizing for SAP Multiresource Scheduling under Sources of Demand Activate Backward Integration of Data
Specify the name of the target system host to allow SAP Multiresource Scheduling users to access work tickets in SAP Cloud for Customer.	Required if you want users to be able to open work tickets from the planning board	Customizing for SAP Multiresource Scheduling under Sources of Demand Work Tickets Specify Host Name i Note Users must have the required authorization to display work tickets in SAP Cloud for Customer.

Activity	Required or Recommended	Path in Customizing
Define the relevant abstract partner roles and assign them to the concrete partner roles that are used in SAP Cloud for Customer.	Required if you want to see customer information in SAP Multiresource Scheduling	Customizing for SAP Multiresource Scheduling under ► Basic Settings ► Assign Objects ► Partner Functions : • Define Abstract Partner Roles • Assign Partner Roles for SAP NetWeaver • Determine Customer Based on Partner Role
Assign an ISO code to all time units that are used in SAP Multiresource Scheduling. This way, you ensure that time units are used consistently in both systems.	Recommended	SAP Customizing Implementation Guide (transaction SPRO) under ► SAP NetWeaver ► General Settings ► Check Units of Measurement ►
Specify that assignments in SAP Multiresource Scheduling are deleted after the associated work ticket or service item becomes irrelevant in SAP Cloud for Customer.	Recommended	Customizing for SAP Multiresource Scheduling under ► Sources of Demand ► Work Tickets ► Set Up Deletion of Assignments ►
Specify the size of a message package for the transfer of assignment data from SAP Multiresource Scheduling to SAP Cloud for Customer.	Optional	Customizing for SAP Multiresource Scheduling under ► Sources of Demand ► Work Tickets ► Specify Size of Message Package ►

Note

For more information, see the Customizing documentation in the system.

Depending on your requirements, you may also have to do the following:

If You Want To	You Must Do This	Path in Customizing / Transaction
Use custom time zones	Configure the required time zones in both systems.	SAP Customizing Implementation Guide (transaction SPRO) under ► SAP NetWeaver ► General Settings ► Time Zones ►

If You Want To	You Must Do This	Path in Customizing / Transaction
Use user statuses or custom statuses	Make sure that statuses are included in a status profile. Map the abstract SAP Multiresource Scheduling statuses to the concrete statuses used in SAP Cloud for Customer.	Customizing for SAP Multiresource Scheduling under ► Basic Settings ► Assign Objects ► Status ►
i Note The delivery Customizing for SAP Multiresource Scheduling includes the mapping of system statuses only.		
Open the planning board specifically for demands that are based on work tickets from SAP Cloud for Customer	Create your own value help.	Customizing for SAP Multiresource Scheduling under ► Set Up Scheduler Workplace (SAP GUI) and Web-Based Planning Board ► Define Search Helps for Resources and Demands ►
Change the default mapping logic or integrate qualifications and technical objects	Create an implementation for Business Add-In Integration of Work Tickets (/MRSS/C4S_INT).	Customizing for SAP Multiresource Scheduling under ► Enhancements ► Sources of Demand ►

Using a Global Time Zone

If a global time zone has been set up in SAP Multiresource Scheduling, the work ticket times entered in SAP Cloud for Customer are converted so that the same times are shown to resource planners in SAP Multiresource Scheduling.

If no global time zone has been set up in SAP Multiresource Scheduling and time zones differ between SAP Cloud for Customer system and SAP Multiresource Scheduling, the system converts the dates and times entered in SAP Cloud for Customer according to the local time zone of the resource planner in SAP Multiresource Scheduling.

❁ Example

The service agent is in the US (time zone is PST). The resource planner is in Germany (time zone is CET). In the first scenario, no global time zone is active in SAP Multiresource Scheduling. The system converts the start time entered by the service agent according to the time zone of the resource planner (PST + 9 hours). This means that if the service agent enters a start time of 8:00 in the morning, the resource planner in Germany sees a start time of 5:00 in the afternoon.

In the second scenario, CET is the global time zone in SAP Multiresource Scheduling. The system converts the start time entered by the service agent so that the start time in SAP Multiresource Scheduling is the same as the start time entered by the service agent in SAP Cloud for Customer. This means that if the service agent enters a start time of 8:00 in the morning, the resource planner in Germany sees a start time of 8:00 in the morning as well.

Scenario	Time Entered by Service Agent in SAP Cloud for Customer	Time Shown to Resource Planner in SAP Multiresource Scheduling
No global time zone	Start time: 8:00 PST	Start time: 17:00 CET (PST + 9 hours)
Global time zone is active (CET)	Start time: 8:00 PST	Start time: 8:00 CET (PST - 9 hours)

Note

To check whether a global time zone is active, in Customizing go to ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

Related Information

[Monitoring Data Integration for Web Service Messages \[page 909\]](#)

[Creating a Status Profile for Work Tickets \[page 509\]](#)

12.1.1 Creating a Status Profile for Work Tickets

If you want to use custom demand types for work tickets, you must first create a status profile using the relevant statuses.

Context

For the standard demand type for work tickets (SRRQ), we deliver a set of abstract statuses that are used in SAP Multiresource Scheduling and that are mapped to concrete SAP Cloud for Customer statuses. You can copy the relevant Customizing entries or you can create the entries manually in your system. If you want to use custom demand types, however, you must first create a status profile using the concrete statuses that are relevant for you.

For more information, see SAP Note [2598643](#) .

Procedure

1. Create a status profile in transaction **BS02**. Create entries from 1 to 7, without adding a status description.

The following statuses are used in SAP Cloud for Customer:

Work Ticket Header Statuses

Number	Description
1	Open
2	In Process
3	Copied to CRM
4	Customer Action
5	Completed
6	Closed

Work Ticket Item Statuses

Number	Description
1	Open
2	In Scheduling
3	Ready
4	Partially Ready
5	Started
6	Finished
7	Not Relevant

Assignment Statuses

Number	Description
1	Open
2	In Process
3	Completed
4	Cancelled

→ Tip

In SAP Cloud for Customer, define a code list restriction to make *Canceled* the final status for an assignment.

If you do not define this restriction, the assignment status can be changed back to *Open* in SAP Cloud for Customer. However, in SAP Multiresource Scheduling, the assignment cannot be restored once it has been deleted.

2. If required, create the relevant abstract statuses in activity *Define Abstract Status*.
3. Assign the relevant abstract statuses to the relevant concrete statuses in activity *Assign Status (to Use Demands from SAP NetWeaver)*.

Results

For demands from SAP Cloud for Customers, the Scheduler Workplace (SAP GUI) and the Web-based planning board show the abstract SAP Multiresource Scheduling status that is mapped to the concrete SAP Cloud for Customer status. This is in contrast to other types of demand, for which the system shows the concrete status that is used in the source system of the demand.

12.2 Functions Available for Demands from SAP Cloud for Customer

Use

You can use many of the resource planning functions provided by SAP Multiresource Scheduling for demands that are based on work tickets from SAP Cloud for Customer.

Prerequisites

For more information, see [Set-Up and Prerequisites \[page 504\]](#).

Features

Demand Display

- You can see demands from SAP Cloud for Customer in the Scheduler Workplace (SAP GUI) and in the Web-based planning board.
A work ticket is represented as a complex demand in SAP Multiresource Scheduling. A service item is represented as a single demand in SAP Multiresource Scheduling.
- If you have set up the SAP Multiresource Scheduling apps, you can see demands from SAP Cloud for Customer in the *My Assignments* app, the *My Schedule* app, and the *RM Team Schedule* app.
For more information, see [Apps for SAP Multiresource Scheduling \[page 722\]](#).

- You cannot change work tickets and service items in SAP Multiresource Scheduling. However, you can open tickets and items from the planning board, for example, by choosing [Open Document](#) in the context menu for the demand.
- You can create demand bundles.
For more information, see [Bundling of Demands \[page 520\]](#).

Assignment Creation

- You can create assignments for a SAP Cloud for Customer service item.
In SAP Cloud for Customer, the assignment is represented as a visit.

i Note

If you create and save an assignment in SAP Multiresource Scheduling, and you want to continue working on it, you may have to refresh the planning board first.

If you delete the assignment in SAP Multiresource Scheduling, and the status of the corresponding visit is [Open](#) in SAP Cloud for Customer, the system deletes the visit. If the visit status has been set to [In Process](#) in SAP Cloud for Customer, the visit status changes to [Canceled](#), but the visit is not deleted.

→ Tip

In SAP Cloud for Customer, define a code list restriction to make [Canceled](#) the final status for an assignment.

If you do not define this restriction, the status of the visit can be changed back to [Open](#) in SAP Cloud for Customer. However, in SAP Multiresource Scheduling, the assignment cannot be restored once it has been deleted.

- You can create concrete, stretched, and capacitive assignments. For more information, see [Assignment of Personnel Resources \[page 143\]](#) and [Assignments in the Web-Based Planning Board \[page 215\]](#).
- You can use the automatic scheduling of multiday assignments. For more information, see [Automatic Scheduling of Multiday Assignments \[page 610\]](#).
- You can create assignments using the Optimizer. For more information, see [Optimizer for Resource Planning \[page 617\]](#).
- You can search for suitable employees. For more information, see [Finding Suitable Employees in the Scheduler Workplace \(SAP GUI\) \[page 534\]](#) and [Finding Suitable Employees in the Web-Based Planning Board \[page 547\]](#).

i Note

If you want to use qualifications for demands from SAP Cloud for Customer, you must create an implementation for Business Add-In [Integration of Work Tickets \(/MRSS/C4S_INT\)](#). For more information, see the BAdI documentation in the system.

Update of Changes in SAP Multiresource Scheduling

- Changes made to a work ticket or service item in SAP Cloud for Customer are updated accordingly in the corresponding demand in SAP Multiresource Scheduling.
For example, if a service item is marked as completed in SAP Cloud for Service, the corresponding demand is marked as completed in SAP Multiresource Scheduling. As a result, you can no longer change any assignments that exist for this demand.

i Note

In the planning board, the system shows the abstract SAP Multiresource Scheduling status that is mapped to the concrete SAP Cloud for Customer status. This is in contrast to other types of demand, for which the system shows the concrete status that is used in the source system of the demand.

- If the status of a visit changes in SAP Cloud for Customer (for example, if the assigned technician reports completion), the assignment is updated accordingly in SAP Multiresource Scheduling.

i Note

To avoid inconsistencies between both systems, you cannot change the assignment system status in SAP Multiresource Scheduling. You can only change any existing user statuses, since these are not transferred back to SAP Cloud for Customer.

- When you create an assignment for a demand, the system locks the demand in SAP Multiresource Scheduling. The demand remains locked until you have finished creating the assignment. The following applies:
 - As long as the demand is locked, no other resource planner can create assignments for this demand.
 - If the work ticket is changed in SAP Cloud for Customer while you are creating an assignment for the corresponding demand in SAP Multiresource Scheduling, the system updates the demand only after you have finished creating the assignment.
- When a work ticket is being changed in SAP Cloud for Customer, the system does not lock the corresponding demand in SAP Multiresource Scheduling. However, the system locks the demand when transferring the changes to SAP Multiresource Scheduling. As a result, you can create or change assignments for the demand only after the system has finished updating the demand.

Display of Consumed Capacity

You can use the [Capacity and Demand Overview](#) or the capacity view to see how much capacity is consumed by demands from SAP Cloud for Customers.

For more information, see [Capacity and Demand Overview \[page 657\]](#), [Capacity View in the Scheduler Workplace \(SAP GUI\) \[page 674\]](#), and [Capacity View in the Web-Based Planning Board \[page 690\]](#).

i Note

The capacity graph must be set up so that the capacity is calculated based on the capacity of individual human resources. For more information, see [Setting Up the Capacity and Demand Overview \[page 659\]](#).

Constraints

The following functions are not supported for demands from SAP Cloud for Customer:

- You cannot change demands from SAP Cloud for Customer in SAP Multiresource Scheduling. For example, you cannot change the demand dates, status, or priority. Work tickets and the associated service items can only be changed in SAP Cloud for Customer. As a result, you cannot use capacity planning functions such as capacity leveling.

- Only assignments for resources from SAP ERP HCM are transferred back to SAP Cloud for Customer. If you create assignments for other resource types (such as business partners, N.N. resources, or teams as a whole), these will not be shown as visits in SAP Cloud for Customer.
- You must not implement a change framework for demands from SAP Cloud for Customer. This is because changes made to work tickets or service items do not necessarily reach SAP Multiresource Scheduling in the same sequence in which they are made in SAP Cloud for Customer. The system only ensures that the most recent update is processed.

13 Assignment-Based Resource Selection

Use

The assignment-based resource selection allows you to select personnel resources based on previous assignment data. For example, you can select all personnel resources that had already been assigned to a specific customer at a specific location. This is especially helpful if you want to create assignments for demands with similar requirements. The assignment-based resource selection options are available in the Scheduler Workplace and in the Web-based planning board.

Note

You cannot use the assignment-based resource selection for teams, tools, or N.N. resources.

You can use the assignment-based resource selection options in the following scenarios:

- When launching the planning board
- When adding resources to the current planning board session
- When filtering resources in the planning board

Prerequisites

- You have made settings in Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Assignment-Based Resource Selection](#).
- You have activated the assignment-based resource selection in the user settings.

Features

- Additional selection criteria are available on the planning board selection screen, including the following:
 - Assignment period
If you enter a period, the system restricts the selection to resources for which assignments were created in this period. Note that the assignment period does not correspond to the planning horizon.
 - Resource planning node
 - Customer name
The options that are available in the input help for this field depend on the partner roles that are defined per demand type in Customizing.
Note that you cannot filter for customer names in the PS and Web-based Resource Management integration scenarios since the integration of partner roles is not relevant in these scenarios.
 - Demand type and status
 - Postal code and city

If you enter a postal code for one city and the name of another city, the system selects resources (or demands) from both cities.

i Note

If the assignment-based resource selection does not yield any results, the system launches the planning board according to the existing selection criteria (for example, based on the resource planning node). That is, if you enter selection criteria for the assignment-based resource selection, the system considers these selection criteria in addition to the existing criteria.

- You can use the assignment-based resource selection criteria when you filter the resource list in the planning board.
- The assignment-based resource selection criteria are available when you add resources to the current planning board session.

More Information

- [Filtering, Extending, and Sorting of the Resource List \[page 199\]](#) (Web-based planning board)
- [Resource-List Filter and Extension \[page 108\]](#) (Scheduler Workplace)
- [Addition of Resources in the Scheduler Workplace \[page 141\]](#)
- [Addition of Resources and Demands in the Web-Based Planning Board \[page 198\]](#)

14 Resource Assignment List

Use

With the relevant authorization, you as a resource can use the Web-based [Resource Assignment List](#) application to obtain an overview of your own assignments as well as the assignments for other resources.

Prerequisites

- Resources have the relevant authorization to display their own assignments and, if necessary, the assignments for other resources. You grant these authorizations using the following authorization objects:
 - /MRSS/RAL1 (Authorization to display own assignments)
 - /MRSS/RAL2 (Authorization to display assignments for other resources of the same resource planning node)
 - /MRSS/RAL3 (Authorization to display assignments for personnel numbers)
- (Optional) You have configured settings in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Data Selection for Resource Assignment List](#) ►.

i Note

Even if you do not configure any settings in Customizing, a basic list of fields is displayed in the resource assignment list. However, to display additional fields in accordance with your requirements you must activate the corresponding data selection areas in Customizing.

- (Optional) If you want to display customer-specific fields in the resource assignment list, you can implement Business Add-In (BAdI) [BAdI: Data Selection for Resource Assignment List](#) (/MRSS/RAL_DATA_SELECTION). You can find this BAdI in Customizing for [SAP Multiresource Scheduling](#) under ► [Enhancements](#) ► [Scheduler Workplace](#) ►.

Features

Depending on your authorization, you can do the following after opening the [Resource Assignment List](#) Web Dynpro application (/MRSS/WD_RAL_MAIN):

- Display your own assignments
- Display assignments for other resources of the same resource planning node
- Enter the personnel numbers of resources whose assignments you want to display

Depending on the Customizing settings, the system displays a table that can contain fields with the following data:

- Demand data
- Order data from Web-based resource management
- Status data
- Travel time data
- Demand address data
- Resource address data
- Customer include data

Activities

- If you (as a resource) want to display your own assignments, the system determines the corresponding personnel number using your SAP user and displays the assignments in a table.

i Note

If the resources in your system are HR persons, the system determines the user from infotype 105, subtype 0001. In the case of business partners, the system determines the user from the master data (transaction **BP**).

- If you want to display the assignments for other resources of the same resource planning node as well as your own assignments, the system determines the HR persons or business partners that belong to the same resource planning node and displays your own assignments as well as those of the other resources in a table.
- If you want to display assignments for a particular personnel number, the system determines the assignments for the personnel number entered and displays these in a table.
- The first line of the resource assignment list is selected by default; you can change this selection at any time. If the data selection area *Status* is active in Customizing, the system displays the following statuses for each assignment selected in a further table:
 - Demand header status
 - Demand item status
 - Assignment status
 - Demand header status in Web-based resource management (if it exists)
 - Role status in Web-based resource management (if it exists)

i Note

If a resource is flagged as confidential in the planning board, the assignments for this resource are not displayed in the resource assignment list.

Constraints

The resource assignment list only displays details of the resource assignment. The following information is not displayed:

- Resource availability

- Demand partner
- Tool demand details
- Date and time rule details
- Requirements profiles
- Employee profiles
- Time recording data
- Time allocations
- Site supervisor details
- Candidate details from Web-based resource management

Furthermore, the resource assignment list only displays the first service area that was defined in the demand.

15 Bundling of Demands

Use

By creating demand bundles you can combine demands into groups based on specific criteria you define in Customizing. The creation of demand bundles enables you to plan resources for all demands in the bundle by assigning them the same date ranges and locations.

You can create and edit demand bundles both in the Scheduler Workplace (SAP GUI) and in the Web-based planning board.

Prerequisites

For more information, see [Prerequisites and Recommendations for the Bundling of Demands \[page 522\]](#).

Features

- You can combine either a set of complex demands or a set of single demands into bundles. All demand items in a bundle get the same start and end date.
- All demands within a bundle can only be moved or changed as a whole by changing the bundle dates. Once you have added a demand to a bundle, you can no longer change its dates, times or duration.
- You can create demand bundles manually in the Scheduler Workplace or using the Web-based planning board. You can also use transaction `/MRSS/DEM_BUNDLING` to create demand bundles automatically.
- When you open the bundle detail screen to create or edit a bundle, the system locks the orders (networks, projects, Web requests) on which the demand items in the bundle are based as well as the corresponding documents in the source system (for example, SAP ERP).
- Once an assignment is created for at least one demand item in the bundle, you can no longer change the bundle details.
- If you change and save the order on which a bundled demand is based, the system deletes the demand from the bundle. The system issues an alert.
On double-clicking the alert, the system selects all demands that originally belonged to the bundle and you can re-bundle the demands by choosing the respective context menu entry.

Process

The overall process can be as follows:

1. You select a set of demands in the demand worklist and trigger the creation of a demand bundle.

2. The system checks whether or not the demands can be bundled. This is done based on the settings made in Customizing.

i Note

You can implement your own logic based on which these checks are performed. To do so, you create a customer-specific implementation for Business Add-In /MRSS/SGD_BUNDLE (*Bundling of Demands*).

3. The system proposes a demand bundle. You have the option to edit the proposed bundle details (start and end date, priority) according to your requirements.

The system determines the proposed bundle dates as follows:

1. The system filters the selected demands based on the settings made in Customizing activity *Specify Bundling Rule*. For example, if it is specified that all demands must have the same main object, the system filters out all demands that have the same main object and skips all demands with a different main object.
2. The system groups the remaining demands according to the settings made in Customizing activity *Set Up Bundle Groups*.
3. The system filters the demands based on the settings made in Customizing activity *Specify User Status for Exclusion*. All demands for which the customized status has been set are skipped from bundling.
4. The system determines a sequence for the remaining demand items. This is done based on the start and finish dates that are specified at the level of the order (network, project, Web request) header.

i Note

The individual demands get the dates of the order header. Note that you might not be able to see these dates in the worklist if the dates of the demand items (order operations) differ from these dates.

5. The system determines the bundle period, that is, the period of time that is common to all demand items in the bundle. Then, the system checks whether the individual durations of the demand items fit into the bundle period. If processing (preparation and wrap-up) times and/or travel times exist for the demand items, these are considered as well. The sum of the individual durations is the total duration of the demand bundle.

For demands originating from PM/CS and PS, the duration is retrieved based on the factory calendar and the working time of the work center that is associated with the demand. For all other demand types, and in the case no work center exists for PM/CS or PS demands, the duration is retrieved based on the settings made in Customizing activity *Define Distribution of Demand Work* that is available under ► *Sources of Demand* ► *Settings for Capacity and Demand Overview* ►.

i Note

It is assumed that the demand items are executed sequentially, that is, that the individual durations can be accumulated.

6. The system proposes a bundle with the following dates:
 - The planned start and end date of the demand bundle
Note that all demand items in a bundle have the same start and end dates.
 - The bundle priority, which is the highest priority that is assigned to any demand in the bundle
 - The location of the first demand item in the bundle

❖ Example

You bundle demands A, B, and C. Demand A starts at 8:00 and ends at 16:00 and has been assigned priority 1. Demand B starts at 9:00 and ends at 15:00 and has been assigned priority 2. Demand C starts at 10:00 and ends at 17:00 and has been assigned priority 3.

When creating the bundle, the system proposes the bundle period from 10:00 to 15:00 since this is the period of time that is common to all three demands. The priority is proposed as 1.

4. You confirm the proposed demand bundle and save the planning board.
The system assigns a bundle ID to the selected demands and adjusts the dates, priority, and address for all demand items accordingly. In addition, all demands in the bundle are assigned the abstract status **BUNDLED**.

i Note

If you remove a demand from a bundle, the system readjusts the dates by reassigning the original dates to the demand. However, the bundle period is **not** readjusted.

5. You create assignments for the bundled demands. Note that you create assignments at demand item level and not at bundle level.

More Information

- [Prerequisites and Recommendations for the Bundling of Demands \[page 522\]](#)
- [Creating Demand Bundles in the Scheduler Workplace \[page 524\]](#)
- [Creating Demand Bundles in the Web-Based Planning Board \[page 525\]](#)

15.1 Prerequisites and Recommendations for the Bundling of Demands

Prerequisites

You have made the following settings in Customizing for *SAP Multiresource Scheduling*:

- Under ► [Sources of Demand](#) ► [Bundling of Demands](#) ►, you have set up the bundling of demands.
- Under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define Profiles of the Web-Based User Interface](#) ►, you have activated the bundling function in the Web-based planning board.
- If you want the system to write back the bundle dates as new PM/CS demand dates to the original system of the PM/CS order in SAP ERP, you must select the relevant option in Customizing for SAP Multiresource Scheduling under ► [Sources of Demand](#) ► [PM/CS Orders](#) ► [Control Integration between MRS and PM/CS \(ERP\)](#) ►.

- You have defined a factory calendar and working times for demands that have no work center. You do this in Customizing under ► [Sources of Demand](#) ► [Settings for Capacity and Demand Overview](#). ► [Define Distribution of Demand Work](#) ►.
- You have added the bundling-related fields (BUNDLE_ID, BUNDLE_DESC) to your worklist profile. You do this in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Worklist Profile](#) ► [Create Worklist Profile](#) ►.

Recommendations

- Defined an abstract status BUNDLED for bundled demands under ► [Basic Settings](#) ► [Assign Objects](#) ► [Status](#) ► [Define Abstract Status](#) ► and map this status to the appropriate concrete status. This is required if you want to see the status on the demand detail screen.
- Activate the manual locking in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►. This setting is required if you want the demand items to be locked when they are being displayed on the bundle detail screen.
- Deactivate the standard automatic scheduling function for PM/CS orders and PS networks, respectively. To do so, deselect the respective checkbox at the level of the order header. If the standard scheduling is active, the system overwrites the planned start and end dates and times for the bundled demand items for which the scheduling is triggered. In that case, the respective demand items are removed from the bundle and the system sets the scheduled start and end date and time for the demand. This is also required if you want to re-bundle demands after editing the bundle dates.
- To prevent changes of the dates, duration, location or priority for bundled demand items, you must implement the respective Business Add-In in the SAP ERP system to prevent the update of the PM/CS order or the PS network, respectively. You can either prevent the update of the order if the associated demand is part of a bundle or you can specify that the system issues a warning message.
- Make sure that the demand follows assignment function is not active for bundled demands. If this function is active and you create an assignment for a bundled demand, the system updates the date constraints in the PM/CS order (or PS network activity) using the assignment dates and times. As a result, the respective demand item is removed from the bundle.
- To prevent the scheduling of orders or networks (in SAP ERP) that are associated with bundled demand items, configure a dedicated concrete status in the Business Transaction Control of your status profile in PM/CS or PS, respectively. In SAP Multiresource Scheduling, you must map this status to the abstract status BUNDLED.
- Specify a capacitive start and end date for PM/CS orders, PS networks, CRM service orders, cPro projects, and RM Web requests. For PM/CS orders, specify the scheduling type as capacitive.

General Restrictions

The following restrictions apply to all demands, regardless of the bundling rule that has been specified in Customizing:

- All demands in a bundle must have the same number of resources.
- A demand item may belong to one bundle only.
- You cannot use the manual scheduling function for bundled demand items.
- The bundling of demands in SAP Multiresource Scheduling does not affect the standard PM/CS and PS scheduling function. That is, the SAP ERP system does not consider bundling-related data (for example, the bundle period).
- The creation of change documents is not supported for bundled demands. Therefore, you cannot view the change history of demand bundles.
- The bundling of demands in SAP Multiresource Scheduling does not affect the parts availability check.
- The Optimizer does not consider the sequence of bundled demand items. That is, the demand items are not planned sequentially during the optimization run.
- Since all demand items in a bundle have the same start and end dates, the system ignores the relationships that may exist between different demand items.

In addition, by default the system issues an error message in the following cases:

- If you try to bundle demand items for which a time rule has been defined
- If you try to bundle demands that have assignments

In Customizing activity [Specify Message Types for Messages Related to Bundling](#), you can change the message type of these messages to warning or information message.

15.2 Creating Demand Bundles in the Scheduler Workplace

You can create demand bundles in the resource layout as well as in the demand layout. Proceed as follows:

1. In the demand worklist or the item worklist, select the demands you want to bundle. Choose ► [Demand Bundle](#) ► [Display/Create/Edit Bundle](#) from the context menu. The bundle detail screen opens.

i Note

Alternatively, you can select the required demand bars in the demand Gantt and choose the respective context menu entry.

Make sure to select either a set of complex demands or a set of single demands. If you select complex demands, the system tries to bundle all included demand items. For more information, see [Bundling of Demands \[page 520\]](#).

2. Either change the proposed bundle details (start and end date, priority) or confirm the proposal by choosing [Create](#).
You can also specify a bundle description and a location.

i Note

To add a demand to the bundle, you can simply select the desired demand item in the worklist and drag and drop it onto the bundle detail screen.

To display or edit existing bundles or to delete a demand bundle, select the required demands and choose the respective context menu entry.

i Note

You can hide the bundling-related context menu entries at UI profile level. To do so, make settings in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►.

15.3 Creating Demand Bundles in the Web-Based Planning Board

Prerequisites

- You have activated the bundling function in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\) Interface](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- You have activated the display of the relevant toolbar buttons in the user settings under ► [Settings...](#) ► [General](#) ► [Table Functions](#) ►.

Procedure

You can create demand bundles in the [Demands](#) screen area in the list view, the resource view, and the demand view. Proceed as follows:

1. Select the demands you want to bundle and choose [Create/Edit/Delete Bundle](#). The bundle detail screen opens.
Make sure to select either a set of complex demands or a set of single demands. If you select complex demands, the system tries to bundle all included demand items. For more information, see [Bundling of Demands \[page 520\]](#).
2. Either change the proposed bundle details (start and end date, priority) or confirm the proposal by choosing [Create](#).
You can also specify a bundle description and a location. To display all warning or error messages that the system issued during the bundle proposal creation, choose [Show List](#) above the bundle detail screen.

To display or edit existing bundles or to delete a demand bundle, select the required demands and choose the respective button.

16 Finding Suitable Employees and Demands

Use

You have various options to search for employees with specific qualifications. You can search for suitable employees for a specific demand or you can search for employees with a specific set of qualifications without any reference to a demand.

You can also search for suitable demands for any employee within a period of your choice.

Prerequisites

Your system must be configured accordingly and the required master data must exist in SAP Multiresource Scheduling. For more information, see [Setting Up Qualifications in SAP Multiresource Scheduling \[page 530\]](#).

Features

- You can use standard qualifications from SAP ERP HCM or you can use the SAP Multiresource Scheduling-specific qualification concept. This depends on the resource class and the integration scenario that you want to use. The following table provides an overview of possible combinations:

Qualifications	Can Be Used in Integration Scenario	Available For Resource Class
SAP ERP HCM qualifications	- Plant Maintenance (PM) and Customer Service (CS) integration scenario i Note Qualifications can only be assigned to orders, not to notifications. - SAP CRM integration scenario - SAP cProject Suite / SAP Portfolio and Project Management (SAP PPM) integration scenario i Note SAP Resource and Portfolio Management and SAP cProject Suite have been merged into the product SAP Portfolio and Project Management. As of release 5.0, SAP cProject Suite is included in SAP Portfolio and Project Management (PPM). - SAP Cloud for Customer integration scenario i Note To use qualifications in this scenario, you must create an implementation for Business Add-In <i>Integration of Work Tickets</i> (/MRSS/C4S_INT) available under ▶ <i>Enhancements</i> ▶ <i>Sources of Demand</i> ▶	- Business partners with <i>Employee</i> role - SAP ERP HCM resources

Qualifications	Can Be Used in Integration Scenario	Available For Resource Class
SAP Multiresource Scheduling qualifications	- Plant Maintenance (PM) and Customer Service (CS) integration scenario i Note Qualifications can only be assigned to orders, not to notifications. - Project System (PS) integration scenario - Web-based resource management (RM) integration scenario - SAP cProject Suite / SAP Portfolio and Project Management (SAP PPM) integration scenario i Note SAP Resource and Portfolio Management and SAP cProject Suite have been merged into the product SAP Portfolio and Project Management. As of release 5.0, SAP cProject Suite is included in SAP Portfolio and Project Management (PPM). - SAP Cloud for Customer integration scenario i Note To use qualifications in this scenario, you must create an implementation for Business Add-In <i>Integration of Work Tickets</i> (/MRSS/C4S_INT) available under ▶ Enhancements ▶ Sources of Demand ▶	SAP ERP HCM resources
- The functions that you can use to find suitable employees and demands depend upon the following: - Whether you are using standard SAP ERP HCM qualifications or SAP Multiresource Scheduling qualifications - Whether you are working in the Scheduler Workplace (SAP GUI) or in the Web-based planning board		

The following table provides an overview of the available functions:

Function	Available In	Can Be Used With the Following Qualifications	More Information
Finding suitable resources for a demand	- Scheduler Workplace (SAP GUI) - Web-based planning board	- Standard SAP ERP HCM qualifications - SAP Multiresource Scheduling qualifications	Finding Suitable Employees in the Scheduler Workplace (SAP GUI) [page 534] Finding Suitable Employees in the Web-Based Planning Board [page 547]
Displaying the required qualifications for a demand	- Scheduler Workplace (SAP GUI) - Web-based planning board	- Standard SAP ERP HCM qualifications - SAP Multiresource Scheduling qualifications	Displaying the Required Qualifications for a Demand [page 555]
Finding suitable resources without reference to a specific demand (free employee search)	- Transaction /MRSS/EMPL_SEARCH (SAP GUI) - Scheduler Workplace (SAP GUI) - Web-based planning board	SAP Multiresource Scheduling qualifications	Finding Suitable Employees in the Scheduler Workplace (SAP GUI) [page 534] Finding Suitable Employees in the Web-Based Planning Board [page 547]
Extending the resource search with adjacent level matching	Scheduler Workplace (SAP GUI)	SAP Multiresource Scheduling qualifications	Extended Search with Adjacent Level Matching [page 539]
Using the employee search for on-call types	Scheduler Workplace (SAP GUI)	SAP Multiresource Scheduling qualifications	Employee Search for On-Call Types [page 541]
Finding suitable demands for specific employees	Scheduler Workplace (SAP GUI)	SAP Multiresource Scheduling qualifications	Finding Suitable Demands for Employees [page 553]
Finding suitable demands for any employee (global demand search)	Transaction /MRSS/DEMAND_SEARCH (SAP GUI)	SAP Multiresource Scheduling qualifications	Finding Suitable Demands for Employees [page 553]

- If you are working with SAP Multiresource Scheduling qualifications, the system uses a specific qualification matching algorithm to determine whether an employee is suitable for a demand and vice versa.
For more information, see [Qualification Matching for SAP Multiresource Scheduling Qualifications \[page 556\]](#).
- If you are working with standard SAP ERP HCM qualifications, the system performs qualification matching as defined in the implementation of Business Add-In *BAdI: Matching of HR Qualifications* ([/MRSS/BASIS_QUAL_MATCH](#)).
For more information, see the BAdI documentation in the system.

16.1 Setting Up Qualifications in SAP Multiresource Scheduling

Use

This document describes prerequisites and set-up activities that you must complete before you can use qualifications in SAP Multiresource Scheduling.

Prerequisites

- To use SAP Multiresource Scheduling qualifications, the following prerequisites must be fulfilled:
 - The SAP Multiresource Scheduling add-on based on SAP ERP is installed in the SAP ERP system.
 - You are using personnel resources from SAP ERP HCM.
- To use standard SAP ERP HCM qualifications, the following prerequisites must be fulfilled:
 - The SAP Multiresource Scheduling add-on based on SAP ERP and the SAP Multiresource Scheduling add-on based on SAP NetWeaver are installed in the SAP ERP HCM system.

Procedure

Customizing Set-Up

1. Specify whether you want to use standard qualifications or SAP Multiresource Scheduling qualifications. You do so under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.
Steps 2 to 5 are only relevant if you want to use SAP Multiresource Scheduling qualifications.
2. Specify the number ranges for all relevant objects. You do so in the following Customizing activities:
 - Under ► [Qualifications](#) ► [Master Data](#) ►:
 - [Define number ranges for qualifications](#)
 - [Define number ranges for qualification catalogs](#)
 - [Define number ranges for qualification matrixes](#)
 - Under ► [Qualifications](#) ► [Profiles](#) ►, choose activity [Define Number Ranges for Requirements Profiles](#). When you create an object (see “Master Data Set-Up”), such as a qualification catalog, the system assigns it a number from the corresponding number range.
3. Make settings for **qualification catalogs** under ► [Qualifications](#) ► [Master Data](#) ►:
 - In activity [Define Maintenance Groups for Qualification Catalogs](#), assign maintenance groups to qualification catalogs. The maintenance group is used to group the catalogs. In addition, authorization is steered using the maintenance group.
 - In activity [Define system parameters for qualification catalogs](#), define default parameters.

For example, you can define the maximum number of hierarchy levels that the qualification catalogs can have in each client. You can lower this value in the master data transactions but not raise it. The other values steer the extended employee and demand search.

4. Make settings for **qualification profiles** (requirements profiles and employee profiles) under

► [Qualifications](#) ► [Profiles](#) ►. For example, you can specify the following:

- In activity [Define Profile Settings](#), you can make settings such as the following:
 - If you want to use unstructured qualifications, you can define the types of unstructured qualifications.
 - You can assign a subtype for HR infotype 0105, in which the users for the portal are defined.
 - You can assign Smart Forms to profiles to define the print layout for the profiles.

i Note

SAP delivers the following Smart Forms:

- `/MRSS/REQUIREMENT_PROFILE_FM3` for requirements profiles
- `/MRSS/EMPLOYEE_PROFILE_FORM2` for employee profiles

- In activities [Set up approval workflow](#) and [Approval Workflow: Define Infotypes and Fields](#), you can set up an approval workflow for employee profiles.
You can control who has to approve changes to the employee profile. The approving manager is specified in Customizing under ► [Basic Settings](#) ► [Define Resource Planning Nodes and Evaluation Paths](#) ►.

5. Make settings to configure **qualification matching**. You do so under ► [Qualifications](#) ► [Functions](#) ►.

i Note

The qualification matching in the [Find Expertise](#) app is independent of the qualification matching performed in the standard SAP Multiresource Scheduling application. For more information about qualification matching in the app, see [Qualifications in the Find Expertise App \[page 743\]](#).

The system performs qualification matching, for example, when the employee search is triggered. Settings include the following:

- In activity [Define basic settings for qualification matching](#), you control how matching is performed.
- In activity [Define weighting factors for matching criteria](#), you can define how the matching criteria are weighted against each other for an overall matching result.
- In activity [Define fulfillment values for matching on-call types](#), you can make settings for on-call types.
- If you want to use qualification matching for unstructured qualifications, you must use the TREX (Search and Classification) engine. For this purpose you have to set up an RFC connection to the TREX engine in activity [Enter RFC destination of TREX interface](#).
- To optimize performance during the unstructured qualification search, you can define the request language in activity [Define language for matching unstructured qualifications](#).
- In activity [Define Preselection Modes for Free Employee Search](#), you can define how employees are pre-selected in the free employee search.

i Note

To configure qualification matching for SAP ERP HCM qualifications, you use Business Add-In [Matching of HR Qualifications](#) (/MRSS/BASIS_QUAL_MATCH). You can find this BAdI in Customizing under

► [Enhancements](#) ► [Qualifications](#) ►.

Master Data Set-Up

Standard SAP ERP HCM Qualifications

You can use standard qualification catalogs and employee profiles. In that case, you do not have to create your own master data in SAP Multiresource Scheduling. You create and edit this data using transaction **PPPM**.

SAP Multiresource Scheduling Qualifications

If you want to use SAP Multiresource Scheduling qualifications, you can combine qualifications in qualification matrices. To do so, you need to create the relevant master data using the following transactions:

- **/MRSS/SQM_CAT** to create qualification catalogs
For more information, see [Qualification Catalog \[page 54\]](#).
- **/MRSS/SQM_MAT** to create qualification matrices
For more information, see [Qualification Matrix \[page 61\]](#).
- **/MRSS/PPPM** to create employee profiles
For more information, see [Employee Profile \[page 64\]](#).
- **/MRSS/REQM** to create requirements profiles
For more information, see [Requirements Profile \[page 71\]](#).

Switching from SAP ERP HCM Qualifications to SAP Multiresource Scheduling Qualifications

If you initially used SAP ERP HCM qualifications, you can change to SAP Multiresource Scheduling qualifications at a later point in time. You do not have to re-create existing qualification data from scratch. You can copy the existing SAP ERP HCM qualifications to SAP Multiresource Scheduling. To do so, proceed as follows:

1. In SAP Multiresource Scheduling, create qualification catalogs to which you want to copy the standard qualifications. You do so in SAP Multiresource Scheduling using transaction **/MRSS/SQM_CAT**.
For more information, see [Qualification Catalog \[page 54\]](#).
2. Copy the standard qualifications from SAP ERP HCM to SAP Multiresource Scheduling.
For more information, see [Copying Qualification Catalogs from SAP HR \[page 77\]](#).
3. In SAP Multiresource Scheduling, create qualification matrices to which you want to copy the structured qualifications from SAP ERP HCM.
For more information, see [Qualification Matrix \[page 61\]](#).
4. Copy the structured qualifications from SAP ERP HCM to SAP Multiresource Scheduling.
For more information, see [Copying Structured Qualifications from SAP HR \[page 78\]](#).

Other Activities

During qualification matching, the system takes into account the availability of employees. To make sure that all data is up-to-date in SAP Multiresource Scheduling, you must run the availability transfer reports regularly. Use one of the following reports, depending on how you model your personnel resources:

- SAP ERP HCM resources: **/MRSS/HCM_RPTWFMIF**
- Business partners with [Employee](#) role: **/MRSS/WFM_MASTERDATA_ADMIN**

The long texts of the qualification profiles are indexed in the TREX search machine. Schedule one of the following reports regularly to update the index at regular intervals:

- /MRSS/SQE_TREX_FULL_INDEXING
- /MRSS/SQE_TREX_DELTA_INDEXING

16.2 Finding Suitable Employees

Use

You have the following options to search for employees with specific qualifications:

Option	Can Be Used In	Can Be Used with the Following Qualifications
Finding suitable employees for a concrete demand	• Scheduler Workplace (SAP GUI) • Web-based planning board • Directly in a PS network	• SAP ERP HCM qualifications • SAP Multiresource Scheduling qualifications
i Note Which qualification type you can use depends on the type of demand and the resource class. For more information, see Finding Suitable Employees and Demands [page 526].		
Starting a free employee search without any reference to a concrete demand	• Scheduler Workplace (SAP GUI) • Web-based planning board • Transaction /MRSS/EMPL_SEARCH	SAP Multiresource Scheduling qualifications
Extending the employee search to similar qualifications (qualifications on an adjacent level in the qualification catalog)	Scheduler Workplace (SAP GUI)	SAP Multiresource Scheduling qualifications
Searching for employees who currently are on-call or combining the employee search with a search for specific on-call types	Scheduler Workplace (SAP GUI)	SAP Multiresource Scheduling qualifications

For more information about the individual options, see the following sections:

- [Finding Suitable Employees in the Scheduler Workplace \(SAP GUI\) \[page 534\]](#)

- [Finding Suitable Employees in the Web-Based Planning Board \[page 547\]](#)

Prerequisites

For more information, see [Setting Up Qualifications in SAP Multiresource Scheduling \[page 530\]](#).

16.2.1 Finding Suitable Employees in the Scheduler Workplace (SAP GUI)

Use

You can search for employees who are suitable for a specific demand. To trigger the employee search for a demand, you open the context menu of a demand in the item worklist. You can also use the [Demands](#) menu in the application toolbar.

You can also search for suitable employees for an available or ad-hoc combined requirements profile and time period independent of a specific demand (free employee search). You can start the free employee search using transaction `/MRSS/EMPL_SEARCH`. The free employee search is also integrated in the planning board and in PS network activities.

i Note

You can use the free employee search only in conjunction with SAP Multiresource Scheduling qualifications.

The system compares the structured qualifications of the requirements profile and employee profiles during qualification matching. If you are working with SAP Multiresource Scheduling qualifications, the employee search includes unstructured qualifications and other criteria such as region and on-call.

Prerequisites

For more information, see [Finding Suitable Employees and Demands \[page 526\]](#).

Features

- For **SAP ERP HCM qualifications**, the system compares the employee profile and the requirements profile when searching for suitable employees for a demand. The system determines the following:
 - The degree of suitability
 - Whether or not the mandatory qualification requirements are fulfilled
 - The total suitability

Qualification matching is performed based on the logic you define in the implementation of Business Add-In (BAI) [Matching of HR Qualifications](#) (/MRSS/BASIS_QUAL_MAT).

- For **SAP Multiresource Scheduling qualifications**, the system compares the following data when searching for employees:
 - Structured qualifications
The system checks the extent to which the resource meets the required structured qualifications. For more information, see [Qualification Matching for Structured Qualifications \[page 556\]](#).
 - Unstructured qualifications
The system checks the extent to which the resource meets the required unstructured qualifications. For more information, see [Qualification Matching for Unstructured Qualifications \[page 560\]](#).
 - Customer-defined additional fields (if they exist)
 - On-call types (provided that you have chosen the appropriate search mode)
- The system also compares the following criteria:
 - Organizational assignment
The system checks whether the organizational assignment defined using the resource planning node corresponds to the assignment of the employee to the resource structure.
 - Availability
The system checks whether the employee is available for the requested period. For more information, see [Availability Determination \[page 537\]](#).
- If qualification matching at team level has been activated, the system performs the qualification matching at team level if the number of resources required to fulfill a demand exceeds 1.

Note

You can find the setting in Customizing under  [Basic Settings](#)  [Configure Basic Settings](#) .

With this setting in place, the system performs qualification matching for individual resources only if the demand requires exactly one resource. In addition, if the demand has subitems, the system only takes the qualification requirements specified on subitem level into account. For more information, see [Qualification and Availability Matching at Team Level \[page 562\]](#).

- If the employee search does not return the required results, you can change the criteria ad hoc and carry out a new search. For example, you can change the requested time period for the search or carry out the search without a time restriction. If you make changes to the requirements profile or other criteria, the system does not write these changes back to the demand.

Activities

Searching for Employees for a Demand

1. In the context menu for the demand, choose [Suitable Resources](#).
2. An area for the employee search appears.
If the demand dates are in the future, the fields [From](#), [To](#), and [Demand Duration](#) are pre-filled with the corresponding values from the demand. If the demand dates are in the past, the system considers the current date and time as the start date and time of the demand. In that case, a warning message is displayed.

3. You can change the pre-selected values (for example, search for all planning-board resources), or extend other resource planning nodes. You can also specify the following:
 - You can select one or more indicators in the fields for adjacent-level matching.
 - You can specify whether the system determines the employee's availability on the basis of slots or capacity, and whether it should take reservations into account, for example. To change the method of availability determination, choose .
 - In the *Search Type: On Call* field, you can choose between no on-call search, a search purely for employees with on-call, or an on-call search together with the employee search.

Using the Free Employee Search

1. Call the free employee search. You can do so using transaction `/MRSS/EMPL_SEARCH` or by choosing .
2. Enter the following search criteria:
 - A resource planning node to which the required employees should be assigned
If you do not enter a resource planning node, the system enters the resource planning node specified in the Customizing activity *Define Basic Settings for Qualification Matching* as the default value.
 - A period for which you require employees and a duration for the assignment
If you do not enter a duration, the result of the availability check is always 100%, even if the corresponding employee is not available in the required period.
 - Time rules based on which you want to search for employees.
You can enter a period and other selection parameters that should be considered by the system when searching for employees. Note that the *Time Rules* button is only available if the use of time rules has been activated in Customizing activity *Define Basic Settings for Qualification Matching*.
 - The qualifications that the employee should have
On the corresponding tab pages, you can specify structured and unstructured qualifications that the resource should have.

Note

During the search for unstructured qualifications, you can include or exclude particular search terms. Choose the button in the *Search Terms* column and enter the language and required search terms.

To switch between the exclusive and the inclusive search, choose the pushbutton with the relational operator. If the inclusive search is active, the pushbutton has an "equals" sign. If the exclusive search is active, the pushbutton has a "not equal to" sign.

Example

You specify the automotive industry as required project experience by including the search term "Automotive". At the same time, you want to exclude customer experience at the VW company. You therefore switch to the exclusive search and use "VW" as a negative search term.

You can choose a requirements profile using . If you have already entered qualifications and then select a requirements profile, the system adds the qualifications from the requirements profile. If you have not entered qualifications, the system searches for an employee who is available in the time specified, but does not take into account the employee's qualifications.

- You can also enter the following:
 - You can select one or more indicators in the fields for adjacent-level matching.

- You can select the [Capacitive Assignments](#) checkbox if the system is to consider capacitive assignments as unavailable times. If you do not select this checkbox, the system considers only concrete assignments as unavailable times when checking the available times for employees.
3. The system displays the results of the employee search as a list.
 4. To call the details for an individual employee in the search result, select the corresponding row and choose .

More Information

- [Qualification Matching for Structured Qualifications \[page 556\]](#)
- [Qualification Matching for Unstructured Qualifications \[page 560\]](#)
- [Availability Determination \[page 537\]](#)
- [Finding Suitable Employees and Demands \[page 526\]](#)

16.2.1.1 Availability Determination in the Scheduler Workplace (SAP GUI)

Use

When searching for suitable employees or demands, the system determines the availability of employees for matching. You can choose between the following methods to determine availability:

- Slot-based availability determination
- Capacity-based availability determination

For every resource, the system also determines the absolute availability and relative utilization in the current planning horizon. For more information, see “Overview of Availability Data for a Resource” below.

Prerequisites

In Customizing for SAP Multiresource Scheduling, under  [Basic Settings](#)  [Configure Basic Settings](#) , you specify the resource class that is used in SAP Multiresource Scheduling. Depending on this setting, the following prerequisites must be fulfilled:

- If you are using SAP ERP HCM resources:
 - You must configure the Customizing settings under  [SAP Multiresource Scheduling](#)  [HR Integration](#) .
 - You must transfer the availability data from SAP ERP HCM to SAP Multiresource Scheduling using report `/MRSS/HCM_RPTWFMIF`.

- If you are using business partner resources:
 - You must define work schedules for resources and transfer the availability information to SAP Multiresource Scheduling using report `/MRSS/WFM_MASTERDATA_ADMIN`.

For more information, see the documentation in the system.

Features

- As part of the employee or demand search, the method of availability determination currently set is displayed in the following areas:
 - In the Scheduler Workplace, in the employee and demand search areas
 - In the free employee search and global demand search transactions, in the [Availability Matching](#) areas
- You can change the method of availability determination in the user settings under ► [Extras](#) ► [Settings](#). ► [Basic Settings](#) ►. For example, you can specify the following:
 - You can specify whether the system includes reservations or on-call time allocations.
 - With capacity-based availability determination, you can also decide for each search whether the system should include capacitive assignments.

With slot-based availability determination, you define this in Customizing under ► [Set Up Scheduler Workplace](#) ► [Include Capacitive Assignments During Slot-Based Availability Determination](#) ►.

General Rules for Availability Determination

For both methods, the system first determines the availability (without assignments) using the available time allocations. The time allocations can originate from SAP ERP HCM, such as the planned working time, but can also have been created in the planning board, such as a doctor's appointment. Using the available assignments, the system forms the capacity graph according to the following rules:

- Concrete assignments are entered in the capacity graph as 100%. In other words, if a resource has a basic availability of 100 % in a time period and receives a concrete assignment for this period, the resource has the availability 0.
- Stretched assignments do not result in negative values for availability, since they only make provision for work in the time that the resource is also available.
- The system distributes capacitive assignments with their duration equally between the start and end of the assignment. In other words, if a resource must complete a two-hour capacitive assignment on an eight-hour working day, this assignment reduces the availability from 100 % to 75 % since the capacitive assignment requires a quarter of the working time.

Slot-Based Availability Determination

As a resource planner, you choose this method of availability determination for demands with short planned duration. For slot-based availability determination, the system searches for the longest related time period with 100% free capacity. It values the availability according to the size of this available time period compared to the demand duration. Since 100% availability is always a prerequisite in slot-based availability determination, the result of availability determination is 0% in the time period that contains a capacitive assignment.

❖ Example

Consider a demand for a time period between 08:00 and 18:00 with a duration of four hours. The resource found has a lunch break between 12:00 and 13:00 and is already planned for two concrete assignments:

one between 09:00 and 11:00 and a second between 15:00 and 17:00. The longest related time frame with 100% availability would therefore be between 13:00 and 15:00. The system determines an availability of 50% for the resource found since a maximum related time frame of two hours exists for the four hours required.

Capacity-Based Availability Determination

As a resource planner, you choose this method of availability determination for demands with long planned duration. For capacity-related availability determination, the system determines the average availability of the resource over the specified time period. It forms integrals over time and compares the result with the demand duration.

Overview of Availability Data for a Resource

You can activate and deactivate the display of the *RU* (Relative Utilization) and *AV* (Absolute Availability) columns by choosing ► *Extras* ► *Settings* ► in the *Visible Columns* area.

The system uses the following values to determine the overview data:

- Availability based on the available time allocations
- Whether the system includes reservations and capacitive assignments
This depends on the user settings under ► *Extras* ► *Settings* ►.
- Absolute availability in hours
The system deducts the concrete assignments from the availability and any related reservations and capacitive assignments of the resource based on the available time allocations in the planning horizon.

❖ Example

Based on the time allocations, a resource has an availability of 100 hours for the time period of the planning board. The system also includes reservations and capacitive assignments when determining the availability of the resource since you have defined this as the default setting for availability determination under ► *Extras* ► *Settings* ►. This means that if 30 hours of the 100 hours for the resource are planned for concrete assignments, 10 hours for reservations, and 10 hours for capacitive assignments, an absolute availability of 50 hours remains for the current planning horizon.

- Relative utilization in percent
To determine relative utilization, the system compares the absolute availability with availability of the resource based on the available time allocations. For example, if absolute availability is 50 hours and availability without assignments 100 hours, relative utilization is 50 %.

Whether you have chosen capacity-based or slot-based availability determination has no relevance when overview data is determined.

16.2.1.2 Extended Search with Adjacent Level Matching

Use

You can enhance the employee or demand search by extending the search to similar qualifications (that is, those adjacent in the qualification catalog). Extending the search in this way is useful if, for example, you do not find suitable results when searching for resources for a demand or vice versa. You may receive more hits with

an extended search, although the hits returned will not be as suitable for the respective employee or requirements profile.

i Note

The extended search does not mean that the system includes more profiles in the search. It searches the same profiles, but checks whether an employee has a similar qualification on an adjacent level of the qualification catalog instead of the qualification required.

Integration

You can use adjacent level matching for the following functions:

- [Finding Suitable Employees in the Scheduler Workplace \(SAP GUI\) \[page 534\]](#)
- [Finding Suitable Employees for Demands \[page 553\]](#)

Prerequisites

In Customizing for *SAP Multiresource Scheduling*, you have configured the basic settings for qualification matching under ► [Qualifications](#) ► [Functions](#) ►.

Features

Depending on the direction in which you want to extend the search, set one or more of the indicators for the employee or demand search:

- *Dimension 1 Up*: If you select this indicator, the system extends the search for suitable resources or demands to all higher levels of the qualification catalog of the primary dimension.
- *Dimension 1 Down*: If you select this indicator, the system extends the search for suitable resources or demands to the next lowest level of the qualification catalog of the primary dimension.
- *Dimension 1 Same*: If you set this indicator, the search for suitable resources or demands is extended to the sister nodes same-level nodes (that is, those nodes on the same level with the same higher-level node) in the tree structure of the qualification catalog of the primary dimension.
- *Dimension 2 Up*: As *Dimension 1 Up*, but for the secondary dimension of the qualification catalog.
- *Dimension 2 Down*: As *Dimension 1 Down*, but for the secondary dimension of the qualification catalog.
- *Dimension 2 Same*: As *Dimension 1 Same*, but for the secondary dimension of the qualification catalog.

Results Display

To show the detailed result of adjacent-level matching, select the required row and choose . For more information, see [Results Display in Detail \[page 546\]](#).

More Information

- [Qualification Matching for Structured Qualifications \[page 556\]](#)
- [Example: Adjacent Level Matching \[page 559\]](#)

16.2.1.3 Employee Search for On-Call Types

Use

You can enhance the employee search by searching for a specific on-call type. You can also search purely for employees or teams with on-call availability. In this case, the suitability of the employee or team for a specific demand is not considered; only which employees or teams have the on-call type specified in the requirements profile at any point during the requested period.

Note

This function is available only if you use the SAP Multiresource Scheduling-specific qualification concept.

Prerequisites

You have defined on-call types in Customizing for *SAP Multiresource Scheduling* by choosing ► [Basic Settings](#) ► [Define On-Call Types](#) ►.

Features

- To activate only the *On Call* search type, choose the search type *On-Call Search* and enter the on-call type by which you want to search.
- To activate the *On Call* search type together with a search for suitable employees, choose the search type *In Addition to Qualification Matching* and enter one or more on-call types in the table. When you start the employee search, the system checks whether at least one on call whose type is specified in the requirements profile has been planned for a resource. The following search results may appear:
 - At least one on call of the resource corresponds to one of the requested on-call types and covers the requested period in full.
 - At least one on call of the resource corresponds to one of the requested on-call types and covers the requested period in part.
 - None of the requested on-call types appear in the requested period for the resource.

Related Information

[Employee Search for On-Call Types \[page 541\]](#)

16.2.1.4 Search for Replacement Resources for an Existing Assignment

Use

For example, to find a suitable resource in the case of illness to take on one or all assignments of the sick employee, you can carry out the employee search for a specific assignment and the assignments of an alternative employee.

Features

Employee Search

As with the employee search for a demand, you can specify which resources the system is to take into account in the employee search.

Filtering the Resource List

You can select resources from the employee search results list and filter the resource list on the planning board according to these resources. After filtering, the following resources are displayed:

- all resources selected from the results list, including any that were not previously displayed in the Gantt chart
- all resources that already have future assignments for the affected demands

As soon as you close the results list or create an assignment, the system resets the filter for the resource list.

Activities

1. To find an alternative resource, choose the [Alternative Resource](#) entry from the assignment context menu, enter your search criteria, and start the employee search.
2. From the employee search list, you can select the resources that are most appropriate for taking over the assignment and filter the Gantt chart resource list accordingly. To do so, select  in the application toolbar above the results list.
3. Then you can either move assignments manually from the original resource to another resource or you can move all assignments for the respective demand to another resource in one step. To do so, select the target resource in the results list and choose [Reassign Assignments](#). Here, you can define whether or not the system should consider an assignment that is already in progress. If you select the [Split Current](#)

[Assignments](#) indicator, the system also considers the current assignment and moves it to the alternative resource from the next day.

16.2.1.5 Employee Search with Integrated Parts Availability Check

Use

You can take into account the availability of required parts when planning resources for demands from the areas of plant maintenance (PM) and customer service (CS). The employee search with integrated parts availability check is available to you in the Scheduler Workplace (SAP GUI).

Note

In SAP Multiresource Scheduling, the term “parts” is used as a synonym for materials from the areas of Customer Service and Plant Maintenance.

Prerequisites

- The required Customizing settings are in place. For more information, see [Setting Up the Parts Availability Check \[page 595\]](#).
- You are working in the Scheduler Workplace (SAP GUI).
- You are using SAP Multiresource Scheduling qualifications.
- The order on which the demand is based has not yet been released in SAP ERP.
- The resource for which the parts availability check is executed has **not** been assigned to the same storage location and plant as the material in the corresponding order component (transaction [/MRSS/RESOURCE_STOCK](#)) for the specified period.

Features

- You can use the parts availability check if you are searching manually for suitable resources and creating assignments in the planning board.
- The system displays the result of the check in the [Parts Availability](#) column:
 - Green symbol : All relevant parts with inventory management are available to the employee in the resource-specific warehouse in sufficient quantities for the earliest possible start date.
 - Red symbol : Not all relevant parts are available to the employee in sufficient quantities for the earliest possible start date.
 - Gray symbol : The parts availability cannot be checked in conjunction with the employee search. This is the case when the storage location of the employee has already been assigned in the corresponding PM/CS order component and the order has been released. In this case, a new check

does not make sense as the parts are already reserved with reference to the storage location of the employee. However, you can trigger the parts availability check from the context menu for the respective demand to establish whether the parts are actually available. For more information, see [Parts Availability Check in the Planning Board \[page 592\]](#).

- Empty column: Employee is not assigned to a resource warehouse on the earliest possible start date. By double-clicking on the respective symbol, you can call the result details for each relevant part.

i Note

The *Parts Availability* column is for information only. The system does not prevent assignment to an employee who does not have all parts available or to whom no resource warehouse is assigned.

- With the relevant Customizing setting, the system updates the storage location in the corresponding PM/CS order components when assignments are created, changed, or deleted. This update is carried out at the time of saving. The update is restricted to the relevant parts and works only for demands with a direct relationship between the individual demand and the assignment.
- The system uses the resource warehouses in the components of PM/CS orders to assign the parts to the warehouses by means of the assignments. This is done automatically. If necessary, you can manually enter a placeholder when creating an order, but not a real resource-specific warehouse.

Manual Parts Availability Check

As each employee with a warehouse and an overall qualification match result of zero is considered in the availability check, this check can be very complex. This can have a negative influence on performance. In Customizing, you can therefore activate only the manual parts availability check, thus splitting the resource search into two steps:

1. The scheduler searches for suitable employees for the demand.
2. In the results list, the required resources are selected individually and the availability check is carried out for this employee only. To do so, choose the *Parts* pushbutton.

Parts Availability Check with Automatic Resource Planning

When you have defined your parts availability profile accordingly, the system also considers the parts availability in automatic resource planning as a criterion. It then schedules only those resources with sufficient parts availability in the resource warehouse for the assignments. The storage location can also be updated in the corresponding PM/CS order components when new assignments are saved.

16.2.1.6 Results Display for Employee and Demand Search

Use

The system displays the result of the employee search in the form of an employee ranking list, just as a ranking list is displayed for the demand search. You can also call a detailed display for each line.

Features

Results Display for Employee Search

The employee found who is most well-suited for the demand is included at the top of the list.

i Note

If the method `ADDITIONAL_MATCH_RES_GET` of the qualification matching BAdI is implemented accordingly, the system initially displays one or more specific employees regardless of the matching result. These employees may not have been in the previous results list. This function is available only for SAP Multiresource Scheduling qualifications.

The results list can include the following information on each employee:

- Overall result of qualification matching (in percent)
- Organizational match as checkbox: Selected indicator means "yes"
- Degree of suitability relating to structured qualifications (in percent)
- Overqualification: This indicator is selected automatically if at least one required qualification is overfulfilled (does not apply for qualifications that were found as part of adjacent-level matching).
- Result of structured matching for each requirement profile matrix (in percent). To determine these (max. five) results for a demand search, the matrixes of the employee profile, not the matrixes from the demand requirement profiles, are used.
- Matching result for unstructured qualifications: separate columns for the different types of unstructured qualifications (for example, training or customer experience)
- Mandatory qualifications as a checkbox: selected indicator means "available"
- Availability (in percent)
- On call (filled in full, partially, or not at all). This function is available only for SAP Multiresource Scheduling qualifications.
- On-call types: Identifier(s) of those on-call types from the requirements profile that have at least partial overlap with a time-allocated on call (of a resource). This function is available only for SAP Multiresource Scheduling qualifications.
- The *Frgn Match* indicator indicates whether the result contains hits in a language version that deviates from the logon language: set by the system if, when you search for unstructured qualifications, the highest match result for one of the qualification types in your search was returned in a language that differs from the logon language. This function is available only for SAP Multiresource Scheduling qualifications.
- If you have activated travel times, the system displays three additional columns:
 - Distance between resource and assignment location
 - Trip duration
 - Trip category (such as airplane)

i Note

Travel time details are only displayed if you are searching for suitable employees for a demand. If you are using the free employee search, the search results do not include travel time information.

- If the employee name is displayed, you can branch to the corresponding employee profile by choosing . This is not possible if the employee is displayed anonymously.

To set the number of entries shown in the results list, go to ► [Qualifications](#) ► [Functions](#) ► [Configure Basic Settings for Qualification Matching](#) ► in Customizing for SAP Multiresource Scheduling. You can sort the results list by individual column and use customized or system-wide filters. The system then displays the respective

employees with their names or as anonymous individuals, depending on your authorization (at the resource planning node level).

Results Display for Demand Search

The results display is available only for SAP Multiresource Scheduling qualifications and is essentially the same as the results display for the employee search. Differences exist only in regard to the following columns:

- The On Call and On-Call Type columns are not available in the demand search.
- Availability in the demand search
For demands with a date rule, the system initially determines the default value defined in Customizing [\(► Qualifications ► Functions ► Define Basic Settings for Qualification Matching ►\)](#). If this is the case, this can be recognized by the indicator set in the *Def.Avail.* column. You can still determine the actual availability afterwards using the system. To do this, select the desired resource and choose .

[Results Display in Detail \[page 546\]](#) offers a detailed display of matching results.

16.2.1.6.1 Results Display in Detail

Use

The detailed display gives you an exact analysis of the results of the employee or demand search.

Features

To call the detailed display, select the required line in the results list and choose .

The [Analysis of Qualification Matching](#) window opens with the following information:

[Structured Qualifications](#) tab page

The system displays the required and found structured qualifications. The status shown in the first column indicates whether all, none, or only some of the qualifications were found:

- A  means that the qualification was found on the hierarchy level searched and with the minimum required skill level.
- A  means that the skill level falls below the requirement or was found in at least one dimension at a hierarchy level other than that required.
- A  means that the qualification was not found at all.

To determine whether a qualification was found directly at the required hierarchy level or at a neighboring hierarchy level (adjacent-level matching), the system uses the following icons in the [Primary Qualification Level](#) and [Secondary Qualification Level](#) columns:

-  refers to the respective hierarchy level but does not automatically mean that a qualification has been found. For example, if the traffic light is red, the system did not find a direct hit.

-  means that the qualification was found at the adjacent lower level.
-  means that the qualification was found at a higher hierarchy level.
-  means that the qualification was found in a same-level node at the same hierarchy level.

[Unstructured Qualifications](#) tab page

The system displays the required and found unstructured qualifications. The status shown in the first column indicates whether all, none, or only some of the qualifications were found:

- A  means that all search terms were found in the employee profile in at least one language.
- A  means that at least one search term was found, but not all.
- A  means that none of the search terms were found.

The [In Profile](#) column displays the search terms that were found.

16.2.2 Finding Suitable Employees in the Web-Based Planning Board

Use

Using the employee search for a demand, you search for employees who are suitable for a concrete demand. You can use this function in the demand view of the Web-based planning board.

To search for employees without reference to a specific demand, you can start a free employee search. The free employee search is available in the resource view of the Web-based planning board.

The system compares the structured qualifications of the requirements profile and employee profiles during qualification matching. If you are working with SAP Multiresource Scheduling qualifications, the employee search also includes unstructured qualifications.

Prerequisites

You must activate the required user settings to display the relevant button and context menu option:

- You activate the [Find Suitable Resources](#) button in the [Demands](#) screen area under ► [Settings](#) ► [General](#) ► [Table Functions](#) .
- You activate the button for the free employee search as well as of the context menu option under ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#) .

For more information, see [Finding Suitable Employees and Demands \[page 526\]](#).

Features

- For **SAP ERP HCM qualifications**, the system compares the employee profile and the requirements profile when searching for suitable employees for a demand. The system determines the following:
 - The degree of suitability
 - Whether or not the mandatory qualification requirements are fulfilled
 - The total suitabilityQualification matching is performed based on the logic you define in the implementation of Business Add-In (BAI) [Matching of HR Qualifications](#) (/MRSS/BASIS_QUAL_MAT).
- For **SAP Multiresource Scheduling qualifications**, the system compares the following criteria independently of each other when searching for suitable employees:
 - Structured qualifications as part of qualification matching for structured qualifications
For more information, see [Qualification Matching for Structured Qualifications](#) [page 556].
 - Unstructured qualifications as part of qualification matching for unstructured qualifications
For more information, see [Qualification Matching for Unstructured Qualifications](#) [page 560].
 - Customer-defined additional fields (if they exist)
- In addition, the system checks the following:
 - Organizational assignment
The system checks whether the organizational assignment defined using the resource planning node corresponds to the assignment of the employee to the resource structure.
 - Availability
The system checks whether the employee is available for the requested period. For more information, see [Availability Determination](#) [page 550].
 - Reservations
By making an entry in the [Cap. Graph Type](#) field, you can specify whether the system is to take reservations into account.
- If you are using SAP Multiresource Scheduling qualifications, you can also pre-select one of the following options:
 - The system only takes resources into account that have the required qualifications.
 - The system only takes resources into account that have at least one of the required structured qualifications.
 - The system only takes resources into account that have at least one of the required unstructured qualifications.
- You can choose a requirements profile using [Choose Profile](#). If you have already entered qualifications and then select a requirements profile, the system adds the qualifications from the requirements profile. If you have not entered qualifications, the system searches for an employee who is available in the time specified, but does not take into account the employee's qualifications.

Activities

Searching for Employees for a Demand

1. You select a demand in the [Demands](#) screen area and choose [Find Suitable Resources](#).
2. An area for the employee search appears. You can change the pre-selected values to extend the search to further planning nodes, for example.

Note

If the demand dates are in the future, the fields *From*, *To*, and *Demand Duration* are pre-filled with the corresponding values from the demand. If the demand dates are in the past, the system considers the current date and time as the start date and time of the demand. In that case, a warning message is displayed.

3. If you work with SAP Multiresource Scheduling qualifications, you can enter additional search criteria. On the corresponding tab pages, you can specify structured and unstructured qualifications that the resource should have.

Note

During the search for unstructured qualifications, you can include or exclude particular search terms. Choose the pushbutton in the *Search Terms* column and enter the language and required search terms.

To switch between the exclusive and the inclusive search, choose the pushbutton with the relational operator. If the inclusive search is active, the pushbutton has an “equals” sign. If the exclusive search is active, the pushbutton has a “not equal to” sign.

Example

You specify the automotive industry in required project experience by including the search term “Automotive”. At the same time, you want to exclude customer experience at the VW company. You therefore switch to the exclusive search and use “VW” as a negative search term.

4. The system displays the results of the search as a list.

Starting a Free Employee Search

1. In the *Resources* screen area, choose the free employee search and enter the following search criteria:
 - A resource planning node to which the required employees should be assigned
If you do not enter a resource planning node, the system enters the resource planning node specified in the Customizing activity *Define Basic Settings for Qualification Matching* as the standard value.
 - A period for which you require employees and a duration for the assignment

Note

If you do not specify a duration, the system issues an error message.

2. If you work with SAP Multiresource Scheduling qualifications, you can enter additional search criteria. On the corresponding tab pages, you can specify structured and unstructured qualifications that the resource should have.

Note

During the search for unstructured qualifications, you can include or exclude particular search terms. Choose the pushbutton in the *Search Terms* column and enter the language and required search terms.

To switch between the exclusive and the inclusive search, choose the pushbutton with the relational operator. If the inclusive search is active, the pushbutton has an “equals” sign. If the exclusive search is active, the pushbutton has a “not equal to” sign.

❖ Example

You specify the automotive industry in required project experience by including the search term "Automotive". At the same time, you want to exclude customer experience at the VW company. You therefore switch to the exclusive search and use "VW" as a negative search term.

3. The system displays the results of the employee search as a list.

More Information

- [Qualification Matching for Structured Qualifications \[page 556\]](#)
- [Qualification Matching for Unstructured Qualifications \[page 560\]](#)
- [Results Display for Employee Search \[page 552\]](#)
- [Availability Determination \[page 550\]](#)

16.2.2.1 Availability Determination in the Web-Based Planning Board

Use

If you search for suitable resources or demands using the free employee search or the global demand search, the system determines the availability of employees for matching. In the Web-based planning board, the system uses capacity-based availability determination. For every employee, the system also determines the absolute availability and relative utilization in the current planning horizon. For more information, see "Overview of Availability Data for a Resource" below.

Prerequisites

In Customizing for SAP Multiresource Scheduling, under **Basic Settings** > **Configure Basic Settings**, you specify the resource class that is used in SAP Multiresource Scheduling. Depending on this setting, the following prerequisites must be fulfilled:

- If you are using SAP ERP HCM resources:
 - You must configure the Customizing settings under **SAP Multiresource Scheduling** > **HR Integration**.
 - You must transfer the availability data from SAP ERP HCM to SAP Multiresource Scheduling using report `/MRSS/HCM_RPTWFMIF`.
- If you are using business partner resources:
 - You must define work schedules for resources and transfer the availability information to SAP Multiresource Scheduling using report `/MRSS/WFM_MASTERDATA_ADMIN`.

For more information, see the documentation in the system.

Features

- Availability determination is used as part of the employee search and in the global demand search. The availability data is displayed in the Gantt chart.
- You can choose whether the system is to take into account reservations, that is, demands from reserved projects.

General Rules for Availability Determination

The system first determines the availability (without assignments) using the existing time allocations. The time allocations can originate from SAP HR, such as the planned working time, but may also have been created in the planning board, such as a doctor's appointment. Using the available assignments, the system forms the capacity graph according to the following rules:

- Concrete assignments are entered in the capacity graph as 100%. In other words, if a resource has a basic availability of 100 % in a time period and receives a concrete assignment for this period, the resource has the availability 0.
- Stretched assignments do not result in negative values for availability, since they only make provision for work in the time that the resource is also available.
- The system distributes capacitive assignments with their duration equally between the start and end of the assignment. In other words, if a resource must complete a two-hour capacitive assignment on an eight-hour working day, this assignment reduces the availability from 100% to 75% since the capacitive assignment requires a quarter of the working time.

Capacity-Based Availability Determination

For capacity-related availability determination, the system determines the average availability of the resource over the specified time period. It forms integrals over time and compares the result with the demand duration.

Overview of Availability Data for a Resource

You can display the relative utilization and the absolute availability in the Gantt chart. The system uses the following values to determine the overview data:

- Availability based on the existing time allocations
- The relevant control parameters for availability determination determine whether the system takes reservations into account.
- Absolute availability in hours: The system deducts the concrete assignments from the availability and any related reservations and capacitive assignments of the resource based on the available time allocations in the planning horizon.

❖ Example

Based on the time allocations, a resource has an availability of 100 hours for the time period of the planning board. The system also includes reservations and capacitive assignments when determining the availability of the resource since you have defined this as the default setting for availability determination under ► [Extras](#) ► [Settings](#) ►. This means that if 30 hours of the 100 hours for the resource are planned for concrete assignments, 10 hours for reservations, and 10 hours for capacitive assignments, an absolute availability of 50 hours remains for the current planning horizon.

- **Relative utilization in percent:** To determine the relative utilization, the system compares the absolute availability with availability of the resource based on the existing time allocations. For example, if the absolute availability is 50 hours and the availability without assignments is 100 hours, the relative utilization is 50 %.

More Information

[Utilization of Personnel Resources \[page 171\]](#)

16.2.2.2 Results Display for Employee Search

Use

The system displays the result of the employee search in the form of a ranking list of suitable employees.

Features

The employee found who is most suitable for the demand is shown at the top of the list.

The results list can include the following information about each employee:

- Overall result of qualification matching (in percent)
- Degree of suitability relating to structured qualifications (in percent)
- Overqualification: The system sets this indicator if at least one of the required qualifications is overfulfilled.
- Result of structured matching for each requirement profile matrix (in percent). To determine these (max. five) results for a demand search, the matrixes of the employee profile, not the matrixes from the demand requirement profiles, are used.
- Matching result for unstructured qualifications: separate columns for the different types of unstructured qualifications (for example, training or customer experience)
- Mandatory qualifications as a checkbox: selected indicator means "available"
- Availability (in percent)
- On call (filled in full, partially, or not at all)
- On-call types: Identifier(s) of those on-call types from the requirements profile that have at least partial overlap with a time-allocated on call (of a resource). This function is available only for SAP Multiresource Scheduling qualifications.
- If the employee's name is displayed, you can go directly to the employee profile by choosing the resource ID.

You can create an assignment directly from the results list of the employee search. For more information, see [Creating Assignments \[page 217\]](#).

16.3 Finding Suitable Demands for Employees (SAP GUI)

Use

You can use the demand search in the Scheduler Workplace (SAP GUI) to find demands that are suitable for a specific employee shown in the planning board. You can also use the global demand search (transaction / [MRSS/DEMAND_SEARCH](#)) to find suitable demands for any employee within a period of your choice.

When searching for demands in the Scheduler Workplace (SAP GUI), you can include either all demands or just those that are currently displayed in the planning board. When carrying out a global demand search, the system includes only those demands that are assigned a requirements profile and fulfill one of the following two prerequisites:

- No assignments exist for the demands.
- The demands have *Partially Planned* status.

Prerequisites

- You are using SAP Multiresource Scheduling qualifications.
- In Customizing for SAP Multiresource Scheduling, you have configured the settings under ► [Qualifications](#) ► [Functions](#) ►.

Features

- You can call the demand search for a specific employee using the employee's context menu in the resource planning board. The search includes only those demands that are contained in the worklist. If you have set a filter for the demands, you can restrict the search to the filtered demands.
- To filter the demands for the search, you can enter one or more resource planning nodes and a period during the global demand search. Assignments cannot be defined from the results display of the global demand search.
- During the demand search for an employee, as well as during the global demand search, the system compares the following criteria individually and independently of each other:
 - Structured qualifications and unstructured qualifications as part of qualification matching
 - Organizational assignment
The system checks whether the organizational assignment in the demand, which is defined using the resource planning node, corresponds to the assignment of the employee to the resource structure.
 - Availability
The system checks whether the employee is available for the requested period. For more information, see [Availability Determination in the Scheduler Workplace \(SAP GUI\)](#) [page 537].

Activities

Demand Search in the Scheduler Workplace (SAP GUI)

1. In the context menu for the employee, choose *Suitable Demands*.
2. An area for the demand search appears. The default values in the fields *From* and *To* correspond to the period displayed in the planning board. However, you can still change this data. For example, you can restrict the search to the *Filtered Demands* if you have set a filter in the item worklist.
You can also specify the following:
 - You can select one or more indicators in the fields for adjacent-level matching.
 - You can specify whether the system determines the employee's availability on the basis of slots or capacity, and whether it should take reservations into account, for example. To change the method of availability determination, choose .
3. The system displays the results of the demand search as a list.
4. To display communication data for the resource planner, requester, or contact person, select either the required row and choose the corresponding icon from the toolbar, or choose the person by double-clicking in the relevant column of the results list. You can branch to the detailed display from the results list to view the communication data (e-mail, telephone) from the master data of the respective user.
5. To call the details for an individual employee in the search result, select the corresponding row and choose .
6. To create an assignment for the employee directly, choose the required demand and then .

Global Demand Search

1. Execute transaction **/MRSS/DEMAND_SEARCH**.
Enter the following search criteria:
 - The employee for whom you want to find suitable demands
The system compares the employee's profile with the requirements profiles of the existing demands.
 - A resource planning node to which the required demands should be assigned
 - A period for which you are searching the demandsYou can also set indicators in the fields for adjacent-level matching and specify a method for availability matching.
2. The system displays the results of the global demand search in a list, in the same way as the results list for the demand search in the planning board.
3. To display the requirements profile for a demand, choose either  or double-click the demand in the *Demand* or *ID* columns.
4. To call the details for an individual demand in the search result, select the corresponding row and choose .

More Information

- [Results Display for Employee and Demand Search \[page 544\]](#)
- [Results Display in Detail \[page 546\]](#)

16.4 Displaying the Required Qualifications for a Demand

Use

You can display the qualifications that are required for a demand. This option is available to you in the Scheduler Workplace (SAP GUI) and in the Web-based planning board.

i Note

You can display the required qualifications at item level (single demand), but not at header level (complex demand).

Prerequisites

- If you are working with SAP Multiresource Scheduling qualifications, a requirements profile must exist for the demand.
- If you are working with standard SAP ERP HCM qualifications, qualifications must exist for the demand.
- To display the required qualifications in the Web-based planning board, you must activate the following user settings first:
 - To display the button in the demand list, activate the relevant setting under ► [Settings](#) ► [General](#) ► [Table Functions](#) ►.
 - To display the context menu option for the demand, activate the relevant setting under ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#) ►.

Features

- You can show the required qualifications using the context menu for a selected demand.
- The system shows the required qualifications in a dialog box. Note that you cannot make any changes in this dialog box.
- If you are working with the Web-based planning board, you can implement a Web Dynpro component to display additional attributes for the requirements profile (for example, PACE profile information) in the [Required Qualifications](#) dialog box. For more information, see [Displaying Additional Attributes for Required Qualifications \[page 923\]](#).

16.5 Qualification Matching

Use

Qualification matching is part of the employee and demand search. The system performs qualification matching to calculate the suitability of an employee for a demand.

In the Scheduler Workplace (SAP GUI), you can use adjacent-level matching for structured qualifications to increase the number of potential hits in the employee or demand search.

For more information, see the following sections of the application help:

- [Qualification Matching for Structured Qualifications \[page 556\]](#)
- [Qualification Matching for Unstructured Qualifications \[page 560\]](#)
- [Adjacent-Level Matching \[page 558\]](#)

i Note

The qualification matching described here is **not** relevant for the following:

- SAP ERP HCM qualifications
To set up qualification matching for SAP ERP HCM qualifications, you use Business Add-In [Matching of HR Qualifications](#) (/MRSS/BASIS_QUAL_MATCH). You can find this BAdI in Customizing under [► Enhancements ► Qualifications ►](#).
- [Find Expertise](#) app
The app uses SAP HANA's text search capabilities to perform qualification matching as part of the search. For more information, see [Qualifications in the Find Expertise App \[page 743\]](#).

Prerequisites

- You are working with SAP Multiresource Scheduling qualifications.
- You have set up your system correctly. For more information, see [Setting Up Qualifications In SAP Multiresource Scheduling \[page 530\]](#).

16.5.1 Qualification Matching for Structured Qualifications

Use

The system performs qualification matching for structured qualifications to calculate the suitability of an employee based on his or her structured qualifications. Qualification matching is part of the employee and demand search. As part of this, the system calculates the total result of qualification matching. Alongside the results for structured and unstructured qualifications, other criteria (such as availability) can be included in this total result. You cannot call qualification matching separately.

i Note

This description applies to SAP Multiresource Scheduling qualifications only.

Prerequisites

For more information, see [Qualification Matching \[page 556\]](#).

Features

Qualification Matching for Structured Qualifications

The system compares each qualification individually and determines a result for each structured qualification, depending on whether the qualification is filled in full, in part, or not at all.

- If the system compares several structured qualifications, it calculates the degree of suitability relating to structured qualifications from the individual results in a subsequent step. For more information, see “Degree of Suitability Relating to Structured Qualifications” below.
- The total result for qualification matching also includes unstructured qualifications and other criteria. To calculate the total result, the system uses the weighting factors specified in Customizing activity [Define Weighting Factors for Matching Criteria](#). For more information, see “Overall Result of Qualification Matching” below.
- During qualification matching, the system also includes qualifications that are indicated in the employee profile as obsolete.

The following section first deals with the calculation for individual qualifications. If just one qualification is required, this result is the same as the degree of suitability relating to structured qualifications.

- For full qualifications or overqualifications, the result is always $F=1$. If only one qualification is found and this is fully met, the system displays the degree of suitability for structured qualifications in the planning board as 100%, and if the qualification is overfulfilled, the overqualification indicator is set.
- If the qualification is met only in part, the system examines how much the available skill level differs from that required. It calculates the degree of suitability using the following formula: $F = 1 - (1 - M) / L * A$
 - F: Result of qualification matching, $0 \leq F \leq 1$
 - M: (Theoretical) Value if the qualification is not met; $0 \leq M \leq 1$ (taken from the [Define Basic Settings for Qualification Matching](#) IMG activity)
 - L: Amount of skill level (L is a natural number)
 - A: Difference from required skill level (A is a natural number; $0 \leq A \leq L$)
- If the qualification does not meet the requirement, the system calculates the value for non-fulfillment or the value 0 if the corresponding indicator is set, based on the Customizing settings.
- If a qualification is marked as obligatory in the requirements profile, the system calculates the results in the same way as with a non-obligatory qualification. It also sets the indicator in the [obligatory qualifications are fulfilled](#) column in the results display.

Degree of Suitability Relating to Structured Qualifications

If the system has to compare more than one structured qualification, it calculates the mean value of the partial results for each qualification. This value is the degree of suitability relating to structured qualifications and is shown in the results display in a separate column.

Overall Result of Qualification Matching

The system calculates the overall result of qualification matching from the results for structured and unstructured qualifications, as well as additional criteria. To do so, it uses the following formula:

$$(RF1 + (1 - RF1) * PR1) * \dots * (RFn + (1 - RFn) * PRn)$$

n = partial results

PR = partial result (criterion)

RF = rating factor of partial results from Customizing

As additional criteria, you can define a factor for weighing obligatory qualifications or availability, for example.

16.5.1.1 Adjacent-Level Matching

Use

In the Scheduler Workplace (SAP GUI), you can include neighboring hierarchy levels in qualification matching for structured qualifications. The adjacent-level matching increases the number of potential hits in the employee or demand search.

Prerequisites

- You are working in the Scheduler Workplace (SAP GUI).
- In Customizing under [► Qualifications](#) [► Master Data](#) [► Define System Parameters for Qualification Catalogs](#) [►](#), you define default values for the factors for adjacent level matching.

Features

You can use adjacent-level matching to increase the number of potential hits in the employee or demand search. To do so, you interpret the qualifications required as qualifications that are:

- On higher hierarchy levels
- One hierarchy level lower
- Adjacent on the same hierarchy level

You can combine any number of adjacent qualifications in the search. The system then searches the corresponding qualification catalog levels of the primary and secondary dimension of the qualification matrix. If it finds several qualifications on one level, it first determines the qualification with the maximum skill level.

Using the skill level, the system then calculates F in each case using the formula above. It then evaluates the results of the adjacent levels using the corresponding rating factors from the qualification catalogs. If two dimensions are combined in the search and the system finds the required combination in an adjacent level, it multiplies the two rating factors from Customizing.

Note

The following combinations are **not** included in adjacent level matching:

- Adjacent qualifications of one dimension combined with lower or higher-level qualifications of the other dimension
- Adjacent nodes of the higher-level or lower-level nodes within one dimension

More Information

- [Example: Adjacent Level Matching \[page 559\]](#)
- [Extended Search with Adjacent Level Matching \[page 539\]](#)

16.5.1.1.1 Example: Adjacent-Level Matching

You are searching for suitable employees for a demand with the "Automation Technology" requirement and have selected the three indicators to search at the higher, lower, and adjacent node levels (at the same hierarchy level) in the primary dimension catalog. The qualification catalog, in which the "Automation Technology" qualification is integrated, appears as follows:

Qualification Catalog for the Primary Dimension

1. Field Services

1.1 Automation Technology	1.2 Notification Technology
1.1 Certificate A1	1.2. Certificate A2

The system finds the following employees:

- **Ms. Ghobadi** who has only the "Field Services" qualification. Depending on whether the qualification is fulfilled in full or in part, the system determines factor 1 or calculates F using the formula $F = 1 - (1 - M) / L * A$ (see [Qualification Matching for Structured Qualifications \[page 556\]](#)). It then multiplies this value with the *factor for neighboring level matching at higher level* from the qualification catalog.

❖ Example

- The skill level of Ms. Ghobadi is 2 and therefore deviates from the maximum skill level of 3 by one level.
- The value of non-fulfillment M is 0.5.
- The *higher level factor* is 0.5.

- The system calculates:

$$F = 1 - (1 - 0.5) / 3 * 1 = 0.83$$
Suitability: $0.83 * 0.5 = 0.42$
Result for the degree of suitability for Ms. Ghobadi: 42 %

- **Mr. Dubois** who has only the "Notification Technology" qualification. Depending on whether the qualification is fulfilled in full or in part, the system determines factor 1 or calculates F using the formula above. It then multiplies this value with the *same level factor* from the qualification catalog.
- **Ms. Moore** who has only the "1.2 Certificate A2" qualification. Depending on whether the qualification is fulfilled in full or in part, the system determines factor 1 or calculates F using the formula above. It then multiplies this value with the *lower level factor* from the qualification catalog.
- **Mr. Kapilsky** who has all five of the qualifications mentioned in the table above. In this case, the system determines F for the qualifications "Field Services," "Automation Technology," and "Notification Technology". For the lower level, the system first determines which of the two qualifications has the higher skill level and uses this to calculate F. The system therefore calculates four values for F for Mr. Kapilsky, and multiplies the three values from the neighboring levels with the corresponding factors for neighboring-level matching. How the system then calculates the degree of suitability for the structured qualifications depends on the settings for results determination in Customizing (► [Qualifications](#) ► [Functions](#) ► [Define Basic Settings for Qualification Matching](#) ►):
 - A: The system calculates the mean value for all hits (direct and in neighboring qualifications).
 - M: The system calculates the highest degree of suitability using all hits (direct and in neighboring qualifications).
 - AD: If there is a direct hit, the system ignores any possible hits in neighboring qualifications and uses the degree of suitability of the direct hit. If there is no direct hit, the system response is the same as "A".
 - MD: If there is a direct hit, the system ignores any possible hits in neighboring qualifications and uses the degree of suitability of the direct hit. If there is no direct hit, the system response is the same as "M".

In the case of Mr. Kapilsky, the "M" setting may mean that the degree of suitability for Notification Technology is displayed if this is higher than that of Automation Technology. With the "MD" setting, however, the degree of suitability of the direct hit "Automation Technology" is displayed, even if this is lower.

16.5.2 Qualification Matching for Unstructured Qualifications

Use

The system uses qualification matching for unstructured qualifications to calculate the suitability of an employee based on his or her unstructured qualifications.

Qualification matching is part of the employee and demand search. Qualification matching for unstructured qualifications also supports inclusive and exclusive search term searches in attachments for employee profiles. You can use the search in attachments in the [Free Employee Search](#) transaction ([/MRSS/EMPL_SEARCH](#)) and in employee profiles.

Prerequisites

- The long texts of the profiles are indexed in the TREX search machine. You must run report `/MRSS/SQE_TREX_FULL_INDEXING` or schedule report `/MRSS/SQE_TREX_DELTA_INDEXING` to run periodically so that the system automatically updates the index at regular intervals.
- To optimize performance, you can define a language that is dependent on the resource planning node and in which the system carries out the comparison. You do so in Customizing under [► Qualifications ► Functions ► Define Language for Matching Unstructured Qualifications ►](#).
- The following prerequisites must be fulfilled for searches in attachments:
 - You must define the type of unstructured qualification in Customizing under [► Qualifications ► Profiles ► Define Profile Settings ►](#). In addition, you must select the *RProf Only* checkbox.
 - You must specify the qualification type in Customizing under [► Qualifications ► Functions ► Enter RFC Destination of TREX Interface ►](#).

For more information, see [Setting Up Qualifications In SAP Multiresource Scheduling \[page 530\]](#).

Features

- The system compares all types of unstructured qualifications separately and in each case returns a result for each qualification type.
- When searching for unstructured qualifications you can use an inclusive or exclusive search term search, meaning that you can include or exclude specific terms.

❖ Example

In the free employee search you specify the automotive industry in required project experience by including the search term "Automotive". At the same time, you want to exclude customer experience at the VW company. You therefore use "VW" as a negative search term. For a resource that has experience in the automotive industry and has worked for the customer VW, the result of qualification matching is as follows: 100% for project experience and 0% for customer experience. For a resource that has experience in the automotive industry but has not worked for VW, the result of qualification matching is 100% in both areas.

- The comparison takes place successively in all languages in which the search terms exist in the requirements profile. In this way, the system determines how many instances of the required search term exist for each language in the full texts of the language. The result is a percentage for each language that shows the number of search terms found in relation to the number of search terms required (in the respective language). The maximum percentage value for each language is displayed as the matching result for unstructured qualifications.

i Note

As soon as a negative criterion is met (that is, the exclusive search returns a hit for a search term in the unstructured qualifications), the matching result for this criterion is 0%.

- In Customizing, you can specify rating factors for unstructured qualifications. You can also define how the system includes unstructured qualifications when calculating the overall result of qualification matching.

For more information, see “Overall Result of Qualification Matching” in [Qualification Matching for Structured Qualifications \[page 556\]](#).

- Searching in attachments:
 - The unstructured qualifications for attachments appear in the dropdown list in the transaction for searching for employees ([/MRSS/EMPL_SEARCH](#)) and can be used for searching in attachments for employee profiles.
 - The system calculates the result based on the number of key word hits in the attachments. Example: If 4 key words have been entered in the long text and all of them occur in the attachments for an employee, the matching result is 100%; if 2 key words occur, the matching result is 50%.
 - The search is not case sensitive and is language independent.

16.6 Qualification and Availability Matching at Team Level

Use

When searching for suitable resources for a demand, the system performs the qualification matching at team level if the number of resources required to fulfill the demand exceeds one. In this case, the qualification matching is only performed for individual resources if the demand requires exactly one resource.

The qualification matching at team level applies to standard qualifications and to structured SAP Multiresource Scheduling qualifications. In both cases, the availability is determined by comparing the number of resources required to fulfill the demand with the number of team members.

Restrictions

- This function is only available in the Scheduler Workplace (SAP GUI).
- When SAP Multiresource Scheduling qualifications are active, the system only considers the structured qualifications for the qualification matching. Unstructured qualifications are not considered; in that case, the qualification matching result is always 100%.
- The analysis of the qualification matching at team level is not supported.
- If you want to perform the qualification matching at team level, the maximum number of team members is 5. If the number of team members exceeds 5, the matching is not performed.

Prerequisites

You have activated qualification matching at team level in Customizing under  [Basic Settings](#)  [Configure Basic Settings](#)  in the [Qualification Settings](#) area.

If this setting is inactive, the system always performs the qualification level for individual human resources, regardless of the number of resources required for the demand. If this setting is active, the system performs the qualification level at the level of individual human resources only if the number of required resources is 1. In that case, the qualification matching result list displays individual human resources.

Features

- If the demand has subitems (suboperations), the system only considers the qualification requirements specified on subitem level. If no qualification requirements have been specified at suboperation level, the system considers the qualification requirements at operation level when performing the qualification matching.

Note

If, in the underlying order, qualification requirements have been specified at operation level and at suboperation level, the system ignores the requirements at operation level.

- Similarly, the system considers the number of required resources at subitem level if this has been specified. If no requirements have been specified at suboperation level, the number of resources at operation level is considered.
- If the number of team members equals or is higher than the number of resources required to fulfill the demand, an indicator is set in the results list. In addition, the system sets the planning status for the demand as follows:
 - If the number of team members equals the required number of resources, the system considers the demand to be fully planned (status `PLAN_FULL`).
 - If the number of team members is higher than the required number of resources, the system considers the demand to be overplanned (status `PLAN_OVER`).
 - If the number of team members is lower than the required number of resources, the system considers the demand to be underplanned (status `PLAN_UNDER`).
- The system compares the required demand work with the available team capacity. The capacity of the team equals the aggregated capacity of the individual team members. That is, each team member contributes with its capacity to the overall team capacity.

Example

Team A consists of three team members. The team is available from 9:00 to 15:00. The system considers the capacity of each team member between 9:00 and 15:00 (6 hours). Therefore, the total team capacity is 18 hours (6 hours multiplied by 3).

- You can specify that the system takes into account on-call availability in addition to performing qualification matching.

Note

The number of resources at suboperation level is only considered for the qualification matching. For the scheduling of assignments at team level, the system uses the number of resources at operation level (for example, to determine the planning status for a demand).

Example

You are searching for suitable resources for a demand with two suboperations:

Level	Required Resources	Required Skills
Operation 1	3	
Suboperation 1	2	A
Suboperation 2	1	B

When you start the search for suitable resources, the system searches for a team with three team members. Two team members must have skill A and at least one team member must have skill B. These conditions must be met for the qualification matching result to be 100%.

In addition, the system compares the required demand work with the available team capacity. The availability matching result is 100% only if there is enough team capacity to fulfill the demand.

Related Information

[Employee Search for On-Call Types \[page 541\]](#)

17 Travel Times

Use

You can display, create, and change travel times for assignments in the Scheduler Workplace (SAP GUI) and in the Web-based planning board. The arrival is a period before the start of the assignment; the departure is a period after the end of the assignment.

i Note

You cannot use travel times for demands from SAP Portfolio and Project Management (Collaboration Projects).

Integration

- The system takes travel times into account when determining the resource availability. The resource is not available during the travel times. The system identifies the time between the arrival and departure periods and the actual assignment as available time.
- The system includes travel times in the aggregated overview of the utilization report.
- Relevant for demands from PM/CS (with activated backward integration): When the planning board is saved, the travel times from the assignment in SAP Multiresource Scheduling are transferred to fields in table `AFVU`. Customers can use the data in this table for their own implementation, for example, to display it in the standard PM/CS transactions.

Prerequisites

- Validated and geocoded address information must be available in SAP Multiresource Scheduling. For more information, see [Best Practices for the Use of Geographic Information \[page 631\]](#).
- In Customizing under **► Optimizer and Travel Times ► Travel Times ►**, you have defined the required settings for travel time modes and travel time calculation.
- Under **► Set Up Scheduler Workplace ► Workplace Profiles ► Define Planning Board Profile ►**, you have defined which type of calculation you want the system to use for which resource planning board profile to calculate travel times.
- For demands that are based on PM/CS orders, you can define expected travel times per demand type under **► Sources of Demand ► PM/CS Orders ► Specify Processing Times for PM/CS Order Operations (ERP) ►**. These can be used during the automatic scheduling of multiday assignments.

- You have configured the appearance of the graphical elements used to display the travel time bars and assigned them to user interface profiles:
 - For the Scheduler Workplace (SAP GUI), you do this in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►.
 - For the Web-based planning board, you do this in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#) .

i Note

For the Scheduler Workplace, you can use Business Add-In [BAI: Determine Graphical Element for Assignments](#) (/MRSS/SGU_ASSGN_ELEM) to override the settings made for the travel time bars. You can change the text displayed in the bars using Business Add-In [BAI: Determine Description and Quick Info for Assignments](#) (/MRSS/SGU_DESC_DETER).

For the Web-based planning board, you can use Business Add-In [BAI: Creation of Gantt View Variants](#) (/MRSS/SGX_GANTT_VIEW) to change the appearance of the travel time bars (for example, the bar height and the text displayed in the bars).

If you want to display travel times in the Web-based planning board, you have activated this option in the user settings under ► [Settings](#) ► [General](#) ► [Basic Settings](#) ►.

Features

- The system displays the arrival, assignment, and departure subobjects (bars) as one unit in the Gantt chart.
You cannot assign one of the subobjects to a different resource. To select objects behind the subobject, you have to expand the resource line.
- The system displays additional tabs including the travel time details and the travel route on the assignment detail screen.
- You can edit the travel times on the assignment detail screen. In the JGantt chart, you can also resize travel times in the Gantt chart using the mouse cursor. In the UI5 Gantt chart, this manual resizing is only possible for the assignment bars, but not for travel time bars or processing time bars.
- In the Scheduler Workplace, you can hide travel times by choosing .
- In the Web-based planning board, you can hide travel times by deselecting the respective checkboxes in the user settings.
- You can define collision objects for travel times (for example, if travel times overlap assignments). For more information, see [Collisions \[page 627\]](#).
- The travel distance, duration, and type are also displayed in the employee search result if travel times are active for the demand.
- The system can take travel times into account during the automatic scheduling of multiday assignments. You must activate this function in Customizing. For more information, see [Automatic Scheduling of Multiday Assignments \[page 610\]](#).

Travel Time Types

You can specify the travel time type in the user settings and in the travel time details on the assignment detail screen.

Note

In addition, a Customizing setting to specify the default travel time type is available in activity [Define Planning Board Profile](#).

You can choose between the following travel time types:

- **Concrete travel times:** The duration of a concrete travel time is exactly as long as the time required to travel from the point of departure to the target location.
If you move an assignment and the associated travel times so that one of the travel times overlaps with a break, for example, this may result in the overutilization of the employee. This is because, in the time frame where travel time and break time overlap, the capacity of the employee is reduced by both the break time and the travel time.
- **Stretched travel times:** The duration of a stretched travel time is either exactly as long as or shorter than the time required to travel from the point of departure to the target location.
If you move an assignment and the associated travel times so that one of the travel times overlaps with a break, for example, the system moves the travel time so that it starts before the break and ends after the break, respectively.
In terms of capacity, the employee is not overutilized. This is because travel time and break time no longer overlap. Similarly, if you have set up the use of capacity pots for appointment booking, the capacity in the capacity pots is reduced by the net travel time.

If you use the Optimizer for resource planning, the system automatically stretches travel times if they overlap with a period of non-availability (in accordance with the Customizing settings).

Example

An employee needs 1 hour to travel from his main location to the assignment location. The assignment starts at 13:30. The employee's lunch break is from 11:30 to 12:30. In this scenario, the employee leaves at 12:30 after his lunch break.

Travel Time Type	Travel Start	Travel End	Travel Duration
Concrete	12:30	13:30	1 h
Stretched	12:30	13:30	1 h

At the customer's request, the resource planner moves the assignment forward by 30 minutes. As a result, part of the travel time required to arrive at the assignment location falls into the employee's lunch break. The following applies:

- If the travel time is concrete, the system moves the travel time into the lunch break. In terms of capacity, the employee is overutilized.
- If the travel time is stretched, the system moves the first part of the travel time so that it is before the lunch break. The travel time continues after the break is over. As a result, the travel time starts at 11:00 and ends at 13:00, with an overall duration of 1 hour.

Travel Time Type	Travel Start	Travel End	Travel Duration
Concrete	12:00	13:00	1 h
Stretched	11:00	13:00	1 h

Activities

Creating Travel Times

On the assignment detail screen, you can create an arrival and departure period for every travel-time relevant assignment. The system displays the default trip category from Customizing and calculates the duration of the travel time based on the trip category and distance.

Changing Travel Times

- If you can change the assignment to which the travel times belong, you can also change the travel times. You can specify the new travel times on the assignment detail screen. In the JGantt chart, you can also resize the travel time bars in the Gantt chart using the mouse cursor.
- If you change a value on the assignment detail screen (such as the duration of the arrival period) and confirm your entry, the system adjusts the dependent values (such as the start of the departure period).

i Note

If you have activated the *Travel Times Without Gaps* travel time mode in Customizing, you cannot change the *Arrival End* and *Departure Start* fields manually. The system ensures that the end of the arrival period matches the assignment start and the start of the departure period matches the assignment end.

- If you change the travel times manually, make sure that you deactivate the automatic travel time calculation on the *Travel Time Details* tab for this assignment. You can reactivate the automatic travel time calculation by selecting the relevant checkbox again.
- Changes to travel times are logged by the system in the change documents for the assignment.

18 Processing Times

Use

You can display processing times for demands that are based on PM/CS orders. Processing times include the preparation and wrap-up activities needed for an assignment. The preparation phase might include activities such as the assembly of tools. The wrap-up phase might include activities such as cleaning up the workplace or disassembling tools.

Prerequisites

- You have activated the use of processing times at planning board profile level in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.
- You have defined the expected processing times per demand type in Customizing under ► [Sources of Demand](#) ► [PM/CS Orders](#) ► [Specify Processing Times for PM/CS Order Operations \(ERP\)](#) ►.
- You have configured the appearance of the graphical elements used to display the processing time bars and assigned them to user interface profiles:
 - For the Scheduler Workplace (SAP GUI), you do this in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►.
 - For the Web-based planning board, you do this in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define Profiles of the Web-Based User Interface](#) ►.

i Note

For the Scheduler Workplace, you can use Business Add-In [BAdI: Determine Graphical Element for Assignments](#) (/MRSS/SGU_ASSGN_ELEM) to override the settings made for the processing time bars. Furthermore, you can change the text displayed in the bars using Business Add-In [BAdI: Determine Description and Quick Info for Assignments](#) (/MRSS/SGU_DESC_DETER).

For the Web-based planning board, you can use Business Add-In [BAdI: Creation of Gantt View Variants](#) (/MRSS/SGX_GANTT_VIEW) to change the appearance of the processing time bars (for example, the bar height and the text displayed in the bars).

- If you want to display processing times in the Web-based planning board, you have activated this option in the user settings under ► [Settings](#) ► [General](#) ► [Basic Settings](#) ►.

i Note

Irrespective of whether or not you have activated the display of processing times in the user settings, processing times are always displayed for the assignment if processing times exist **and** if you have activated the display of travel times.

Features

- In the Gantt chart, processing times are displayed as additional bars between the travel time bars and the assignment bar. In addition, the system displays the [Processing Time Details](#) tab on the assignment detail screen.
- When you create an assignment for a demand, the system uses the expected processing times that are defined in Customizing per demand type as default values for the planned processing times.
- You can edit the processing times for an assignment on the assignment detail screen. In the JGantt chart, you can also resize processing times in the Gantt chart using the mouse cursor. In the UI5 Gantt chart, this manual resizing is only possible for the assignment bars, but not for travel time bars or processing time bars.
- The system can consider processing times during the automatic scheduling of multiday assignments. You must activate this function in Customizing. For more information, see [Automatic Scheduling of Multiday Assignments \[page 610\]](#).

Note

Processing times are considered as service times by the Optimizer. Therefore, preparation and wrap-up times might extend over static and dynamic breaks. After the optimization run, the actual assignment work might start or end in a break.

19 Teams

Use

Teams are defined in the long term by grouping personnel resources in the [master data \[page 51\]](#). As a resource planner you can also create teams at short notice in the planning board or by using transaction /MRSS/PLBTEAM. These teams can contain personnel resources from different groups. You can use this function to create teams in the planning board that, through collaboration, are particularly well suited to carry out the service tasks.

You can create assignments and time allocations for teams. You can also filter and search for team resources.

i Note

The team definition and the functions described here are not relevant for the *My Assignments* app. The app defines a team based on the implementation of Business Add-In *BAdI: Determination of Team Colleagues for My Assignments App* (/MRSS/RAL_RES_SELECT). For more information, see [App Implementation: My Assignments \[page 735\]](#).

Prerequisites

- You have activated the display of teams in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► in Customizing activities *Define Planning Board Profile* and *Define User Interface Profiles (SAP GUI)*, *Define User Interface Profiles (JGantt Chart)*, or *Define User Interface Profiles (UI5 Gantt Chart)*.
- In Customizing under ► *Basic Settings* ► *Configure Basic Settings* ► in the *Team Settings* area, you have configured how the system creates assignments for teams, including the following:
 - Whether assignments are created at team level or at the level of the individual team member
 - How the availability of the team is defined
 - Whether team members can have individual validity periods or whether the team validity period applies to all team members
- If you want to display collisions at team level, you have made the required settings in Customizing under ► *Set Up Scheduler Workplace* ► *Collision Settings* ►.
- You have assigned the required time allocation types to team resources. You do this in Customizing for *SAP Multiresource Scheduling* under ► *Basis* ► *Assign Time Allocation Types to Resource Types* ►.

Features

- Team resources are indicated by an icon in the planning board. By default, the  icon is used in the SAP GUI and the icon  *Team* is used in the UI5 Gantt chart.
- As well as the validity for the team as a whole, you can specify a separate membership period for each individual team member. You can assign a person to multiple teams or to the same team more than once, as long as the individual periods do not overlap.
- You can sort the team member table by name, personnel number, start date, or end date.

i Note

You can implement the Business Add-In /MRSS/SGU_SORT_RESOURCES_SEQU to configure your own specific sort criteria. The BAdI is available in Customizing for [SAP Multiresource Scheduling](#) under [► Enhancements](#) [► Scheduler Workplace](#) [► BAdI: Sorting of Resources](#) [►](#). This BAdI is relevant for the Scheduler Workplace (SAP GUI) only.

- You can apply the optimization function to teams. For more information, see [Optimizer for Resource Planning \[page 617\]](#).
- Depending on the setting made in Customizing, you can create assignments at team level, that is, only one assignment is created. Alternatively, you can distribute the assignment to each individual team member, that is, identical assignments are created for each team member.

i Note

If you create an assignment for a team, the system checks whether the number of required resources and the number of team members match. If you have activated the display of collisions at team level and the number of required resources is higher than the number of team members, a collision object is displayed in the team row.

Assignments at Team Level

- You create assignments for a team at a specific point in time. You can create the assignment at team level or assign it directly to a personnel resource in the team. You can move the assignment on the planning board using drag & drop between the rows at team level and the rows of a personnel resource.
- You can plan assignments at team level purely on a capacitive basis. In this case, you have to set the [Capacitive Planning](#) indicator when you create the team. For these teams, you cannot select the start and end time of the assignment; it is set to the start and end time of the team. Note that you cannot subsequently change the [Capacitive Planning](#) indicator.

i Note

You can use capacitive planning at team level only in the Scheduler Workplace (SAP GUI), but not in the Web-based planning board.

- The availability is calculated from the validity of the team, whereby time allocations that indicate an absence reduce the level of availability.

Assignments at Resource Level

- If you create an assignment for a team, each team member receives a separate assignment with the same properties. Once you have created the assignments, they are independent of one another and can be

processed separately. The team itself does not have an assignment. With this variant, it is therefore not possible to allocate an existing assignment to a team.

- If you create an assignment for a team, the start and end time of the assignment must always be within the team limits. This limit is also relevant for interval planning (demands with a date rule).
- If you create a stretched assignment for a team, the system checks the availability of each team member. The assignments are created only for the available team members. Error messages are issued for any team members who are not available. You can then improve the situation manually (for example, by creating a time allocation that represents availability).
- If you add members to or delete members from a team, the system does not automatically create or delete the corresponding assignments.
- For the period that they belong to the team, objects that are displayed in the planning row of the resource are also displayed in the respective team member row below the team.
- If you want to plan team members capacitively or analyze time data, you must do so outside the team. To do this, expand the planning rows of the resource.

Qualification Matching at Team Level

You can activate qualification matching at team level. With this Customizing setting in place, the system performs the qualification matching at team level if the number of resources required to fulfill the demand exceeds one. In this case, the qualification matching is only performed for individual resources if the demand requires exactly one resource.

i Note

If you want to perform qualification matching at team level, the maximum number of team members is 5. If the number of team members exceeds 5, the qualification matching cannot be performed for the team.

For more information, see [Qualification and Availability Matching at Team Level \[page 562\]](#).

More Information

- [Creating and Editing Teams in the Scheduler Workplace \[page 573\]](#)
- [Creating and Editing Teams in the Web-Based Planning Board \[page 575\]](#)
- [Qualification and Availability Matching at Team Level \[page 562\]](#)

19.1 Creating and Editing Teams in the Scheduler Workplace

To **create teams**, proceed as follows:

1. Choose ► **Resources** ► **Create Team** . You can also select a resource in the resource list and choose the respective context menu entry. The team detail screen appears.
2. Enter the team details, for example, a team name and the team validity period.

3. Add employees to the team. You can add employees from the current resource planning node as well as resources from a different resource planning node. The following applies:

- To assign a resource from the current resource planning node, choose .
- To assign a resource from a different resource planning node, choose .
- You can add a resource from the resource list to the table in the team detail screen using drag and drop. You can also assign resources to teams by dragging and dropping the resource from the resource list onto the team row in the resource list.

i Note

To delete a resource from one team for a certain period of time and assign it to another, you can move it directly from the first team to the second one using drag and drop. As soon as you drop the resource on the second team, the detail screen for the team is displayed showing the new resource.

By default, the system uses the current time as the start date and the end of the team assignment as the end date to define the specific assignment period of the resource for the new team. You can adjust this period for the resource if necessary. The employee is then removed from the original team and assigned to the target team for the duration of the specific period.

- If it has been defined in Customizing that the validity of team members is independent of the validity of the team as a whole, you can define for each team member how long the resource is part of the team.
- If the required Customizing setting is in place for the current planning board profile, you can specify one team member or multiple team members to be the person responsible in the team.

i Note

Although you may define multiple persons responsible in the team, only one person responsible may exist at a time. In addition, a resource may belong to multiple teams, but each resource can only be the person responsible in one team at a time.

i Note

The system uses the address of the person responsible in the team to calculate travel times. You can also specify an alternative address. To do so, select the team and choose [Alternative Address](#) from the context menu.

- In the resource row for each team member, a bar is displayed indicating the duration of the team membership.
- You can expand the team row to display the individual team members.

4. Choose [Create](#).

To **edit a team**, double-click on the team to call up the team detail screen or select the team in the resource list and choose the respective context menu entry.

To **delete a team**, select the team and choose the respective context menu entry.

19.2 Creating and Editing Teams in the Web-Based Planning Board

Prerequisites

You have activated the following user settings:

- The display of teams and individual team members
- The display of team-related functions (toolbar buttons and context menu entries)

For more information, see [User-Specific Configuration \[page 184\]](#).

Procedure

To **create a team**, proceed as follows:

1. Select a resource in the resource list and choose [Create Team](#) in the context menu.
2. Enter the team details, for example, a team name and the team validity period.
3. Add employees to the team. To do so, choose [Add Resource](#). You can choose from all resources that are currently loaded in the planning board. The following applies:
 - By default, the system uses the current time as the start time of the team validity period and the planning node of the resource you selected in the resource list.
 - If it has been defined in Customizing that the validity of team members is independent of the validity of the team as a whole, you can define for each team member how long the resource is part of the team.
 - If the required Customizing setting is in place for the current planning board profile, you can specify one team member or multiple team members to be the person responsible in the team. The system uses the address of the person responsible in the team to calculate travel times.

i Note

Although you may define multiple persons responsible in the team, only one person responsible may exist at a time. In addition, a resource may belong to multiple teams, but each resource can only be the person responsible in one team at a time.

i Note

The team address is only displayed if you have activated the display of travel times in the user settings. You cannot change this address.

- In the resource row for each team member, a bar is displayed indicating the duration of the team membership.
 - You can expand the team row to display the individual team members. You can directly navigate to the resource row for a specific team member by choosing [Go to Resource Row](#) in the context menu. This may be useful if you want to see more resource details.
4. Choose [Apply](#).

To **edit a team**, select a team in the resource list and choose [Additional Details](#) in the context menu. You can also call up the [Edit Team](#) screen by selecting the team link bar that is displayed in the resource row for each team member and choosing [Edit Link](#) in the context menu.

To **delete a team**, choose [Delete Team](#) in the context menu.

19.3 Qualification and Availability Matching at Team Level

Use

When searching for suitable resources for a demand, the system performs the qualification matching at team level if the number of resources required to fulfill the demand exceeds one. In this case, the qualification matching is only performed for individual resources if the demand requires exactly one resource.

The qualification matching at team level applies to standard qualifications and to structured SAP Multiresource Scheduling qualifications. In both cases, the availability is determined by comparing the number of resources required to fulfill the demand with the number of team members.

Restrictions

- This function is only available in the Scheduler Workplace (SAP GUI).
- When SAP Multiresource Scheduling qualifications are active, the system only considers the structured qualifications for the qualification matching. Unstructured qualifications are not considered; in that case, the qualification matching result is always 100%.
- The analysis of the qualification matching at team level is not supported.
- If you want to perform the qualification matching at team level, the maximum number of team members is 5. If the number of team members exceeds 5, the matching is not performed.

Prerequisites

You have activated qualification matching at team level in Customizing under  [Basic Settings](#)  [Configure Basic Settings](#)  in the [Qualification Settings](#) area.

If this setting is inactive, the system always performs the qualification level for individual human resources, regardless of the number of resources required for the demand. If this setting is active, the system performs the qualification level at the level of individual human resources only if the number of required resources is 1. In that case, the qualification matching result list displays individual human resources.

Features

- If the demand has subitems (suboperations), the system only considers the qualification requirements specified on subitem level. If no qualification requirements have been specified at suboperation level, the

system considers the qualification requirements at operation level when performing the qualification matching.

i Note

If, in the underlying order, qualification requirements have been specified at operation level and at suboperation level, the system ignores the requirements at operation level.

- Similarly, the system considers the number of required resources at subitem level if this has been specified. If no requirements have been specified at suboperation level, the number of resources at operation level is considered.
- If the number of team members equals or is higher than the number of resources required to fulfill the demand, an indicator is set in the results list. In addition, the system sets the planning status for the demand as follows:
 - If the number of team members equals the required number of resources, the system considers the demand to be fully planned (status `PLAN_FULL`).
 - If the number of team members is higher than the required number of resources, the system considers the demand to be overplanned (status `PLAN_OVER`).
 - If the number of team members is lower than the required number of resources, the system considers the demand to be underplanned (status `PLAN_UNDER`).
- The system compares the required demand work with the available team capacity. The capacity of the team equals the aggregated capacity of the individual team members. That is, each team member contributes with its capacity to the overall team capacity.

❖ Example

Team A consists of three team members. The team is available from 9:00 to 15:00. The system considers the capacity of each team member between 9:00 and 15:00 (6 hours). Therefore, the total team capacity is 18 hours (6 hours multiplied by 3).

- You can specify that the system takes into account on-call availability in addition to performing qualification matching.

i Note

The number of resources at suboperation level is only considered for the qualification matching. For the scheduling of assignments at team level, the system uses the number of resources at operation level (for example, to determine the planning status for a demand).

Example

You are searching for suitable resources for a demand with two suboperations:

Level	Required Resources	Required Skills
Operation 1	3	

Level	Required Resources	Required Skills
Suboperation 1	2	A
Suboperation 2	1	B

When you start the search for suitable resources, the system searches for a team with three team members. Two team members must have skill A and at least one team member must have skill B. These conditions must be met for the qualification matching result to be 100%.

In addition, the system compares the required demand work with the available team capacity. The availability matching result is 100% only if there is enough team capacity to fulfill the demand.

Related Information

[Employee Search for On-Call Types \[page 541\]](#)

19.4 Person Responsible in the Team

Use

You can specify one employee as the responsible person in each team. This indicator can be used for example for the integration of SAP Multiresource Scheduling with mobile devices if you want just one employee in each team to receive information using the mobile device.

Prerequisites

You have activated the *Team Responsible* function in Customizing for *SAP Multiresource Scheduling* under [► Set Up Scheduler Workplace ► Workplace Profiles ► Define Planning Board Profile ►](#).

Features

- You specify a responsible person when you define the team in the resource planning board. A column is available next to the member list in the team details for you to do this.
- If you create a team without a responsible person, the system automatically selects the first resource listed in the team as the responsible person.

19.5 Team Maintenance Report

Use

You use this report to create, change, or delete teams without having to call the planning board.

Prerequisites

You have created a resource planning node to which you want to assign the teams.

Activities

To open this report, call transaction `/MRSS/PLBTEAM`.

- In the *Resource Planning Node* field, enter the resource planning node for which you want to create, change, or delete a team.
- In the *Period for Resources* field, enter a validity period within which the team is to be created, changed, or deleted.

The system displays the teams as an output list that has been maintained for the specified period for which the report is executed.

20 N.N. Resources

Use

You can use N.N. resources as placeholders to help estimate the type and number of resources needed in resource planning. This can be useful if the number of personnel resources required to fulfill a particular demand is not yet available in SAP Multiresource Scheduling or if you want to represent external service providers in the planning board.

Apart from some limitations, you can use N.N. resources for resource planning in the same way as personnel resources. Each N.N. resource has the capacity of one personnel resource.

Limitations

- You cannot assign employee profiles or qualifications to N.N. resources.
- N.N. resources do not have an address.
- The system does not create splits for assignments that involve N.N. resources. Therefore, the backward integration of splits for demands originating from PM/CS or PS is not possible.
- The backward integration of N.N. resource staffing into cProjects is not possible.
- You cannot use the appointment booking function for N.N. resources.

Features

- You can create N.N. resources using the Web-based [N.N. Resource Maintenance](#) application.
- You can display and edit N.N. resource details in the Scheduler Workplace and in the Web-based planning board.
- You can create assignments and time allocations for N.N. resources using the Scheduler Workplace and the Web-based planning board.

i Note

You can only create time allocations in SAP Multiresource Scheduling. N.N. resources cannot have time allocations that are related to HR infotypes.

- N.N. resources are considered in the resource utilization report (`/MRSS/SG_REPORT_MAIN`), in the POWL reports for the Web-based resource management and in the [Capacity and Demand Overview](#) report (`/MRSS/SG_CAPACITY_REPORT`).

i Note

In Customizing for SAP Multiresource Scheduling under ► [Settings for Capacity and Demand Overview](#) ► [Configure Planning Node Capacity Calculation](#) , you can specify how the planning node capacity is calculated. If the capacity calculation is based on the capacity of individual human resources, in addition to HR resources (or business partners), the system also takes into account the capacity of N.N. resources and teams. However, in the dispatching view, the system does not display the N.N.

resources and teams when you expand the respective planning node row in the dispatching Gantt chart.

Process

The overall process flow can be as follows:

1. You create N.N. resources using the Web-based [N.N. Resource Maintenance](#) application.
2. You transfer the newly created N.N. resources and their availability to the SAP Multiresource Scheduling database.
You can now load the N.N. resources into the planning board based on the planning node or the resource number.
3. You create assignments and time allocations for N.N. resources in the planning board. You can also display and edit the N.N. resource details.
4. You change the details for a particular N.N. resource (for example, the assigned planning node or the daily working times) in the Web-based [N.N. Resource Maintenance](#) application. Once you are done, you transfer the resource to the SAP Multiresource Scheduling database again.
5. You delete N.N. resources that are no longer needed.

More Information

- [Creating N.N. Resources \[page 581\]](#)
- [Deleting N.N. Resources \[page 584\]](#)

20.1 Creating N.N. Resources

Prerequisites

- You have specified a number range for N.N. resource numbers in Customizing for [SAP Multiresource Scheduling](#) under ► [Basic Settings](#) ► [Define Number Range for N.N. Resource Numbers](#) ►.

i Note

The N.N. resource numbers must have 8 digits. Make sure that the number range used for N.N. resources does not overlap with the number range used for HR resources.

- In Customizing for SAP Multiresource Scheduling under ► [Basis \(Time Allocations\)](#) ► [Assign Time Allocation Types to Resource Types](#) , you have assigned the required time allocation types to the [N.N. Resource](#) resource type.

Context

Before you can use N.N. resources for resource planning in SAP Multiresource Scheduling, you must transfer them to the SAP Multiresource Scheduling database. To create N.N. resources, you use the Web-based [N.N. Resource Maintenance](#) application (`/MRSS/WD_NN_RES_MAINT`). To transfer the resources to the SAP Multiresource Scheduling database, you can use this application or you can use a report provided for this purpose.

Procedure

Creating N.N. Resources

1. Call up the [N.N. Resource Maintenance](#) application.
2. Choose [New Resource](#) in the [N.N. Resource Details](#) screen area.

The system automatically adds a new row in the [N.N. Resources](#) table and provides a temporary resource number.

3. Enter the following details for the resource:
 - A planning node ([Object ID](#) field)
Note that you can only assign one planning node to the N.N. resource.
 - (Optional) A resource name
If you do not enter a resource name, the system automatically provides a name as determined by Business Add-In [BAId: Determination of N.N. Resource Attributes](#) (`/MRSS/RESOURCE_ATTRIBUTES`). A default implementation is provided for this BAId.
 - A daily start and end time
Specify at which time the working day of the N.N. resource starts and ends.

i Note

The daily start and end times you specify here are valid for all working days. To define exceptions, for example, working days with deviating start and end times, you must create a time allocation for the resource in the planning board.

- A time zone
 - A factory calendar
The system uses the factory calendar to determine the working days and non-working days and the availability of the resource.
 - The resource validity
 - (Optional) Whether or not the resource is confidential
4. If you want to create several N.N. resources with similar attributes (for example, the same planning node or resource validity), select the resource whose details you want to copy and choose [Copy Resource](#).

The system adds a new row and provides a new temporary resource number. You can adjust the resource details as required for the new resource.

5. Choose [Save](#).

The system converts the temporary resource number into an internal resource number and saves the newly created resource in a database table.

Transferring N.N. Resources to the SAP Multiresource Scheduling Database

After you have created and saved the N.N. resources, you must transfer them to the SAP Multiresource Scheduling database to make them available in the Scheduler Workplace and in the Web-based planning board. You have the following options:

6. You can transfer individual resources using the [N.N. Resource Maintenance](#) application. To do so, proceed as follows:
 1. Select the resource that you want to transfer and choose [Transfer Resource](#). A dialog box appears.
 2. Enter the time frame during which the resource shall be available for resource planning and confirm your entries. Note that you can only transfer the resource within the resource validity period.

i Note

To change the time frame, that is, the resource availability, for existing resources, call up the resource in the [N.N. Resource Maintenance](#) application and transfer them again to SAP Multiresource Scheduling.

7. You can transfer multiple resources including their availability at once using the [N.N. Resource Transfer](#) report (/MRSS/NN_RES_AVAIL_MAINTAIN).

For example, you can transfer all N.N. resources that are assigned to a given planning node.

Results

You have created N.N. resources according to your requirements. The resources are available for resource planning in SAP Multiresource Scheduling and are displayed in the Scheduler Workplace and in the Web-based planning board.

i Note

If you have transferred a newly created N.N. resource to SAP Multiresource Scheduling and you want to display the resource in your current planning board session, you must perform a complete refresh to make the resource available in the planning board.

Next Steps

[Deleting N.N. Resources \[page 584\]](#)

20.2 Deleting N.N. Resources

Use

You can delete N.N. resources if they are no longer needed. You can mark the resource for deletion in the [N.N. Resource Maintenance](#) application. When a N.N. resource has been marked for deletion, it is no longer available in the planning board, but still exists in the SAP Multiresource Scheduling database. To physically delete the resource and all resource-related data from the database, you must delete it using the [Deletion of Resources](#) report (/MRSS/CUP_RESOURCE).

Prerequisites

You must be authorized to delete data in SAP Multiresource Scheduling. For more information, see [Deletion of SAP Multiresource Scheduling Data \[page 963\]](#).

Procedure

Proceed as follows:

1. Delete all assignments that exist for the resource you want to delete. You can do so by manually deleting the assignments in the planning board or by assigning them to other resources.
Alternatively, you can use the [Deletion of Demands and Assignments](#) report (/MRSS/CUP_DEMAND_ASSIGNMENT).
2. Call up the Web-based [N.N. Resource Maintenance](#) application. Depending on whether you want to delete individual or multiple resources, enter the resource number or the planning node or the time frame in the [Selection Options](#) screen area and choose [Display](#).
The resources are displayed in the [N.N. Resource Details](#) screen area.
3. Select the resource in the [N.N. Resources](#) table and choose [Delete Resource](#).
The system marks the resource for deletion and deletes all time allocations that may exist for the resource.
4. Choose [Save](#).
The resource is no longer available in the planning board.
5. To physically delete the resource and all resource-related data from the database, execute the [Deletion of Resources](#) report (transaction code [/MRSS/DELETE_RESOURCE](#)). For more information about how to run the report, see the report documentation in the system.

Result

The N.N. resource is no longer available for resource planning in the Scheduler Workplace and in the Web-based planning board. The resource data is physically deleted from the SAP Multiresource Scheduling database.

More Information

- [Deletion of Demands and Assignments \[page 964\]](#)
- [Deletion of Resources \[page 967\]](#)

21 Tools

Use

Tool resources such as a hydraulic platform, a measuring device, or a combination wrench are required to carry out orders. You as the resource planner assign a tool required to carry out a task to a production resource from the order. Tool resources can be assigned to demands from the areas of Plant Maintenance (PM) and Customer Service (CS).

Various functions are provided for tool resources. Like for other resource types, you can create assignments and time allocations for tools. You can also filter and search for tool resources.

Prerequisites

- You have entered the required master data for the tools. For more information, see [Master Data \[page 51\]](#).
- You have specified a default value for the control key of the production resource/tool in the material master data. Alternatively, you can specify a default value in Customizing for SAP Multiresource Scheduling under [▮ Sources of Demand ▸ PM/CS Orders ▸ Define Default Values for Production Resources and Tools \(ERP\) ▮](#).
- You have created a time allocation type for tools and assigned this to the relevant resource type. You do this in Customizing for [SAP Multiresource Scheduling](#) under [Basis](#).
- You have activated the link function in Customizing under [▮ Set Up Scheduler Workplace ▸ Workplace Profiles ▸ Define Planning Board Profile ▮](#).

Features

- Tool resources are indicated by an icon in the resource list.
- You can create concrete assignments and time allocations for tool resources.
- You can create links between a tool and a personnel resource, between a tool and a team, and between a tool and an N.N. resource.
- The availability of a tool resource is based on the specified tool validity period. By default, a tool is available for the entire working day and also on weekends.
- The resource list in the planning board displays all of the tool resources that are required for the selected production resource and tool in the worklist. These tools are available for planning resources for the selected groups.

i Note

The *Planning Board for Demands* transaction (/MRSS/PLBOSRV) is an exception: In this case, the resource list of the planning board contains all tool resources that are assigned to the selected demands as assignments.

Activities

- You create tool demands by assigning a tool resource to a demand. This can be useful, for example, if in the SAP ERP system no production resource/tool (PRT) was specified for the order on which the demand is based.

i Note

In SAP ERP, the tool demand corresponds to a material in the PRT category, while the tool resource corresponds to an equipment item.

- You can create links between a tool resource and a personnel resource (or a team or an N.N. resource). The system reserves the tool resource for the duration of the link period. The tool resource is displayed as a subobject of the personnel resource and the link is represented as a bar in the resource row and in the tool row.

The following applies:

- When you assign the personnel resource (team, N.N. resource) to a demand that is based on an order from Plant Maintenance (PM) and Customer Service (CS), the system automatically creates an assignment for the tool resource as well.

i Note

In the link period, you can also assign the personnel (team, N.N.) resource to demands that do not have tools (for example, demands from SAP CRM). If you do so, the system creates an assignment for the personnel resource, but not for the tool.

- When you move the assignment for one of the resources within the link duration, the system moves the assignment for the linked resource accordingly.
- When you move the assignment for the personnel resource (team, N.N. resource) to a position outside the link duration, or when you delete the assignment, the system deletes the corresponding assignment for the linked tool resource.

i Note

Although the assignments are dependent on each other, you can process them separately if required.

More Information

- [Using Tools in the Scheduler Workplace \[page 588\]](#)
- [Using Tools in the Web-Based Planning Board \[page 589\]](#)

21.1 Using Tools in the Scheduler Workplace

Use

You can create assignments and time allocations for tools. You can also create a tool demand by assigning a tool resource to a demand.

Prerequisites

(Optional) In the user settings under ► [Extras](#) ► [Settings ...](#) ► [Response](#) ►, you have specified whether you want to load tools based on the planning node or based on existing tool demands.

Procedure

Creating Tool Demands

You can create tool demands by assigning a tool resource to a demand. Proceed as follows:

1. Select a demand in the item worklist and choose [Assign Tool](#) in the context menu.

Note

Alternatively, you can drag and drop the demand onto the tool resource.

A dialog box appears.

2. Make entries as required in the following fields:
 - **Tool:** You can enter a tool demand in this field. In SAP ERP, the tool demand corresponds to a material in the PRT category.
 - **Plant:** You must enter a maintenance planning plant in this field.
 - **Load Equipment:** In this field, you can enter a tool resource that the system is to add to the resource list of the planning board. In SAP ERP, the tool resource corresponds to an equipment item. If you have not entered a material in the **Tool** field, the system derives the material from the tool resource and assigns a tool demand to the demand of the personnel resource. The selected equipment item can be rejected using BAdI /MRSS/SGU_EQUI_AUTH (Authorization Check for Equipment).
3. Confirm your entries.

The system creates a tool demand.

Creating Assignments and Links for Tool Resources

You can create assignments for tools in the same way as for personnel resources.

You can also create a link between the tool resource and a personnel resource (team, N.N. resource) first. If you want to do so, proceed as follows:

1. Select the tool resource. In the application menu, choose ► [Resources](#) ► [Create Link](#) ►.
A dialog box appears.
2. Specify the personnel resource, team, or N.N. resource that you want to assign. In addition, you must specify a start and end date and a duration.
3. Confirm your entries.
The system creates a link between the tool and the specified resource. The tool is reserved for the duration that was specified for the link.
4. Select a demand in the item worklist and create an assignment. You have various options to do so. For more information about how to create assignments in the Scheduler Workplace, see [Creating Assignments \[page 134\]](#).

Creating Time Allocations for Tool Resources

You can create time allocations for tool resources. To do so, you have the following options:

- Select the tool resource in the resource list and choose ►► [Edit](#) ► [Create Time Allocation](#) ► in the application menu.
- Select the tool resource and choose the [Time Allocation](#) pushbutton in the application toolbar.

21.2 Using Tools in the Web-Based Planning Board

Use

You can create assignments and time allocations for tools. You can also create a tool demand by assigning a tool resource to a demand.

Prerequisites

(Optional) In the user settings under ►► [Settings](#) ► [General](#) ► [Basic Settings](#) ►, you have specified whether you want to load tools based on the planning node or based on existing tool demands.

Features

Depending on the view you choose, various functions are available for tool resources in the Web-based planning board.

- You can display tool resources in the list view and in the resource view.
- You can display, edit, and create assignments for tool resources in the resource view.
- You can create tool demands in the resource view, the list view, and the demand view.

Procedure

Creating Tool Demands

You can create tool demands from the *Demands* screen area in the resource view, the list view, and the demand view. Proceed as follows:

1. Select a demand and choose *Assign Tool*.
A dialog box appears.
2. Enter the tool resource you want to assign. Alternatively, you can enter a material and plant.
3. Choose *Assign*.
The system creates a tool demand.

Creating Assignments and Links for Tool Resources in the JGantt Chart

You create assignments for tools in the same way as for personnel resources.

You can also create a link between the tool resource and a personnel resource (team, N.N. resource) first. If you want to do so, proceed as follows:

1. Select the tool resource and choose *Create Tool Link* from the context menu.

i Note

Alternatively, you can draw the tool link directly in the tool row. If you want to use this option, choose *Tool Link* in the *Drawing Selection* dropdown menu before you start drawing the link or simply choose the *Tool Link* tab in the dialog box that opens.

A dialog box appears.

2. Specify the personnel resource, team, or N.N. resource that you want to assign to the respective tool. In addition, you must specify a start and end date and a duration. Confirm your entries.
The system creates a link between the tool and the specified resource. The tool is reserved for the duration that was specified for the link.
3. Select a demand in the *Demands* screen area and choose *Draft*.
The system creates a draft version of the assignment in the draft row of the Gantt chart.

i Note

In contrast to the creation of tool demands and assignments in the Scheduler Workplace, you cannot drag and drop an assignment draft or a demand item onto the tool resource name in the tool row.

4. Drag and drop the draft onto the bar indicating the tool link and edit the assignment further if necessary.

i Note

Alternatively, you can also draw the assignment directly on the bar indicating the tool link.

The system creates a tool demand as well as an assignment each for the personnel resource and for the tool resource.

Creating Assignments and Links for Tool Resources in the UI5 Gantt Chart

You create assignments for tools in the same way as for personnel resources.

You can also create a link between the tool resource and a personnel resource (team, N.N. resource) first. If you want to do so, proceed as follows:

1. Select the tool resource and choose *Create Tool Link* from the context menu.

i Note

Alternatively, choose *Tool Link* in the *Creation Mode* dropdown menu before double-clicking at the desired position or switch to the *Tool Link* tab in the dialog box after double-clicking.

A dialog box appears.

2. Specify the personnel resource, team, or N.N. resource that you want to assign to the respective tool. In addition, you must specify a start and end date and a duration. Confirm your entries.
The system creates a link between the tool and the specified resource. The tool is reserved for the duration that was specified for the link.
3. Select a demand in the *Demands* screen area and double-click at the desired position in the Gantt chart row of the tool.
4. Edit the assignment further if necessary.
The system creates a tool demand as well as an assignment each for the personnel resource and for the tool resource.

Creating Time Allocations for Tool Resources in the JGantt Chart

You can create time allocations for tool resources in the Gantt chart shown in the resource view. To do so, you have the following options:

- You can draw the time allocation directly in the resource row.
- You can select the tool resource in the resource list and choose .

Creating Time Allocations for Tool Resources in the UI5 Gantt Chart

You can create time allocations for tool resources in the Gantt chart shown in the resource view. To do so, you have the following options:

- You can create the time allocation by double-clicking at the desired position in the resource row.
- You can select the tool resource in the resource list and choose  *Create Time Allocation*.

22 Parts Availability Check

Use

For demands that are based on orders from the areas of Customer Service (CS) and Plant Maintenance (PM), you can check whether the parts required to fulfill the demand are available. The SAP Multiresource Scheduling system carries out the parts availability check using the same rules as the [▶ Availability ▶ Check Stock Material ▶](#) function in the PM/CS order.

You have the following options:

- You can trigger the parts availability check in the Scheduler Workplace (SAP GUI) and in the Web-based planning board.
- If you are working in the Scheduler Workplace (SAP GUI), you can check the parts availability as part of the employee search.
- You can check the parts availability regularly using a batch report.

i Note

In SAP Multiresource Scheduling, the term “parts” is used as a synonym for materials from the areas of Plant Maintenance and Customer Service.

Prerequisites

- Make sure that the required Customizing settings are in place. For more information, see [Setting Up the Parts Availability Check \[page 595\]](#).
- If you want to trigger the parts availability check in the Web-based planning board, you may have to activate the relevant user settings first:
 - You activate the display of the context menu entry under [▶ Settings ▶ Gantt Settings ▶ Toolbar & Context Menu ▶](#).
 - You activate the display of the button in the [Demands](#) screen area under [▶ Settings ▶ General ▶ Table Functions ▶](#).

Features

Checking the Parts Availability in the Planning Board

- You can trigger the parts availability check by choosing the relevant entry from the context menu. The entry is available for single demands (item level) and for complex demands (header level).

i Note

The system performs the check at header level. That is, if you trigger the check for a single demand, the system performs the check for the associated complex demand.

- If you are working with the Web-based planning board, in addition to using the context menu for a demand, you can trigger the parts availability check by choosing the relevant button in the [Demands](#) screen area.
- The parts availability check covers both stock material and non-stock material. The demand status indicates whether sufficient stock material is available for the demand and whether an availability check has been carried out:
 - `MAT_FULLY`: The required parts are available.
 - `MAT_NCHECKED`: The parts availability was not checked.
 - `MAT_NONE`: The required parts are not available.

The status refers to the availability of stock material only, that is, materials that are relevant for inventory management. If the status in the planning board changes due to an availability check and backward integration is active, the system updates the current status in the PM/CS order when you save the planning board.

The system determines the check period from the data of the demand. Assignment data is not taken into account.

- If the system status changes as a result of the availability check, the system locks the demand after the check and flags it for a new availability check when you save your data.
- Depending on the settings in the standard PM/CS system, a binding reservation may not be created for parts until the order is released. In this case, the system regards the part as available for other orders too.

Results Display

The system displays the detailed check results in a separate window. This results table includes the following information:

Column	Contains the Following Information
<i>Availability Checked</i>	This column indicates whether the system could perform a new availability check. If the checkbox is selected, the check was successful. If it is not selected, the check could not be carried out. The results then refer to an older check. The check is canceled in the following cases, for example: • If the demand is locked by another user or session i Note The demand is also locked if you have already carried out a parts availability check, since this changes the system status of the demand. If you want to check the parts availability for various items of a complex demand in succession or check the parts availability for a demand item more than once, the demand may be locked. In this case, you first have to save before you can carry out a new check. • If an assignment has been created but not saved yet
<i>Availability Status</i>	The system shows the availability status using traffic lights: • Green symbol : The required parts are available in a sufficient quantity on the earliest possible start date. • Red symbol : The required parts are not available in a sufficient quantity on the earliest possible start date. • Yellow symbol : The check has not been carried out yet or has not been updated.
<i>Text</i>	This column may contain further comments explaining the result of the check.
<i>Expected Availability Date</i>	If the result of the check is negative, the system also displays the date when the unavailable part will probably be available again.

The results display also includes information from the standard availability list from the order.

Checking the Parts Availability as Part of the Employee Search

If you are working in the Scheduler Workplace (SAP GUI), you can check the parts availability as part of the employee search. For more information, see [Employee Search with Integrated Parts Availability Check \[page 543\]](#).

Checking the Parts Availability for Multiple Demands

You can check the parts availability for multiple demands by running a (batch) report. For more information, see [Parts Availability Check for Multiple Demands \[page 597\]](#).

22.1 Setting Up the Parts Availability Check

Use

This section describes how to set up the parts availability check in SAP Multiresource Scheduling.

Procedure

Basic Customizing Settings

1. Configure the availability check in your SAP ERP system.
To do so, make settings in Customizing for [Plant Maintenance and Customer Service](#) under [► Maintenance and Service Processing ► Maintenance and Service Orders ► Functions and Settings for Order Types ► Availability Check for Materials, PRTs, and Capacities ►](#).
2. Configure the availability check in your SAP Multiresource Scheduling system.
To do so, perform the following activities in Customizing for [SAP Multiresource Scheduling](#):
 - Activate the backward integration of data for orders from Plant Maintenance and Customer Service.
You do so [► Sources of Demand ► Activate Backward Integration of Data ►](#).
 - When transferring the system status from SAP ERP to SAP Multiresource Scheduling, the system uses the implementation for Business Add-In `/MRSS/RAC_SEARCH_ALG` ([Search Algorithm for Access to MRS Customizing Tables](#)). SAP provides a default implementation for this BAdI.
If you want to create your own implementation, you can use `/MRSS/CL_DEF_IM_RAC_SEARCH_ALG` as an example. For more information, see the BAdI documentation under [► Enhancements ► Sources of Demand ► Orders ► BAdI: Search Algorithm for Access to MRS Customizing Tables \(ERP\) ►](#).
 - Create abstract statuses for the parts availability check. You do so under [► Basic Settings ► Assign Objects ► Status ► Define Abstract Status ►](#). Create entries as follows:

Abstract Status	Description
MAT_FULLY	Parts Available
MAT_NCHECK	Parts Availability Not Checked
MAT_NONE	Parts Not Available

- Assign the newly defined abstract statuses to the corresponding concrete system statuses at demand header level. You do so under ► [Basic Settings](#) ► [Assign Objects](#) ► [Status](#) ► [Assign Status for Demands \(ERP\)](#) ►. Create entries as follows:

Abstract Status	System Status (EN)	System Status (DE)
MAT_FULLY	MACM	MABS
MAT_NCHECK	MANC	NMVP
MAT_NONE	MSPT	FMAT

- Activate the 1:1 relationship between demands and assignments. You do so under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Activate 1:1 Relationship of Assignments and Demands for Demand Categories](#) ►. This setting is required if you want to update the storage location in the allocated PM or CS order components.
- Define profiles for the parts availability check. You do so under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Define Profiles for Parts Availability Check](#) ►.
- Assign the required profile for the parts availability check to your planning board profile. You do so under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.

Additional Settings for the Employee Search with Integrated Parts Availability Check

To set up the parts availability check as part of the employee search, make the following additional settings:

- Execute the following activities in Customizing for SAP Multiresource Scheduling:
 - Activate the use of SAP Multiresource Scheduling qualifications. You do so under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

Note

For more information about prerequisites for using SAP Multiresource Scheduling qualifications, see [Setting Up Qualifications in SAP Multiresource Scheduling \[page 530\]](#).

- Execute transaction [/MRSS/PARTS_R3](#) in the SAP ERP system to define which parts used in the PM/CS order are relevant for the parts availability check at resource warehouse level.
- Execute transaction [/MRSS/RESOURCE_STOCK](#) to define resource-specific warehouses, such as vehicles, and assign them to your resources.
You can assign several resources to a storage location based on time. One single resource can be assigned to several resource warehouses. However, the assignment must always be clear at any point in time and a resource may only be assigned to one resource warehouse at any one time.

Additional Settings for the Web-Based Planning Board

To use the parts availability check in the Web-based planning board, you must allow demand changes at Web UI profile level. You can find the relevant setting under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Profiles of the Web-Based User Interface](#) ► [Define Profiles for the Web-Based User Interface](#) ►.

i Note

If the context menu option and the button are not available in the planning board, you may have to activate the relevant user settings first:

- You activate the display of the button under ► [Settings](#) ► [General](#) ► [Table Functions](#) ►.
- You activate the context menu option under ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#) ►.

22.2 Parts Availability Check for Multiple Demands

Use

You can use the following reports to check the parts availability for multiple demands:

- You can use the [Update Parts Availability](#) report (/MRSS/MAT_AVAILABILITY_CHECK) to check the parts availability for any number of demands. To do so, you specify all of the demands that are still open, for example, and have to be planned within a specific time period. The parts availability check changes the relevant order data in PM/CS and sets a specific order status. For more information, refer to the system documentation for the report.
- You can carry out the parts availability check in the SAP ERP system using the [Service and Maintenance Orders: Selection Orders](#) report (/MRSS/MAT_R3_AVAIL_CHECK) for any number of PM/CS orders. This report allows you to select PM/CS orders and carry out the parts availability check. For more information, refer to the system documentation for the report.

You can schedule these reports as batch jobs to perform the parts availability check regularly in the background.

Integration

To use additional selection criteria for the /MRSS/MAT_AVAILABILITY_CHECK report, you can specify a variant of the SAP ERP program /MRSS/MAT_R3_AVAIL_CHECK. To do so, you must first create this variant in the SAP ERP system. The variant is used to filter the SAP Multiresource Scheduling demands on the SAP ERP side.

i Note

The /MRSS/MAT_R3_AVAIL_CHECK report provides the same functions for selecting service and maintenance orders as the transaction [Display PM Orders: Select Orders](#) (transaction **IW39**).

Activities

Running the `/MRSS/MAT_AVAILABILITY_CHECK` report involves the following steps:

1. You enter the required demands.
2. The system executes the check for every complex demand that is based on a PM/CS order. All warehouse-relevant parts are checked based on the standard PM function [Check Stock Material](#).
3. The program lists the demands with the missing parts or optionally all of the processed demands with their detailed results.

Running the `/MRSS/MAT_R3_AVAIL_CHECK` report involves the following steps:

1. You enter the required PM/CS orders.
2. The system executes the check for every PM/CS order. All warehouse-relevant parts are checked based on the standard PM function [Check Stock Material](#).
3. The program lists the orders with the missing parts or optionally all of the processed orders with their detailed results.

22.3 Employee Search with Integrated Parts Availability Check

Use

You can take into account the availability of required parts when planning resources for demands from the areas of plant maintenance (PM) and customer service (CS). The employee search with integrated parts availability check is available to you in the Scheduler Workplace (SAP GUI).

i Note

In SAP Multiresource Scheduling, the term “parts” is used as a synonym for materials from the areas of Customer Service and Plant Maintenance.

Prerequisites

- The required Customizing settings are in place. For more information, see [Setting Up the Parts Availability Check \[page 595\]](#).
- You are working in the Scheduler Workplace (SAP GUI).
- You are using SAP Multiresource Scheduling qualifications.
- The order on which the demand is based has not yet been released in SAP ERP.
- The resource for which the parts availability check is executed has **not** been assigned to the same storage location and plant as the material in the corresponding order component (transaction `/MRSS/RESOURCE_STOCK`) for the specified period.

Features

- You can use the parts availability check if you are searching manually for suitable resources and creating assignments in the planning board.
- The system displays the result of the check in the *Parts Availability* column:
 - Green symbol : All relevant parts with inventory management are available to the employee in the resource-specific warehouse in sufficient quantities for the earliest possible start date.
 - Red symbol : Not all relevant parts are available to the employee in sufficient quantities for the earliest possible start date.
 - Gray symbol : The parts availability cannot be checked in conjunction with the employee search. This is the case when the storage location of the employee has already been assigned in the corresponding PM/CS order component and the order has been released. In this case, a new check does not make sense as the parts are already reserved with reference to the storage location of the employee. However, you can trigger the parts availability check from the context menu for the respective demand to establish whether the parts are actually available. For more information, see [Parts Availability Check in the Planning Board \[page 592\]](#).
 - Empty column: Employee is not assigned to a resource warehouse on the earliest possible start date. By double-clicking on the respective symbol, you can call the result details for each relevant part.

i Note

The *Parts Availability* column is for information only. The system does not prevent assignment to an employee who does not have all parts available or to whom no resource warehouse is assigned.

- With the relevant Customizing setting, the system updates the storage location in the corresponding PM/CS order components when assignments are created, changed, or deleted. This update is carried out at the time of saving. The update is restricted to the relevant parts and works only for demands with a direct relationship between the individual demand and the assignment.
- The system uses the resource warehouses in the components of PM/CS orders to assign the parts to the warehouses by means of the assignments. This is done automatically. If necessary, you can manually enter a placeholder when creating an order, but not a real resource-specific warehouse.

Manual Parts Availability Check

As each employee with a warehouse and an overall qualification match result of zero is considered in the availability check, this check can be very complex. This can have a negative influence on performance. In Customizing, you can therefore activate only the manual parts availability check, thus splitting the resource search into two steps:

1. The scheduler searches for suitable employees for the demand.
2. In the results list, the required resources are selected individually and the availability check is carried out for this employee only. To do so, choose the *Parts* pushbutton.

Parts Availability Check with Automatic Resource Planning

When you have defined your parts availability profile accordingly, the system also considers the parts availability in automatic resource planning as a criterion. It then schedules only those resources with sufficient parts availability in the resource warehouse for the assignments. The storage location can also be updated in the corresponding PM/CS order components when new assignments are saved.

23 Resource Planning Using Technical Objects

Use

You can use technical objects for resource planning for demands that originate from PM/CS and CRM service orders. For example, you can create time allocations for technical objects. This is especially useful if you want to schedule regular maintenance tasks, for example, by specifying periods of time during which the technical object is shut down and available for such tasks.

When setting up your system, you can specify whether it shall be possible to create assignments for demands whose technical object is not available during a given period of time.

Note

Technical objects are integrated at the level of the order operation. Note that you cannot use this function for tool demands.

For more information, see [Technical Object \[page 601\]](#).

Prerequisites

For more information, see [Set-Up and Prerequisites \[page 603\]](#).

Features

- You can display and edit the availability of technical objects using the availability view. This view is available in the demand planning layout of the Scheduler Workplace (SAP GUI) and in the demand view of the Web-based planning board.
- Provided that the required Customizing settings are in place, the system creates technical objects in SAP Multiresource Scheduling whenever a relevant PM/CS or CRM order is integrated from the SAP ERP or SAP CRM system.
- You can create technical object resources in SAP Multiresource Scheduling using the [Technical Object Availability Maintenance](#) report. This option is relevant if you want to create time allocations for technical objects for which no demand exists yet in SAP Multiresource Scheduling.
- Each demand can have one main object and one error-causing object. You can specify in Customizing whether it shall be possible to create assignments for demands whose technical object is not available during a given period of time.

i Note

You cannot create assignments for technical object resources. You can create assignments for demands with technical objects by assigning the demand to personnel resources, teams, and N.N. resources.

- For demands that are based on PM/CS service orders, the system calls Business Add-In *BAdI: Determination of Technical Objects for PM/CS Orders* (/MRSS/RSG_TECH_OBJECT_DET) to determine which object is transferred as the main object and which object as the error-causing object to SAP Multiresource Scheduling.
- If a demand has more than one technical object, the system uses Business Add-In *BAdI: Determination of Technical Object Type* (/MRSS/SGE_TECH_OBJECT_TYPE_DET) to determine which technical object is used, for example, to check the availability of the technical object for the creation of assignments.
- You can create time allocations for technical objects, for example, to specify when the object is available for maintenance tasks.

More Information

- [What Is a Technical Object? \[page 601\]](#)
- [Setting Up the Use of Technical Object Resources \[page 603\]](#)
- [Availability View \[page 605\]](#)
- [Maintaining the Availability of Technical Object Resources \[page 607\]](#)

23.1 What is a Technical Object?

Definition

A technical object in SAP Multiresource Scheduling is an abstract entity that is used to represent one of the following concrete entities:

Area	Concrete Entity in Source System (SAP ERP or SAP CRM)	Abstract Entity in SAP Multiresource Scheduling
Plant Maintenance and Customer Service	Functional location	Technical object (main object or error-causing object)
	Equipment	
Customer Relationship Management	Installed based (iBase)	
	Component of installed base	
	Object of installed base	

Use

In SAP Multiresource Scheduling, a demand can have two technical objects, one main object and one error-causing object. In the demand planning layout of the Scheduler Workplace (SAP GUI) and the demand view of the Web-based planning board, you can view information about the technical objects that are associated with the order on which the demand is based. You can also create time allocations and basic availability information for technical objects in SAP Multiresource Scheduling.

Note

You must activate the use of technical objects in Customizing. For more information, see [Setting Up the Use of Technical Object Resources \[page 603\]](#).

Structure

A technical object consists of the following:

- Internal key
The internal key is only used for internal processing. It is not displayed on the user interface.
- External key
This key is displayed on the user interface. In most cases, it corresponds to the internal key. However, if alternative labels have been defined for a functional location in SAP ERP, the primary label is used in SAP Multiresource Scheduling to identify the technical object.
- Description
The system determines the default language based on the description that was first entered in the source system of the object.
- Technical object type (main object or the error-causing object)
For demands that are based on PM/CS service orders, the system calls Business Add-In [BAdI: Determination of Technical Objects for PM/CS Orders](#) (/MRSS/RSG_TECH_OBJECT_DET) to determine which object is transferred as the main object and which object as the error-causing object to SAP Multiresource Scheduling.

Integration

You have the following options to create technical object resources in SAP Multiresource Scheduling:

- Using the [Technical Object Availability Maintenance](#) report (/MRSS/MAINTAIN_TECH_OBJ_AVAIL)
- Using interface /MRSS/IF_SGE_MNT_TECH_OBJECT in class /MRSS/CL_SGE_APPLICATION_MNT.

More Information

- [Setting Up the Use of Technical Object Resources \[page 603\]](#)

- [Maintaining the Availability of Technical Object Resources \[page 607\]](#)

23.2 Setting Up the Use of Technical Object Resources

This document describes the basic settings necessary to show and edit technical objects in SAP Multiresource Scheduling.

Integration of Technical Objects

Under [Sources of Demand](#) > [Demand Settings](#) > [Control Integration of Technical Objects](#) , activate the integration of technical objects per order type. In addition, you can specify whether to allow the creation of assignments for demands with technical objects in periods when the technical object is not available.

Additional Settings for the Scheduler Workplace (SAP GUI)

Under [Set Up Scheduler Workplace](#) > [Workplace Profiles](#) > [Worklist Profile](#) > [Create Worklist Profile](#) , add the following fields to your worklist profile:

Field	Description
TOBJ_ERROR_DESC	Error-Causing Object Description
TOBJ_ERROR_KEY	Error-Causing Object Key
TOBJ_ERROR_TYPE	Error-Causing Object Type
TOBJ_MAIN_DESC	Main Technical Object Description
TOBJ_MAIN_KEY	Main Technical Object Key
TOBJ_MAIN_TYPE	Main Technical Object Type

Note

For technical reasons, you cannot create a field with key TOBJ in Customizing.

Add the fields under [Fields in Item Worklist](#) and [Fields in Demand Display](#) to display the information that is related to technical objects in the item worklist in the resource layout and in the demand list in the demand layout. Use the input help (F4 help) to add the fields.

Note

If you want to use these fields to group the demands that are displayed in the demand view, select the [Grouping](#) checkbox that is available under [Fields in Demand Display](#).

Using Technical Objects in SAP Multiresource Scheduling

If you want to use technical objects and maintain their availability in SAP Multiresource Scheduling, you must make the following settings:

- Under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►, allow the creation of technical objects in SAP Multiresource Scheduling.
- Under ► [Basis](#) ► [Assign Time Allocation Types to Resource Types](#) ►, add the resource type *Technical Object* and assign it the relevant time allocation types.
- When you use capacity leveling for demands with two technical objects, the system by default considers the availability of both objects when shifting the demand to the next free slot or when proposing suitable time slots for shifting the demand.

In the user settings, you can specify which technical object shall be considered (main object or error-causing object):

- In the Scheduler Workplace (SAP GUI) go to ► [Extras](#) ► [Settings ...](#) ► [Visible Objects](#) ► [Display of Demand](#) ► [Capacity Leveling](#) ►.
- In the Web-based planning board, go to ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) ► [Technical Object for Leveling](#) ►.

These settings are only relevant if more than one technical object exists for a demand.

Using the Availability View

Scheduler Workplace (SAP GUI)

- In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►, activate the availability view. You can also specify that the availability view is the default view when a user switches to the demand layout.
- In the user settings under ► [Extras](#) ► [Settings...](#) ► [Visible Objects](#) ► [Display of Demand](#) ►, make the following settings:
 - Specify which object (main object or error-causing object) is displayed in the availability view. This setting is only relevant if more than one technical object exists for the demand.
 - If desired, specify that the basic availability of the technical objects is displayed in the demand rows below the technical object row.

Web-Based Planning Board

- You must activate the display of demand hierarchies. You do so in Customizing (to set the default option for first-time users) or in the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) ►.
- In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define Profiles of the Web-Based User Interface](#) ►, you can activate the use of the availability view and make further settings for first-time users of the Web-based planning board.
- In the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) ►, each user can activate and configure the availability view as desired. In addition, the following user settings are available:
 - If a demand has more than one technical object, you can specify the object type (main object or error-causing object) based on which the demands are grouped in the availability view.

- You can specify that the basic availability of a technical object is displayed in the rows of the associated demands in the Gantt chart.
- If you want to create, edit, or delete time allocations for technical objects, you must activate the relevant toolbar buttons and context menu entries in the user settings first. You do so under ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#) ►.

Business Add-Ins

If you want to change the way technical objects are determined in SAP Multiresource Scheduling, you can create your own implementation of the following Business Add-Ins:

- Business Add-In [BAdI: Determination of Technical Object Type](#) (/MRSS/SGE_TECH_OBJECT_TYPE_DET) is available under ► [Enhancements](#) ► [Sources of Demand](#) ►. You can use this BAdI to determine which type of technical object (main object or error-causing object) is used if a demand has more than one technical object. By default, the system uses the main object.
- Business Add-In [BAdI: Determination of Technical Objects for PM/CS Orders](#) (/MRSS/RSG_TECH_OBJECT_DET) is available under ► [Enhancements](#) ► [Sources of Demand](#) ► [Orders](#) ►. You can use this BAdI to determine which object is the main object and which object is the error-causing object for PM/CS orders. By default, the system uses the functional location from the order header as the main object and the equipment as the error-causing object. If no functional location exists, the equipment is used as the main object.

23.3 Availability View

Use

The availability view allows you to display and edit the availability of technical objects in SAP Multiresource Scheduling. In this view, the demands are grouped based on the technical objects that are associated with them.

You can open the availability view in the demand planning layout of the Scheduler Workplace (SAP GUI) and in the demand view of the Web-based planning board.

Integration

You can also use the [Technical Object Availability Maintenance](#) report (/MRSS/MAINTAIN_TECH_OBJ_AVAIL) to create and edit time allocations for technical object resources. In addition to creating exceptional time allocations, the report allows you to maintain the basic availability of technical object resources by creating non-exceptional time allocations.

Prerequisites

You must make the following settings in Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ►:

- Under [Define User Interface Profiles](#), you must activate the display of the availability view in the Scheduler Workplace (SAP GUI).
- (Optional) Under [Define Profiles of the Web-Based User Interface](#), you can activate the display of the availability view in the Web-based planning board. This setting determines that the availability view is shown by default when a first-time user opens the Web-based planning board.

Users can show or hide the availability view as desired in the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) ►.

For more information, see [Set-Up and Prerequisites \[page 603\]](#).

Features

- In the Scheduler Workplace (SAP GUI), you can open the availability view by choosing .
- In the Web-based planning board, you can activate the availability view in the user settings.
- The demands are grouped based on the technical objects that are associated with them. The system shows the periods of availability and unavailability in the row for each technical object. You can expand the top node to display the associated demands.
Demands without a technical object are listed below the demands with technical objects.
- The following icons indicate the technical object type (main object or error-causing object):
 - 
 - 
- You can create and edit time allocations for technical objects directly in the availability view. For more information, see [Maintaining the Availability of Technical Object Resources \[page 607\]](#)
- You can sort and filter the objects shown in the availability view.

Note

- You cannot use the grouping function in the availability view. The demands displayed in this view are already grouped based on the technical object.
- You can only create exceptional time allocations in the availability view. If you want to create non-exceptional time allocations that contribute to the basic availability, use the [Technical Object Availability Maintenance](#) report (/MRSS/MAINTAIN_TECH_OBJ_AVAIL).
- If the basic availability of a technical object is changed (for example, by creating a non-exceptional time allocation) in a parallel session, you must perform a complete refresh to update the basic availability in your session. Only exceptional time allocations are updated during a delta refresh.

More Information

- [Set-Up and Prerequisites \[page 603\]](#)
- [Maintaining the Availability of Technical Object Resources \[page 607\]](#)

23.4 Maintaining the Availability of Technical Object Resources

Use

You maintain the availability of technical object resources in SAP Multiresource Scheduling by creating or editing time allocations for technical objects. You can do so directly in the availability view or by using the *Technical Object Availability Maintenance* report (/MRSS/MAINTAIN_TECH_OBJ_AVAIL).

The availability view allows you to create exceptional time allocations, that is, time allocations that do not contribute to the basic availability. The report allows you to create both exceptional and non-exceptional time allocations. Therefore, you use the report to maintain the basic availability of technical objects in SAP Multiresource Scheduling.

Note

You can also maintain the availability using interface /MRSS/IF_SGE_MNT_RESOURCES~RESOURCE_MAINTAIN_AV in class /MRSS/CL_SGE_APPLICATION_MNT.

Prerequisites

For more information, see [Set-Up and Prerequisites \[page 603\]](#).

Procedure

Using the Availability View

Scheduler Workplace (SAP GUI)

To create a new time allocation for a technical object, proceed as follows:

1. Choose  and draw a rectangle directly in Gantt chart row for the technical object. The time allocation detail screen opens.
2. Enter the time allocation details (for example, time allocation type, start and end).
3. Choose [Create](#).

To edit an existing time allocation, proceed as follows:

1. Select the time allocation bar in the Gantt chart and choose [Details for Time Allocation](#) in the context menu.
The time allocation detail screen opens.
2. Make the required changes.
3. Choose [Change](#).

Web-Based Planning Board

To create a new time allocation in the JGantt chart, proceed as follows:

1. Choose one of the following options:
 - Select the Gantt chart row for the technical object and choose . The time allocation detail screen opens.
 - Choose [Time Allocation](#) in the [Drawing Selection](#) dropdown box and draw the time allocation directly in the Gantt chart. A dialog box opens.

i Note

You may have to activate the display of the dropdown box in the user settings first. You do so under [Settings](#) > [Gantt Settings](#) > [Toolbar & Context Menu](#) .

2. Enter the time allocation details (for example, time allocation type, start and end).
3. Choose [Apply](#).

To create a new time allocation in the UI5 Gantt chart, proceed as follows:

1. Choose one of the following options:
 - Select the Gantt chart row for the technical object and choose  [Create Time Allocation](#). The time allocation detail screen opens.
 - Choose [Time Allocation](#) in the [Creation Mode](#) dropdown box and double-click at the desired position in the Gantt chart. A dialog box opens.

i Note

You may have to activate the display of the dropdown box in the user settings first. You do so under [Settings](#) > [Gantt Settings](#) > [Toolbar & Context Menu](#) .

2. Enter the time allocation details (for example, time allocation type, start and end).
3. Choose [Apply](#).

To edit an existing time allocation, proceed as follows:

1. Select the time allocation bar in the Gantt chart and choose the appropriate entry in the context menu.
The time allocation detail screen opens.
2. Make the required changes.
3. Choose [Apply](#).

Using the Technical Object Availability Maintenance Report

You can use report `/MRSS/MAINTAIN_Tech_Obj_Avail` to create or edit time allocations for technical objects. For example, you can use this report to create a maintenance schedule for a technical object.

You can also create new technical object resources by creating at least one time allocation for them. This option is relevant if you want to create time allocations for technical objects for which no demand exists yet in SAP Multiresource Scheduling.

i Note

You need to specify the technical object key as it is used in the source system of the technical object. If alternative labels have been defined for a technical object in PM, the primary label is used in SAP Multiresource Scheduling to identify the technical object.

For more information, see the report documentation in the system.

24 Automatic Scheduling of Multiday Assignments

Use

You can automatically schedule assignments that span multiple days. For certain demand types, the system creates concrete or stretched assignments for suitable resources. These resources can be personnel resources, N.N. resources, or teams. Furthermore, you can consider the availability of technical objects as well as travel and processing times during the automatic assignment creation.

Prerequisites

- You have activated the function for your planning board profile in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.
- You have made settings for resources and demands in Customizing under ► [Set Up Scheduler Workplace](#) ► [Automatic Scheduling of Multiday Assignments](#) ►. You can influence the resource selection subsequently by implementing the BAdI /MRSS/MULTIDAY_AUTO_SCHED.
- In Customizing under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments](#) ►, you have specified for which demand types you want to allow the creation of stretched assignments.
- If you want to log the automatic scheduling of multiday assignments, carry out the [Define Logging](#) Customizing activity in Customizing under [Basic Settings](#).

Restrictions and Limitations

- Multiday assignments must not be day-based assignments.
- You must not activate the assignment follows demand function (in Customizing under [Sources of Demand](#)). This function takes precedence over all other automatic assignment creation options.
- The system does not take links between resources and tools into account.
- The system does not take relationships between demands into account.

Features

- In the planning board, you can call a heuristic to create multiday assignments. For more information, see [Creation of Multiday Assignments \[page 611\]](#).
- You can specify that the Optimizer should be started for the remaining demands directly after the heuristic has run.
- If you use technical object resources and a demand has a technical object that is not available during a certain time frame, the system excludes this time frame from the automatic assignment creation. For more information, see [Resource Planning Using Technical Objects \[page 600\]](#).

- Both the Optimizer and the automatic scheduling of multiday assignments function support demand filters. To combine manual planning, automatic assignment creation, and the Optimizer effectively, you can divide the unplanned demands into groups, such as:
 - Manual planning only (demand is not relevant for the Optimizer or automatic assignment creation)
 - Optimizer only (demand is not relevant for automatic assignment creation, for example, short-term tasks or demands with a high priority)
 - Automatic assignment creation (demand is not relevant for the Optimizer, for example, multiday assignments)
 - No restrictions
- You can call the log for the automatic scheduling of multiday assignments using transaction /MRSS/OPT_LOG.
- You can automatically schedule multiday assignments as a background job. For this purpose, you use the [Automatic Scheduling of Multiday Assignments](#) report (/MRSS/SG_MULTIDAY_SCHED).

More Information

- [Triggering the Automatic Scheduling in the Scheduler Workplace \[page 614\]](#)
- [Triggering the Automatic Scheduling in the Web-Based Planning Board \[page 615\]](#)
- [Creation of Multiday Assignments \[page 611\]](#)
- [Optimizer for Resource Planning \[page 617\]](#)

24.1 Creation of Multiday Assignments

Use

You can trigger the automatic scheduling of multiday assignments for a selected set of resources and demands or you can start the function without making a selection. In that case, the system considers all resources and demands that are currently loaded into the planning board.

i Note

The system only considers demands and resources that are selected in the resource list and the demand list. Assignments that are selected in the resource Gantt chart are not considered.

Process

After you have triggered the automatic scheduling of multiday assignments, the system runs a heuristic according to the following rules:

1. Demand items are sorted by priority.
For bundled demand items with a particular priority, the system determines a subsequence.
2. The system determines a potential set of resources.
Based on the number of resources that are required to fulfill the demand, the system pre-selects the demand items. If the demand requires one resource, the system tries to assign the demand items to a personnel resource or an N.N. resource. If the demand requires more than one resource, the system tries to assign the demand items to a team resource.

i Note

You can change this behavior by creating your own implementation of Business Add-In `/MRSS/MULTIDAY_AUTO_SCHED.`

If you want to use team resource, you must have activated the qualification matching for teams in Customizing activity [Configure Basic Settings](#).

3. The first resource with the best matching result is selected.
You can specify a preferred resource by implementing Business Add-In [BAdI: Determination of Preferred Resource](#) (`/MRSS/PREFERRED_RESOURCE`). By default, the system returns the resources that belong to the planning node to which the demand is assigned.

i Note

Since you cannot attach qualifications to N.N. resources, the system can assign resources of this type only to demand items without qualification requirements.

4. The assignment end dates for the resource are simulated, starting on the first possible day and based on the demand time frame of the related single demand and the time frame for the heuristic run.

i Note

If the demand is bundled, the system considers the bundle period as demand time frame.

For each demand and for each resource, the system checks whether the demand can be completely planned within the availability of the resource. If this is not the case, the system checks the next resource. If no resource can be found for the demand, the demand is skipped.

5. The system creates stretched or concrete assignments from the start of the found time frame with the duration required by the demand. The following applies:
 - The system does not create assignments in time slots with already existing assignments. Instead, the system determines available time slots between existing assignments. If these time slots are long enough, the system creates assignments for the demand.
 - In the case of team resources, the system does not create assignments in time slots with already existing assignments even if the remaining team members could take over assignments for the demand. The system determines available time slots during which the number of team members corresponds to the number of resources required for the demand and creates assignments in these time slots.

- You can specify whether the system deletes all assignments that exist for the selected demands before creating new assignments or whether the system deletes all assignments that exist for the resources within the specified time.
6. You can start the Optimizer after the heuristic has run. The following applies:
- The Optimizer takes only those demands into account that are still open after the heuristic has run.
 - As a result of the heuristic, resources receive assignments on specific days. The Optimizer, therefore, cannot plan these resources on these days.
 - The Optimizer cannot plan assignments that are longer than one working day.
 - If you are using preparation and wrap-up times and working time breaks, the assignments might start or end in a break. The reason is that the system considers the processing times as part of the working time, which might be stretched over working time breaks.

Result

The system creates assignments according to the settings made in Customizing. For example, you specify per demand type whether the system creates concrete or stretched assignments and whether or not daily travel and processing times are considered for the creation of assignments. Furthermore, you specify how the system determines the resource availability.

i Note

Whether the system considers the real travel time or the expected travel time, depends on the settings made in Customizing. Note that processing times are only relevant for demands that are based on PM/CS orders.

The following scenarios exist:

A – Creation of Multiple Concrete Assignments

The system creates concrete assignments in each time slot in which the selected resource is available.

i Note

The resource availability is determined as per Customizing settings.

The time slot must be long enough to cover the travel and processing times (preparation and wrap-up), if these have been activated in Customizing, and the minimum assignment duration. In the Gantt chart, the daily travel time is represented by one arrival bar before the assignment starts and one departure bar after the assignment ends. In addition, to represent the daily processing times, preparation bars are created before the assignment starts and after each break. Similarly, wrap-up bars are created after each break and after the assignment ends.

i Note

If, for bundled demands, the system creates more than one assignment on the same day, the system creates only one arrival bar and one preparation bar as well as one wrap-up bar and one departure bar. That is, the arrival and preparation times are attached to the first assignment of the day. Similarly, the wrap-up and departure times are attached to the last assignment of the day. If the settings for the processing and travel times made for the individual demand items in the bundle do not match, the system considers the longest duration to create the bars.

B – Creation of Multiple Stretched Assignments

If daily travel and/or processing times have been activated in Customizing, the system creates one stretched assignment per day as well as daily travel and/or processing times. In the Gantt chart, these times are represented as additional bars that are attached to the assignment (one arrival bar and one preparation bar before the assignment starts, one wrap-up bar followed by one departure bar after the assignment ends). The assignment stretches over breaks or lunch time. It is assumed that the resource travels to the demand location and returns home each day.

i Note

The individual stretched assignments are considered as independent from each other and can be processed separately.

C – Creation of One Stretched Assignment

If neither daily travel nor daily processing times have been activated in Customizing, the system creates one assignment that stretches over multiple days and spans the available time slots and even weekends. In the Gantt chart, travel and processing times are represented by one arrival bar followed by a preparation bar before the assignment starts and one wrap-up bar followed by a departure bar after the assignment ends. The assumption is that the resource travels to the demand location on the first day and stays there until the assignment ends.

i Note

Wrap-up and departure times may extend to a period of non-availability. For example, the resource is available until 17:00 and the assignment ends at 16:30. Two hours are required for wrap-up and travel home. In that case, the travel end time is 18:30.

24.2 Triggering the Automatic Scheduling in the Scheduler Workplace

Procedure

1. Select a set of demand items and a set of resources.

If you do not make a selection, the system considers all demand items and resources that are currently loaded into the planning board.

2. Choose .

The *Automatic Scheduling of Multiday Assignments* screen appears.

3. Make entries as required. You can specify the following:
 - A time frame in which the system creates the assignments
 - Whether the system starts the Optimizer after completing the automatic scheduling

- Whether the system reschedules the resources before starting the automatic scheduling
If you select the *Only Reschedule Selected Demands* checkbox, the system deletes all assignments that exist for the selected demands before executing the automatic scheduling of multiday assignments. If you do not select this checkbox, the system deletes all assignments that exist for the resources within the specified time period.

i Note

Assignments that have been fixed by selecting the relevant checkboxes on the assignment detail screen are kept, regardless of whether or not you select this checkbox. The same holds true for technically completed and confirmed assignments.

4. Choose *Start*.

The system creates assignments according to the Customizing settings and the specified selection criteria. For more information, see [Creation of Multiday Assignments \[page 611\]](#).

24.3 Triggering the Automatic Scheduling in the Web-Based Planning Board

Prerequisites

You have activated the function in the user settings under ► *Settings* ► *Gantt Settings* ► *Toolbar & Context Menu* ►. For more information, see [User-Specific Configuration \[page 184\]](#).

Procedure

i Note

The automatic scheduling of multiday assignments is only available in the resource view of the Web-based planning board.

1. Select a set of demand items and a set of resources.
If you do not make a selection, the system considers all demand items and resources that are currently loaded into the planning board.
2. Choose  in the JGantt chart or  *Automatic Assignment Creation* in the UI5 Gantt chart.
The *Automatic Scheduling of Multiday Assignments* screen appears.
3. Make entries as required. You can specify the following:
 - A time frame in which the system creates the assignments
You can specify an individual time frame. Alternatively, you can choose one of the pre-defined options (next day, next week, next two weeks).
 - Whether the system starts the Optimizer after completing the automatic scheduling

- Whether the system reschedules the resources before starting the automatic scheduling
If you select the [Rescheduling of Resources](#) checkbox, the system deletes all assignments that exist for the resources within the specified period of time before executing the automatic scheduling of multiday assignments

i Note

Assignments that have been fixed by selecting the relevant checkboxes on the assignment detail screen are kept, regardless of whether or not you select this checkbox. The same holds true for technically completed and confirmed assignments.

4. Choose [Start](#).
The system creates assignments according to the Customizing settings and the specified selection criteria. For more information, see [Creation of Multiday Assignments \[page 611\]](#).

25 Optimizer for Resource Planning

Use

You can use the Optimizer to ensure that your personnel resources are used effectively when they are planned in SAP Multiresource Scheduling. By optimizing assignments, you can minimize the number of resources used, as well as the costs and travel times for each resource.

Provided the required Customizing settings are in place, you can log and analyze all optimization runs.

i Note

The Optimizer can only be used for personnel resources (including external service providers, N.N. resources, and teams). You cannot use it for tools.

i Note

The Optimizer can create assignments directly only if they do not last longer than one day, that is, they must be within the availability period of a resource on one day.

You can use the Optimizer in the following cases:

- Optimization “on demand”: As the resource planner, you start the Optimizer from the planning board. For more information, see [Starting Optimization Runs in the Scheduler Workplace \[page 621\]](#) and [Starting Optimization Runs in the Web-Based Planning Board \[page 623\]](#).
- Optimization by periodic planning: You plan the optimization to run regularly at a specific time (for example, overnight). For more information, see [Optimization in the Background \[page 625\]](#).
- Optimization after the automatic scheduling of multiday assignments: You can optimize the planning situation after the system has completed the automatic scheduling of multiday assignments. For more information, see [Automatic Scheduling of Multiday Assignments \[page 610\]](#).
- The system also uses the Optimizer during automatic assignment creation for the areas of Customer Service and Plant Maintenance.

Prerequisites

- You have configured the Customizing settings under [SAP Multiresource Scheduling > Optimizer and Travel Times > Optimizer](#).
- You have activated the Optimizer and specified an optimization scenario for the current planning board profile in Customizing for SAP Multiresource Scheduling under [Set Up Scheduler Workplace > Workplace Profiles > Define Planning Board Profile](#).
- You have **not** activated the assignment follows demand function in Customizing under [Sources of Demand](#). This function takes precedence over all other automatic assignment creation options.

- In Customizing, under [SAP Multiresource Scheduling](#) > [Optimizer and Travel Times](#) > [Optimizer](#) > [Extended Settings](#) > [Filter the Demands for Optimization](#), you can specify that only certain demands are to be taken into account for the optimization.
- (Optional) If you want the system to take into account partner roles during the optimization, you must make settings in the Customizing activities under [Basic Settings](#) > [Assign Objects](#) > [Partner Functions](#). You must create the abstract partner roles [First Technician](#) (TECH_1ST) and [Must Technician](#) (TECH_MUST) and assign them to the relevant partner roles used in the source system of the demand.
- Make sure that the creation of stretched assignments and / or concrete assignments is allowed for the demand types that you want to include in the optimization run. Demands that allow the creation of capacitive assignments are automatically excluded from optimization.

Features

Including Relationships

As part of optimization, the system can take into account the relationships between demands. This support must be permitted in the relevant optimization profile.

Using Partner Roles

Provided that partner roles are supported in the relevant integration scenario, the system can take into account partner roles during the optimization. For example, when creating a service order in SAP ERP, on the [Partner](#) tab you can specify partners including the partner role. Once the order has been transferred as a demand to SAP Multiresource Scheduling and optimization is triggered, the system tries to assign the demand to the resource that was specified as a partner in the order and whose role corresponds to one of the following abstract partner role in SAP Multiresource Scheduling:

- [First Technician](#) (TECH_1ST)
This abstract partner role indicates the preferred resource. If a resource has been assigned this role and optimization is run for a demand, the system prefers this resource when creating an assignment for the demand. However, the assignment of other resources is possible if the preferred resource is not available or the assignment of other resources would yield much better results from an optimization perspective.
- [Must Technician](#) (TECH_MUST)
This abstract partner role indicates the resource that must be assigned to the demand. If a resource has been assigned this role and optimization is run for a demand, the system assigns the demand to this resource only. If the resource is not available, the demand remains unplanned.

Note

Irrespective of the assigned role, the resource must have the qualifications required by the demand to be considered during the optimization. If a resource has the role of First Technician but does not have the qualifications required to complete the assignment, the system always assigns the demand to another resource. If the resource has the role of Must Technician but does not have the qualifications required to complete the assignment, the system does not assign any resource to the demand.

Optimization for Teams

You can include teams during optimization. Provided that the following requirements have been met, the system can include teams during optimization:

- In Customizing, under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►, you specified that the system regards the team as available only when all of the team members are available. To do so, select the corresponding option in the [Team Availability](#) field.
- For demands that are based on PM/CS orders, you have selected the [Team Planning](#) checkbox at operation level.
- To take into account travel times, you have entered an address for the team manager or an alternative address for the team (see [Teams \[page 571\]](#)).

i Note

If you use flexible breaks in your system, the team manager's flexible breaks are used for the team. You should ensure that all team members are assigned the same flexible breaks.

- Team optimization does not support individual team member validity periods.

The system supports the following variants of team planning:

- **Explicit Team Planning**

With explicit team planning, two or more demands are planned for the members in a team. In doing so, the system ensures that each team member receives only those demands for which he or she has the required qualifications. With this variant, assignments are always created at team member level, irrespective of whether or not you have selected the appropriate checkbox in Customizing under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- Prerequisites for explicit team planning:
 - You have created a separate order operation for each team member in the underlying PM/CS order and, in each case, set the [Team Planning](#) indicator on the [General](#) tab page.
 - On the [Relationships](#) tab page, you have created a start-start relationship between the individual operations.

- **Implicit Team Planning**

With this variant of team planning, one demand is planned for a team in each case. In doing so, the system ensures that the team members have the required qualifications. Depending on the Customizing settings, the assignments are created at team level or at the level of the individual team members.

- Prerequisites for implicit team planning:
 - You have entered a number greater than 1 as the required number of resources in the underlying PM/CS order.
 - For demands that are based on PM/CS orders, you have selected the [Team Planning](#) checkbox at operation level.

Optimization for Stretched Assignments

As part of optimization, the system can also create stretched assignments (in the same way as concrete assignments, these must not exceed the daily limits). The following prerequisites must be met:

- Stretched assignments are permitted for the underlying source of demand.
- You have defined the following values in Customizing under ► [SAP Multiresource Scheduling](#) ► [Optimizer and Travel Times](#) ► [Optimizer](#) ► [Define Optimization Profile](#) ►:
 - The maximum non-availability period of the personnel resource for creating the stretched assignment

- The maximum non-availability period of a personnel resource due to a travel time for creating the stretched assignment

i Note

The Optimizer only takes into accounts demands that allow the creation of stretched and / or concrete assignments. Demands that allow the creation of capacitive assignments are automatically excluded from optimization.

Optimization and Travel Times

If you use the Optimizer for resource planning, the system automatically stretches the travel times related to an assignment if they overlap with a period of non-availability (in accordance with the Customizing settings). This happens regardless of the travel time type (concrete or stretched) you set in Customizing or the user settings.

For more information, see [Travel Times \[page 565\]](#).

Logging of Optimization Runs

You can log all optimization runs. To do so, the following prerequisites must be met:

- You have created a suitable logging profile in Customizing for [SAP Multiresource Scheduling](#) under [► Optimizer and Travel Times ► Optimizer ► Extended Settings ► Define Logging of Optimization Runs ►](#).
- You have specified the default log profile in Customizing under [► Optimizer and Travel Times ► Optimizer ► Define Optimization Scenario ►](#).

To obtain an overview of all Optimizer log files, you use transaction `/MRSS/OPT_LOG`.

If you triggered the optimization run manually, the Optimizer log file is also included in the [Optimization Run Analysis](#) dialog box that you can call up once the system has completed the optimization. For more information, see [Analyzing the Results of an Optimization Run \[page 624\]](#).

Multiday Optimization

With this variant, the Optimizer processes the period to be optimized in several rather than individual days. This can improve the optimization result as a longer period is considered. You can activate this function for your Optimizer profile in Customizing under [► Optimizer and Travel Times ► Optimizer ► Define Optimization Profile ►](#). To do so, choose the [Multiday Processing](#) option in the [Optimization Procedure](#) field. You can also specify whether the employees involved in multiday processing are to return home at the end of the day or remain at the location of the last order. The default setting is return home after all assignments have ended.

i Note

If you choose multiday optimization, however, you cannot use the function for nonlinear calculation of the non-fulfillment costs for the demands. This means that the non-fulfillment costs can only be calculated in a linear manner. For more information, see the Customizing activity [► Optimizer and Travel Times ► Optimizer ► Define RP-Node-Based Optimization Parameters for Demands ►](#).

Using Dynamic and Flexible Breaks

You can use dynamic breaks for SAP HCM resources. If the required Customizing settings are in place and dynamic breaks have been defined in SAP HCM, the breaks are transferred to SAP Multiresource Scheduling when the availability transfer report (`/MRSS/HCM_RPTWFMIF`) is run.

Note

To ensure that dynamic breaks are transferred correctly to SAP Multiresource Scheduling, make sure that the following Customizing settings are in place before running the report:

- An exceptional time allocation type **DYN_BREAK** has been created in Customizing under ► [Basis](#) ► [Define Time Allocation Types](#) ►.
- The dynamic breaks function has been activated at planning board profile level in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.

For business partner resources, you can define dynamic (or flexible) breaks when configuring break schedules in Customizing for SAP Multiresource Scheduling under ► [Resource Integration](#) ► [Rules for MRS Shift Schedules](#) ► [Manage MRS Break Schedule](#) ►. For more information, see the documentation in the system.

The dynamic breaks are displayed as bars in the planning board. Both the resource planner and the Optimizer can shift the breaks within the defined limits.

More Information

- [Starting Optimization Runs in the Scheduler Workplace \[page 621\]](#)
- [Starting Optimization Runs in the Web-Based Planning Board \[page 623\]](#)
- [Analyzing the Results of an Optimization Run \[page 624\]](#)
- [Optimization in the Background \[page 625\]](#)
- [Availability Transfer Between SAP HR and SAP Multiresource Scheduling \[page 79\]](#)

25.1 Starting Optimization Runs in the Scheduler Workplace

Prerequisites

If you want to analyze optimization runs in the planning board, you must activate this option in Customizing under ► [Optimizer and Travel Times](#) ► [Optimizer](#) ► [Define Optimization Profile](#) ►.

Procedure

Optimization Using a Pre-Defined Optimization Period

1. Select the elements to be optimized, if necessary. The system includes all selected elements (demands and resources) in the optimization run. If you do not make a selection, the system includes all elements shown in the planning board. If a filter is active, only the filtered elements are included.
2. Start the Optimizer by choosing  in the planning board toolbar. If you choose the pushbutton without selecting a period from the dropdown menu, the system uses the default values as specified in Customizing. You can also select a pre-defined period from the dropdown menu.
3. After the system has completed the optimization run, you can analyze the optimization results. To do so, choose  and the *Analyze Last Optimization* option from the dropdown menu.

In the *Optimization Run Analysis* dialog box, the results of the optimization run are displayed on multiple tabs. For more information, see [Analyzing the Results of an Optimization Run \[page 624\]](#).

4. To download the analysis results, choose *Save*.

Optimization Using a Custom Optimization Period

5. Select the elements to be optimized, if necessary. The system includes all selected elements (demands and resources) in the optimization run. If you do not make a selection, the system includes all elements shown in the planning board. If a filter is active, only the filtered elements are included.
6. Start the Optimizer by choosing  in the planning board toolbar. Choose *Individual Selection* from the dropdown menu. A detail screen opens.
7. Adjust the optimization settings as required. Depending on whether or not you have activated the advanced Optimizer settings in the user settings, you can make the following entries:
 - Start and end time of the planning period
 - Optimization scenario
 - Lead time (advanced)
 - Maximum optimizer runtime (advanced)
 - Break after a specified period of time (advanced)
 - Logging profile (advanced)

Note

To hide the advanced Optimizer settings, go to ► *Extras* ► *Settings ...* ►. On the *Visible Objects* tab, choose the *Display of Resources* subtab and select the relevant checkbox.

8. Choose *Start*. If you are not satisfied with the optimization result, you can undo this step.
9. Once the optimization run is complete, you can view the optimization log. To do so, choose *Log*. If the option to analyze optimization runs has been activated in Customizing, instead of the *Log* button, an *Analyze* button is available.
10. To analyze the optimization results, choose *Analyze*. In the *Optimization Run Analysis* dialog box, the results of the optimization run are displayed on multiple tabs. For more information, see [Analyzing the Results of an Optimization Run \[page 624\]](#).
11. To download the analysis results, choose *Save*.

25.2 Starting Optimization Runs in the Web-Based Planning Board

Prerequisites

If you want to analyze optimization runs in the planning board, you must activate this option in Customizing under ► [Optimizer and Travel Times](#) ► [Optimizer](#) ► [Define Optimization Profile](#) .

Procedure

1. Select the elements to be optimized, if necessary. The system includes all selected elements (demands and resources) in the optimization run. If you do not make a selection, the system includes all elements shown in the planning board. If a filter is active, only the filtered elements are included.
2. Start the Optimizer by choosing  in the JGantt toolbar or  [Optimizer](#) in the UI5 Gantt toolbar.

i Note

If the icon is not available although all required Customizing settings are in place, you might have to activate it in the user settings. For more information, see [User-Specific Configuration \[page 184\]](#).

3. Adjust the optimization settings as required. Depending on whether or not you have activated the advanced Optimizer settings in the user settings, you can make the following entries:
- Start and end time of the optimization period

i Note

If you choose a time interval with a calculated end date that exceeds the planning horizon, the system does not issue an error message. The system checks whether the dates are within the planning horizon only after you start the Optimizer and issues a message in case the calculated end date exceeds the planning horizon. If the [Ignore Planning Horizon](#) checkbox is selected for the current planning board profile, the system never issues a warning message, regardless of whether or not the dates are within the horizon.

- Optimization scenario
- Lead time (advanced)
- Maximum optimizer runtime (advanced)
- Break after a specified period of time (advanced)
- Logging profile (advanced)

i Note

To show the advanced Optimizer settings, choose [Settings](#). On the [Gantt Settings](#) tab, choose the [Resource View](#) subtab and select the respective checkbox.

4. Choose [Start Optimizer](#).
5. To analyze the optimization results, choose [Analyze](#). In the [Optimization Run Analysis](#) dialog box, the results of the optimization run are displayed on multiple tabs. For more information, see [Analyzing the Results of an Optimization Run \[page 624\]](#).

i Note

To display the Optimizer log, the advanced Optimizer settings must be active.

6. To download the analysis results, choose [Download](#).

25.3 Analyzing the Results of an Optimization Run

Use

Once the system has completed the optimization run, you can display and analyze the optimization results in the [Optimization Run Analysis](#) dialog box.

i Note

Depending on how you start the Optimizer, you call up the [Optimization Run Analysis](#) dialog box either from the Optimizer detail screen or by choosing the respective option in the dropdown menu for the Optimizer icon. For more information, see [Starting Optimization Runs in the Scheduler Workplace \[page 621\]](#) and [Starting Optimization Runs in the Web-Based Planning Board \[page 623\]](#).

Features

In the [Optimization Run Analysis](#) dialog box, the status of the optimization run is displayed using status traffic lights. The status depends on the type of messages (warning or error) the system issued during the optimization run. The detailed optimization results are displayed on the following tabs:

- On the [Overview](#) tab, the system displays all issued messages. In addition, a summary of the optimization parameters is displayed, including the following:
 - Number of demands
 - Number of resources
 - Number of assignments
 - Total work duration
 - Total travel duration
 - Resource utilizationYou can display the individual messages as well as details for specific optimization parameters by expanding the respective entry.
- On the [Optimization Results](#) tab, a table listing all demands that were included in the optimization run is displayed. Apart from demand details such as demand ID, description, status and priority, the table

includes the following details that allow you to compare the planning situation before and after the optimization run:

- Name of the previously assigned resource and of the new resource
- Start date and time of the previously planned assignment and of the optimized assignment
- Work duration for the previously planned assignment and for the optimized assignment
- Travel time for the previously planned assignment and for the optimized assignment

The pushbutton available in the *Operation* field allows you to manually create, change, or delete the selected assignment.

- On the *Detailed Log* tab, the Optimizer log file is displayed.

i Note

You can also display the Optimizer log file using transaction `/MRSS/OPT_LOG`.

More Information

[Optimizer for Resource Planning \[page 617\]](#)

25.4 Optimization in the Background

Use

You can plan optimization by processing background jobs using the computer center management system (CCMS). To optimize planning in the background, select the resources and demands and choose a profile from the resource planning board. Also enter the settings for the optimization run. Save the selection criteria and settings as a variant and plan this variant for background processing.

Activities

1. Call transaction `/MRSS/OPTIMIZE`.
2. Enter the required selections for resources and demands.
3. Select a planning board profile.
4. Enter the settings for the optimization run. Select an optimization scenario and a log profile.
5. Specify whether the run is a simulation. If you select the *Simulation On* indicator, the result of the optimization run is not saved.
6. Perform the optimization directly, for example, for test purposes.
7. Save your entries as a variant.
8. Plan your optimization variant for background processing.

i Note

You can display the optimization log in transaction `/MRSS/OPT_LOG`.

26 Collisions

Use

The system displays date overlaps in which time allocations and assignments for a resource are within the same period (in full or in part) as collisions. In addition, the system can display collisions if a resource is overutilized, that is, even if no parallel assignments or time allocations exist.

Prerequisites

You have made the following settings in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Collision Settings* ►:

- In Customizing activity *Define Collisions*, you have defined collision types and assigned them to object types (for example, assignment or time allocation).
- In Customizing activity *Configure Settings for Collisions*, you have made basic settings for collisions. For example, you have specified that the overutilization of a resource causes a collision.

→ Recommendation

You can specify that collisions are stored in the database. In this case, the system reads the collisions from the database instead of calculating them on the fly for all objects when launching the planning board. Calculation is only performed for changed objects. We recommend this option if you use the planning board for a large number of resources and/or the planning horizon is very long.

Features

- Whenever assignment or a time allocation is changed, the system carries out a collision check. If it detects a collision, it creates a graphical object (collision bar) for the period in question.
- The system creates collisions in the following cases:
 - Overlapping concrete, stretched, or capacitive assignments

i Note

If utilization-based collisions have been activated in Customizing activity *Configure Settings for Collisions*, a collision between two parallel capacitive assignments is only created when the resource utilization exceeds 100% as a result of the overlap.

- Overlapping time allocations
- Overlapping travel times

- Overutilization of resources (that is, resource utilization exceeds 100%).

i Note

In Customizing you can specify that the system includes reservations when determining the resource availability. The resource is considered as reserved if one of the following statuses is set: RES_PROPSD, RES_SELECT, RES_RESERV, RES_CHOSEN, RES_REQUES.

- The system merges collisions that are caused by the same assignments and that are on two consecutive days. Non-working times are not considered in that case.

❖ Example

A collision exists on Thursday from 9:00 to 17:00, that is, during the regular working time. On Friday, another collision is caused by the same capacitive assignments, also from 9:00 to 17:00. In the Gantt chart, only one collision object is displayed. Note that you specify the maximum duration (in minutes) a non-availability can have in Customizing activity [Configure Settings for Collisions](#).

- In the Scheduler Workplace (SAP GUI), you can select a collision object and solve the conflict in resource planning.

More Information

- [Displaying and Editing Collisions in the Scheduler Workplace \[page 628\]](#)
- [Displaying Collisions in the Web-Based Planning Board \[page 629\]](#)

26.1 Displaying and Editing Collisions in the Scheduler Workplace

Prerequisites

- You have activated the display of collisions in the user settings under ► [Extras](#) ► [Settings...](#) ► [Visible Objects](#) ►.
- If you want to resolve collisions in the planning board, make sure that travel and processing times are **not** activated in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.

Context

Collisions are displayed as bars in the resource Gantt chart and in the demand Gantt chart. The collision bar covers the underlying planning board objects. If the collision results from conflicting objects, the collision bar shows how many objects it is covering. If the collision is caused by the overutilization of a resource, the collision bar displays this information.

Procedure

1. Double-click on the collision object you want to edit. A dialog box appears.
2. Select an assignment in the list of conflicting assignments. Choose one of the following options to solve the conflict:
 - Move the conflicting assignments forwards or backwards
If you choose to move the assignment forwards, the system sets the start date of the selected assignment to the end date of the collision.
If you choose to move the assignment backwards, the system sets the end date of the selected assignment to the start date of the collision.
3. Confirm your entries.

Note

You can only move an assignment backwards if the resulting assignment dates are not in the past.

- Cut out a part of the selected assignment and add the segment to the assignment start or end
- Delete the part of the conflicting assignment that is in conflict with another assignment

26.2 Displaying Collisions in the Web-Based Planning Board

Prerequisites

- You have made the following settings in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► *Web-Based User Interface* :
 - Under *Define Graphical Elements (JGantt Chart)* or *Define Graphical Elements (UI5 Gantt Chart)*, you have configured the appearance of the collision bars.

→ Recommendation

Define the color of collision bars as transparent so that collisions do not cover other planning board objects completely. For the UI5 Gantt chart, we recommend to either define a collision bar with a

transparent color or with a red border. This way, you can also see the collision in the main row when the collision is displayed in the background.

- Under [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#), you have assigned the collision bars to Web UI profiles and configured the appearance of the bars that are used to display different types of collisions.
- You have made the following user settings:
 - You have activated the display of collision objects in the resource view and in the demand view.
 - You have activated the display of the corresponding toggle button in the Gantt chart.

Context

Collisions are displayed as bars in the Gantt charts shown in the resource view and in the demand view. You can use a toggle button to display the collision bars in the foreground or in the background.

In contrast to the SAP GUI and the JGantt chart, there is no separate row for the collisions in the UI5 Gantt chart. Collisions are only displayed in the main row of the resource. In order to display the individual bars that cause a collision, you need to expand the relevant resource row in the UI5 Gantt chart. To do so, select the checkbox to the left of the resource name and choose  [Expand](#). For more information, see [Displaying Overlapping Bars in the UI5 Gantt Chart \[page 202\]](#).

Procedure

1. To display the collisions in the foreground, choose  in the JGantt chart or  [Set Collisions to Front](#) in the UI5 Gantt chart.
2. To hide the collisions behind the other planning board objects (for example, assignments) again, choose  in the JGantt chart or  [Set Collisions to Back](#) in the UI5 Gantt chart.

27 Using Maps for Resource Planning

Use

You can integrate a map in the Scheduler Workplace (SAP GUI) and in the Web-based planning board. This allows you to display geographic information about the current planning scenario.

For more information, see the following sections:

- [Using a Map in the Scheduler Workplace \(SAP GUI\) \[page 652\]](#)
- [Using a Map in the Web-Based Planning Board \[page 636\]](#)

Prerequisites

- Validated and geocoded address data must be available in SAP Multiresource Scheduling. For more information, see [Best Practices for the Use of Geographic Information \[page 631\]](#).
- To use a map in the Scheduler Workplace (SAP GUI), you must make the required settings in Customizing. You can either use the delivered implementation or create your own implementation. For more information, see [Setting Up Map Integration in the SAP GUI \[page 653\]](#).
- To use a map in the Web-based planning board, you must make the required settings in Customizing. In addition, you must create a map implementation. For more information, see [Setting Up Map Integration in the Web-Based Planning Board \[page 639\]](#).

27.1 Best Practices for the Use of Geographic Information

Use

SAP Multiresource Scheduling requires geographic information in the form of validated addresses and geographic coordinates for functions such as appointment booking, the calculation of travel times, optimization, or the use of maps. This document describes best practices and recommendations for configuring the use of geographic information.

Use of Geographic Information in SAP Multiresource Scheduling

SAP Multiresource Scheduling provides various functions for business scenarios that utilize geographic information for resources and demands. One example is the display of resources and demands on a map. Another example is the calculation of travel times. To localize an address on a map or to calculate the distance

between two addresses, the system requires more information than just a valid street name, postal code, and city. The address must be geocoded, that is, longitude and latitude information must be available. Geocoding is also essential for functions such as appointment booking and optimization.

Regardless of how you set up the use of geographic information, you must make sure that the following prerequisites are met:

- The address is valid.
- The address is transferred correctly to SAP Multiresource Scheduling.
- Geographic coordinates (longitude and latitude) are available for the address.

Address validation must be performed in the source system (of demands and resources) before transferring the address to SAP Multiresource Scheduling. Geocoding must be configured in SAP Multiresource Scheduling. To perform geocoding, you have the following options:

- You can set up a connection between SAP Multiresource Scheduling and an external geographic information system (GIS).
- You can set up a mapping between postal codes and spatial locations using a table.
- You can create a custom BAdI implementation.

The following sections describe possible scenarios for the set-up of geographic information in SAP Multiresource Scheduling.

Address Validation in Source System, Geocoding in SAP Multiresource Scheduling

In a productive system landscape, the relevant source systems (for example, SAP ERP or SAP CRM) must contain validated address data. SAP Multiresource Scheduling provides Business Add-Ins (BAdIs) and reports for transferring the address to SAP Multiresource Scheduling. As a rule, the source system does not provide longitude and latitude information. Therefore, you must implement geocoding in SAP Multiresource Scheduling.

Address Validation

Address validation is the process of ensuring that the entered address is correct. The validation of addresses is centrally organized in the Business Address Services (BAS) component of the SAP System.

i Note

For more information about BAS, see the application help for SAP NetWeaver at <http://help.sap.com/nw>
► *Application Help* ► *Function-Oriented View* ► In SAP Library, choose ► *Application Server* ► *Application Server ABAP* ► *Other Services* ► *Services for Business Users* ► *Business Address Services (BC-SRV-ADR)* ►.

Address validation must be completed before an address can be used by SAP Multiresource Scheduling. Address validation is a prerequisite for correct geocoding. If the address information is incorrect due to an unknown street number or a typo in the postal code, for example, the system cannot determine the longitude and latitude of an address.

The following SAP Notes provide more information about how to implement address validation in SAP systems:

SAP Note	Provides More Information About
98050 	Address checks, city file, and regional structure
132948 	Importing data to the standard SAP regional structure
176559 	Interfaces for Business Address Services

Geocoding

Geocoding is the process of converting postal addresses into spatial locations (longitude and latitude coordinates). You have the following options to implement geocoding in SAP Multiresource Scheduling:

Option	What to Do
Connection to an external geographic information system (GIS) or GIS provider	See the documentation in Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): - For more information about how to use geocoding, see Customizing for SAP Multiresource Scheduling under ► Optimizer and Travel Times ► Travel Times ► Define Profile for Geocoding of Addresses ► - For more information about how to implement an external GIS, see Customizing for SAP Multiresource Scheduling under ► Basic Settings ► Connection of External Geographic Information Systems ► Also see the documentation the SAP Customizing Implementation Guide (transaction SPRO) under ► SAP NetWeaver ► General Settings ► Set Geocoding ►.

Database table [/MRSS/D_GEO_ZIP](#)

In this table, you can configure a mapping between postal codes and spatial locations (longitude and latitude coordinates).

i Note

SAP delivers an empty table. You are responsible for obtaining the relevant data from a provider of your choice.

Option	What to Do
Business Add-In /MRSS/OPT_GEOCODE_TRAVEL_TIME	You must create a custom implementation to determine the spatial locations (longitude and latitude coordinates). You can find the BAdI in Customizing for SAP Multiresource Scheduling under Enhancements Optimizer and Travel Times BAdI: Determination of Geocoordinates and Travel Times  For more information, see the documentation in the system.

Data Transfer to SAP Multiresource Scheduling

Depending on the type of demand, SAP Multiresource Scheduling provides the following options to transfer demand addresses to SAP Multiresource Scheduling:

Type of Demand	Business Add-In or View	Location in Customizing Structure
Orders from Plant Maintenance (PM) and Customer Service (CS)	/MRSS/RSG_DEMAND_ADDRESS_GET You use method ADDRESS_GET to send the address to the SAP Multiresource Scheduling demand. Optional: If geocodes are available in customer-own fields in the source system, you can also fill the fields LONGITUDE and LATITUDE with the geocodes of the address.	Enhancements Sources of Demand Orders BAdI: Determination of Address Data for Demands (ERP) 
Notifications from Plant Maintenance (PM) and Customer Service (CS)	/MRSS/SNO_ADDRESS_GET You use method ADDRESS_GET to send the address to the SAP Multiresource Scheduling demand. Optional: If geocodes are available in customer-own fields in the source system, you can also fill the fields LONGITUDE and LATITUDE with the geocodes of the address.	Enhancements Sources of Demand PM/CS Notifications BAdI: Address Determination for PM/CS Notifications 
Service orders from SAP CRM	Customizing View /MRSS/V_CSG_LOC You can use this view to determine the address from the main object, error-causing object, the ship-to party or the sold-to party.	Sources of Demand CRM Service Orders Determine Usage Site of Service Order 

To transfer addresses for resources, you use one of the following reports:

- /MRSS/HCM_RPTWFMIF if you are using employees from SAP ERP HCM

- `/MRSS/WFM_MASTERDATA_ADMIN` if you are using business partners in the *Employee* role

For more information about resource addresses, see [Resource Addresses in SAP Multiresource Scheduling \[page 75\]](#).

Note

After transferring the demand and resource addresses to SAP Multiresource Scheduling, the system determines the geocodes of the address as defined in Customizing for SAP Multiresource Scheduling under ► *Optimizer and Travel Times* ► *Travel Times* ► *Define Profile for Geocoding of Addresses* ►.

Other Scenarios

Source System Provides Non-Validated Address Data

If the source system does not provide address validation, we strongly recommend that you set up Business Address Services accordingly. For more information, see the application help for SAP NetWeaver at <http://help.sap.com/nw> ► *Application Help* ► *Function-Oriented View* ►. In SAP Library, choose ► *Application Server* ► *Application Server ABAP* ► *Other Services* ► *Services for Business Users* ► *Business Address Services (BC-SRV-ADR)* ►.

In addition, you need to implement geocoding in SAP Multiresource Scheduling.

No Address Data Provided by Source System

If the source system does not provide any address data, you cannot use the SAP Multiresource Scheduling functions that require geographic information. That is, you can still schedule resources in the planning board, but you cannot calculate travel times or use the Optimizer with travel times, for example.

Front-End Geocoding in the Web-Based Planning Board

You can integrate a map in the Web-based planning board. To show resources and demands on this map, SAP Multiresource Scheduling requires validated and geocoded addresses. If you cannot perform geocoding by implementing one of the three options described above, you can perform temporary geocoding when the map is called up in the Web-based planning board.

To perform temporary geocoding, you must implement method `/MRSS/IF_SGE_MAPPING~GET_TRANSIENT_GEOCODE` when creating your map implementation. For more information, see [Setting Up Map Integration in the Web-Based Planning Board \[page 639\]](#).

Caution

Front-end geocoding may slow down your system considerably. We recommend that you perform geocoding as described in Customizing under ► *Optimizer and Travel Times* ► *Travel Times* ► *Define Profile for Geocoding of Addresses* ►.

More Information

- [Resource Addresses in SAP Multiresource Scheduling \[page 75\]](#)
- [Using Maps for Resource Planning \[page 631\]](#)

27.2 Using a Map in the Web-Based Planning Board

Use

You can open a map in the resource view of the Web-based planning board to display the location of employees and demands as well as other geographic information. You can also use the map for various resource planning functions.

i Note

The map shows information for human resources and teams. The display of other resource types (N.N. resources, tools) is not supported.

Prerequisites

- You must complete the required setup activities. For more information, see [Setting Up Map Integration in the Web-Based Planning Board \[page 639\]](#).
- Validated and geocoded address data must be available for resources and demands. For more information, see [Best Practices for the Use of Geographic Information \[page 631\]](#).
- You must activate the map display in the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Resource View](#) ►.

Features

- In the user settings, you can activate the display of the map and configure its position and height. For example, you can specify whether you want to display the map below the resource Gantt chart or to the right of the Gantt chart.

→ Recommendation

If you are working with multiple screens, you can open the resource Gantt chart in a separate window to have more space available for displaying the map.

- When you open the map, you can see all employees and demands that are currently loaded in the planning board. Depending on whether the current date is within or outside the planning horizon, the following applies:
 - If the current date is within the planning horizon, the map shows the information for the current date.
 - If the current date is outside the planning horizon and nearer to the planning horizon start date, the map shows the information for the planning horizon start date.
 - If the current date is outside the planning horizon and nearer to the planning horizon end date, the map shows the information for the planning horizon end date.

i Note

If you only want to show specific information on the map, you can filter the resource Gantt chart or the demand list for the required information. The system updates the map accordingly.

- You can use the following functions in the map:

Button or Field	Allows You to Do the Following
Date and time fields	You can enter the date and time for which you want to display employees and demands on the map. i Note Note that you have to refresh the map to make the change effective.
<i>Find Suitable Resource</i>	Choose this button to perform qualification matching and find a suitable employee for a selected demand. If the system finds a suitable employee, you can assign the employee to the demand by dragging and dropping it on the demand.
<i>Select Area on Map</i>	Choose this button to select an area on the map using your mouse. The employees and demands that are located in the selected area are highlighted in the resource Gantt chart and in the demand list, respectively. To undo your selection, you can either deselect the employees and demands in the Gantt chart and demand list, or you can select another area on the map.

Button or Field	Allows You to Do the Following
Show Resource Route / Hide Resource Route	Choose this toggle button to display or hide the route that the selected employee travels between the different assignment locations on the specified day. To hide the route, just press the button again or deselect the employee in the Gantt chart. i Note - You can only display a route if assignments exist for the selected employee. - Street-level routing is performed according to the logic of the GIS system. As a result, the route displayed on the map may differ from the route that was calculated by the SAP Multiresource Scheduling system (for example, during optimization). Travel times calculated by SAP Multiresource Scheduling are not taken into account for street-level routing.
Scroll-Wheel Zooming	Choose this button if you want to zoom in and out of the map using the scroll wheel of your mouse. i Note You can return the map to its initial state by choosing Show All Objects on Map.
Show Resources at Current Demand Location / Show Resources at Home	Choose this toggle button to switch between displaying the employees at the current demand location or at home. To show an employee at the current demand location, the system determines the assignment that comes closest to the specified time. To show the employees at their home location, just press this button again. i Note For teams, the system uses the address of the person responsible for the team.
Hide Assigned Demands / Show All Demands	Choose this button to switch between displaying all demands or only those demands that have not yet been assigned to an employees.

Button or Field	Allows You to Do the Following
Show All Objects on Map	Use this button to return the map to its initial state, for example, after zooming in to display a specific area.

27.2.1 Setting Up Map Integration in the Web-Based Planning Board

Use

SAP provides the technical basis for integrating a map in the Web-based planning board. To use a map for resource planning, you must connect a geographic information system (GIS) or a GIS provider to SAP Multiresource Scheduling and create a map implementation.

This document describes how you do the following:

- Implement connector classes to handle the connection between SAP Multiresource Scheduling and the GIS system or provider of your choice
- Create a local Web Dynpro component and JavaScript file to implement the map logic
- Configure Customizing settings to define the look and feel of the map
- Activate the map display to show your map in the resource view of the Web-based planning board

i Note

Any code lines included in this documentation are only examples and are not intended to be used in a productive system environment. The sample code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. SAP does not warrant the correctness and completeness of the code examples.

Prerequisites

Validated and geocoded address data must be available in SAP Multiresource Scheduling. For more information, see [Best Practices for the Use of Geographic Information \[page 631\]](#).

i Note

See SAP Note [2164504](#)  for a detailed example of how to create a map implementation.

Procedure

1. Implement Connector Classes

To implement the connection to an external GIS system or provider, you need to create a connector class in your system and implement the required methods. Depending on the functionality you want to use (for example, route planning or display of maps), you may need to create more classes. To implement a map, for example, you must create a map class in addition to a system class. If you only want to use the GIS for displaying a map (and not for route planning, for example), the map class is your connector class.

This section describes how you create classes based on the delivered classes `/MRSS/CL_GIS_ABSTRACT_SYSTEM`, `/MRSS/CL_GIS_ABSTRACT_MAP`, and `/MRSS/CL_GIS_CUSTOMIZING`.

Step 1: Create a System Class

The system class handles the connection to your GIS system or provider. Proceed as follows:

1. In the *Class Builder* (transaction **SE24**), create a class as a subclass of `/MRSS/CL_GIS_ABSTRACT_SYSTEM`. You can name this class, for example, `Z_CL_GIS_SYSTEM`.
2. Redefine and implement the required methods. We recommend that you implement at least the following methods:

Method	Description
<code>INITIALIZE</code>	Redefine and implement this method to initialize and load your own customizing class (see Step 3). Pass the name of your own class to the <code>GET_INSTANCE</code> method, for example: <pre> IF gref_customizing IS INITIAL. gref_customizing = /mrss/ cl_gis_customizing=>get_instance('Z_ CL_GIS_CUSTOMIZING'). ENDIF. </pre>
<code>/MRSS/IF_GIS_MAPPING~GET_ROUTE</code>	Redefine and implement this method to send the routing request to the external GIS system. This can be a simple HTTP request.
<code>/MRSS/IF_GIS_GEOCODING~GET_GEOLOCATION</code>	Redefine and implement this method to get the geolocation of an address. → Recommendation Implement a private or protected method to parse the result returned by the GIS system.

You can implement further methods, depending on the functions that you want to use.

Step 2: Create a Map Class

The map class handles the abstraction between the Web-based planning board and the external GIS system. Proceed as follows:

1. In the *Class Builder* (transaction **SE24**), create a class as a subclass of `/MRSS/CL_GIS_ABSTRACT_MAP`. You can name this class, for example, `Z_CL_GIS_MAP`.

2. Redefine and implement the required methods. We recommend that you implement at least the following methods:

Method	Description
INITIALIZE	Redefine and implement this method to initialize and load your own GIS system class, for example, <code>Z_CL_GIS_SYSTEM</code>. Pass the name of your own class to the <code>GET_INSTANCE</code> method, for example: <pre>gref_gis_mapping = z_cl_gis_system=>/mrss/ if_gis_mapping~get_instance('Z_CL_GIS_SYSTEM')..</pre>
/MRSS/IF_SGE_MAPPING~GET_ROUTE	Redefine and implement this method to parse the list of assignments (the tour) so that the GIS system can return a route. Call the previously implemented method in your own GIS system class. Note For a detailed example, see SAP Note 2164504.
/MRSS/IF_SGE_MAPPING~GET_TRANSIENT_GEOCODE	You can redefine and implement this method to enable temporary geocoding. The geocoding result is not stored in the database. The system uses this result if an address to be shown on the map does not have a valid geocode. Internally, call the previously implemented method in your own GIS system class. → Recommendation We strongly recommend that you do not use temporary geocoding, since it may slow down your system considerably. For more information about geocoding, see Best Practices for the Use of Geographic Information [page 631].

Step 3: Create a Customizing Class

The customizing class handles the settings that are specific to your GIS provider. Proceed as follows:

1. In the *Class Builder* (transaction **SE24**), create a class as a subclass of `/MRSS/CL_GIS_CUSTOMIZING`. You can name this class, for example, `Z_CL_GIS_CUSTOMIZING`.

2. Redefine and implement the required methods. We recommend that you implement at least the following methods:

Method	Description
INITIALIZE_MAP_LAYERS	Implement this method to specify the URLs that specify the different layer types to be supported by your map. Layer types are, for example, a topographic view or a 3D street view. Which layer types you can use depends on your GIS system or provider. You can enter the URLs in Customizing activity Configure Generic GIS Settings. In this method, you retrieve the settings made in this activity using predefined constants, for example: <pre>ls_map_layer-layer_url = get_field_value(gc_map_layer- street2d)</pre> Make sure that you provide all layers that you want to use in table GT_MAP_LAYERS.
INITIALIZE_MARKER_STYLES	Implement this method to specify the marker styles that represent different objects (such as resources and demands) on the map. The include /MRSS/CONSTANTS_GIS provides a list of markers. Enter the name of the marker that you want to use in Customizing activity Configure Generic GIS Settings. In this method, you retrieve the Customizing settings using predefined constants, for example: <pre>LOOP AT gt_generic_settings INTO ls_generic_setting WHERE type = gc_customizing_type- icon. ... INSERT ls_map_marker_style INTO TABLE gt_marker_styles. ENDLOOP.</pre> For a detailed example, see SAP Note 2164504.

Method	Description
INITIALIZE_SETTINGS	Implement this method to initialize your class. If required, set the attributes to the API scripts and style sheet information as defined in Customizing activity Configure Generic GIS Settings. Call the previously created INITIALIZE methods, for example: <pre> INCLUDE: /mrss/constants_gis. * == Initialize API Scripts and StyleSheets ===== * Get the corresponding values from the generic customizing and put them * on global attributes where they will be distributed from gv_external_api_script = get_field_value(gc_map_script_api- external). gv_internal_api_script = get_field_value(gc_map_script_api- internal). gv_external_stylesheet = get_field_value(gc_map_stylesheets- external). gv_internal_stylesheet = get_field_value(gc_map_stylesheets- internal). * Set up the map layers initialize_map_layers(). * Set up the markers / icons to be used on the map initialize_marker_styles(). </pre>
IS_MAP_ACTIVE	Redefine and implement this method so that it always returns TRUE.
INITIALIZE	Redefine and implement this method to initialize and load your settings. Make sure that you call the predefined initialization of the super class (/MRSS/CL_GIS_CUSTOMIZING) first. This way, the system loads all settings made in Customizing activity Configure Generic GIS Settings and provides these settings in an existing internal table. <pre> super->initialize(). initialize_settings(). </pre>

Method	Description
GENERATE_TOKEN	Redefine and implement this method to access the GIS system with the required authorization. Depending on your GIS system, the system requires you to send an authorization token or API key to process the request. i Note The super class provides a basic token handling mechanism. When you return the token, the system automatically stores it from GET_TOKEN by calling the existing STORE_TOKEN method. The existing READ_TOKEN method reads the token from database table /MRSS/D_GIS_TOKN.

You can implement further methods, depending on the functions you want to use.

2. Create a Web Dynpro Component and a JavaScript File

The ABAP Web Dynpro framework provides UI elements that allow you to integrate custom HTML, custom JavaScript, and custom CSS in a Web Dynpro application. The Web-based planning board provides the technical basis for integrating HTMLIslands. Once you activate the map display, the system automatically activates the HTMLIsland.

i Note

For more information about HTMLIslands, see the application help for SAP NetWeaver at <http://help.sap.com/nw74> ► *Application Help* ► *Function-Oriented View* ► In SAP Library, choose ► *UI Technologies in SAP NetWeaver* ► *Web Dynpro ABAP and Floorplan Manager* ► *Web Dynpro ABAP* ► *Reference: UI Elements* ► *Integration Category* ► *HTMLIsland* ►.

SAP Multiresource Scheduling provides classes for the Web-based planning board (package /MRSS/SGX) that interact with your JavaScript implementation once you activate the map display. The following main classes are provided:

- /MRSS/CL_SGX_IL_EXT_LPLB (Interaction layer to the Web UI)
- /MRSS/CL_SGX_MAPS_ASSIST (Web Dynpro assistance class for map)

The assistant class is called from within the Web Dynpro application and passes the call to the interaction layer.

Step 1: Create a Web Dynpro Component

To store the JavaScript and CSS files, you must create a Web Dynpro component as a container. You can store the files as MIME objects on the application server. Proceed as follows:

1. In the *Object Navigator* (**SE80**), create a dummy Web Dynpro component, for example, Z_MY_GIS. Since only the MIME objects are used in this component, you can use any name for the view and window.
2. Add the MIME objects to the component.

i Note

You can create the files first and import them afterwards to the Web Dynpro component.

3. Create a Web Dynpro application and copy the URL. You enter this URL in Customizing activity [Configure Generic GIS Settings](#).

i Note

The Web Dynpro application is only required because you need the URL information. Instead of creating a new application, you can also use an existing Web Dynpro application that is located on the same server. In this case, copy the URL of this application and add the correct Web Dynpro component (for example, `Z_MY_GIS`) as well as the relevant MIME object name.

Step 2: Create a JavaScript File

The actual structure of your map implementation depends on your GIS system or provider. Depending on what you want to do with your map, you may have to implement a large number of functions.

To allow users to work with a map in the Web-based planning board, you must implement at least the following functions:

Function	Parameter	Description
<code>addCallback</code>	Callback object	This function is required to call server events. The parameter can be stored to call function <code>fireEvent</code> .
<code>createDemands</code>	JSON table of ABAP type <code>/MRSS/T_SGX_MAP_DEMAND_TAB</code>	This function receives the demands to be shown on the map.
<code>createResources</code>	JSON table of ABAP type <code>/MRSS/T_SGX_MAP_RESOURCE_TAB</code>	This function receives the resources to be shown on the map.
<code>createAssignments</code>	JSON table of ABAP type <code>/MRSS/T_SGX_MAP_ASSIGNMENT_TAB</code>	This function receives the assignments to be shown on the map.
<code>createDemands_refresh</code>	JSON table of ABAP type <code>/MRSS/T_SGX_MAP_DEMAND_TAB</code>	This function receives new demands to be shown on the map after the map was initialized.
<code>updateDemands_refresh</code>	JSON table of ABAP type <code>/MRSS/T_SGX_MAP_DEMAND_TAB</code>	This function receives demands to be updated on the map.
<code>deleteDemands_refresh</code>	JSON table of ABAP type <code>/MRSS/T_SGX_MAP_DEMAND_TAB</code>	This function receives demands to be deleted on the map.
<code>createResources_refresh</code>	JSON table of ABAP type <code>/MRSS/T_SGX_MAP_RESOURCE_TAB</code>	This function receives new resources to be shown on the map after the map was initialized.

Function	Parameter	Description
updateResources_refresh	JSON table of ABAP type /MRSS/ T_SGX_MAP_RESOURCE_TAB	This function receives resources to be updated on the map.
createAssignments_refresh	JSON table of ABAP type /MRSS/ T_SGX_MAP_ASSIGNMENT_TAB	This function receives new assignments.
updateAssignments_refresh	JSON table of ABAP type /MRSS/ T_SGX_MAP_ASSIGNMENT_TAB	This function receives updated assignments.
deleteAssignments_refresh	JSON table of ABAP type /MRSS/ T_SGX_MAP_ASSIGNMENT_TAB	This function receives assignments that are to be deleted.
setMapTime	Date and time	This function receives the date and time shown in the map toolbar. This information is used for filtering demands and creating assignments.
fireResourceMatching	No parameter	This function is called when a user chooses the <i>Find Suitable Resource</i> button. You must implement this method to determine the selected demand and to call server event MATCH_RESOURCE or MATCH_ERROR.
matchResource	JSON table of ABAP type /MRSS/ T_SGX_MAP_QUALIF_TAB	This function receives the resource matching results.
setMapSize	Height of the map	This function sets the height of the map. It must be implemented to show the map below the Gantt chart or to change the height of the map.
showRoute	JSON object of ABAP type /MRSS/ T_SGX_MAP_ROUTE	This function is called without routing results when a user chooses the <i>Show Resource Route</i> button and you did not implement routing in the connector class.
showRouteFromServer	JSON object of ABAP type /MRSS/ T_SGX_MAP_ROUTE	This function is called with routing results when a user chooses the <i>Show Resource Route</i> button and you did not implement routing in the connector class.

Function	Parameter	Description
zoomOut	No parameter	This function is called when a user chooses the Show All Objects on Map button. You must implement this function to change the map display so that all objects are visible.
showAssignedDemands	Boolean	This function is called when a user chooses Hide Assigned Demands (false) or Show All Demands (true).
showResourcesAtHomeAddress	No parameter	This function is called when a user chooses Show Resources at Home .
showResourcesAtDemands	No parameter	This function is called when a user chooses Show Resources at Current Demand Location .
hideRoute	No parameter	This function is called when a user chooses Hide Route .
setMapScrollable	Boolean	This function is called when a user chooses Scroll-Wheel Zooming .
selectArea	No parameter	This function is called when a user chooses Select Area on Map .

You can implement the following functions to use additional functionality:

Function	Parameter	Description
selectDemands	JSON table of GUIDs	This function is called when a demand is selected in the demand list. It passes all of the selected demands.
deselectDemands	No parameter	This function is called when all demands are deselected in the demand list.
selectResources	JSON table of GUIDs	This function is called when a resource is selected in the Gantt. It passes all of the selected resources.
filterDemands	JSON table of GUIDs	This function is called when the demand list is filtered. It passes all of the demands that meet the filter criteria.

Function	Parameter	Description
<code>filterResources</code>	JSON table of GUIDs	This function is called when the Gantt chart is filtered. It passes all of the resources that meet the filter criteria.
<code>removeFilterDemands</code>	No parameter	This function is called when the filter in the demand list is removed.
<code>removeFilterResources</code>	No parameter	This function is called when the filter in the Gantt chart is removed.
<code>setMapLayers</code>	JSON table of ABAP type <code>/MRSS/T_GIS_MAP_LAYER_TAB</code>	This function is called with configured map layers that can be loaded in the connector class.
<code>setMarkerStyles</code>	JSON table of ABAP type <code>/MRSS/T_GIS_MARKER_STYLES_TAB</code>	This function is called with configured marker styles that can be loaded in the connector class.
<code>setCustomerField</code>	2 JSON tables of ABAP type <code>/MRSS/T_SGX_MAP_CUST_TAB</code>	This function receives the CI fields and values for demands (first parameter) and resources (second parameter).
<code>refresh_CI_demand</code>	3 JSON tables of ABAP type <code>/MRSS/T_SGX_MAP_CUST_TAB</code>	This function receives the updated CI fields and values for inserted demands (first parameter), updated demands (second parameter), and deleted demands (third parameter).
<code>refresh_CI_resource</code>	2 JSON tables of ABAP type <code>/MRSS/T_SGX_MAP_CUST_TAB</code>	This function receives the updated CI fields and values for inserted resources (first parameter) and updated resources (second parameter).

You can call server events from the map implementation. To do so, you use the callback object that is passed in `addCallback`. It provides a `fireEvent` function with the following parameters:

Parameter	Description
<code>eventName</code>	Name of the event to be called (see below)
<code>parameterString</code>	Parameters to be passed to the server

The following server events must be called from the map implementation to allow users to work with the map:

Event	Parameter	Description
MAPLOADED	No parameter	This event must be called once the map implementation and dependent APIs are fully loaded. The server then passes the loaded objects to the map implementation (for example, using <code>createDemands</code>, <code>createResources</code>).
MATCH_RESOURCES	GUID of the demand that is to be matched	This event starts the resource matching on the server. The server calls <code>matchResource</code> once the result is available. This event can be used in <code>fireResourceMatching</code>.
MATCH_ERROR	No parameter	This event raises an error message. The message states that a demand must be selected for the matching to be performed. This event can be used in <code>fireResourceMatching</code>.

You can use the following events to implement additional functionality:

Event	Parameter
SELECT_SINGLE_RESOURCE	GUID of resource to be selected in Gantt chart
SELECT_SINGLE_DEMAND	GUID of demand to be selected in demand list
DESELECT_SINGLE_RESOURCE	GUID of resource to be deselected in Gantt chart
DESELECT_SINGLE_DEMAND	GUID of demand to be deselected in demand list
SELECT_DEMANDS	Comma-separated list of demands to be selected in the demand list
SELECT_RESOURCES	Comma-separated list of resources to be selected in the Gantt chart
DESELECT_DEMANDS	No parameter
DESELECT_RESOURCES	No parameter
CRTE_ASS_BY_DROP_AT	Comma-separated values of demand GUID, resource GUID, begin date, and begin time at which the assignment is to be created

Event	Parameter
DELETE_ASSIGNMENT	GUID of the assignment to be deleted

Note

For a complete example, see SAP Note [2164504](#).

3. Configure Customizing Settings

Make settings in Customizing for SAP Multiresource Scheduling under **Basic Settings** **Connection of External Geographic Information Systems**. Proceed as follows:

1. In the *Define Connectors for Geographical Information Systems* activity, specify a connector key that represents the external GIS, for example `WEB_MAP`. Enter the name of the connector class. In most cases, this will be the name of the system class that you created earlier. In our example, we enter the name of the map class (`Z_CL_GIS_MAP`), since we only want to use the map functionality.
Leave the *Settings for Connector* field empty.
2. In the *Configure Generic GIS Settings* activity, enter the parameters required for initializing the connector class.
So that the system uses these parameters for initializing the connector class, you need to implement the relevant methods in your customizing class (see above).

Example

In our example, the settings may be as follows:

Value Name	Specific for User	Type	Format	Value
<code>api_ClientID</code>		KEY	TEXT	[Your clientID]
<code>api_ClientSecret</code>		KEY	TEXT	[Your ClientSecret]
<code>api_External</code>		URL	TEXT	[URL of external API]
<code>api_Internal</code>		URL	TEXT	[URL of internal API]
<code>api_ProxyHost</code>		URL	TEXT	proxy
<code>api_ProxyPort</code>		URL	TEXT	8080
<code>css_External</code>		URL	TEXT	[URL of external CSS]
<code>css_Internal</code>		URL	TEXT	[URL of internal CSS]

Note that the values shown here are only placeholders for your data. You must add your specific settings in this Customizing activity. If you do not use a proxy in your organization, just leave the relevant fields empty. You can also make user-specific settings in this activity.

❖ Example

You want to define a marker for the display of unselected resources that is specific for user JOHN_DOE. You specify the marker in JSON format.

Value Name	Specific for User	Type	Format	Value
sy_Resource	JOHN_DOE	ICON	JSON	<pre>{ "MARKER_NAME" : "sy_Resource" , "MARKER_TYPE" : "PMS", "OFFSET _X": 0 , "OFFSET_Y": 10 , "ANGLE": 0 , "URL": "[GIS -specific URL]", "IMAGE_W IDTH": 24 , "IMAGE_HEI GHT": 24 , "IMAGE_DAT A": "" }</pre>

In this example, the JSON format is used. Data in this format can simply be passed to the JavaScript file for usage. However, you can use any other format.

3. In activity [Define Active Geographic Information Systems](#), you specify which services of the connected GIS system or provider you want to use (for example, route planning or map display). In our example, we enter the connector key for the map class, WEB_MAP.

For more information, see the Customizing documentation in the system.

4. Activate the Map Display in the Web-Based Planning Board

In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Configure Profiles of the Web-Based User Interface](#) , you can configure the default settings for first-time users of the Web-based planning board. For example, you can specify that the map is displayed by default when the resource view of the Web-based planning board is opened. Activate the map display for all relevant UI profiles.

In the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Resource View](#) , each user can activate and configure the map as required.

27.3 Using a Map in the Scheduler Workplace (SAP GUI)

Use

If a geographic information system (GIS) is connected to SAP Multiresource Scheduling, you can open a map in the planning board that displays the location of employees, the assignment location, and other information. When you search for employees, the planning board also shows the distance between the employees found and the required assignment location, as well as the amount of time that the employees would require to reach this location.

i Note

The map shows information for human resources and teams. The display of other resource types (N.N. resources, tools) is not supported.

Prerequisites

- You must complete the required setup activities. For more information, see [Setting Up Map Integration in the SAP GUI \[page 653\]](#).
- Validated and geocoded address data must be available for resources and demands. For more information, see [Best Practices for the Use of Geographic Information \[page 631\]](#).

Features

- You can open the map from the context menu for a demand, resource, or assignment. To do so, choose [Display Map](#). By default, the system displays the map in a separate window when you choose the appropriate function for a specific planning board object. If the required Customizing settings are in place, you can also display the map as part of the Scheduler Workplace (SAP GUI) without any reference to a specific object.
- Depending on the object for which you call the map, the following information is displayed in color on the map:

Object	Information Displayed on the Map
Demand	• Location of the demand • Assignments for the demand • Resources for the demands
Resource	• Location of the resource on the current date • Resource assignments • Open demands for the resource

Object	Information Displayed on the Map
Assignment	• Location of the resource on the current date • Resource assignments • Open demands for the resource

- You can use the following functions in the map:

Pushbutton	Allows You to Do The Following
	You can display the map for the current date. The two adjacent pushbuttons are then automatically set to the current date and time. When you update the planning board, the current date is also updated in the map display.
Time, Arrow Keys	You can choose a different date and time. This changes the selection of open demands, resource location, and selected assignments.
	You can show or hide assignments.
	You can show or hide open (unplanned) demands on the map.
	You can specify which resources are displayed on the map: • All • Only those selected in the planning board • None The following resources are displayed by default: • When you call the map from a resource: The selected resource • When you call the map from an assignment: The resource scheduled for the assignment • When you call the map from a demand: All resources

27.3.1 Setting Up Map Integration in the SAP GUI

Use

Before you can display geographic information using a map in the Scheduler Workplace (SAP GUI), you must install a geographic information system (GIS) or set up a connection to an external GIS. You can also combine functions from different GIS. For example, you can use one GIS for route planning and another one for displaying the map.

i Note

SAP Multiresource Scheduling provides a way of connecting PTV Map&Guide using the IGS (Internet Graphics Service) interface. However, the technical connection between PTV and the IGS interface is not part of the delivery. You have to set up an RFC connection and make settings in Customizing for SAP NetWeaver.

You also need to configure all relevant planning board profiles accordingly.

Prerequisites

Validated address data must be available in SAP Multiresource Scheduling. For more information, see [Best Practices for the Use of Geographic Information \[page 631\]](#).

Procedure

i Note

For more information, see the Customizing documentation in the system.

Set Up a GIS Connection

Set up the GIS connection in Customizing for SAP Multiresource Scheduling. You can find the relevant Customizing activities under ► [Basic Settings](#) ► [Connection of External Geographic Information Systems](#) ►.

Proceed as follows:

1. In the [Class Builder](#) (transaction **SE24**), create a class as a subclass of /MRSS/CL_GIS_ABSTRACT_SYSTEM.
2. Implement the methods of the following interfaces, depending on the functionality you want to use:

- /MRSS/IF_GIS_MAPPING

This interface is used to provide information for displaying the map.

Method	Description
/MRSS/IF_GIS_MAPPING~ADD_MARKERS	Implement this method if you want to add markers to the map. The importing parameter IT_MARKERS contains the geolocation information, the marker type, and short texts. Plot the objects and pass a unique ID to identify the created object to exporting parameter IT_MARKER_COLL.

Method	Description
/MRSS/IF_GIS_MAPPING~MODIFY_MARKERS	Implement this method to modify markers in the map. Get the marker object ID from <code>IT_MARKER_COLL</code> and the corresponding updated marker information from <code>IT_MARKERS</code> and update the object.
/MRSS/IF_GIS_MAPPING~DELETE_MARKERS	Implement this method to delete marker objects from the map. The object ID is available in the parameter <code>IT_MARKER_COLL</code> .
/MRSS/IF_GIS_MAPPING~CLEAR	Implement this method to remove all objects from the map.
/MRSS/IF_GIS_MAPPING~MAP_CONTAINER	Implementing this method is mandatory if you want to map the container in which the map is supposed to be displayed with a control. The control can be anything from HTML control to custom controls.
/MRSS/IF_GIS_MAPPING~REBUILD_CONTROL	Implement this method if you want the system to exchange the containers for the map display when this is refreshed. The method updates all the containers and corresponding control objects of the map display.
/MRSS/IF_GIS_MAPPING~DISPLAY_MAP	Implement this method for the actual display of the map in the provided container. The map is rendered in this container.
/MRSS/IF_GIS_MAPPING~RENDER_MAP	This method is required in those cases when no data is updated but the map needs to be rendered to adjust the zoom and position.
/MRSS/IF_GIS_MAPPING~ADD_TOOLBAR_BUTTONS	Implement this method if new buttons need to be added to the map toolbar.
/MRSS/IF_GIS_MAPPING~PROCESS_PAID	Implement this method to handle the map-specific toolbar buttons.
/MRSS/IF_GIS_MAPPING~DRAW_ROUTE	Implement this method to draw the route of the resource.
/MRSS/IF_GIS_MAPPING~DELETE_ROUTES	Implement this method to delete the routes displayed in the map.
/MRSS/IF_GIS_MAPPING~CREATE_ASSIGNMENT	Implement this method and call it to create an assignment using the interactive map.

- /MRSS/IF_GIS_GEOCODING
This interface is used to perform geocoding of location information.

i Note

For more information about geocoding, see [Best Practices for the Use of Geographic Information \[page 631\]](#).

Method	Description
/MRSS/IF_GIS_GEOCODING~GET_GEOLOCATION	Implement this method to derive the geolocation from an address.
/MRSS/IF_GIS_GEOCODING~GET_INSTANCE	Implement this method to get the instance of the routing system.

- /MRSS/IF_GIS_ROUTING
This interface is used to perform street-level routing for addresses.

Method	Description
/MRSS/IF_GIS_ROUTING~GET_DISTANCE	Implement this method to get the distance details between two geolocations.
/MRSS/IF_GIS_ROUTING~GET_INSTANCE	Implement this method to get the instance of the routing system.

3. In the [Define Connectors for Geographical Information Systems](#) activity, enter the name of the connector class.
If you want to store static information for your GIS connection, such as a developer key for an external GIS provider, you can enter this data in the appropriate field in the [Define Connectors for Geographical Information Systems](#) activity. The content is passed as importing parameters to the constructor of your class.
4. In activity [Define Active Geographic Information Systems](#), you define the active services of the geographic information system (GIS) that you have connected to SAP Multiresource Scheduling.

Configure the Map Display in the Scheduler Workplace (SAP GUI)

You can find the relevant Customizing activities under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ►.

Proceed as follows:

- Create a map profile in the [Define Map Profile](#) activity.
- In activity [Define Planning Board Profile](#), assign the map profile to the required planning board profiles. You can also activate the map display here.
- If you want the map to be displayed without reference to an object in the Scheduler Workplace, you must define a container in which the map is to be displayed. You do so in the [Define User Interface Profiles](#) activity, in the [Container Layout Name](#) folder.

28 Capacity and Demand Planning

Use

You have various options to obtain an overview of the ratio between the capacity available in your capacity planning nodes and the demands that are currently assigned to them:

i Note

The term “capacity planning node” describes a unit that has to be planned capacitively. For demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), the capacity planning node corresponds to the work center.

- You can use the [Capacity and Demand Overview](#) report.
- In the Scheduler Workplace (SAP GUI), you can use the demand Gantt chart, the capacity view, and the dispatching view.
- In the Web-based planning board, you can use the demand view, the capacity view, and the demand list.

i Note

For demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), you can use the views and Gantt charts provided in the Scheduler Workplace (SAP GUI) and in the Web-based planning board to perform capacity and demand planning. For example, you can use capacity leveling to counterbalance the overload of work centers. For demands from SAP CRM, you can use the views and Gantt charts for information purposes.

More Information

- [Capacity and Demand Overview \[page 657\]](#)
- [Capacity and Demand Planning in the SAP GUI \[page 670\]](#)
- [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#)
- [Capacity Planning of Demands from Service and Project System \[page 694\]](#)

28.1 Capacity and Demand Overview

Use

The [Capacity and Demand Overview](#) report supports resource planners in medium-term and long-term capacity planning. For example, the report allows you to identify peak periods of high workload that may result

in a shortage of resources. Using the report, you can also detect capacity reserves. This allows you to take into account potential future demands that may need to be planned at short notice.

You can open the Scheduler Workplace (SAP GUI) directly from the report, for example, if you want to solve conflicts in resource planning by adding capacity or shifting demands.

Prerequisites

You have completed the setup activities. For more information, see [Setting Up the Capacity and Demand Overview \[page 659\]](#).

Features

- The system displays key figures such as total capacity, free capacity, and total demand for a given planning node in a given period of time. In addition, you have several options to control which data is calculated and how this data is displayed after the report has been executed.
- The system calculates the available and required capacity based on the demands and resources that exist in SAP Multiresource Scheduling. The system considers demands and resources as relevant for a planning node when they are directly linked to the planning node or to the work center of the planning node. Demands and resources linked to subordinate planning nodes are not considered for superordinate planning nodes.

i Note

We recommend to link the demands and resources to the same planning node (for example on the lowest planning node level) when you set up the planning node structure. This way you ensure that the system calculates the free capacity of a planning node based on the demands and resources linked to this planning node.

- The report is also available as a Web-based application (Web Dynpro component `/MRSS/WD_CAR_MAIN`).
- You can access the Scheduler Workplace (transaction `/MRSS/PLBOORGSRV`) directly from the [Capacity and Demand Overview](#) report based on the selection criteria you specify in the report.
- You can export the results list to an MS Excel file.

Activities

- You access the [Capacity and Demand Overview](#) using transaction code `/MRSS/CAPACITY_REP`.
- You select a planning node for which you want to display the capacity information.
You can select a planning node with subordinate planning nodes or you can select a leaf node, that is, a planning node without subordinate planning nodes. If you select the view type [Single View](#) or [Group View](#), the system displays the figures for [Total Capacity](#), [Free Capacity](#) (and [Total Demand](#) in case of human resource scenario) for each planning node separately. If you select the view type [Group View \(cumulated\)](#) and select a superordinate planning node, then the figures from the subordinate planning nodes will be displayed cumulated on the selected superordinate planning node.

i Note

As soon as you have selected the cumulated group view and the superordinate planning node, the system cumulates the figures based on the individual figures of each subordinated planning node. The cumulated figures are not stored in the data base. Therefore the calculation might take some time before the cumulated figures are displayed.

i Note

The system stores the last viewed planning node in the user settings. The next time you open the *Capacity and Demand Overview*, the system displays the capacity and demand information for this planning node. However, you must choose  to make sure that the up-to-date information is displayed.

- The system calculates and displays various figures for the selected planning node, depending on the settings made in Customizing and the data selection and display options you select before executing the report.

More Information

- [Setting Up the Capacity and Demand Overview \[page 659\]](#)
- [Capacity and Demand Overview: Data Selection and Display \[page 663\]](#)
- [Specifying Demand Reserves \[page 669\]](#)

28.1.1 Setting Up the Capacity and Demand Overview

Use

Before you can use the *Capacity and Demand Overview* report for capacity planning, you must perform the setup activities described in this chapter.

Procedure

1. Customizing Setup

i Note

For detailed information about the individual activities, see the Customizing activity documentation and the field help in your system.

You set up the *Capacity and Demand Overview* in Customizing for *SAP Multiresource Scheduling* under  *Settings for Capacity and Demand Overview* .

In Customizing activity [Configure Planning Node Capacity Calculation](#), you define how the planning node capacity is calculated. You can choose a scenario that uses the work center capacity or you can choose a scenario that uses the capacity of individual human resources.

i Note

You can only define one scenario for the entire client.

In addition, in this Customizing activity, you specify whether the system re-calculates the capacity immediately when the planning board is saved or at regular intervals. The following applies:

- If the capacity is re-calculated whenever the planning board is saved, the updated capacity can be displayed in the [Capacity and Demand Overview](#) report immediately afterwards. In addition, the system updates the capacity view in the demand planning layout of the planning board whenever you change a demand and save the planning board.
- If the capacity is re-calculated at regular intervals, the updated capacity can be displayed in the [Capacity and Demand Overview](#) report only after the batch job has been run. In addition, the capacity view in the demand planning layout of the planning board does not display the updated data when you change a demand and save the planning board or when you create or change orders using the standard order transactions (for example, IW31, IW32). Instead, the capacity view displays the data that was calculated in the last batch job run.

2. Master Data Setup

You set up the master data depending on the scenario you selected in Customizing.

Work Center Capacity Scenario

1. Create work centers in SAP ERP and make entries on the capacity tab for each work center. You can also define shifts on this tab.
2. Run the work center transfer report `/MRSS/SGE_PN_MNT` to transfer the work center capacity information to SAP Multiresource Scheduling.
For the initial master data setup, you must run the report once per date period. If the work center capacity changes, you must run the report again.
If you want the system to re-calculate the capacity at regular intervals, you must schedule a regular batch job for report `/MRSS/SGE_PN_MNT`.

i Note

If you have linked the work center to a planning node in SAP ERP, you can also use report `/MRSS/SGE_RES_PN_MNT` to transfer the work center capacity information to SAP Multiresource Scheduling. Refer to the report documentation in the system for further details.

3. Open the [Capacity and Demand Overview](#) using transaction `/MRSS/CAPACITY_REP`.
The system displays the total capacity and the free capacity based on the work center capacity information transferred and the demand work already created in the work center. However, the system does not display any details that are related to the total demand.

Human Resource Capacity Scenario

1. If you have configured SAP Multiresource Scheduling to be used for HR persons, assign the employees to an organizational unit in SAP HCM.
Alternatively, if you have configured SAP Multiresource Scheduling to be used for business partners, assign the business partners to an organizational unit.

2. To transfer the resource availability information to SAP Multiresource Scheduling, start the `/MRSS/HCM_RPTWFMIF` transfer report (if you are using HR persons) or the `/MRSS/WFM_MASTERDATA_ADMIN` transfer report (if you are using business partners).
3. Start the planning node transfer report `/MRSS/SGE_RES_PN_MNT` to aggregate the human resource availability information to the planning node to which the employees are assigned. The report does not include human resources that are assigned to subordinate planning nodes.
For the initial master data setup, you must run the report once per date period. If the employees that are assigned to an organizational unit change in SAP HCM, you must run the report again. If you want the system to re-calculate the capacity at regular intervals, you must schedule a regular batch job for report `/MRSS/SGE_RES_PN_MNT`.
4. Open the [Capacity and Demand Overview](#) using transaction `/MRSS/CAPACITY_REP`.
The system displays the total capacity and the free capacity based on the human resources transferred and the demand work (and assignments) already created in the planning node. The system also displays the total demand separately and calculates further details related to the total demand (for example, unassigned demands and assigned demands) as specified in Customizing activity [Control Options for Total Demand Calculation](#).

3. Demand Data Setup

After you have set up the master data, you link the demand data with work centers or planning nodes, depending on the scenario that you selected in Customizing.

Work Center Capacity Scenario

1. In SAP ERP, link service orders from Plant Maintenance (PM) and Customer Service (CS) with the work centers you created and send them as demands to SAP Multiresource Scheduling.
2. Open the [Capacity and Demand Overview](#) using the transaction `/MRSS/CAPACITY_REP`.
The system displays the free capacity based on the demand work already created in the work center. However, the system does not display any details for the total demand. It neither calculates the total demand separately nor displays any details that are related to assignments.

You can also link PS network activities or PM/CS notifications with work centers in SAP ERP and transfer them as demands to SAP Multiresource Scheduling.

i Note

Roles from SAP Portfolio and Project Management and service orders from SAP CRM cannot be linked to work centers in SAP ERP. As a result, the demand work that is related to these sources of demand is not shown in the [Capacity and Demand Overview](#) if the work center capacity scenario is active.

Human Resource Capacity Scenario

1. Link PM/CS orders with the work centers you created in SAP ERP and send them as demands to SAP Multiresource Scheduling.

i Note

The work center must be linked to a planning node in SAP ERP in transaction `CR02`. The `/MRSS/SGE_RES_PN_MNT` planning node transfer report is run using the planning node number and identifies the work center based on its linkage to the planning node.

2. Open the [Capacity and Demand Overview](#) using the transaction `/MRSS/CAPACITY_REP`.
The system displays the free capacity and the total demand based on the demand work (and assignments) already created in the planning node. The system also displays the total demand separately. It also

calculates further details related to the total demand (for example, unassigned demands and assigned demands) as specified in Customizing activity [Control Options for Total Demand Calculation](#).

Similarly, you can do the following:

- Link PM/CS notifications with work centers in SAP ERP and transfer them as demands to SAP Multiresource Scheduling
- Link PS network activities with work centers in SAP ERP and transfer them as demands to SAP Multiresource Scheduling
- Link SAP Portfolio and Project Management roles with organizational units and transfer them as demands to SAP Multiresource Scheduling
- Link SAP CRM service orders with a service employee group that is bound to an organizational unit and transfer them as demands to SAP Multiresource Scheduling
- Link RM request roles with organizational units and transfer them as demands to SAP Multiresource Scheduling
- Link work tickets from SAP Cloud for Customer with organizational units and transfer them as demands to SAP Multiresource Scheduling

i Note

Organizational units must be distributed to the SAP Multiresource Scheduling system via ALE to be used as planning nodes in SAP Multiresource Scheduling.

If a human resource capacity scenario is active, you can see the demand work coming from PM/CS orders, PS network activities, PM/CS notifications, SAP Portfolio and Project Management roles, CRM service orders, RM request roles, or work tickets from SAP Cloud for Customer in the free capacity and total demand details that are shown in the [Capacity and Demand Overview](#).

If you want to transfer demands from PM/CS orders and CRM service orders to the same planning node, you must make sure that the planning node is linked to exactly one work center in SAP ERP. This is an important prerequisite for displaying the demand work from different order transactions under one planning node in the [Capacity and Demand Overview](#).

If you want to transfer a CRM service order or SAP Portfolio and Project Management role to a planning node that is not linked to a work center in SAP ERP, you must make settings in Customizing to specify how the system distributes the demand work for planning nodes. You do this in Customizing activity [Define Distribution of Demand Work](#). When you then create a CRM service order or a SAP Portfolio and Project Management role, the system creates a demand in SAP Multiresource Scheduling and distributes the demand work equally across the working days specified for the planning node.

If the planning node is linked to exactly one work center in SAP ERP, you can specify how the demand work is to be distributed across the relevant working days. You do this in Customizing activity [Control Options for Total Demand Calculation](#), in the [Demand Distribution](#) field. You can specify the following:

- Whether you want the demand to be distributed equally across the working days that fall into the demand period
The demand contributes to a working day if the demand period overlaps with the opening hours of the work center on that day.
- Whether you want the demand work to be distributed proportionally, according to the start and end time of the demand and the opening hours of the work center.

28.1.2 Capacity and Demand Overview: Data Selection and Display

Use

You have several options to control which data the system displays for the selected planning node. For example, you can specify that in addition to the total and free capacity, additional details, such as travel times and processing times, are shown.

You have several options for displaying the data. For example, you can display the report results in absolute values or in percentages, or you can display them in table form, in chart form, or both.

i Note

The following assignments and demands are excluded from the capacity calculation:

- Assignments that are created in pre-booking mode
- Demands that are filtered out from the capacity calculation using the Business Add-In [BAdI: Filter Out Demands from Capacity Calculation](#) (/MRSS/CAG_DEM_FILTER)

Key Figures

After you have executed the report, the key figures described below are displayed for the selected planning node.

How these figures are calculated depends on the planning node capacity scenario you choose in Customizing activity [Configure Planning Node Capacity Calculation](#). For more information, see [Setting Up the Capacity and Demand Overview](#) [page 659].

Key Figure	Description
Total Capacity	In the work center capacity scenario, the total capacity is calculated based on the work center capacity that is defined in SAP ERP using transaction CR02 (<i>Capacities</i> tab). In the human resource capacity scenario, the total capacity is calculated as follows: - Human resources (either HR persons or time-based business partner resources) and N.N. resources that are assigned to the planning node contribute with their availability to the total capacity of the planning node. How the resource availability is calculated depends on the settings made in Customizing activity <i>Configure Planning Node Capacity Calculation</i>. By default, the availability of the resource includes time allocations but does not include on-call times. Note The following types of resources do not contribute to the total capacity: - Tool resources - External capacity-based service provider resources, that is, resources that were created as business partners with one or multiple time frames per day - Resources that were added temporarily to a planning board session using the <i>Add Resource</i> option. - Resources that are assigned to planning nodes that are subordinate to the current planning node. - If a team is assigned to a planning node, the availability of all team members (human resources) contributes to the total capacity of the planning node, even if not all of the team members are assigned to the planning node. - If a resource is part of a team that belongs to a planning node other than the selected one, the availability of this resource is subtracted from the total capacity of the selected planning node.

Key Figure	Description
Free Capacity	In the work center capacity scenario, the free capacity is calculated by subtracting the existing demands from the total capacity. Note that the system only considers the demand work that is already created in the work center. Assignments are not considered. In the human resource capacity scenario, the free capacity is calculated by subtracting the total demand from the total capacity. The free capacity is reduced by the following: - Existing demands that have already been assigned to resources - Existing demands that have not yet been assigned to resources, including the expected processing times (preparation and wrap-up) as well as expected travel times i Note In contrast to the free capacity displayed in the Capacity and Demand Overview report, the remaining resource capacity that is displayed in the planning board is not reduced by unassigned demands, but only by assignments and time allocations. - Existing assignments, including the planned processing times (preparation and wrap-up) as well as planned travel times - Remaining demand reserve i Note Since time allocations (for example, vacation or illness) reduce the total capacity of the planning node, time allocations indirectly reduce the free capacity.

Key Figure	Description
Total Demand	The total demand is only calculated in the human resource capacity scenario. The total demand is made up of the following: • Remaining demand reserve • Assigned demands • Unassigned demands • Processing times • Travel times i Note In Customizing activity Control Options for Total Demand Calculation, you control how the total demand is calculated. In this activity, you can also specify whether or not demand reserve, processing times, and travel times are calculated. For more information, see the documentation in the system.

i Note

In some cases, the capacity of individual resources as well as the assignment duration are shown multiple times. This happens if you have set up a planning node capacity scenario that uses the capacity of individual human resources and if one the following applies:

- The human resources belong to a planning node that is linked to multiple work centers.
- The human resources are linked to multiple resource planning nodes.

In this case, the system shows resource capacity and assignment duration once for each work center or resource planning node. It also takes this information into account multiple times when calculating capacity and demand.

Data Selection Options

You can display additional details for the selected planning node by selecting the respective checkboxes before executing the report.

Note that these additional figures are only calculated if the **human resource capacity scenario** is active.

Figure	Description
Total Capacity Details	The total capacity details include the following: • Basic availability without any time allocations • Basic availability without on-call time allocations • Basic availability including all time allocations You can only display these details if all three capacities are calculated by the report. This is specified in Customizing activity Configure Planning Node Capacity Calculation.
Demand Reserve Details	If a demand reserve exists for the selected planning node and the corresponding option has been activated in Customizing activity Control Options for Total Demand Calculation, you can display the following details: • Defined demand reserve • Remaining demand reserve For more information, see Specifying Demand Reserves [page 669].
Processing Time Details	If processing times (time required for the preparation and wrap-up phase) have been defined and the corresponding option has been activated in Customizing activity Control Options for Total Demand Calculation, you can display the following details: • Expected preparation and wrap-up time for demands • Planned preparation and wrap-up time for assignments Processing times are only relevant for demands that are based on orders from Plant Maintenance (PM) and Customer Service (CS). For more information, see Processing Times [page 569].
Travel Time Details	If travel times have been defined and the corresponding option has been activated in Customizing activity Control Options for Total Demand Calculation, you can display the following details: • Expected travel times for demands Expected travel times are only relevant for demands that are based on orders from PM or CS. • Planned travel times for assignments For more information, see Inclusion of Travel Times [page 565].

Figure	Description
Demand Work per PM Activity Type	For demands that are based on PM orders, you can display the demand work based on the PM activity type (for example, inspection, repair, preventive maintenance). Note that the corresponding option must be activated in Customizing activity Control Options for Total Demand Calculation .
Demand Work per CRM Service Product	For demands that are based on CRM service orders, you can display the demand work based on the CRM service product. Note that the corresponding option must be activated in Customizing activity Control Options for Total Demand Calculation .
Demand Work per Status Group	You can display the demand work according to the demand status groups that are defined in Customizing activity Map Abstract Statuses to Status Groups . Note that the corresponding option must be activated in Customizing activity Control Options for Total Demand Calculation

i Note

You can only use demand-related abstract statuses (demand header user statuses and demand item user statuses). Abstract statuses that are related to assignments are not supported.

Options for Displaying the Report Results

The report results are aggregated based on calendar weeks. You have the following options to display the report results:

- Display the results in absolute values or in percentage values
- Display the results in single view, group view, or cumulated group view
- Display the results in table form, in chart form, or in both

The graphical display of the report results is only available in the SAP GUI version of the report.

i Note

For detailed information about the individual options, see the field help in the system.

When you change one of the options after executing the [Demand and Capacity Overview](#) report, the system re-selects the data and displays the figures based on the newly selected option.

More Information

- [Capacity and Demand Overview \[page 657\]](#)
- [Setting Up the Capacity and Demand Overview \[page 659\]](#)

28.1.3 Specifying Demand Reserves

Use

The definition of demand reserves is especially useful in medium-term and long-term capacity planning scenarios. A demand reserve is the amount of work that is expected for a resource or capacity planning node. Even though no specific demand may exist yet, you can define demand reserves for a planning node and reduce the planning node capacity accordingly.

Integration

You can display the demand reserve details (defined demand reserve and remaining demand reserve) for a planning node using the [Capacity and Demand Overview](#) report.

For more information, see [Capacity and Demand Overview \[page 657\]](#).

Procedure

1. Execute transaction [/MRSS/DEMAND_RESERVE](#).
2. To create entries, specify the following:
 - Planning node for which you want to define the demand reserve
 - (Optional) PM activity type (for example, emergency) or CRM service product
 - Time period during which the capacity is to be reserved
Note that the first day must be the first day of a calendar week (for example, Monday) and the last day must be the last day of a calendar week (for example, Sunday). Make sure that the time periods you define for one planning node do not overlap.
 - Duration of the capacity reserve, that is, how much time is to be reserved
 - Duration unit (for example, hours)
3. After creating demand reserves for a planning node, run the [Planning Node Transfer](#) report ([/MRSS/SGE_RES_PN_MNT](#)) for the planning node and the respective period.

i Note

After running the report, make sure that you do not have any unprocessed queues related to demand reserves in the [qRFC Monitor](#) (transaction [SMQ2](#)).

Once the report has been run and all queues have been processed, you can display the demand reserves using the [Capacity and Demand Overview](#) report (/MRSS/CAPACITY_REP).

Example

You expect a certain amount of emergency orders to be scheduled as SAP Multiresource Scheduling demands in January and February. Therefore, you want to reserve capacity for resource planning nodes 50001856 and 50001857 to make sure that these orders can be completed. You create demand reserves by entering the following data:

Planning Node	PM Activity Type	Start of Calendar Week	End of Calendar Week	Demand Reserve Duration	Duration Unit
50001856	Emergency	06.01.2014	26.01.2014	20	H
50001856	Emergency	27.01.2014	02.03.2014	30	H
50001857	Emergency	06.01.2014	26.01.2014	20	H
50001857	Emergency	27.01.2014	02.03.2014	10	H

More Information

[Capacity and Demand Overview \[page 657\]](#)

28.2 Capacity and Demand Planning in the SAP GUI

Use

The Scheduler Workplace (SAP GUI) provides the following Gantt charts or views for demand and capacity planning:

- Demand Gantt chart
- Capacity view
- Dispatching view

These views are part of the demand planning layout (DPD layout). You can use them to show the current demand and capacity situation for your capacity planning nodes.

Note

For demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), you can use these views to perform various capacity and demand planning functions. For demands from SAP CRM, you can use these views for information purposes.

Prerequisites

- The demand planning layout (DPD layout) must be configured for each relevant user interface profile. You do so in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►. For more information, see the documentation in the system.
- In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Create Worklist Profile](#) ► (in the [Fields in Demand Display](#) folder), you can specify which fields or columns are displayed in the demand Gantt chart.
- Some of the functions described below must be activated in Customizing.

Features

- You can switch to the demand planning layout by choosing . To switch back to the resource planning layout, choose .
- The following table lists some important functions that you can use for capacity and demand planning. The table also indicates to which view the function applies:

Note

Some of these functions are also available in the context menu for a demand. The context menu may also provide additional functions that are not listed here.

Button	Allows You to Do the Following	Applies To	More Information
	Allows you to select and move multiple planning board elements (such as assignments or demands) simultaneously. All selected elements must be of the same type in order to be moved together. When moving the objects, their relative position to each other remains unchanged.	- Demand Gantt chart - Dispatching view Note When you select and move multiple elements in one Gantt chart, they are moved concurrently in the other Gantt chart.	Processing Planning Board Elements [page 138]
	Allows you to draw relationships between demand items in the Gantt chart.	Demand Gantt chart	Relationships [page 714]
	Activates the display of the availability view. In this view, the demands in the demand Gantt chart are grouped based on the associated technical objects.	Demand Gantt chart	Availability View [page 605]
	Allows you to configure the display of the capacity view.	Capacity View	Capacity View in the Scheduler Workplace (SAP GUI) [page 674]
	Displays existing relationships between demands in the demand Gantt chart.	Demand Gantt chart	Relationships [page 714]

Button	Allows You to Do the Following	Applies To	More Information
	Allows you to show or hide text boxes for demand bars. i Note You can only display text boxes for demands. If you have activated the display of assignment bars in the demand Gantt chart, no text boxes are displayed. You can (de)activate the display of assignments in the user settings.	Demand Gantt chart	Displaying Text Boxes for Demands [page 681]
	Allows you to move multiple demands at once by a specified number of days. Note that the system does not take the capacity of work centers into account.	• Demand Gantt chart • Dispatching view	Changing the Dates of Multiple Demands [page 720]
	Triggers the shifting of all complex demands that are currently displayed in the Gantt chart to counterbalance the overload of work centers.	• Demand Gantt chart • Capacity view • Dispatching view	Capacity Leveling: Shifting Demands at Work Center Level [page 703]
	Allows you to group demands according to specific attributes if the required Customizing settings are in place. Grouping is only possible if you have not activated the availability view.	Demand Gantt chart	Grouping of Demands [page 680]

i Note

Some buttons in the application toolbar and the Gantt chart toolbar are also available in the resource planning layout. For more information about these functions, see [Workplace Functions \[page 86\]](#).

→ Recommendation

If you are working with demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), you can customize the layout so that the system shows the resource Gantt chart and the three demand planning Gantt charts in parallel. For more information, see [Parallel Assignment and Demand Planning \[page 682\]](#).

28.2.1 Capacity View in the Scheduler Workplace (SAP GUI)

Use

The capacity view shows the available capacity of the current capacity planning nodes and the capacity required by the demands assigned to them. When calculating the capacity used, the system takes into account all order operations and network activities that have been integrated as demands in SAP Multiresource Scheduling, not only those that are currently loaded in the planning board.

Prerequisites

- You must specify how the capacity is calculated in SAP Multiresource Scheduling. You do so in Customizing under ► [Settings for Capacity and Demand Overview](#) ► [Configure Planning Node Capacity Calculation](#) ►.
- You must set up the required master data and transfer the required information to SAP Multiresource Scheduling. For more information about possible capacity scenarios and prerequisites, see [Setting Up the Capacity and Demand Overview \[page 659\]](#).
- You must configure the demand planning layout for all relevant UI profiles. You do so in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►. For more information, see the Customizing documentation in the system.
- You must activate the capacity view in the user settings under ► [Extras](#) ► [Settings...](#) ► [Visible Objects](#) ► [Display of Demand](#) ►. You can make further settings under ► [Extras...](#) ► [Visible Objects](#) ► [Capacity View](#) ►.

Features

- For demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), the system calculates the available capacity from the master record of the work center. The system takes into account the factory calendar, the start and end time, the length of breaks, and the number of resources.
- The capacity view displays the capacity for each shift.
- If the capacity calculation is based on the capacity of individual human resources, in addition to human resources, the system also takes into account the capacity of N.N. resources and teams.

Note

In the dispatching view, the system does not display the N.N. resources and teams when you expand the relevant planning node row.

- The user settings provide various configuration options for the capacity view. These allow you to choose between different view types or change the value of the percentage line.

For example, you can activate the display of absolute values instead of the percentage display:

- In the individual view or group view, the absolute capacity is displayed as the number of resources.

Note

Only whole numbers are displayed. That is, if 2 resources are fully available (100%) and one resource is only partially available (50%), the system displays the absolute availability as 3 resources, not as 2.5.

- In the table view, the absolute capacity is displayed in hours. For more information, see [Table-Based Capacity View \(SAP GUI\) \[page 676\]](#).
- If you do not activate the display of absolute values, the system displays the capacity utilization within the planning horizon in the form of a line chart. Utilization is a relative value: It indicates the percentage of required capacity in relation to the capacity of the capacity planning node to which the demand is assigned.

The red line indicates the maximum capacity. By default, the percentage line is shown at 100%. You can overwrite this setting in Customizing and in the user settings of the planning board.

Example

The percentage line is shown at 100%. If the utilization curve reaches the red line, the capacity planning node has 100% utilization. If the curve passes over the red line, the capacity planning node has more than 100% utilization.

- You can also activate and deactivate some of these options in the toolbar. To do so, choose :
 - You can display the area below the utilization curve in color or to leave it transparent (recommended for the group view).
 - You can change the view type:

View Type	Description
Individual view	Shows the capacity for each planning node in a separate row
Group view	Shows all planning node capacities in one row
Table view	Shows the capacity in absolute or percentage values instead of in curves These values are displayed in one row per planning node. For more information, see Table-Based Capacity View (SAP GUI) [page 676] .

More Information

- [Setting Up the Capacity and Demand Overview \[page 659\]](#)
- [Table-Based Capacity View \(SAP GUI\) \[page 676\]](#)

28.2.1.1 Table-Based Capacity View (SAP GUI)

Use

The table-based capacity view is a Gantt chart in table form. This view allows you to identify capacity overloads quickly by showing capacity information in different colors, depending on the planning node utilization.

Note

You can use the capacity view in the Web-based planning board as an alternative to the table-based capacity view in the SAP GUI.

Prerequisites

- (Optional) You can define the colors for displaying the table cells based on the utilization. You do so in Customizing under ► [Set Up Scheduler Workplace](#) ► [Define User Interface Profile](#) ►. For more information, see the documentation in the system.
- You can configure the capacity view in the user settings under ► [Extras](#) ► [Settings...](#) ► [Visible Objects](#) ► [Capacity View](#) ►.

Features

- You can open the table-based capacity view by activating view type [Table View](#) in the user settings. Alternatively, you can activate the view using the  button.
- Depending on the scaling option you set in the demand Gantt toolbar, the capacity information for each capacity planning node is shown as follows:

Scaling Option	Display of Capacity Information
1 day	One table cell per day
1 week	

Scaling Option	Display of Capacity Information
4 weeks	One table cell per week
12 weeks	One table cell per month

- The table cells are shown in different colors, depending on the utilization of the capacity planning node. The system sets the color as defined in Customizing for the UI profile.
- You can display the capacity information either in hours or in percent. The default option is specified in Customizing. You can change this option in the user settings:
 - If you activate the display of absolute values, the consumed capacity and the total available capacity is shown in hours.
 - If you do not activate the display of absolute values, the utilization is shown as a percentage.

❖ Example

On October 8, 2014, the capacity available in the capacity planning node WC_2 is 15 hours. 12 hours have already been used up, 3 hours are still available. Depending on the user setting, the capacity information is shown as follows:

- If the display of absolute values is active, the table-based capacity view shows the capacity as 12.0/15.0h (consumed capacity / total available capacity).
- If the display of absolute values is not active, the table-based capacity view shows the capacity as 80.00% (utilization).

- The system calculates the capacity information as follows:

Parameter	Calculation Logic	Comment
Total available capacity	The total available capacity is calculated based on the basic availability.	How the system determines the free capacity and the basic availability depends on the capacity scenario that is set in Customizing: • In a human resource capacity scenario, the resource planning node information is used. • In a work center capacity scenario, the capacity data of the work center is used. For more information about these scenarios, see Setting Up the Capacity and Demand Overview [page 659]. For more information about the determination logic, see Capacity Graphs [page 903]. The free capacity can be negative if too many demands are assigned to

Parameter	Calculation Logic	Comment
Total free capacity	The free capacity is the total available capacity minus the consumed capacity.	the capacity planning node on the same day.
Consumed capacity	The consumed capacity equals the total available capacity minus the free capacity.	
Utilization (in percent)	The utilization equals the consumed capacity per day divided by the total available capacity.	If the free capacity is negative, the percentage value is greater than 100.

❖ Example

A demand with 3 hours duration is scheduled on a day on which there is no capacity available in the capacity planning node. The table-based capacity view shows the following information:

Display of Capacity	Information Shown in Table Cell	Meaning
In absolute values	3.0/0.0h	- Consumed capacity is 3 hours - Total available capacity is 0 hours - Result: Total free capacity is – 3 hours.
In percentage values	999.00%	There is no free capacity available.

More Information

- [Setting Up the Capacity and Demand Overview \[page 659\]](#)
- [Capacity Graphs \[page 903\]](#)
- [Capacity View in the Web-Based Planning Board \[page 690\]](#)

28.2.2 Dispatching View (SAP GUI)

Use

In the dispatching view, the system displays the assigned demands for the current capacity planning nodes as a bar chart. If you use work centers as capacity planning nodes, the system displays the opening times of the work centers in the dispatching view.

You can use the dispatching view in the Scheduler Workplace (SAP GUI).

Prerequisites

- You must include the dispatching view in the demand planning layout for your UI profile. You do so in Customizing at ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►. For more information, see the documentation in the system.
- In the user settings, you can activate the display of the dispatching view under ► [Extras...](#) ► [Visible Objects](#) ► [Display of Demand](#) ►. Under ► [Extras...](#) ► [Visible Objects](#) ► [Dispatching View](#) ►, you can make further settings to configure the dispatching view.

Features

The system ensures that the display of the demand Gantt chart and the dispatching view is up to date: If you change the demands in the demand Gantt chart, your changes also apply to the dispatching view and vice versa.

You can use the following options in the dispatching view:

Adding Capacity Planning Nodes

You can add further capacity planning nodes to the dispatching view. To do so, select the header row of the list of capacity planning nodes in the dispatching view and choose [Add Planning Node](#) from the context menu.

Displaying Resources for Capacity Planning Nodes

- You can display personnel resources for the respective capacity planning nodes. To do so, select the [Display Resources](#) indicator in the user settings under ► [Visible Objects](#) ► [Dispatch. View](#) ►.
- If the resource display is active, you can view the respective employees by expanding the corresponding capacity planning node. The system displays the assignments and time allocations of these resources in the resource rows. If two work centers are assigned to the same planning node, resources assigned to this planning node are displayed for both work centers.

i Note

In Customizing for SAP Multiresource Scheduling under ► [Settings for Capacity and Demand Overview](#) ► [Configure Planning Node Capacity Calculation](#) ►, you can specify how the planning node capacity is calculated. If the capacity calculation is based on the capacity of individual human resources, in addition to personnel resources, the system also takes into account the capacity of N.N. resources and teams. However, the system does not display the N.N. resources and teams when you expand the respective planning node row in the dispatching view.

- You can scale or move assignments in the resource row of the dispatching view. Double-click the assignment to display the assignment details.
- If you choose not to display individual resources, the system displays only the capacity planning nodes with the respective demands in the dispatching view. Resources and assignments are not displayed.

Creating Assignments

To assign a demand to a capacity planning node or one of its resources, you can select the demand in the demand Gantt chart and drag and drop it on the capacity planning node row the dispatching view. You can then select the demand item again and drop it on the appropriate resource row.

i Note

You cannot create demands in the dispatching view.

28.2.3 Grouping of Demands

Use

You can group demands in the demand Gantt chart of the Scheduler Workplace (SAP GUI). You can use this function to group demands based on specific attributes, for example, by work center, technical object, or customer.

i Note

You cannot use the grouping function in the availability view. In this view, the demands are already grouped based on the associated technical objects.

Prerequisites

In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Worklist Profile](#) ► [Create Worklist Profile](#) ►, you have specified which fields are available as grouping attributes. You must select the [Grouping](#) checkbox for at least one field so that the relevant button is available in the demand layout.

Features

- You can specify one attribute based on which you can group the demands that are currently displayed in the demand Gantt chart. To do so, choose  and select the desired attribute in the dropdown menu.
- In the list of demands, the system displays the grouping attribute as the first row (top level), followed by the associated complex demands (second level) and the single demands (third level).

i Note

If you apply a grouping attribute that is an item attribute, the hierarchical relationship between complex demands and single demands is no longer displayed in the demand Gantt chart.

If the grouping attribute cannot be applied for a demand, the demand is listed below the grouped demands.

- You can filter and sort the grouped demands.

28.2.4 Displaying Text Boxes for Demands

Use

You can display text boxes for demands shown in the demand Gantt chart in the Scheduler Workplace (SAP GUI).

i Note

You can only display text boxes for demands. If you have activated the display of assignments in the demand Gantt chart, no text boxes are displayed. You can (de)activate the display of assignments in the user settings.

Prerequisites

You must implement Business Add-In [Display of Additional Text Boxes](#). You can find this BAdI in Customizing under ► [Enhancements](#) ► [Scheduler Workplace](#) ► [Display of Text Boxes in Demand Gantt Chart](#) ►.

For more information, see the BAdI documentation in the system.

Features

- If the BAdI is implemented correctly, a button  is available in the Gantt chart toolbar. Using this button, you can display or hide the text boxes as required.
The following applies:
 - The text boxes are shown for complex demands (header level) and for single demands (item level).
 - The text boxes are only shown if they can be displayed within the planning horizon.
 - You cannot display text boxes if assignments are shown in the demand Gantt chart.
 - If you change the demand, for example, by moving the bar in the Gantt chart, the system deletes the text boxes and re-creates them again based on the changed demand data.
- The system remembers the setting that you made in your last planning board session. If you activated the display of text boxes in your last session, text boxes are shown the next time you launch the planning board.

28.2.5 Parallel Assignment and Demand Planning

Use

In the Scheduler Workplace (SAP GUI), you can combine the demand planning layout and the resource Gantt chart. This allows you to create assignments directly by dragging demands from the demand Gantt chart and dropping them on the resources in the resource Gantt chart. In this combined layout, you can use most of the functions that are available for demands in the worklist of the resource planning layout.

i Note

You cannot use the following functions in the combined layout:

- Display map
- Demand split
- Demand split history
- Assign tool

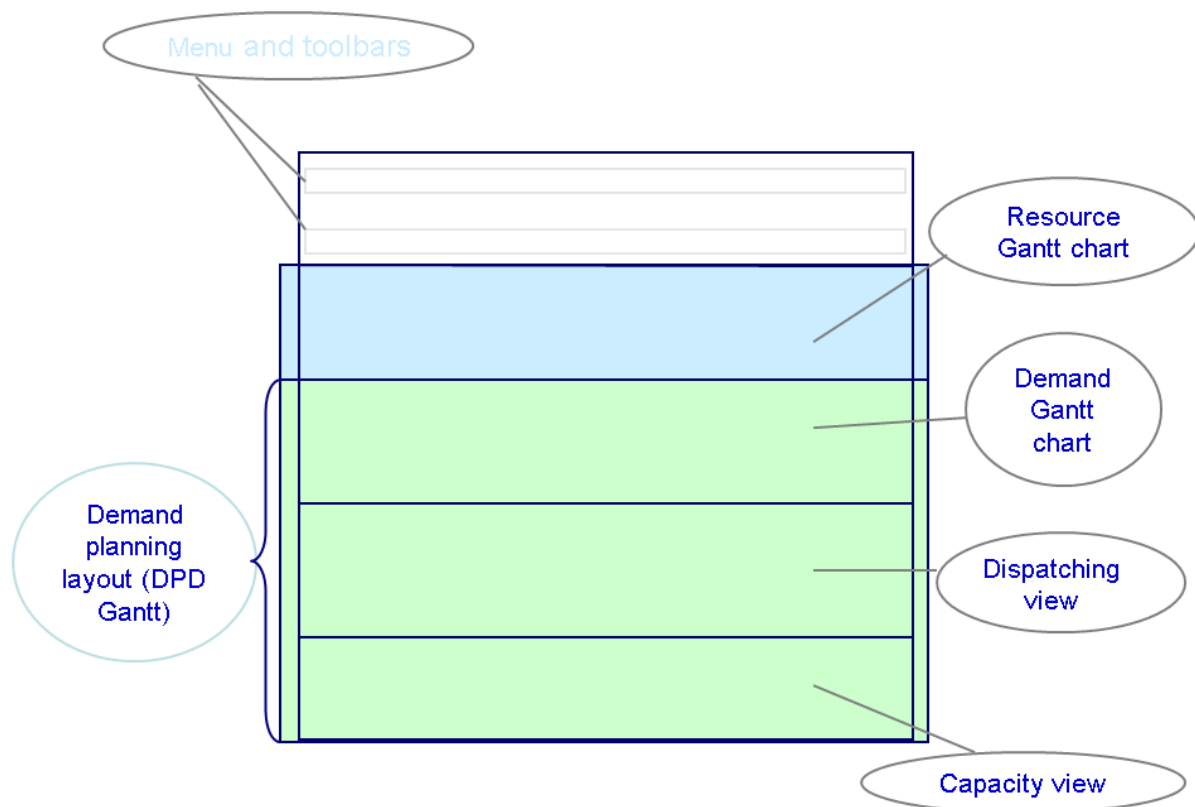
Prerequisites

- You must configure the combined layout at UI profile level. You do so in Customizing at ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►. For more information, see the Customizing documentation in the system.
- To use the enhanced context menu in the demand Gantt chart, you must select the corresponding checkbox in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►. Alternatively, you can activate this setting in the user settings under ► [Response](#) ► [Context Menu in Demand Gantt Chart](#) ►.

Features

- In the user settings under ► [Response](#) ► [Response When Double-Clicking in Demand Gantt Chart](#) ►, you can specify that the system is to select the corresponding assignment in the resource Gantt chart when you double-click a demand in the demand Gantt chart. Alternatively, you can specify that the demand detail view is to appear when you double-click a demand or that none of the functions are active.
- To synchronize the timelines of the two bar charts, choose  in the resource or demand Gantt chart.
- Each user can specify how resources and demands are displayed by configuring the user settings under [Visible Objects](#). For example, you can enter different zoom factors. To do so, you must activate the individual display of the timeline on the respective tab page ([Display of Resources](#) or [Display of Demand](#)). If you do not set the checkboxes for individual control, the settings under ► [Visible Objects](#) ► [Timeline Display](#) ► apply to both layouts.

Sample Layout for Parallel Demand and Resource Planning



You can specify the layout in Customizing or in the user settings.

i Note

DPD stands for "Demand Planning and Dispatching". In this area, you can display the demand Gantt chart, the dispatching view, and the capacity view.

You have the following options in the planning board:

- You can select one of the layouts defined in Customizing from the main menu of the Scheduler Workplace by choosing ► [Planning Board](#) ► [Screen Layout](#) ⌵.
- You can specify which of the available containers you want to display by choosing [Views](#) from the main menu of the Scheduler Workplace.
- In the user settings, you can define a default layout (► [Visible Objects](#) ► [Common Settings](#) ►).

28.3 Capacity and Demand Planning in the Web-Based Planning Board

Use

You can use the demand view of the Web-based planning board to obtain an overview of the current demand and capacity situation for your capacity planning nodes. In this view, you can activate the capacity view as a second Gantt chart directly below the demand Gantt chart.

You can configure the demand view so that it contains the following screen areas:

- Demand Gantt chart
- Capacity view
- Demand list
For more information about the functions that you can use in the demand list, see [Demand List \[page 229\]](#).
- Alerts

Note

For demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), you can use the demand view and the capacity view to perform various capacity and demand planning functions. For demands from SAP CRM, you can use these views for information purposes.

Prerequisites

- The demand view needs to be configured accordingly for each user interface profile:
 - To define the default layout for first-time users of the Web-based planning board, you make settings in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#). For more information, see the documentation in the system.
 - You can also customize the demand view in the user settings under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#).
- Some of the functions described below can only be used if demand changes are allowed. These functions are indicated in the table below. You activate the relevant setting in Customizing activity [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- To display buttons and context menu entries in the demand view Gantt chart, you may have to activate the relevant user settings first. You can find these settings under ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#).

Features

- You can open the demand view by choosing  [Change View](#) > [Demand View](#) .
- The following table lists some important functions that you can use for demand and capacity planning in the demand view:

Function	Can Be Activated or Hidden in User Settings	Demand Changes Need to Be Allowed	More Information
Displaying and changing details for a demand	Yes	- No, if you want to display demand details only - Yes, if you want to change demands	Changing Demands in the Web-Based Planning Board [page 228]
Displaying relationships between demands	Yes	No	Relationships [page 714]
Creating, changing, and deleting relationships for a demand	Yes	Yes	Relationships [page 714]
Performing capacity leveling	Yes	Yes	Capacity Leveling: Shifting Demands at Work Center Level [page 703]
Shifting selected demands to free time slots	Yes	Yes	Using Capacity Leveling in the Web-Based Planning Board [page 712]
Setting a status for a demand	Yes	Yes	Setting Statuses for a Demand [page 693]
Triggering the parts availability check	Yes	Yes	Parts Availability Check [page 592]
Displaying the availability view	Yes	No	Availability View [page 605]

Function	Can Be Activated or Hidden in User Settings	Demand Changes Need to Be Allowed	More Information
Displaying demand hierarchies	Yes	No	i Note You must activate this setting if you want to use the availability view. In addition, you must activate this setting if you want to work with relationships in the Web-based planning board.
Displaying the capacity view	Yes	No	Capacity View in the Web-Based Planning Board [page 690]
Triggering the re-scheduling of complex demands	Yes	Yes	Capacity Planning of Demands from Service and Project System [page 694]
Assigning tools to demands	Yes	No	Using Tools in the Web-Based Planning Board [page 589]

i Note

You can also use the demand view for resource planning. For example, you can change existing assignments or create new assignments. For more information about functions related to resource planning or functions that are common to the resource view and the demand view, see [Resource Planning with the Gantt Chart \[page 187\]](#).

More Information

[Capacity Planning of Demands from Service and Project System \[page 694\]](#)

28.3.1 Demand List

Use

The demand list is shown in the [Demands](#) screen area and contains all demands for which the resource planner is responsible. The demands that are assigned to the resource planner depend on a resource planning node (such as an organizational unit) and a defined period.

The demand list is available in the list view, the resource view, and the demand view.

Note

To obtain an overview of the resources that are assigned to a given demand, you can also use the staffing view. For more information, see [Staffing View \[page 193\]](#).

Prerequisites

- To define the default layout for first-time users of the Web-based planning board, you make settings in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#). For more information, see the documentation in the system.
You can also customize the demand list in the user settings by activating or hiding the available buttons under ► [Settings](#) ► [General](#) ► [Table Functions](#).
- To display the demand list as part of the demand view, activate the relevant user setting under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#).
- Some of the functions described below can only be used if you have allowed demand changes in Customizing activity [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#). These functions are indicated in the table below.

Features

- The planning status of a demand (at header and item level) is displayed with the following icons:
 -  Booking status: Open
 -  Booking status: Partially Booked
 -  Booking status: Booked
- The following table shows important functions that you can use in the demand list:

Function	Can Be Activated or Hidden in User Settings	Demand Changes Need to Be Allowed	More Information
Displaying existing assignments for a demand	Yes	No	Choose the <i>Planned Resources per Job</i> button to display assigned resources and assignment details.
Creating draft assignments for a demand	Yes	No	Creating and Editing Assignments in the Web-Based Planning Board [page 217] i Note This function is only available in the resource view.
Splitting a demand	Yes	No	Demand Split [page 235]
Displaying the split history	Yes	No	Split History [page 237]
Displaying time rules for a demand	Yes	No	Choose the relevant button to display time rules. This function is only relevant for demands with time rules.
Displaying and changing demand details, including custom fields	Yes	Yes, if you want to change demand dates or other fields in the demand details	Changing Demands in the Web-Based Planning Board [page 228]
Printing documents and shop papers for a demand	Yes	No	Demand Document Printing in the Web-Based Planning Board [page 204] i Note This function is only available for demands from Plant Maintenance (PM) and Customer Service (CS).
Assigning tools to demands	Yes	No	Using Tools in the Web-Based Planning Board [page 589]
Displaying, creating, and editing demand bundles	Yes	No	Bundling of Demands [page 520]

Function	Can Be Activated or Hidden in User Settings	Demand Changes Need to Be Allowed	More Information
Deleting demand bundles	Yes	No	Bundling of Demands [page 520]
Removing a demand from a bundle	Yes	No	Bundling of Demands [page 520]
Displaying demands according to a user-specific hierarchy	No	No	Creating User-Specific Hierarchies [page 205]
Expanding and collapsing rows in hierarchical display	Yes	No	Creating User-Specific Hierarchies [page 205]
Calculating intermediate results for selected columns	No, available in the settings dialog directly in the demand list	No	To select the columns based on which you want to calculate the results, in the settings dialog for the demand list make settings on the <i>Calculation</i> tab.
Opening the underlying source of demand (document)	No, this function needs to be activated in Customizing Display of the context menu option must be activated in the user settings	No	Navigating to the Source of a Demand [page 232]
Setting a status for a demand	Yes	Yes	Setting Statuses for a Demand [page 693]
Triggering the parts availability check	Yes	Yes	Parts Availability Check [page 592]
Displaying the qualifications required by a demand	Yes	No	Displaying the Required Qualifications for a Demand [page 555]
Searching for suitable employees for a demand	Yes	No	Finding Suitable Employees in the Web-Based Planning Board [page 547]

More Information

[Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#)

28.3.2 Capacity View in the Web-Based Planning Board

Use

The capacity view is a Gantt chart in table form. This view allows you to identify capacity overloads quickly by showing capacity information in different colors, depending on the planning node utilization.

You can use the capacity view in the Web-based planning board as an alternative to the table-based capacity view in the Scheduler Workplace (SAP GUI).

i Note

When calculating the capacity used, the system takes into account all order operations and network activities that have been integrated as demands in SAP Multiresource Scheduling, not only those that are currently loaded in the planning board.

Prerequisites

- You must specify how the capacity is calculated in SAP Multiresource Scheduling. You do so in Customizing under ► [Settings for Capacity and Demand Overview](#) ► [Configure Planning Node Capacity Calculation](#) ►.
- You must set up the master data as required and transfer all required information to the SAP Multiresource Scheduling system.

i Note

For more information about possible capacity scenarios and prerequisites, see [Setting Up the Capacity and Demand Overview](#) [page 659].

- You can configure the color profile for displaying the table cells based on the utilization. You do so in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#). For more information, see the documentation in the system.
- You must activate the capacity view in Customizing or in the user settings:
 - In Customizing, you specify the default settings for first-time users of the Web-based planning board. You do so under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
 - In the user settings, each user can activate and configure the capacity view as required and make further configuration settings. The settings are available under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) ►.

Features

- The capacity view is shown directly below the demand Gantt chart. Whenever you move a demand bar in the demand Gantt chart, the system updates the capacity information in the capacity view accordingly.
- The following applies only for the JGantt chart (and not for the UI5 Gantt chart):
Depending on the scaling option you set for the demand view, the capacity information for each capacity planning node is shown using either a weekly scale or a daily scale. The system adjusts the scale based on the threshold value that is defined in Customizing for the Web UI profile.
- The following applies only for the UI5 Gantt chart (and not for the JGantt chart):
If you set the scaling option *Day* or *Week* in the demand view, the system displays the capacity view using a daily scale.
If you set the scaling option *Month* or *Quarter* in the demand view, the system displays the capacity view using a weekly scale.
- The table cells are shown in different colors, depending on the utilization of the capacity planning node. The system sets the color as defined in Customizing for the Web UI profile.
- You can display the values in the capacity view either in hours or in percent. The default option is specified in Customizing. You can change this option in the user settings:
 - You can display the consumed capacity and the total available capacity in hours.
 - You can display the utilization in percent.

❖ Example

On October 8, 2014, the available capacity for the capacity planning node `wc_2` is 15 hours. 12 hours have already been used up, 3 hours are still available. Depending on the user setting, the capacity information is shown as follows:

- If the display of the capacity in hours is active, the capacity view shows 12.0/15.0h in the respective table cell.
- If the display of the utilization is active, the capacity view shows 80.00% in the respective table cell.

- The system calculates the capacity information as follows:

Parameter	Calculation Logic	Comment
Total available capacity	The total available capacity is calculated based on the basic availability.	How the system determines the free capacity and the basic availability depends on the capacity scenario that is set in Customizing: • In a human resource capacity scenario, the resource planning node information is used. • In a work center capacity scenario, the capacity data of the work center is used. For more information about these scenarios, see Setting Up the Capacity

Parameter	Calculation Logic	Comment
Total free capacity	The free capacity is the total available capacity minus the consumed capacity.	and Demand Overview [page 659] . For more information about the determination logic, see Capacity Graphs [page 903] . The free capacity can be negative if too many demands are assigned to the capacity planning node on the same day.
Consumed capacity	The consumed capacity equals the total available capacity minus the free capacity.	
Utilization (in percent)	The utilization equals the consumed capacity per day divided by the total available capacity.	If the free capacity is negative, the percentage value is greater than 100.

❖ Example

A demand with 3 hours duration is scheduled on a day on which there is no capacity available in the capacity planning node. The capacity view shows the following information, depending on whether absolute values or percentages are shown:

Display of Capacity	Information Shown in Table Cell	Meaning
In absolute values	3.0/0.0h	- Consumed capacity is 3 hours - Total available capacity is 0 hours - Result: Total free capacity is – 3 hours.
In percentage values	999.00%	There is no free capacity available.

More Information

- [Setting Up the Capacity and Demand Overview \[page 659\]](#)
- [Capacity Graphs \[page 903\]](#)
- [Table-Based Capacity View \(SAP GUI\) \[page 676\]](#)

28.3.3 Setting Statuses for a Demand

Use

You can set statuses for a demand in the Web-based planning board. You can open the status dialog box using the context menu for a demand in the demand Gantt chart or using the button in the demand list.

If the relevant Customizing settings are in place, you can also set a specific status directly from the context menu for a demand.

Prerequisites

- A status profile must be available in the source system of the demand (transaction **BS02**).
- In Customizing for SAP Multiresource Scheduling, the required settings must be in place:
 - Status mapping must be set up correctly under ► [Basic Settings](#) ► [Assign Objects](#) ► [Status](#) ►.
 - The status dialog box must be configured under ► [Set Up Scheduler Workplace](#) ► [Define Tab Pages and Buttons for User Statuses](#) ►.
 - The display of statuses in the Web-based planning board must be configured at Web UI profile level. This is done under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).For more information, see the Customizing documentation in the system.
- To display the context menu entries and the button in the Web-based planning board, the relevant user settings must be active:
 - You can activate the context menu entries under ► [Extras](#) ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#) ►.
 - You can activate the [Set Status](#) button under ► [Extras](#) ► [Settings](#) ► [Table Functions](#) ►.

Features

- You have two options to open the status dialog box:
 - In the demand Gantt chart, you choose [Set Status](#) from the context menu for a demand.
 - In the demand list, you choose the [Set Status](#) button in the toolbar.
- The status dialog box allows you to set all user statuses that are included in the status profile of the selected demand and that have been configured in Customizing for the Web UI profile:
 - Numbered statuses are listed using radiobuttons. You can only select one numbered status at a time. The number defines the possible follow-on statuses for a particular status.

i Note

If the status that is currently set for a demand has not been configured for display in the status dialog box, the system shows a [Currently Active](#) radiobutton. This button is selected when you

open the status dialog box. Once you select another radiobutton, the *Currently Active* radiobutton disappears.

- Statuses without number are listed using checkboxes.
You can activate one or more of these statuses.
- If your system has been configured accordingly, you can directly set a specific status for a demand using the context menu. The system displays one context menu option for each possible status.

28.4 Capacity Planning of Demands from Service and Project System

Use

For demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS), the Scheduler Workplace (SAP GUI) and the Web-based planning board provide various functions for demand and capacity planning. For example, you can perform capacity leveling to counterbalance the overload of work centers by shifting demands to time slots with sufficient capacity.

i Note

In the PM/CS integration scenario, if an order operation has suboperations, these are integrated as demand subitems in SAP Multiresource Scheduling. Although subitems are displayed in the demand planning layout of the planning board, capacity planning is always performed at header or item level. For example, you cannot move subitems independently of the associated demand item or assign different work centers to subitems of the same item.

In the PS integration scenario, subitems (network activity elements) are not integrated in SAP Multiresource Scheduling.

Prerequisites

To use capacity planning for PS demands, the relevant combinations of network and activity type must be marked as relevant for capacity planning in Customizing. For more information and further prerequisites, see [Setting Up Capacity and Demand Planning \[page 265\]](#).

Features

Working with the Demand Planning Layout

In the user settings, you can specify that the demand planning layout is shown by default when you open the Scheduler Workplace (SAP GUI) or the Web-based planning board:

- In the Scheduler Workplace (SAP GUI), you can find the relevant option under ► [Extras](#) ► [Settings...](#) ► [Visible Objects](#) ► [Common Settings](#) ►.
- In the Web-based planning board, you can find the relevant option under ► [Settings](#) ► [General](#) ► [Basic Settings](#) ►.

You can also configure the parallel display of the resource Gantt chart and the demand planning Gantt charts. For more information, see the following sections:

- [Capacity and Demand Planning in the SAP GUI \[page 670\]](#)
- [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#)
- [Parallel Assignment and Demand Planning \[page 682\]](#)

When you are working in the SAP GUI, you can open the demand planning layout of the Scheduler Workplace for specific demands using transaction [/MRSS/PLBOSRV](#) (*Planning Board for Demands*). You can use this transaction to call the demands depending on the work center and plant, for example.

Creating New Demands (SAP GUI Only)

In the Scheduler Workplace (SAP GUI), you can create new demand items for a complex demand. To do so, you select the complex demand in the demand Gantt chart and choose the relevant context menu option. In the demand details, you then enter the required data. Alongside the usual demand details, you can also enter a capacity planning node and define restrictions for demand scheduling.

Changing Demand Details

You can change the start and end dates, the scheduling restrictions, or the work center for a demand. You can do so on the demand detail screen.

To change the start and end dates, you can also move a demand bar in the demand Gantt chart. In the demand planning layout of the Scheduler Workplace (SAP GUI), you can also do the following:

- You can drag one or multiple demand item bars from the demand Gantt chart to the capacity view or from the dispatching Gantt chart to the capacity view. For example, you can move demands to an area in the capacity view that shows more free capacity. This allows you to quickly alleviate any capacity issues.
- You can drag one or multiple demand item bars from the demand Gantt chart to the dispatching view. This allows you, for example, to quickly change the work center for demand items.

If the required Customizing settings are in place, you can trigger the re-scheduling of a complex demand after changing an associated demand item in the Gantt chart. For more information, see “Displaying the New Planning Situation” below.

For more information about changing demands in the Web-based planning board, see [Changing Demands in the Web-Based Planning Board \[page 228\]](#).

Working with Relationships

You can display relationships between demands in the demand Gantt chart. You can also create new relationships and change or delete existing relationships if the required Customizing settings are in place. For more information, see [Relationships \[page 714\]](#).

i Note

When you create a new demand in SAP Multiresource Scheduling, you must first save the planning board before you can create a relationship for this demand. This is required because the system needs to create a corresponding order operation (or network activity) in the PM/CS (or PS) system first before relationships can be created.

The system takes into account existing relationships when shifting complex demands for the purpose of capacity leveling. For more information, see [Capacity Leveling: Shifting Demands at Work Center Level \[page 703\]](#).

Shifting Multiple Demands Without Capacity Leveling (SAP GUI Only)

You can change multiple demands at once by moving them forwards or backwards by a specified number of days. You can only use this function for demands that are based on orders from Plant Maintenance and Customer Service. For more information, see [Shifting the Dates of Multiple Demands \[page 720\]](#).

Shifting Demands for the Purpose of Capacity Leveling

You can use capacity leveling to counterbalance the overload of work centers by shifting demands to time slots with sufficient capacity. The system takes into account existing relationships between complex demands when shifting them to new slots. To what extent relationships are retained depends on the shifting logic you choose. For more information, see [Capacity Leveling: Shifting Demands at Work Center Level \[page 703\]](#).

Assigning Demands to Capacity Planning Nodes (SAP GUI Only)

i Note

The term “capacity planning node” describes the units that have to be planned capacitively. In PM, CS, and PS, the capacity planning node corresponds to the work center.

You can drag and drop a demand or multiple demands from the demand Gantt chart into the dispatching view to assign the demand or demands to a capacity planning node. If the relevant user setting is active, the system assigns the status *Dispatched* to the demand or demands. The same applies if you drag and drop a demand bar from one capacity planning node to another planning node in the dispatching view.

i Note

The *Dispatched* status must be set up in Customizing as described under “Prerequisites”. In addition, you must select the *Set Status "Dispatched"* checkbox in the user settings. You can find this setting under

► *Extras* ► *Settings...* ► *Response* ►.

You can use the *Dispatched* status, for example, to show dispatched demands in the dispatching view only. To do so, you can define a filter for the demand Gantt chart that excludes demands with the status *Dispatched* from the display.

You can also dispatch several demands at the same time. To do so, select multiple demands at demand level by holding down the **CTRL** key and then choose the relevant option from the context menu.

Simulating the New Planning Situation

When you create a new demand or change an existing demand, the system automatically simulates the effects this has on the capacity of the respective capacity planning node. The capacity displayed in the capacity view is independent of the selected demands. The system takes into account all order operations and network

activities that are relevant for the capacity planning nodes and that have been integrated as demands in SAP Multiresource Scheduling.

For more information, see [Capacity View in the Scheduler Workplace \(SAP GUI\) \[page 674\]](#) and [Capacity View in the Web-Based Planning Board \[page 690\]](#).

If relationships exist for the demand, you can display the relationships between the demands to check whether they are still consistent. For more information, see [Relationships \[page 714\]](#).

i Note

The system displays alerts in the Alert Monitor only if order-internal relationships are violated. If cross-order relationships are violated when demands are planned, the system does not display these as alerts in the Alert Monitor.

If you have changed the dates for a demand, for example, by moving a demand bar in the Gantt chart, you can simulate the effect of rescheduling of the source of demand currently in process along with its dependent order operations or network activities. Depending on how your system is configured in Customizing, this may happen automatically.

i Note

SAP Multiresource Scheduling only supports standard SAP scheduling functions. The use of external scheduling applications is not supported.

The scheduling options are configured in Customizing for SAP Multiresource Scheduling under [Sources of Demand](#)  [Define Type of Demand Scheduling](#) . For more information, see the Customizing documentation in the system.

In the Scheduler Workplace (SAP GUI), you can simulate the scheduling without restrictions by choosing [Remove All Restrictions](#) from the context menu. Provided that you do not save the changes, you can undo the steps.

Updating the Sources of Demand

The system adjusts the sources of demand (order operations or network activities) only when you save the planning board.

Checking the Planning Conformity

You can use the planning conformity report `/MRSS/SGR_SCHEDULE_COMPLIANCE` to compare the dispatch and assignment data with the planned data for the demand. For more information, see the report documentation in the system.

More Information

- [Capacity and Demand Planning in the SAP GUI \[page 670\]](#)
- [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#)
- [Relationships \[page 714\]](#)
- [Capacity Leveling: Shifting Demands at Work Center Level \[page 703\]](#)

- [Shifting the Dates of Multiple Demands \[page 720\]](#)

28.4.1 Setting Up Capacity Planning

This document provides an overview of the prerequisites and the setup activities you must complete if you want to use SAP Multiresource Scheduling for capacity planning. You can use capacity planning for demands that are based on orders from Plant Maintenance (PM) and Customer Service (CS) and on networks from Project System (PS).

i Note

Some capacity and demand planning functions may have additional prerequisites. These are listed in the application help section for the respective function.

Basic Customizing Settings

Specify the Capacity Calculation Logic

In Customizing for SAP Multiresource Scheduling, choose ► [Settings for Capacity and Demand Overview](#) ► [Configure Planning Node Capacity Calculation](#) ►.

In this activity, you define how the system calculates the capacity of your capacity planning nodes. You can choose a scenario that uses the work center capacity or you can choose a scenario that uses the capacity of individual human resources.

For more information, see [Setting Up the Capacity and Demand Overview \[page 659\]](#) and the documentation in the system.

Configure the Demand Planning Layout

You need to configure the demand planning layout to have the relevant views and Gantt charts available in the Scheduler Workplace (SAP GUI) and in the Web-based planning board.

Configure the Demand Planning Layout in the Scheduler Workplace (SAP GUI)

- Set up the demand planning layout (DPD layout) for all required user interface profiles. You do so in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) ►. For more information, see the documentation in the system.
- In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Create Worklist Profile](#) ► (in the [Fields in Demand Display](#) folder), you can specify which fields or columns are displayed in the demand Gantt chart.
- Some of functions only become available after you activate them in Customizing at UI profile level. You can find these settings in the [Define User Interface Profiles](#) activity.
You can make further settings in the user settings under ► [Extras](#) ► [Settings](#) ►. For example, you can configure the display of the capacity view.

Configure the Demand Planning Layout in the Web-Based Planning Board

Set up the demand planning layout for all required user interface profiles. To define the default layout for first-time users of the Web-based planning board, you make settings in Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define Profiles of the Web-Based User Interface](#) ►. For more information, see the documentation in the system.

You can also customize the demand view and demand list in the user settings:

- Under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) ► you can configure the demand view. You may need to activate the required user settings first to display the relevant toolbar buttons and context menu entries.
- Under ► [Settings](#) ► [General](#) ► [Table Functions](#) ►, you can activate and deactivate various functions that you can use in the demand list.

i Note

Some of the functions can only be used if you have allowed demand changes in Customizing activity [Define Profiles of the Web-Based User Interface](#). For more information, see [Capacity and Demand Planning in the Web-Based Planning Board \[page 684\]](#).

Specify the Capacity Planning Relevance

PM/CS Integration Scenario

Choose ► [Sources of Demand](#) ► [PM/CS Orders](#) ► and make settings in the following Customizing activities:

- [Define Order Integration from PM/CS to MRS](#)
- [Define Resource Planning Relevance for PM/CS Orders](#)

In these activities, you specify which order types are relevant for planning and how they are integrated in SAP Multiresource Scheduling.

PS Integration Scenario

Choose ► [Sources of Demand](#) ► [Networks \(Projects and WBS Elements\)](#) ► and make settings in the [Define Resource Planning Relevance for Networks \(ERP\)](#) activity.

To use capacity planning, you must select the relevant checkbox. In addition you need to select one of the following process variants:

- [Not Relevant to Resource Planning](#)
This is the default option set by the system. You can use this process variant if you only use capacity planning for PS demands.
- [Resource Planner Process](#)
You must select this process variant if you want to use both capacity planning and resource planning for demands in SAP Multiresource Scheduling.

Activate Backward Integration from SAP Multiresource Scheduling to PM/CS and PS

- Choose ► [Sources of Demand](#) ► [Activate Backward Integration of Data](#) ► and activate backward integration for demands from PM/CS and PS. This setting is mandatory if you want to write demand changes back to the relevant order operations and network activities.
- Choose ► [Sources of Demand](#) ► [PM/CS Orders](#) ► [Control Integration Between MRS and PM/CS](#) ► to activate backward integration of the work center and demand dates.

Note

The settings you make in this activity are relevant for both the PM/CS and the PS integration scenario.

Proceed as follows:

- In the *Work Center* field, select **1 Backward Integration for RP Work Center Only**.
With this option selected, the system updates the work center of the demand in the order operation or the network activity, respectively, when the resource planner changes the work center using drag and drop in the dispatching view or in the *Work Center* field on the demand details screen.

Note

Do not select **2 Backward Integration**. This option is used for the backward integration of technician work centers only. In this case, the system retrieves the work center of the human resource of an assignment and updates the resource's work center in the order operation or the network activity, respectively.

- Select the *Dates* checkbox.
With this checkbox selected, the system updates the demand duration and start and end in the order operation or the network activity, respectively.

Specify the Capacity Version for Work Centers

In Customizing ► *Sources of Demand* ► *Specify Capacity Version for Work Centers* ►, you can define a default capacity version for work centers. The system takes this capacity version as a basis for all work center-related functions in SAP Multiresource Scheduling. This setting is relevant, for example, for displaying the available capacity in the planning board.

If you do not make any settings in this Customizing activity, the system uses the work center-related capacity information that is available in the SAP ERP system (transactions **IR01** to **IR03**). If there is no capacity information available in the source system of the work center, the system uses the capacity version 01 (normal available capacity) as default value for the work center capacity in SAP Multiresource Scheduling.

Master Data Setup

Create the required master data:

1. Execute transaction **CR02** and map the work center to an organizational unit (planning node) that is used in SAP Multiresource Scheduling. To do so, choose the *HRMS (HR assignment)* pushbutton.
2. Execute transaction **SE38** and run report `/MRSS/SGE_PN_MNT`.
The system creates a capacity planning node in SAP Multiresource Scheduling. This planning node represents the work center.

To display the capacity utilization of work centers, you must transfer the required information from SAP ERP to SAP Multiresource Scheduling using report `/MRSS/SGE_PN_MNT`. Running this report also transfers the breaks and shifts defined for the work center. The report supports one shift per day.

→ Recommendation

To ensure that capacity leveling is performed in the best possible way, you should configure work center breaks in the SAP ERP system and transfer the breaks to SAP Multiresource Scheduling instead of defining the breaks in SAP Multiresource Scheduling.

Once the master data and integration scenarios are set up correctly, the following applies:

- When you open the planning board by entering the planning node number, and then switch to the demand Gantt chart, the system displays the planning node in the dispatching view (SAP GUI only) and in the capacity view.
- When you create and save an order in the PM/CS system and assign the work center at operation level, the order including its operations is integrated as follows in SAP Multiresource Scheduling: The order header is shown as complex demand and the order operations are shown as single demands (items). In SAP Multiresource Scheduling, you can see the demand header and the items in the demand Gantt chart as well as in the planning node line of the dispatching view. In the capacity view, the system shows the work center capacity. The same applies for PS networks when you assign the work center at the level of the network activity.

i Note

To see complex demands in the demand view of the Web-based planning board, you must activate the display of demand hierarchies in the user settings.

Optional Customizing Settings

Configure Demand Scheduling Options

Demand scheduling means that a complex demand (including all associated demand items) is re-scheduled in the demand source system when the dates of an associated demand item are changed and the planning board is saved.

- In Customizing under **Sources of Demand** > **Define Type of Demand Scheduling**, you can specify that demand scheduling can be triggered from the planning board. If you want users to be able to trigger scheduling manually using the context menu, you must activate the manual scheduling option. You can also activate automatic scheduling. In this case the system triggers scheduling automatically when you shift a demand bar in the demand Gantt chart and save your changes. For more information, see the documentation in the system.

i Note

SAP Multiresource Scheduling only supports the standard scheduling function for PM/CS orders and for PS networks. Note that you cannot trigger scheduling for WBS elements and PS projects.

- To ensure that the complex demand (header) is moved correctly in the event of rescheduling, the required settings in the demand source system must be in place. In Customizing for **Plant Maintenance and Customer Service**, go to **Maintenance and Service Processing** > **Maintenance and Service Orders** > **Scheduling** > **Set Scheduling Parameters**. Make sure that one of the following settings is selected for the relevant order types:
 - **Adjust basic dates, adjust dep. reqmts to operation date**
 - **Adjust basic dates, adjust dep. reqmts to order start**

Make Settings to Enable the Creation of New Demands

In the demand Gantt chart of the Scheduler Workplace (SAP GUI), you can create new demand items for an existing complex demand. If you want to use this function, make sure that the following prerequisites are met:

- The work centers have been transferred to SAP Multiresource Scheduling using report `/MRSS/SGE_PN_MNT`.
- The control key you enter in the demand details when creating the new demand is relevant for resource planning. You can find the relevant setting in Customizing activity [Define Resource Planning Relevance for PM/CS Orders](#).

Creating new demands for PS networks is only possible for networks to which the following applies:

- In the [Project Builder \(CJ20N\)](#), the network is created using process variant [Not Relevant to Resource Planning](#) or [Resource Planner Process](#).
- In Customizing activity [Define Resource Planning Relevance for Networks \(ERP\)](#), the relevant process variant must be selected for the required combination for network and activity type. In addition, the checkbox indicating capacity planning relevance must be selected.

Exclude Demands from Capacity Calculation

You can filter out demands during the planning node capacity calculation based on the abstract status of the demand. To do so, make settings in Customizing under [Sources of Demand](#) [Exclude Demands from Capacity Calculation Based on Status](#).

If you want to override this filtering logic, you can use Business Add-In `/MRSS/CAG_DEM_FILTER`. You can find this BAdI under [Enhancements](#) [Sources of Demand](#) [BAdI: Exclusion of Demands from Capacity Calculation](#).

For more information, see the Customizing and BAdI documentation in the system.

Configuring Status “Dispatched” for Demands

In the Scheduler Workplace (SAP GUI), you can assign demands to capacity planning nodes by dragging and dropping them from the demand Gantt chart to the dispatching view. So that the system can set the [Dispatched](#) status for these demands, you must configure this status in Customizing first. In addition, the [Set Status "Dispatched"](#) checkbox must be selected in the user settings. You can find this setting under [Extras](#) [Settings...](#) [Response](#).

Proceed as follows:

1. Choose [Basic Settings](#) [Assign Objects](#) [Status](#) [Define Abstract Status](#). Create the following entry:

Abstract Status	Description
WC_DISP	Dispatched to Work Center

2. Choose ► [Basic Settings](#) ► [Assign Objects](#) ► [Status](#) ► [Assign Status](#) . Map the newly created status to the concrete user status or system status in SAP ERP. Create the following entry:

Abstract Status	Origin	Status	Language
WC_DISP	[either Demand Item (System Status) or Demand Item (User Status)]	[concrete status]	[language of the concrete status]

i Note

If you have configured a multiple back-end scenario, make settings in both Customizing activities [Assign Status \(to Use Demands from SAP NetWeaver\)](#) and [Assign Status for Demands \(ERP\)](#).

3. Choose ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) . Select the relevant checkbox to activate the status for all required UI profiles.
In the user settings of the Scheduler Workplace (SAP GUI), under ► [Extras](#) ► [Settings...](#) ► [Response](#) , each user can activate or deactivate the status as required.

28.4.2 Capacity Leveling: Shifting Demands at Work Center Level

Use

Capacity leveling allows you to shift demands to counterbalance the overload of work centers. You can perform capacity leveling in the Scheduler Workplace (SAP GUI) and in the Web-based planning board using the following functions:

- You can shift all complex demands that are currently displayed in the Gantt chart.
- You can select one demand or multiple demands and shift them to the next possible slot with enough free capacity.
- You can select one complex demand and search for a number of possible slots. You can then select the most appropriate slot and shift the demand.

i Note

You can use these functions only for demands with work centers.

Prerequisites

- In Customizing for *SAP Multiresource Scheduling* under ► [Settings for Capacity and Demand Overview](#) ► [Configure Planning Node Capacity Calculation](#) ►, the planning node capacity scenario must be set as *Work Center Planning with Re-Calculation on Saving*.
- You must run the work center transfer report `/MRSS/SGE_PN_MNT` to ensure that the work center capacity information is up to date in SAP Multiresource Scheduling.

→ Recommendation

If you want to specify breaks for work centers, we strongly recommend that you do so in the SAP ERP system and transfer the breaks to SAP Multiresource Scheduling using report `/MRSS/SGE_PN_MNT`. This is to ensure that capacity leveling is performed in the best possible way.

For more information, see [Setting Up Capacity Planning \[page 698\]](#).

Features

- You can shift single demands (demand items) and complex demands. The system performs a scheduling logic to determine slots in which the work center has enough free capacity. For more information, see [Capacity Leveling Logic \[page 705\]](#).

i Note

You can select single demands (demand items) and complex demands for shifting. If the demand item is based on a PM/CS order operation, any scheduling-relevant suboperations are shown as demand subitems in the Gantt chart. You cannot shift demand subitems independently of the associated demand item. Instead, you must select the demand item for shifting, which is then shifted together with all associated subitems.

- You can make various settings to shift demands according to your requirements. For example, you can define the scheduling direction (future or past) and the scheduling type (for example, forwards or backwards). You can also specify that the system takes into account the availability of technical objects when determining free slots.
- The system takes into account existing relationships when shifting complex demands. To what extent these relationships are retained depends on whether or not you have activated the enhanced leveling logic in the user settings. For more information, see [Capacity Leveling Logic \[page 705\]](#).
- If you want to shift one complex demand at a time, you can search for a number of possible slots and select the most appropriate one. One slot corresponds to one working day.

More Information

- [Capacity Leveling Logic \[page 705\]](#)
- [Using Capacity Leveling in the Scheduler Workplace \(SAP GUI\) \[page 710\]](#)

- [Using Capacity Leveling in the Web-Based Planning Board \[page 712\]](#)
- [Relationships \[page 714\]](#)

28.4.2.1 Capacity Leveling Logic

Use

The leveling logic determines how the system handles relationships between and within demands when performing capacity leveling. By default, the system uses a basic leveling logic. In the user settings, you can activate an enhanced capacity leveling logic.

When you trigger capacity leveling, a dialog box opens that allows you to make various settings to shifts the demands according to your requirements.

i Note

For more information about how to trigger capacity leveling, see [Using Capacity Leveling in the Scheduler Workplace \(SAP GUI\) \[page 710\]](#) and [Using Capacity Leveling in the Web-Based Planning Board \[page 712\]](#).

Prerequisites

If you want to use the enhanced leveling logic, you must activate this in the user settings:

- In the Scheduler Workplace (SAP GUI), you can find the relevant setting under ► [Extras](#) ► [Settings...](#) ► [Response](#) ►.
- In the Web-based planning board, you can find the setting under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) ►.

Features

Basic Capacity Leveling Logic

- If relationships have been defined within a complex demand, the system takes these relationships into account when shifting the complex demand. The following applies:
 - The system only takes into account finish-start relationships between demand items.
 - For the shifting function to work, the relationships between the demand items must be of type finish-start relationship. In addition, if multiple finish-start relationships exist for any demand item, you cannot shift the complex demand.
- The system does not take relationships between different complex demands into account (cross-demand relationships).

- If you trigger shifting for one or more single demands, the system does not consider any relationships of these demands to other single demands.
- You can select multiple demands for shifting. To determine the sequence in which the demands are shifted, the system calls Business Add-In BAdI: [Determination of Demand Sequence](#) (/MRSS/SGE_WC_SCHED).

i Note

If you do not create your own BAdI implementation, the system sets the sequence of the single demands by priority first and then by start date.

- The capacity leveling dialog box allows you to make the following settings:
 - You can specify the scheduling type.
 - You can specify the scheduling direction.
 - You can specify whether the system takes into account the availability of technical objects for capacity leveling.

Enhanced Capacity Leveling Logic

- The system takes into account relationships between demand items within the same complex demand, but also between different complex demands (cross-demand relationships). The following applies:
 - The system takes into account not only finish-start relationships, but any type of relationship.
 - The system takes into account any number of relationships that exist for a demand item.
- If you trigger shifting for one or more single demands, the system does not take into account any relationships of these demands to other single demands.
- If you select multiple demands, the system calls Business Add-In BAdI: [Determination of Demand Sequence](#) (/MRSS/SGE_WC_SCHED) to determine the sequence in which the demands are shifted. Note that the sequence determined by the BAdI may be overridden as a result of existing cross-demand relationships.

❖ Example

According to the default BAdI implementation, the system sets the sequence of single demands by priority first and then by start date. The following (complex) demands are currently displayed in the Gantt chart. Let us assume that all demands have the same start date so that the priority is the decisive factor for determining the sequence:

Demand	Priority	Cross-Demand Relationship Exists
4000724	Very high	Yes, there is at least one relationship between an item of 4000724 and an item of 4000725.
4000725	Very high	
4000718	High	Yes, there is at least one relationship between an item of 4000718 and an item of 4000719.
4000719	High	
4000722	Very high	Yes, there is at least one relationship between an item of 4000722 and 4000723.
4000723	Low	

Example 1:

You select 4000724, 4000725, 400018, and 400019 and trigger capacity leveling.

The system shifts the related demands 400024 and 400025 first (both of very high priority), followed by the related demands 400018 and 400019 (both of high priority).

Example 2:

You select 4000724, 4000725, 4000722, and 4000723 for shifting.

In this case, the system may shift the related demands 4000722 and 4000723 first, although 4000723 is of low priority and 4000724 and 4000725 are both of very high priority. This is because for each set of related complex demands, the system only takes into account the demand with the highest priority, irrespective of the how many demands are part of the relationship chain.

- The capacity leveling dialog box allows you to make the following settings:
 - You can specify the scheduling type.
 - You can specify the scheduling direction.
 - You can specify whether the system takes into account the availability of technical objects for capacity leveling.
 - You can indicate that the selected complex demands are to be shifted to the boundary of the planning horizon if the system does not find any free slots within the planning horizon.
 - You can specify that the system takes into account complex demands that are related to the selected complex demand but that have not been selected for shifting.

Dialog Box Options

Note

For more information about how the individual options, see the documentation in the system.

Scheduling Type

You can indicate whether the system calculates forwards or backwards when shifting demands. Note that the system deletes any existing time restrictions.

You have the following options:

- **Forwards**
 - If you have selected a complex demand with multiple demand items (single demands), the system retains the relationship between the individual demand items while calculating forwards. The system uses the new start date of the first demand item as a basis for determining the start and end dates of the subsequent demand items. The system sets the **Must Start On** constraint on the first demand item within the complex demand.
 - If you have selected a single demand, the system sets the **Must Start On** constraint on the selected demand.
- **Backwards:**
 - If you have selected a complex demand with multiple demand items (single demands), the system retains the relationship between the demand items while calculating backwards. The system uses the new start date of the last demand item as a basis for determining the start and end dates of the preceding demand items. The system sets the **Must Finish On** constraint on the last demand item within the complex demand.

- If you have selected a single demand, the system sets the *Must Finish On* constraint on the selected demand.
- *Forwards in Time:*
 - This option is only relevant for complex demands that are based on PM/CS orders.
 - The system applies the logic as described above for the *Forwards* option. In addition, the system takes into account the demand start and end times when updating the complex demand dates.
- *Backwards in Time:*
 - This option is only relevant for complex demands that are based on PM/CS orders.
 - The system applies the logic as described above for the *Backwards* option. In addition, the system takes into account the demand start and end times when updating the complex demand dates.

i Note

- In your system, you may have more options than the ones mentioned above. The system retrieves the options in this field from the settings made in Customizing for *Plant Maintenance and Customer Service* under ► *Maintenance and Service Processing* ► *Maintenance and Service Orders Scheduling* ► *Maintain Scheduling Types* . For more information, see the documentation in the system.
- If you trigger the propose slots function using the context menu, the system only shows the forwards scheduling options in the dialog box.
- When shifting multiple related complex demands, the system sets the *Must Start On* or *Must End On* restriction for the first demand item in the chain of related demands.

Scheduling Direction

Depending on the scheduling direction, the system searches for possible time slots either in the time period spanning from the current demand start date to the end of the planning horizon (future) or in the time period spanning from the start of the planning horizon to the current demand start date (past). The following applies:

- If you choose the scheduling direction *Future*, the system searches the time period from the current demand date to the end of the planning horizon for free slots. If you want to shift a single demand, the system searches for slots starting from the current start time of the demand to the end of the planning horizon.
If you want to shift a complex demand, the system starts to search from the basic start date and time of the complex demand to the end of the planning horizon. If there are available slots for the single demands within the current duration of the complex demand, the system shifts the single demands within the duration of the complex demand.

i Note

If the selected demand starts in the past or on the current date, the system searches for free slots starting on the next day.

- If you choose the scheduling direction *Past*, the system searches for free slots in the time period from the start of the planning horizon to the current demand date.
If you want to shift a single demand, the system searches for slots starting from the current end time of the demand to the start of the planning horizon. If you want to shift a complex demand, the system starts to search from the basic end date and time of the complex demand to the start of the planning horizon.

i Note

You cannot shift demands into the past. If the end of the planning horizon is in the past, the system does not shift the demands.

Shift to Boundary (Enhanced Leveling Logic)

This option is available when the enhanced capacity leveling logic is active. The system adjusts the demand start or end date in accordance with the scheduling direction. If you choose *Past*, the demands are moved to the first working day of the planning horizon. If you choose *Future*, the demands are moved to the last working day of the planning horizon.

i Note

- You cannot shift demands into the past: If the scheduling direction is *Past* and the planning horizon starts before the current date, the system shifts the demand to the current date.
- Moving the demands to the boundary may result in an overload of the respective work center within or outside the planning horizon.

When shifting complex demands to the boundary of the planning horizon, the system does not retain any cross-demand relationships. Only the relationships between the demand items within a complex demand are kept.

Include Related Demands (Enhanced Capacity Leveling Logic)

This option is available when the enhanced capacity leveling logic is active. The system takes into account complex demands that are currently not selected in the Gantt chart but that are related to the selected complex demands. You can only select this option when shifting complex demands, not when shifting single demands.

i Note

- You can only select this option if there are unselected complex demands that are related to the selected demands.
- This function only applies to related demands that are currently loaded in the planning board. If PM/CS orders or PS networks exist that are related to the selected demand, but that have not been integrated in SAP Multiresource Scheduling or that are not loaded in the current planning board session, the system cannot take them into account.

Shifting of Demands If Work Center Is Not Overloaded

If you select one demand or multiple demands whose work center is not overloaded in the current time slot, the system may or may not shift the selected demand or demands. For example, if you trigger shifting for multiple complex demands that are related to each other, and at least one of these demands is in a time slot with a capacity overload, the system may shift all demands, including those that are not causing a capacity overload.

In addition, the system behavior depends on the scheduling type and the scheduling direction. The following applies:

Scheduling Type	Scheduling Direction	System Behavior
<i>Forwards or Forwards in Time</i>	<i>Future</i>	The system does not shift the demands.
<i>Backwards or Backwards in Time</i>	<i>Future</i>	The system shifts the demands if free time slots are available within the planning horizon. The system searches for free slots starting from the end of the planning horizon. It takes the start date of the last demand item as a basis for determining the start and end dates of the preceding demand items.
<i>Forwards or Forwards in Time</i>	<i>Past</i>	The system shifts the demands if free time slots are available within the planning horizon. The system searches for free slots starting from the start of the planning horizon. It takes the start date of the first demand item as a basis for determining the start and end dates of the subsequent demand items.
<i>Backwards or Backwards in Time</i>	<i>Past</i>	The system does not shift the demands.

More Information

- [Using Capacity Leveling in the Scheduler Workplace \(SAP GUI\) \[page 710\]](#)
- [Using Capacity Leveling in the Web-Based Planning Board \[page 712\]](#)

28.4.2.2 Using Capacity Leveling in the Scheduler Workplace (SAP GUI)

Use

You can trigger capacity leveling in the demand Gantt chart.

Note

In the user settings, you can specify that the system shifts the demands according to the enhanced leveling logic. For more information, see [Capacity Leveling Logic \[page 705\]](#).

Prerequisites

- Capacity planning must be set up correctly. For more information, see [Setting Up Capacity Planning \[page 698\]](#).
- To use the enhanced capacity leveling logic, you must activate the relevant user setting under ► [Extras](#) ► [Settings...](#) ► [Response](#) .
- (Optional) In Customizing for *SAP Multiresource Scheduling* under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define User Interface Profiles](#) , you can specify a default number of slots that the system proposes when the relevant function is triggered in the Gantt chart.
- (Optional) In the user settings, you can specify which technical object shall be considered (main object or error-causing object) when you shift a demand that has two technical objects. Go to ► [Extras](#) ► [Settings ...](#) ► [Visible Objects](#) ► [Display of Demand](#) ► [Capacity Leveling](#) .

This setting is only relevant if more than one technical object exists for the demand. If you do not make a setting, the system by default considers the availability of both objects when shifting the demand to the next free slot or when proposing suitable time slots for shifting the demand.

Procedure

Shifting All Complex Demands That Are Currently Shown

- Choose . The system selects all complex demands that are currently shown in the Gantt chart. A dialog box appears.
- Make settings according to your requirements. The options available to you depend on the leveling logic. For more information, see [Capacity Leveling Logic \[page 705\]](#).
- Confirm your entries.
The system shifts the demands.

Shifting Selected Demands

Shifting One or Multiple Demands

- Select one demand or multiple demands in the demand Gantt chart.
- Open the context menu and choose [Shift to Next Slot](#). Alternatively, you can choose . A dialog box appears.
- Make settings according to your requirements. The options available to you depend on the leveling logic. For more information, see [Capacity Leveling Logic \[page 705\]](#).
- Confirm your entries.
The system shifts the demands.

Shifting One Complex Demand Based On Proposal

If you want to shift a selected complex demand, you can let the system propose a number of possible slots. You can then select the most appropriate slot. Proceed as follows:

1. Select a complex demand in the Gantt chart. You can only select one demand at a time.
2. Open the context menu and choose *Propose Next Slots*.
A dialog box appears.
3. Make the required entries, such as start date and the number of slots that you want the system to propose. You can also specify that the availability of technical objects is taken into account during the search for free slots.
4. Choose *Propose Slots*.
The system checks each day for free slots, starting on the entered start date. Each proposed time slot corresponds to one working day. The system keeps checking until it finds the requested number of slots or until the planning horizon ends.
5. Select one slot and choose *Shift to Selected Slot*.
The system shifts the demand.

28.4.2.3 Using Capacity Leveling in the Web-Based Planning Board

Use

You can trigger capacity leveling in the demand Gantt chart.

Note

In the user settings, you can specify that the system shifts the demands according to the enhanced leveling logic. For more information, see [Capacity Leveling Logic \[page 705\]](#).

Prerequisites

- Capacity planning must be set up correctly. For more information, see [Setting Up Capacity Planning \[page 698\]](#).
- Demand changes must be allowed. You can find the relevant setting in Customizing under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ► *Web-Based User Interface* ► *Define User Interface Profiles (JGantt Chart)* ► or *Define User Interface Profiles (UI5 Gantt Chart)*.
- To display the required buttons and context menu entries, you need to activate the relevant user settings under ► *Settings* ► *Gantt Settings* ► *Toolbar & Context Menu* ►. For more information, see [User-Specific Configuration \[page 184\]](#).
- To use the enhanced capacity leveling logic, you need to activate the relevant user setting under ► *Settings* ► *Gantt Settings* ► *Demand View* ►.
- (Optional) In the user settings, you can specify which technical object shall be considered (main object or error-causing object) when you shift a demand that has two technical objects. Go to ► *Settings* ► *Gantt Settings* ► *Demand View* ► *Technical Object for Leveling* ►.

This setting is only relevant if more than one technical object exists for the demand. If you do not make a setting, the system by default considers the availability of both objects when shifting the demand to the next free slot or when proposing suitable time slots for shifting the demand.

Procedure

Shifting All Demands Currently Shown in the Gantt Chart

1. Choose *Perform Capacity Leveling* in the JGantt chart or  *Perform Capacity Leveling* in the UI5 Gantt chart. The system selects all demands that are shown in the Gantt chart.

Note

If the button is not available, you may have to activate the relevant user setting first.

A dialog box appears.

2. Make settings according to your requirements. The options available to you depend on the leveling logic. For more information, see [Capacity Leveling Logic \[page 705\]](#).
3. Confirm your entries.
The system shifts the demands accordingly.

Shifting Selected Demands

Shifting One or Multiple Demands

1. Select one demand or multiple demands in the demand Gantt chart.
2. Choose *Shift to Next Slot*.

Note

If the button is not available, you may have to activate the relevant user setting first.

A dialog box appears.

3. Make settings according to your requirements. The options available to you depend on the leveling logic. For more information, see [Capacity Leveling Logic \[page 705\]](#).
4. Confirm your entries.
The system shifts the demands accordingly.

Shifting One Complex Demand Based On Proposal

If you want to shift a selected complex demand, you can let the system propose a number of possible slots. You can then select the most appropriate slot. Proceed as follows:

1. Select the demand.
2. Open the context menu and choose *Propose Free Slots*.
A dialog box appears.
3. Make the required entries, such as start date and the number of slots that you want the system to propose. You can also specify that the availability of technical objects is taken into account during the search for free slots.
4. Choose *Propose Slots*.

The system checks each day for free slots, starting on the entered start date. Each proposed time slot corresponds to one working day. The system keeps checking until it finds the requested number of slots or until the planning horizon ends.

5. Select the most appropriate slot and choose **OK**.
The system shifts the demand.

28.4.3 Relationships

Use

You can display, change, and delete existing relationships for demands from Plant Maintenance (PM), Customer Service (CS), and Project System (PS). You can also create new relationships for these demands in SAP Multiresource Scheduling.

There are two categories of relationships:

- **Explicit relationships** are relationships that you create between order operations (or network activities, respectively) in the source system of the demand or between demand items in SAP Multiresource Scheduling.
- **Implicit relationships** are created automatically on integrating order operations (or network activities) as demands in SAP Multiresource Scheduling. The system assumes an implicit finish-start relationship between order operations or network activities if no explicit relationships are defined in the source system of the demand. The sequence is based on the operation or activity number.

You create relationships at demand item level, either between the individual items within one complex demand or between demand items that belong to different complex demands.

Prerequisites

You must make the following settings in Customizing for SAP Multiresource Scheduling:

- Under ► [Sources of Demand](#) ► [Activate Backward Integration of Data](#) ►, you must activate backward integration for PM/CS orders and PS networks.
- Under ► [Sources of Demand](#) ► [Control Integration of Relationships](#) ►, you must activate backward integration of relationships.
- (Optional) If you want to define an offset when creating relationships, you must specify a time unit under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ►.

Integration

The system takes into account existing relationships when shifting complex demands for the purpose of capacity leveling. For more information, see [Capacity Leveling: Shifting Demands at Work Center Level. \[page 703\]](#)

Features

- You can display, create, and change relationships for demands in the Scheduler Workplace (SAP GUI) and in the Web-based planning board.

For more information, see [Working with Relationships in the Scheduler Workplace \(SAP GUI\) \[page 717\]](#) and [Working with Relationships in the Web-Based Planning Board \[page 718\]](#).

i Note

When you create a new demand in SAP Multiresource Scheduling, you must first save the planning board before you can create a relationship for the demand. This is required because the system must create a corresponding order operation (or network activity) in the demand source system.

- You can define a relationship offset, that is, a time interval between two demands that are related to each other.
- When you create assignments for demands with relationships, the relationships remain unchanged.
- The SAP Multiresource Scheduling system stores the following information about the relationship:
 - Relationship origin, that is, whether the relationship was created in the source system of the demand or whether it was created in SAP Multiresource Scheduling
 - Whether the relationship was created as an implicit or explicit relationship

i Note

This information is not visualized on the user interface. In the Gantt chart, all relationships are displayed in the same way, regardless of their origin, category, and type.

- When you create a relationship between two demands in SAP Multiresource Scheduling, the system converts all implicit relationships that exist for the successor demand into explicit relationships.

❖ Example

A PM order with three operations is created in SAP ERP. No explicit relationships are defined. On integrating the order as a demand in SAP Multiresource Scheduling, the system assumes an implicit finish-start relationship between 0010 and 0020 and between 0020 and 0030, respectively.

Now you create a start-start relationship between 0010 and 0020 in the demand Gantt chart. The following applies:

1. The system changes the relationship between 0010 and 0020 from a finish-start to a start-start relationship.
2. The system converts all implicit relationships into explicit relationships. The default relationship type (finish-start) is used to create an explicit relationship between 0020 and 0030, respectively.

That way, the implicit relationship between 0020 and 0030 is not lost.

- When you save the planning board, the system transfers the newly created or changed relationships back to the source system of the demand. For example, if you create a relationship between two order operations that belong to different PM/CS orders, the system integrates the relationship back into the successor demand.
- Your system can be set up so that demands are re-scheduled automatically when the demand dates change. If this is the case and you create or change a relationship between two single demands (items) that are associated with different complex demands, the system automatically re-schedules both complex demands including the associated items.

However, if the demands have further relationships with other complex demands, the other demands are not re-scheduled automatically. For these demands, you must trigger re-scheduling manually using the context menu.

Note

You configure the scheduling options in Customizing for SAP Multiresource Scheduling under [Sources of Demand](#) > [Define Type of Demand Scheduling](#) . For more information, see the Customizing documentation in the system.

Notes on Implicit Relationships in SAP Multiresource Scheduling

- You can display and delete implicit relationships only in SAP Multiresource Scheduling. You cannot display or delete implicit relationships in the source system of the demand.
- If you delete an implicit relationship between two demand items of the same complex demand, the SAP Multiresource Scheduling system creates an explicit relationship between the preceding demand items.

Example

You create a PM order with three operations without defining explicit relationships. On integrating the order as a demand into SAP Multiresource Scheduling, the system assumes an implicit finish-start relationship between 0010 and 0020 and between 0020 and 0030, respectively.

Now you delete the implicit relationship between 0020 and 0030 in the demand Gantt chart. The following applies:

1. The system changes the relationship between 0010 and 0020 into an explicit finish-start relationship.
 2. The system deletes the implicit relationship between 0020 and 0030 in SAP Multiresource Scheduling.
- If you delete the last remaining relationship in a complex demand, the system creates implicit relationships again between all items of this demand.

Constraints

- You can only create relationships between single demands (demand items), not between complex demands (demand headers).
- To create, change, or delete relationships in SAP Multiresource Scheduling, you must set up backward integration as required. If these settings are missing, you can only display existing relationships.
- You can only create relationships between demands that are based on PM/CS orders or PS networks. The creation of relationships between other demand types (for example, SAP CRM service orders, PM/CS notifications) is not possible.
- You can only create relationships between demands of the same type.
- You cannot change demands that are involved in a relationship.
- You cannot create or change relationships for demands that are not changeable (for example, if a demand is technically complete and the `TECO` status is set). The same applies if a demand has a relationship to a demand that is not changeable.

More Information

- [Capacity Leveling: Shifting Demands at Work Center Level \[page 703\]](#)
- [Working with Relationships in the Scheduler Workplace \(SAP GUI\) \[page 717\]](#)
- [Working with Relationships in the Web-Based Planning Board \[page 718\]](#)

28.4.3.1 Working with Relationships in the SAP GUI

Use

You can display, create, and change relationships in the demand Gantt chart of the Scheduler Workplace. A relationship is represented by a line with an arrow at its end.

To create a new relationship, you can simply draw a line between demand bars. To change an existing relationship, you can simply draw a new line between the two related demands.

Note

You cannot edit or create relationships for demands that are not changeable (for example, if a demand is technically complete and the `TECO` status is set). The same applies if a demand has a relationship to a demand that is not changeable.

Prerequisites

For more information, see [Relationships \[page 714\]](#).

Procedure

To show all existing relationships in the demand Gantt chart, choose .

If the system cannot display all relationships graphically, for example, because one of the demands involved in a relationship is outside of the planning horizon, a dialog box with a list of all dependencies is shown.

Creating a Relationship

Drawing a New Relationship in the Gantt Chart

1. Choose  in the Gantt chart toolbar.
2. In the Gantt chart, draw a line between the desired demands.
The system shows a line that represents the relationship in the Gantt chart. In case you had not yet chosen to display existing relationships, the system displays all other relationships that exist for the successor demand.

3. Create further relationships if required. To deactivate the change mode for relationships, choose  again.

Creating a Relationship Using the Detail Screen

1. (Optional) Select the desired demands in the Gantt chart.
2. In the application menu, choose  [Demands](#)  [Relationships](#)  [Edit Relationship](#) .
- The relationship detail screen opens.
3. If required, enter the predecessor and successor demand using the input help. Specify the relationship type and an offset, if required.
4. Choose [Create](#).

Changing a Relationship

1. Choose .
2. Draw a new line between the demands whose relationship you want to change.
The system changes the relationship and deletes the previously existing line.

Alternatively, you can call up the relationship detail screen to change the relationship. To do so, simply double-click the line in the Gantt chart or choose  [Demands](#)  [Relationships](#)  [Edit Relationship](#) .

Deleting a Relationship

Select the relationship in the Gantt chart and choose the [Delete](#) pushbutton in the planning board toolbar.

i Note

If you delete the last remaining relationship in a complex demand, the system creates implicit relationships between all items of this demand.

28.4.3.2 Working with Relationships in the Web-Based Planning Board

Use

You can display, create, and edit relationships in the demand Gantt chart. A relationship is represented by a line with an arrow at its end.

You have the following options:

- You can show or hide existing relationships by choosing the relevant button in the demand Gantt chart toolbar.
- You can change existing relationships using the context menu for a relationship.
- You can create a new relationship using the context menu for a demand.

i Note

You cannot edit or create relationships for demands that are not changeable (for example, if a demand is technically complete and the `TECO` status is set). The same applies if a demand has a relationship to a demand that is not changeable.

Prerequisites

- You must activate the following user settings:
 - Under ► [Settings](#) ► [Gantt Settings](#) ► [Demand View](#) , you must activate the display of demand hierarchies.
 - Under ► [Settings](#) ► [Gantt Settings](#) ► [Toolbar & Context Menu](#) , you must activate the display of the toolbar button and context menu entries.
- In Customizing under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) or [Define User Interface Profiles \(UI5 Gantt Chart\)](#) , you must allow demand changes for all relevant planning board profiles.

For general prerequisites and constraints, see [Relationships \[page 714\]](#).

Procedure

Creating a Relationship

1. Select a demand in the Gantt chart.
2. Open the context menu and choose [Create Relationship](#).
The relationship detail screen opens.
3. The system enters the selected demand as the predecessor demand. Enter the successor demand using the input help.
4. Specify the relationship type and an offset, if required.
5. Choose [OK](#).

Changing a Relationship

1. Select a relationship in the Gantt chart.
2. Open the context menu and choose [Edit Relationship](#).
The relationship detail screen opens.
3. Change the settings as required.
4. Choose [OK](#).

Deleting a Relationship

Select the relationship in the demand Gantt chart and choose the relevant option from the context menu.

i Note

If you delete the last remaining relationship in a complex demand, the system creates implicit relationships again between all items of this demand.

28.4.4 Changing the Dates of Multiple Demands

Use

When working in the Scheduler Workplace (SAP GUI), you can change the dates of multiple demands at once by moving them forwards or backwards by a specified number of days. When moving the demands, the system does not take the available work center capacity into account.

You can use this function for demands that are based on orders from Plant Maintenance (PM) and Customer Service (PS).

Note

If you want to shift the demands based on the available work center capacity, use the capacity leveling function. For more information, see [Capacity Leveling: Shifting Demands at Work Center Level \[page 703\]](#).

Prerequisites

The backward integration of demand data must be active.

To activate backward integration, make settings in Customizing for SAP Multiresource Scheduling under [► Sources of Demand ► Activate Backward Integration of Data ►](#) and under [► Sources of Demand ► PM/CS Orders ► Control Integration Between MRS and PM/CS ►](#).

For more information, see [Setting Up Capacity Planning \[page 698\]](#).

Features

This function works for complex demands (headers) and for single demands (items). You can either change all demands that are currently displayed in the demand Gantt chart or you can change selected demands:

- To change all demands that are currently shown, choose  without selecting any demands in the Gantt charts.
- To change selected demands, select multiple demands with the CTRL key pressed and then choose .

In the dialog box that appears you can make the following settings:

Setting in the Dialog Box	Description
Shift By Days	Specify the number of days by which you want to move the demands. You can shift the demands forwards or backwards.

Setting in the Dialog Box	Description
<i>Shift Basic Start Date</i>	If you select this option, the system moves the start date of the selected complex demands.
<i>Add Restrictions</i>	If you select this option, the system sets restrictions for all demand items that are associated with the selected complex demands. If you have not selected any complex demands but only demand items, the system adds restrictions for the selected items.
<i>Start Scheduling</i>	If you select this option, the demand source system takes care of scheduling the associated demand items (order operations) once the changed start date of a complex demand is transferred back from SAP Multiresource Scheduling to the demand source system.
<i>Remove Restrictions</i>	This option is only relevant if you also selected the <i>Shift Basic Start Date</i> option. The system removes all restrictions that may exist for the demand items associated with the selected complex demands.

29 Apps for SAP Multiresource Scheduling

Use

SAP Multiresource Scheduling provides apps that you can use together with the standard application. These apps must be integrated into an existing SAP Fiori landscape. You can access the apps from the SAP Fiori launchpad.

The following apps can be used on desktop and mobile devices:

- [My Assignments \[page 733\]](#)
This transactional app allows you, as an employee, to obtain an overview of your assignments. The app provides details for each assignment.
- [Find Expertise \[page 741\]](#)
This transactional app helps you to find people with a specific skill set. This is especially useful if you are looking for subject matter experts to support you in finding the right solution for a specific problem.
- [Global Demand Search \[page 726\]](#)
This transactional app helps you to find suitable demands for any employee within a period of your choice.

i Note

Although the [My Assignments](#) and the [Find Expertise](#) apps are not delivered as part of the SAP Fiori app catalog, the apps follow the SAP Fiori design paradigm.

Apps for Web-Based Resource Management

SAP Multiresource Scheduling provides apps that you can use to perform tasks related to the Web-Based resource management. These apps do not follow the SAP Fiori design paradigm. However, you need to integrate them into an existing SAP Fiori system landscape. You access these apps from the SAP Fiori launchpad.

The following apps can be used on desktop only:

- [My Requests \[page 295\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [Role Overview \[page 341\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)

More Information

- [Installation and Implementation \[page 723\]](#)
- [My Assignments \[page 733\]](#)
- [Find Expertise \[page 741\]](#)
- [Apps for Web-based Resource Management \[page 294\]](#)

29.1 Installation and Implementation

About This Document

This document provides general installation and implementation information that applies to all SAP Multiresource Scheduling apps. Depending on the app, additional prerequisites may apply. Please note that limitations may apply for the apps related to Web-based resource management.

For more information, see the app-specific documentation.

Before You Start

The SAP Multiresource Scheduling apps must be integrated into an SAP Fiori system landscape. Make sure that you read the relevant SAP Fiori documentation before you start with the installation and implementation. The following table provides an overview of the relevant sections:

Information About	Where to Find It
SAP Fiori system landscape setup	For more information, see the documentation at http://help.sap.com/fiori . Choose ► <i>SAP Fiori Implementation Information</i> ► <i>Required System Landscape</i> ►. Check the documentation for your SAP NetWeaver version.
Configuration of SAP Fiori launchpad	For more information, see the documentation at http://help.sap.com/fiori . Choose ► <i>SAP Fiori Implementation Information</i> ► <i>Configuration Information</i> ►. In the documentation for your SAP NetWeaver version, choose ► <i>Configuration of SAP Fiori Infrastructure</i> ► <i>Setup of SAP Fiori Launchpad</i> ►.

Information About

Implementation information, such as activation of OData services or activation of ICF services

Configuring the look and feel of the app using UI Theme Designer

Where to Find It

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

<http://help.sap.com/nw> ► *User interface add-on for SAP NetWeaver* ► *Application Help* ►.

In SAP Library, choose *UI Theme Designer*.

i Note

For the Web-based Resource Management apps, the SAP Blue Crystal theme was enhanced by additional styling. If you want to change the look and feel of the Web-based Resource Management apps using the UI Theme Designer, you also need to reapply the additional styling.

General description of extensibility options and procedures

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

Supported browsers

<http://help.sap.com/nw> ► *User interface add-on for SAP NetWeaver* ► *Application Help* ►.

In SAP Library, choose ► *SAP UI5: UI Development Toolkit for HTML5* ► *Read Me First* ► *Browser and Platform Support* ►.

i Note

Limitations apply for the apps for Web-based resource management. For more information, see [Apps for Web-based Resource Management \[page 294\]](#).

The following functions are **not** supported by the SAP Multiresource Scheduling apps:

- SAP Fiori Search
- Integration with SAP Jam
- Integration with SAP Lumira

The apps work together with the standard SAP Multiresource Scheduling application, but not independently of it. The setup and configuration activities required for the SAP Multiresource Scheduling application must be in

place before you can use the apps. For example, you must have set up your organizational structure and the required integration scenarios according to your business needs.

i Note

For more information about possible integration scenarios and the master data setup required for SAP Multiresource Scheduling, see the relevant sections in the SAP Multiresource Scheduling application help. In addition, see the *Administrator's Guide for SAP Multiresource Scheduling* available on SAP Help Portal at <http://help.sap.com/mrs>.

System Landscape Requirements

Before you start implementing the apps, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. Check the documentation for your SAP NetWeaver version.

Back-End Components Delivered with (Product Version Stack)

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

i Note

Depending on the app, further back-end components may be required. For more information, see the app-specific implementation information.

Front-End Components Delivered with (Product Version Stack)

- User interface add-on for SAP Multiresource Scheduling 10
- User interface add-on 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the user interface add-on for SAP Multiresource Scheduling.

Front-End Server: Front-End Component of App (Software Component)

MRSS_UI

Default Settings

SAP delivers pre-configured settings that allow you to set up the apps for use quickly. These settings include the required roles and app catalogs. If you want to use the delivered settings, you only need to complete the configuration activities described in the app-specific documentation and assign the required role to the users of the app.

You can also create new roles and catalogs according to your business needs.

Implementation and Configuration Tasks

Tasks to Be Performed for All Apps

You need to perform several tasks on the front-end server and on the back-end server. These include the following:

- Front-end server: Activate the required OData services
- Front-end server: Activate the SAP UI5 application
- Front-end server: Enable the app for access in the SAP Fiori launchpad
- Front-end server and back-end server: Assign the required OData service authorization to users

For more information, see the app-specific documentation.

App-Specific Information

For app-specific implementation and configuration tasks, please see the documentation for the individual apps. This documentation also provides the required technical information, such as role names.

- [App Implementation: My Assignments \[page 735\]](#)
- [App Implementation: Find Expertise \[page 746\]](#)
- [Apps for Web-based Resource Management \[page 294\]](#)

29.2 Global Demand Search

With the transactional app *Global Demand Search* you can find suitable demands for any employee within a period of your choice. You can use the app not only for Web-based Resource Management requests, but also for other demand types used in SAP Multiresource Scheduling such as network activities from Project System (PS) or Plant Maintenance (PM) and Customer Service (CS) orders.

Key Features

- Find suitable demands for an employee

- Display overall matching result as well as matching results for availability, structured and unstructured qualifications
- Sort the result list
- Export the complete result list into a CSV file
- Use the app on a mobile device

i Note

The app is enabled for mobile use, it's not a native mobile app. You need to use the SAP Fiori Launchpad to call up the app.

- Navigate to the Web-based Resource Management request.

i Note

This is not possible on a mobile device.

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see .

Related Apps

- [My Requests \[page 295\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)

Component for Customer Incidents

CA-MRS

More Information

[Installation and Implementation \[page 723\]](#)

[App Implementation: Global Demand Search \[page 728\]](#)

[App Extensibility: Global Demand Search \[page 731\]](#)

29.2.1 App Implementation: Global Demand Search

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	• SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver • Optional: SAP Multiresource Scheduling 10 add-on based on SAP ERP
Front-End Components Delivered With	• User Interface Add-On for SAP Multiresource Scheduling 10 • User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Required SAP Notes

For the *Global Demand Search* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.

Note

For more information about installation prerequisites, software components, and implementation tasks related to SAP Multiresource Scheduling, see the administrator's guide available at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Global Demand Search* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for

your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating ICF Services of UI5 Application](#) ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSDemandSearch
Business Role	/MRSS/DEMAND_SEARCH_APP
Business Catalog	/MRSS/DEMAND_SEARCH
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

Configuration Tasks

This section provides an overview of the configuration tasks you must complete in the back-end system.

Define Weighting Factors for Matching Criteria

You have defined the qualification matching weighting factors in Customizing for SAP Multiresource Scheduling under ► [Qualifications](#) ► [Functions](#) ► [Define Weighting Factors for Matching Criteria](#) ►. For more detailed information, see the Customizing documentation in the system.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Global Demand Search \[page 731\]](#)

29.2.2 App Extensibility: Global Demand Search

You can extend the [Global Demand Search](#) app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more columns to the demand search result list.
- You can enhance the CSV export of the demand search result list with custom fields.

Extension Points

The following extension points are available:

View	Extension Point	Use
DemandSearch.view.xml	DemandSearchResultListColumnDefinition	This extension point allows you to add more columns to the demand result list.
DemandSearch.view.xml	DemandResultListCellContents	This extension point allows you to map the custom model to the additional fields defined in the extension point DemandSearchResultListColumnDefinition.

Note

If you implement both extension points `DemandSearchResultListColumnDefinition` and `DemandResultListCellContents`, you can display custom information in the demand result list.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* 🔍.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* 🔍.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code.

Controller	Hook	Use
DemandSearch.controller.js	<code>mrs.resourcemanagement.view.demandsearch.DemandSearch~extCreateCsvColumns</code>	Enhance CSV export of the demand search result list with custom fields

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* 🔍.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.3 My Assignments

Use

The transactional app *My Assignments* allows you, as an employee, to obtain an overview of your assignments. This is especially useful if you travel frequently between customer locations and would like to see upcoming assignments to plan your work week. The app shows details for each assignment as well as information about the customer and fellow team members.

Key Features

You can use the app to:

- Display your assignments for the current date, for the next 7 days, or for the next 30 days
 - Display the more information about each assignment
- The detail view for an assignment includes the following tabs:

Tab	Description
<i>Details</i>	In addition to the start and end date and the assignment duration, this tab shows the ID and description of the complex demand. In addition, the tab shows the description of the individual demand item to which you are assigned.
<i>Customer</i>	This tab shows the customer name and contact data such as phone number and e-mail address. If address data is available for the customer, the customer address is also shown here.

Tab	Description
Team	This tab shows a list of team members, including contact data for each team member. i Note You can use Business Add-In <code>/MRSS/RAL_RES_SELECTION</code> (<i>BAdI: Determination of Team Colleagues for My Assignments App</i>) in the back-end system to determine the fellow team members of the person currently using the app. According to the default implementation, team members are resources that are assigned to the same complex demand. Team members can only be human resources. The app does not show N.N. resources. For more information, see App Implementation: My Assignments [page 735].

i Note

Additional user assistance is provided in the app.

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: My Assignments \[page 735\]](#).

Component for Customer Incidents

CA-MRS

More Information

- [Installation and Implementation \[page 723\]](#)
- [App Implementation: My Assignments \[page 735\]](#)
- [App Extensibility: My Assignments \[page 740\]](#)

29.3.1 App Implementation: My Assignments

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► <i>SAP Fiori Implementation Information</i> ► <i>Required System Landscape</i> ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You must configure the SAP Fiori launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► <i>SAP Fiori Implementation Information</i> ► <i>Configuration Information</i> ►. In the documentation for your SAP NetWeaver version, choose ► <i>Configuration of SAP Fiori Infrastructure</i> ► <i>Setup of SAP Fiori Launchpad</i> ►.
Back-End Components Delivered With	• SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver • (Optional) SAP Multiresource Scheduling 10 add-on based on SAP ERP
Front-End Components Delivered With	• User interface add-on for SAP Multiresource Scheduling 10 • User interface add-on 1.0 for SAP NetWeaver Support Package Stack (SPS) 13
Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the user interface add-on for SAP Multiresource Scheduling.	
Front-End Server: Front-End Component of App (Software Component)	MRSS_UI

Required SAP Notes

To show customer contact data for demands from SAP CRM, you must implement SAP Note [2161029](#) .

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as the organizational structure and resource data, must be available.
- The required integration scenarios must be configured and assignments must exist in SAP Multiresource Scheduling.

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *My Assignments* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Service

Component	Technical Name
OData Service	/MRSS/MRS_MY_ASSIGNMENTS_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/UI5_MY_ASG

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You access the SAP Multiresource Scheduling apps using the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSHumanResourceAssignment
Business Role	/MRSS/EMPLOYEE
Business Catalog	/MRSS/EMPLOYEE
Technical Role	/MRSS/UI5_APP_EMPLOYEE
LPD_CUST Role	MRS_EMPL
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the back-end server and on the front-end server:

- On the back-end server, a dedicated authorization role (PFCG role) for the OData service is delivered as an example. You can copy this role and adjust it to your needs.
- On the front-end server, you must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/MRS_MY_ASSIGNMENTS_SRV	/MRSS/UI5_APP_EMPLOYEE This role needs to be assigned in the back-end system so that users can access the app in the front-end system or the back-end system. This role also includes authorization objects /MRSS/RAL1 and /MRSS/RAL4. For these objects, the value for activity Allow is set to <i>X</i> .	Use the delivered business role /MRSS/EMPLOYEE or create a new role.

Configuration Tasks

This section provides an overview of the configuration tasks you must complete in the back-end system.

Note

For more detailed information, see the documentation available in the system for the reports and Customizing activities mentioned below.

The following table provides an overview of the activities that are necessary for setting up the app.

Activity	What to Do	Where to Go
Assign authorization objects (if required)	If you do not want to use the delivered roles, assign the appropriate authorizations to your roles. The app-specific authorization objects are /MRSS/RAL1 and /MRSS/RAL4.	Transaction SU21
Set up partner integration	To show customer data in the app, you must configure the integration of partners for demands in SAP Multiresource Scheduling.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): ► Basic Settings ► Assign Objects ► Partner Functions ► Determine Customer Based on Partner Role ►

Note

To show customer data for demands from SAP CRM, you must implement SAP Note [2161029](#).

Activity	What to Do	Where to Go
Check master data	Make sure that the required master data (such as communication data) is available. If you are using SAP ERP HCM resources, the system determines the user from infotype 105, subtype 0001. Make sure that this infotype is set up for all relevant app users by linking the user ID to the personnel number in this infotype. In the case of business partners, the system determines the user from the master data (transaction BP).	Transaction PA30 (for SAP HCM resources) Transaction BP (for business partner resources)
Activate display of assignment location	Specify that the demand address (= assignment location) is to be shown in the app. If you do not make settings here, the app does not show the assignment location.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): ► Set Up Scheduler Workplace ► Workplace Profiles ► Define Data Selection for Resource Assignment List ►
Define communication data	This step is only relevant if you are using resources from SAP ERP HCM. Specify the data fields in the HCM master record from which the system obtains communication data for employees. If you do not make settings here, the app does not show contact data for team members.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): ► Basic Settings ► Define Communication Data for Resources ►

The following table lists optional activities that you complete depending on your business requirements:

Optional Activity	What to Do	Where to Go
Create BAdI implementation to determine team members	You can use Business Add-In /MRSS/RAL_RES_SELECTION to determine the fellow team members of the current app user If you do not create your own implementation for this BAdI, the app calls the delivered fallback class. According to this class, fellow team members are resources that are working on the same complex demand.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): ► Enhancements ► Business Add-Ins (BAdIs) for SAP Multiresource Scheduling Apps ► Determination of Team Colleagues for My Assignments App ►
Customize the look and feel of the app	You can adjust the look and feel of the app according to your requirements. For more information, see the documentation at http://help.sap.com/nw ► User interface add-on for SAP NetWeaver ► Application Help ► In SAP Library, choose UI Theme Designer.	Transaction /UI5/ THEME_DESIGNER (UI Theme Designer)

More Information

- [Installation and Implementation \[page 723\]](#)
- [App Extensibility: My Assignments \[page 740\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

29.3.2 App Extensibility: My Assignments

SAP does not provide any extensibility options for this app.

29.4 Find Expertise

Use

The transactional app *Find Expertise* helps you to quickly find people with a specific skill set. This is especially useful if you are looking for subject matter experts who can support you in finding the solution for a specific problem.

i Note

The search is limited to people who are assigned to your organizational unit or one of its sub-units. If a person is assigned to more than one organizational unit during the search time frame, the app shows one entry for each organizational unit assignment.

Key Features

You can use the app to:

- Search for subject matter experts
You can search by skill or by name. Optional search criteria are country and the required availability in days.
- Narrow down the search results by applying filters
- Mark people in the results list as favorites
- Display more information for any person in the search results

i Note

If a person is assigned to more than one organizational unit, the app shows one entry for each organizational unit assignment.

The detail view for a person includes the following tabs:

Tab	Description
<i>Contact Details</i>	Contact details include the address, phone number, and e-mail address.
<i>Structured Skills</i>	The app shows all structured qualifications of the person that are valid in the search time frame.
<i>i Note</i> In the app, the term “skill” is used as a synonym for “qualification”.	For more information, see Qualification Matching for Find Expertise App [page 743] .

Tab	Description
<i>Unstructured Skills</i>	The app shows all unstructured qualifications of a person, regardless of the search time frame. This tab is only shown if you are using SAP Multiresource Scheduling qualifications.
<i>Documents</i>	The app shows all documents that are available as attachments for the employee profile in the back-end system. i Note You cannot upload or edit attachments using the app. This tab is only shown if you are using SAP Multiresource Scheduling qualifications.
<i>Matching Assignments</i>	If you entered a skill or multiple skills when starting the search, the app shows all assignments that match the entered skill. The app shows all matching assignments that the person has ever had, regardless of the search time frame. i Note The app shows one line for each assignment. For demands from Web-based resource management, the system creates one assignment per day in the back-end system. As a result, the number of matching assignments displayed in the app may be very high. If you entered a name when starting the search, this tab is empty.
i Note Additional user assistance is provided in the app.	

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Find Expertise \[page 746\]](#).

Component for Customer Incidents

CA-MRS

More Information

- [Installation and Implementation \[page 723\]](#)
- [Qualifications in the Find Expertise App \[page 743\]](#)
- [App Implementation: Find Expertise \[page 746\]](#)
- [App Extensibility: Find Expertise \[page 752\]](#)

29.4.1 Qualifications in the Find Expertise App

Use

The app uses SAP HANA's text search capabilities to perform qualification matching as part of the search. Qualification matching is based on key words found in qualification descriptions, assignment descriptions, and attachments for the employee profile (if available).

i Note

The qualification matching in the app is independent of the qualification matching performed in the standard SAP Multiresource Scheduling application.

In the detail view for a person, the app shows structured qualifications, unstructured qualifications, and attachments for the employee profile. This depends on how the back-end system is configured. For example, unstructured qualifications and attachments are only shown if you are using SAP Multiresource Scheduling qualifications.

Prerequisites

- You need to configure SAP Multiresource Scheduling for the use of qualifications. For more information, see [Setting Up Qualifications in SAP Multiresource Scheduling \[page 530\]](#).
- If you are using qualifications from SAP ERP HCM, you need to transfer these to the SAP Multiresource Scheduling database using transfer report `/MRSS/HCM_RPTWFMIF` (for SAP ERP HCM resources) or `/MRSS/WFM_MASTERDATA_ADMIN` (for business partner resources).
- To show unstructured qualifications and attachments in the app, you need to work with SAP Multiresource Scheduling qualifications.

Features

Qualification Matching

The app searches the following data in the back-end system:

- Description of structured qualifications
If you are using qualification matrixes, the app searches the descriptions of primary and secondary qualifications.
- Description of unstructured qualifications as well as customer name related to unstructured qualifications (if available)
The app does not search the long text of unstructured qualifications.
- Assignment descriptions
- Attachments for the employee profile

The app does not search qualification ratings or qualification catalog descriptions.

In the search results, the app shows all qualifications of a person that match the entered search terms. In the *Skills Matched* column, users can see the skills the app found in the qualification and assignment descriptions. This column also indicates whether any results were found in the employee profile attachments (if available).

Display of Qualifications in the Detail View

i Note

In the app, the term “skill” is used as a synonym for “qualification”.

Depending on whether you are using qualifications from SAP ERP HCM or SAP Multiresource Scheduling qualifications, the app shows structured qualifications, unstructured qualifications, and employee profile attachments.

Display of Structured Qualifications

On the *Structured Skills* tab, the app shows all structured qualifications of a person that are valid in the search time frame. The following applies:

Column Shown in App	Corresponds to the Following Qualification Data
<i>Area</i>	Qualification catalog description
<i>Skill</i>	Qualification description
<i>Rating</i>	Qualification rating

If you are using qualification matrixes, the app shows primary and secondary qualifications in separate rows. The primary qualification is shown in one row and the secondary qualification is shown directly below in the next row. As a result, the same secondary qualification can appear for different primary qualifications. This means that you may see the same secondary qualification with different ratings.

❖ Example

Let's assume that the following skills are shown for a person:

Area	Skill	Rating
Application Knowledge	Plant Maintenance	Excellent
Technical Skills	ABAP Programming	Excellent
Application Knowledge	Project System	Basic
Technical Skills	ABAP Programming	Basic
Application Knowledge	CRM Service	Poor
Technical Skills	ABAP Programming	Poor

In this example, ABAP Programming is a secondary skill that depends on the respective primary qualification displayed in the preceding row. The rating refers to the entire entry (that is, the combination of primary and secondary skills). In this example, the person has excellent programming skills in the area of Plant Maintenance, but poor programming skills in the area of CRM.

Display of Unstructured Qualifications

On the [Unstructured Skills](#) tab, the app shows all unstructured qualifications of a person, regardless of the search time frame. The following applies:

Column Shown in App	Corresponds to the Following Qualification Data
Area	Qualification type
Customer	Customer
Description	Qualification description

Display of Attachments for the Employee Profile

On the [Documents](#) tab, the app shows all attachments that are available for the employee profile of a person. You can open the attachments using the app. You cannot upload new attachments or edit existing attachments using the app.

More Information

[Setting Up Qualifications in SAP Multiresource Scheduling \[page 530\]](#)

29.4.2 App Implementation: Find Expertise

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► <i>SAP Fiori Implementation Information</i> ► <i>Required System Landscape</i> ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You must configure the SAP Fiori launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► <i>SAP Fiori Implementation Information</i> ► <i>Configuration Information</i> ►. In the documentation for your SAP NetWeaver version, choose ► <i>Configuration of SAP Fiori Infrastructure</i> ► <i>Setup of SAP Fiori Launchpad</i> ►.
Back-End Components Delivered with (Product Version Stack)	• SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver • (Optional) SAP Multiresource Scheduling 10 add-on based on SAP ERP • SAP HANA Platform Support Package Stack (SPS) 09
Front-End Components Delivered with (Product Version Stack)	• User interface add-on for SAP Multiresource Scheduling 10 • User interface add-on 1.0 for SAP NetWeaver Support Package Stack (SPS) 13 or higher
Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the user interface add-on for SAP Multiresource Scheduling.	
Front-End Server: Front-End Component of App (Software Component)	MRSS_UI

Required SAP Notes

For the *Find Expertise* app, you do not have to implement any SAP Notes.

If you are using business partner resources, make sure that you read SAP Note [2162387](#) .

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as the organizational structure and resource data, must be available.
- The required integration scenarios must be configured and assignments must exist in SAP Multiresource Scheduling.

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists the tasks that you have to perform to implement the *Find Expertise* app. The following tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Service

Component	Technical Name
OData Service	/MRSS/MRS_FIND_RESOURCES_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/UI5_FIND_RES

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You access the SAP Multiresource Scheduling apps using the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSHumanResource
Business Role	/MRSS/RESOURCE_FINDER
Business Catalog	/MRSS/RESOURCE_FINDER
Technical Role	None
LPD_CUST Role	MRS_RESFIN
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/MRS_FIND_RESOURCES_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the existing role /MRSS/RESOURCE_FINDER or create a new role.

Configuration Tasks

This section provides an overview of the configuration tasks you must complete in the back-end system.

i Note

For more detailed information, see the documentation available in the system for the reports and Customizing activities mentioned below.

Complete Initial Configuration

To configure the app in the back-end system, you must do the following:

- Adjust the organizational structure to include the new *Resource Finder* role.
The authorization concept for the app is based on the app user's organizational assignment. App users can only see employees who are assigned as resources to organizational units (including their sub-units) to which the app users have been assigned as resource finders.
- Make settings in Customizing for SAP Multiresource Scheduling.
- Transfer all relevant resource data to the SAP Multiresource Scheduling database.

The following table provides an overview of the activities that are necessary for setting up the app. Make sure that you complete the activities in the specified order.

Activity	What to Do	Where to Go
1. Create new relationship and evaluation paths	Define a new relationship type for the <i>Resource Finder</i> role and create a new evaluation path for this role.	See SAP Note 2162387  .
2. Enter evaluation paths in Customizing	Enter the evaluation paths for the <i>Resource Finder</i> role in Customizing. The system uses these evaluation paths to determine which organizational units (resource planning nodes) an app user is assigned to as resource finder.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): ► Basic Settings ► Define Resource Planning Nodes and Evaluation Paths ►
i Note If you are using SAP ERP HCM resources, the evaluation paths are part of the delivery Customizing for SAP Multiresource Scheduling 10. If you are using business partner resources, you must enter the evaluation paths manually. For more information, see SAP Note 2162387 .		
3. Set up organizational structure for app users	Assign all users of the app as resource finders to the appropriate organizational units.	Transaction PPOME (Organization and Staffing Change)

Activity	What to Do	Where to Go
4. Specify communication data	This step is only relevant if you are using resources from SAP ERP HCM. Specify the data fields in the HCM master record from which the system obtains communication data for employees.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): ► Basic Settings ► Define Communication Data for Resources ►
5. Transfer resource data to SAP Multiresource Scheduling	Transfer resource data to the SAP Multiresource Scheduling database by running the relevant transfer report: - For SAP ERP HCM resources, you use report <code>/MRSS/HCM_RPTWFMIF</code>. - For business partner resources, you use report <code>/MRSS/WFM_MASTERDATA_ADMIN</code>.	Transaction SE38
6. Transfer organizational structure to SAP Multiresource Scheduling	Transfer the organizational structure as specified in PPOME to the SAP Multiresource Scheduling database. Run report <code>/MRSS/BASIS_ORG_TRANSFER</code> (Transfer of Organizational Assignments) to do so. This is required to ensure optimal performance when the app is used. Note When running this report, the system transfers the organizational assignments only for employees that are available as resources in SAP Multiresource Scheduling.	Transaction SE38
7. Transfer attachments to SAP Multiresource Scheduling	To make the attachments searchable, you must transfer them from the Business Workplace repository to the SAP Multiresource Scheduling database. Run report <code>/MRSS/RES_ATTACHMENT_TRANSFER</code> (Transfer of Attachments for Employee Profiles) to do so.	Transaction SE38

The following table lists optional activities that you complete depending on your business requirements:

Optional Activity	What to Do	Where to Go
Specify a time unit for day	In Customizing, you can specify a time unit that the system uses when performing a search according to availability. If you do not specify a time unit, the system assumes that a working day is 8 hours.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): Basic Settings > Specify Time Unit for Day for Find Expertise App >
Create BAdI implementation to filter the search results	You can use Business Add-In /MRSS/HANA_DEF_FIND_RES_FILTER to filter the search results before they are shown in the app. SAP does not deliver an implementation for this BAdI.	Customizing for SAP Multiresource Scheduling (transaction /MRSS/IMG): Enhancements > Business Add-Ins (BAdIs) for SAP Multiresource Scheduling Apps > Filtering of Search Results for Find Expertise App >
Customize the look and feel of the app	You can adjust the look and feel of the app according to your requirements. For more information, see the documentation at http://help.sap.com/nw User interface add-on for SAP NetWeaver > Application Help > In SAP Library, choose UI Theme Designer .	Transaction /UI5/THEME_DESIGNER (UI Theme Designer)

Schedule Reports to Ensure Data Consistency

To make sure that the relevant data is up to date in SAP Multiresource Scheduling, you must run the following reports on a regular basis or whenever data is changed in the relevant source system:

Report	Recommended Execution Frequency	Comment
/MRSS/HCM_RPTWFMIF (Maintenance of SAP HCM Resources)	On a regular basis (for example, overnight)	This report is relevant if you are using SAP ERP HCM resources.
/MRSS/WFM_MASTERDATA_ADMIN (Maintenance of Business Partner Resources)	On a regular basis (for example, overnight)	This report is relevant if you are using business partner resources.

Report	Recommended Execution Frequency	Comment
/MRSS/BASIS_ORG_TRANSFER <i>(Transfer of Organizational Assignments to SAP Multiresource Scheduling)</i>	Whenever the organizational structure is changed in PPOME (for example, changes to names, validity, user assignments, resource assignments)	Based on the information retrieved by this report, the system determines which employees an app user is allowed to see after performing a search.
<i>i</i> Note You can schedule this report to be run regularly (for example, daily). In this case, the system only updates changed data records.		
/MRSS/BASIS_ORG_ASGN_DELETE <i>(Deletion of Organizational Assignments in SAP Multiresource Scheduling)</i>	- If you do not want certain resource planning nodes to be shown in the app - If certain users should no longer be allowed to use the app	Using this report, you can delete the organizational assignments for the entered resource planning nodes or users.
/MRSS/RES_ATTACHMENT_TRANSFER <i>(Transfer of Attachments for Employees Profiles)</i>	Whenever attachments are created, changed, or deleted in the <i>Employee Profile Maintenance</i> transaction (/MRSS/PPPT)	Using this report, you transfer attachments for employee profiles from the Business Workplace to the SAP Multiresource Scheduling database.

More Information

- [Installation and Implementation \[page 723\]](#)
- [App Extensibility: Find Expertise \[page 752\]](#)
- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►
Check the documentation for your SAP NetWeaver version.

29.4.3 App Extensibility: Find Expertise

Use

You can extend the *Find Expertise* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add an additional tab to the detail view at a predefined extension point.
- You can filter the search results using a Business Add-In.

Extension Points

You can include an additional tab (*Other Data*) to the detail view for a person. The following extension point is available:

View	Extension Point	Use
S2_ResourcesDetails.view.xml	extOtherDataTab	Using this extension point, you can add the <i>Other Data</i> tab to the detail view for a person.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* .

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* .

Business Add-Ins (BAdIs)

You can use Business Add-In *Filtering of Search Results for Find Expertise App* (/MRSS/HANA_DEF_FIND_RES_FILTER) to filter the search results before they are shown in the app. For example, you can specify that specific employees are excluded from the search results.

SAP does not deliver an implementation for this BAdI. If you want to filter the search results, you must create your own implementation.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► *Enhancements* ► *Business Add-Ins (BAdIs) for SAP Multiresource Scheduling Apps* . For more information, see the BAdI documentation in the system.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* .

29.5 Apps for Web-based Resource Management

Use

SAP Multiresource Scheduling provides several apps that you can use to perform tasks related to the Web-based resource management. You can use these resource management (RM) apps as an alternative to the Web Dynpro version of the Web-based resource management application.

i Note

You can only use the apps for Web-based resource management with the SAP Multiresource Scheduling add-on based on SAP ERP.

The RM apps can be used on desktop only. They do not follow the SAP Fiori design paradigm. However, you need to integrate them into an existing SAP Fiori system landscape. You access these apps from the SAP Fiori launchpad.

i Note

To display change documents for an RM Web request or an assignment, you have to call up the demand in the SAP GUI planning board. To do so, you can for example use the transaction `/MRSS/PLBOSRV` (*Planning Board for Demands*). To call up the change document for a demand, choose *Details for Demand* in the demand context menu, then choose the *History* button. To call up the change document for an assignment, choose *Display Change Documents* from the assignment context menu.

For more information, see [Creation of Change Documents for Planning Board Objects \[page 139\]](#).

Browser Support

Internet Explorer 9 (IE9) is not supported for the RM apps.

More Information

For more information about prerequisites, installation, and implementation requirements, see [Installation and Implementation \[page 723\]](#).

For more information about the individual RM apps, see:

- [My Requests \[page 295\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [Role Overview \[page 341\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)

- [Reassign Assignments \[page 438\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Global Demand Search \[page 726\]](#)

29.5.1 My Requests

Use

With the transactional app *My Requests*, you can get an overview of all requests you created or that were created on your behalf so you can have an overview of all projects that are in the pipeline or you have to work on. You also use the app to create and update requests and roles.

Key Features

- Display, filter, search, and sort the request overview
- Create requests
- Create roles
- Display details of requests and roles
- Define time rules for a role
- Edit and delete requests or roles
- Show request status history
- Propose searching parties
- Send request information to e-mail recipients

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: My Requests \[page 298\]](#).

i Note

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Related Apps

- [Staffing Requests \[page 310\]](#)
- [Role Overview \[page 341\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: My Requests \[page 298\]](#)

[App Extensibility: My Requests \[page 302\]](#)

29.5.1.1 App History: My Requests

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The [My Requests](#) app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

My Requests MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Create roles You can now create time rules for roles. You can now also search for N.N. resources. • Display details of requests and roles In the request details, you can now see the remaining duration for each role.
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours.
New Extensibility Options	New extensibility options: • You can use the BAAdI: Update of E-Mail Information / MRSS/RM_EMAIL_INFO to change the list of recipients and provide default text and subjects for e-mails. • You can now use the following new view and its extension points: • <code>CandidateDisplayEditPopover.fragment.xml</code> • You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code>

29.5.1.2 App Implementation: My Requests

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* ►. In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Required SAP Notes

For the *My Requests* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *My Requests* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_REQUESTER
Business Catalog	/MRSS/RM_REQUESTER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_REQUESTER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in grey color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. The setting can be made in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Optional Activities

Create BAdI Implementation to Change Request Default Values

You can use Business Add-In (BAdI) [BAdI: Default Values for Request](#) (/MRSS/RM_UI5_SET_DEF) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#). ►

The default implementation class of this BAdI is /MRSS/CL_RM_UI5_DEFAULTS_REQ. For more information, see the documentation in the system.

Create BAdI Implementation to Change The List of Recipients and Provide Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) [BAdI: Update of E-Mail Information](#) (/MRSS/RM_EMAIL_INFO) to change the list of recipients and provide default text and subjects for e-mails..

More Information

- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: My Requests \[page 302\]](#)

29.5.1.3 App Extensibility: My Requests

Use

You can extend the [My Requests](#) app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more filters, controls and data to the filter bar in the Request Overview page.
- You can add more controls and data to the filter popover in the Request Overview page.
- You can add more controls and data to the skills tab view in the roles details view.
- You can add more controls and data to the skill proficiency popover for any structured skill for a role.
- You can add more controls and data to the skill category popover for any unstructured skill for a role.
- You can add more controls and data to the prefill skill dialog in the skill tab view under role details view.
- You can add more attributes to the requests table column of the Requests screen.
- You can add more attributes to the requests list item of the Requests Overview screen.
- You can add more controls to the Request Attachment view.
- You can add more controls to the request summary title line in the summary view
- You can add more controls or data to the request summary details part of the summary view.
- You can add more controls to the request creation/edit view.
- You can add more controls to the request header part of the request creation/edit view.
- You can add more controls and attributes to the request attributes part of the request creation/edit view.
- You can add more controls and attributes to the request status history list item.
- You can add more controls and attributes to the Assignment Table in the Calendar View.

Extension Points

The following extension points are available:

View	Extension Point	Use
RequestFilterBar.view.xml	RequestFilterHBoxExtension	This extension point allows you to add more filters to the filter bar in Request Overview page.
RequestFilterBar.view.xml	RequestFilterExtension	This extension point allows you to add more controls, data to the filter bar in Request Overview page.
RequestFilterPopover.fragment.xml	RequestFilterPopoverExtension	This extension point allows you to add more controls, data to the filter popover in Request Overview page.

View	Extension Point	Use
RequestDetailsRoleSkills.fragment.xml	RoleSkillsExtension	This extension point allows you to add more controls, data to the skill tab view in role details view.
RequestDetailsRoleProficiencyPopover.fragment.xml	RoleSkillProficiencyPopoverExtension	This extension point allows you to add more controls, data to the skill proficiency popover for any structured skill for a role.
RequestDetailsRoleCategoryPopover.fragment.xml	RoleSkillCategoryPopoverExtension	This extension point allows you to add more controls, data to the skill category popover for any unstructured skill for a role.
PrefillSkillDialog.view.xml	RolePrefillSkillDialogExtension	This extension point allows you to add more controls, data to the prefill skill dialog in the skill tab view under role details view.
RequestTable.view.xml	requestListCols	This extension point allows you to add more attributes to the requests table column of the Request screen
RequestTable.view.xml	requestListCells	This extension point allows you to add more attributes to the requests list item of the Request Overview screen
RequestDetailsAttachment.view.xml	RequestDetailsAttachmentExtension	This extension point allows you to add more controls to the Request Attachment view
RequestDetailsSummary.view.xml	requestSummaryTitleExtension	This extension point allows you to add more controls to the request summary title Line in the Summary View
RequestDetailsSummary.view.xml	requestSummaryDetailsExtension	This extension point allows you to add more controls or data to the request summary details part of the summary view
RequestHeaderChange.view.xml	RequestChangeViewExtension	This extension point allows you to add more controls to the request creation/edit view
RequestHeaderChange.view.xml	RequestChangeHeaderViewExtension	This extension point allows you to add more controls to the request header part of the request creation/edit view

View	Extension Point	Use
RequestHeaderChange.view.xml	RequestChangeAttributesExtension	This extension point allows you to add more controls/attributes to the request attributes part of the request creation/edit view
RequestStatusHistoryPopover.fragment.xml	requestStatusHistoryListItemExtension	This extension point allows you to add more attributes/controls to the request status history list item
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayHeader	This extension point allows you to add more attributes/controls to the header of the assignment table in calendar view
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayColumn	This extension point allows you to add more attributes/controls to the table column of the assignment table in calendar view
CandidateDisplayEditPopover.fragment.xml	AssignmentDisplayEditPopoverExtension	This extension point allows the user to add more attributes/controls to the popover of the assignment table in calendar view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* .

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* .

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code.

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	extCreateCsvColumns	This controller hook allows you to extend the export column.

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* .

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.1.4 Working in the My Requests Overview

The request overview shows all requests that were created by you or were assigned to you as a requester.

You can filter and sort the request overview to find requests more easily. In the *Status* filter, you can also combine two or more of the available filter options. When you close the current session, the system saves the filter values you have chosen so that the list will be filtered the same way when you open the list the next time. You can use the search function. If you have applied filters to the list, the system will only search in the filtered requests. You can also open a specific request if you know the request number.

You can display the request details from the request overview.

29.5.1.5 Creating a Request

Use

You create a request to get staffing for a customer project (service request) or an internal project (corporate request). The request needs to have one or several roles. A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a request from scratch or copy an existing request to use the data as template.

Procedure

Creating a request includes the following mandatory steps:

1. Enter a request title.
2. Fill out at least the mandatory fields in the request header: requester, responsible RM organization, requesting country, customer name, request type, and languages. Based on the Customizing settings, the system will use some of your entered information to determine the resource management group that receives your request once you have submitted it.
3. Add at least one role and fill out at least the mandatory fields on role level. You can also copy an existing role and use the copied data as the basis for your new role.

In addition, you can add internal comments and attachments to give the resource manager additional context information to help with staffing decisions.

Saving and Submitting

If you do not have all of the required information yet, you can save the request as draft version. The system sets the request status *Not Yet Submitted*. If you want to forward the request to the request owner group or request owner to start the staffing process, you submit the request. The system assigns a request number and forwards the request. The request status is changed to *Newly Submitted*.

29.5.1.6 Creating Roles as Requester

Use

A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a role from scratch or copy an existing role to use the data as template.

Procedure

Creating a request includes the following steps:

1. Enter a role description.
2. Enter at least the mandatory information on the tabs *Details* and *Location*.
3. Enter the role start and end date and the number of requested days on the *Scheduling* tab. If required, you can change the number of requested resources or days per week. The system then recalculates the total number of requested days. You can still change the total number of requested days manually, but it must not exceed the value calculated by the system.
4. Optional: You can create time rules for the role if you need a resource for a specific number of hours on certain days of the week.
5. Optional: You can enter more information about the role on the *Scope* tab and the *Comments* tab.
6. Optional: You can add skills, candidate proposals, and broadcast target proposals.

Saving and Submitting

Save or Submit the role. If you do not have all of the required information yet, you can save the role as draft version. The system sets the role status *Not Yet Submitted*. If you want to forward the role to the role owner group or role owner, submit the role. The system assigns a role number and forwards the role. If your request has more than one role, you can also just forward one specific role. It depends on Customizing settings if the system submits the whole request as soon as the first role is submitted or only after all roles have been submitted.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

[Adding Skills to a Role as Requester \[page 308\]](#)

[Adding Candidates to a Role as Requester \[page 308\]](#)

[Proposing Searching Parties as Requester \[page 309\]](#)

29.5.1.7 Creating Time Rules for Roles Using RM Apps

When you create a role, you can use time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.

Procedure

1. On the *Scheduling* tab of the role, choose *Maintain Time Rules*.
2. In the *Define Time Rules* screen, choose the + icon to add a new line.
3. Enter a title for the time rule.
4. Click the calendar icon to choose a start and end date and select the weekdays on which resources are required.
5. Specify how many hours per day or how many hours in total resources are required.
6. If you want to add another time rule, choose the + icon and add the information for the next time rule.
7. Save your entries.

Results

The system adapts the field values on the *Scheduling* tab based on the time rule information. When you close the detail role view, you can see that the role now has a time rule icon to indicate that at least one time rule was created.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

29.5.1.8 Adding Skills to a Role as Requester

You can add skills to the role so that the resource manager can look for candidates with matching qualifications. You have the following options:

- You can add structured skills to the role as requirements. Structured skills are predefined skills from a catalog. The catalogs are maintained outside the RM app in the transaction [Qualification Catalogs](#) /MRSS/SQM_CAT.
- You can add unstructured skills to a role as requirements. Unstructured skills are skill requirements entered as free text based on a category.
- You can add skills from an existing requirements profile to the role. These requirements profiles are templates that fill in the structured and unstructured skills. The requirements profiles are maintained outside the RM app using the MRS standard transaction [Requirements Profile](#) /MRSS/REQM.

i Note

In the RM apps, the term “skill” is used as a synonym for “qualification”.

29.5.1.9 Adding Candidates to a Role as Requester

To add candidates, you have the following options:

- Adding internal candidates: You can use the simple search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-specific comments for the candidate. You have to choose a candidate status. Choose [Preferred](#), if you don't know if the desired candidate will be available for the requested time frame. The resource manager or searching party will check the availability for you. Choose [Named](#), if you already agreed upon a candidate with the resource manager.
- Adding external candidates: It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name. You have to choose a candidate status. Choose [Preferred](#), if you don't know if the desired candidate will be available for the requested time frame. The resource manager or searching party will check the availability for you. Choose [Named](#), if you already agreed upon a candidate with the resource manager.

When you have added the candidates, the system displays the candidate with its name, status, and status history in the candidate list. You can call up more information about the candidate by clicking the [i](#) icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers. You can find the relevant setting in the Customizing of SAP Multiresource Scheduling (/MRSS/IMG) under ► [Basic Settings](#) ► [Configure Note Management Settings](#) ►.

Proposing Candidates to the Resource Manager

As soon as you submit the role, the resource manager can see the proposed candidates. For candidates that you suggested, you can still change the proposed start date and proposed end date as well as proposed staffed days after the role was submitted.

29.5.1.10 Proposing Searching Parties as Requester

As a requester, you can add one or more broadcasts to the role to suggest searching parties. You add a broadcast with a target type and target group and save it. When you have submitted the role, the resource manager can submit the broadcast to the searching party in order to get help finding suitable candidates.

29.5.1.11 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose [Email](#) from the [Request Details](#) screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose [Create Email](#). Your default mail program opens. The body and subject of the e-mail are predefined by the system.
4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

29.5.2 Staffing Requests

Use

With the transactional app [Staffing Requests](#), you can get an overview of the requests that are in the pipeline or that you have to work on as a resource manager. The request overview shows all requests that were assigned to you as request owner or to one of the resource management groups that you belong to. You also use the app to create and update requests, roles and assignments and to broadcast roles to searching parties.

Key Features

- Display, filter, search, and sort the request overview
- Create requests
- Create roles
- Edit and delete requests or roles
- Display details of requests and roles
- Send request information to e-mail recipients
- Validate requests or roles
- Show request status history
- Broadcast roles
- Book resources
- Create assignments
- Edit and delete assignments
- Complete the staffing process for requests and roles
- Send request information to e-mail recipients

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Staffing Requests \[page 298\]](#).

Note

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Related Apps

- [My Requests \[page 295\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)

- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Staffing Requests \[page 313\]](#)

[App Extensibility: Staffing Requests \[page 319\]](#)

<http://help.sap.com/fiori>

29.5.2.1 App History: Staffing Requests

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The [Staffing Requests](#) app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Staffing Requests MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Create roles: You can now create time rules for roles. When you perform an advanced candidate search, you can now see additional search results and you can export the candidate search result list to a CSV file. You can now also search for N.N. resources. • Edit roles: When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role under specific conditions. • Display details of requests and roles: In the request details, you can now see the remaining duration for each role. In the candidate calendar, you can display the assignments for each day as a list. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.

Enhancement	Description
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Basic Settings Configure Additional Basic Settings. You can use the Customizing activity Define Time Frame for Resource Validity Check to define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps Define Time Frame for Resource Validity Check.
New Extensibility Options	New extensibility options: - You can use the BAAdI: Update of E-Mail Information / MRSS/RM_EMAIL_INFO to provide the list of recipients as well as default text and subjects for e-mails. - You can use the BAAdI: Additional Details for HR Resource or N.N. Resource to display additional information about the resource. - You use the BAAdI: Calculation of Remaining Duration to exclude assignments from the calculation of the remaining duration - You can now use the following new view and its extension points: <code>CandidateDisplayEditPopover.fragment.xml</code> <code>AdvConsultSrchDialog.view.xml</code> - You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code>

29.5.2.2 App Implementation: Staffing Requests

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* ►. In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Required SAP Notes

For the *Staffing Requests* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Staffing Requests* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Even if you change the UI theme, the configured assignment colors remain as defined in Customizing.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. You can make the setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Define Time Frame for Resource Validity Check

You can define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Optional Activities

Create BAdI Implementation to Change Request Default Values

You can use Business Add-In (BAdI) [BAdI: Default Values for Request](#) (/MRSS/RM_UI5_SET_DEF) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#). ►

The default implementation class of this BAdI is /MRSS/CL_RM_UI5_DEFAULTS_REQ. For more information, see the documentation in the system.

Create BAdI Implementation to Determine and Display Role Statuses

You can use Business Add-In (BAdI) *BAdI: Display of Role Statuses* (/MRSS/BADI_RM_UI5_ROLE_STATUS) to determine and display the role statuses that the request owner can choose in the RM app *Staffing Requests*.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#) ►.

SAP delivers a default implementation class that also serves as an example implementation: /MRSS/CL_RM_UI5_ROLE_STATUSES. For more information, see the documentation in the system.

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. Resource

You can use the *BAdI: Additional Details for HR Resource or N.N. resource* to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class /MRSS/CL_RM_UI5_PERSON_SEARCH reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#) ►.

Create BAdI Implementation to Provide The List of Recipients As Well As Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) *BAdI: Update of E-Mail Information* (/MRSS/RM_EMAIL_INFO) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Requests](#) ►.

Create BAdI Implementation to Exclude Assignments from Remaining Duration Calculation

You use Business Add-In (BAdI) *BAdI: Calculation of Remaining Duration* to exclude assignments from the calculation of the remaining duration.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Assignments](#) ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Staffing Requests \[page 319\]](#)

29.5.2.3 App Extensibility: Staffing Requests

Use

You can extend the [Staffing Requests](#) app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more filters, controls and data to the filter bar in the Request Overview page.
- You can add more controls and data to the filter popover in the Request Overview page.
- You can add more controls and data to the skills tab view in the roles details view.
- You can add more controls and data to the skill proficiency popover for any structured skill for a role.
- You can add more controls and data to the skill category popover for any unstructured skill for a role.
- You can add more controls and data to the prefill skill dialog in the skill tab view under role details view.
- You can add more attributes to the requests table column of the Requests screen.
- You can add more attributes to the requests list item of the Requests Overview screen.
- You can add more controls to the Request Attachment view.
- You can add more controls to the request summary title line in the summary view
- You can add more controls or data to the request summary details part of the summary view.
- You can add more controls to the request creation/edit view.
- You can add more controls to the request header part of the request creation/edit view.
- You can add more controls and attributes to the request attributes part of the request creation/edit view.
- You can add more controls and attributes to the request status history list item.
- You can add more UI attributes or controls to the header or the table columns of the assignment table in the calendar view.

Extension Points

The following extension points are available:

View	Extension Point	Use
RequestFilterBar.view.xml	RequestFilterHBoxExtension	This extension point allows you to add more filters to the filter bar in Request Overview page.
RequestFilterBar.view.xml	RequestFilterExtension	This extension point allows you to add more controls, data to the filter bar in Request Overview page.
RequestFilterPopover.fragment.xml	RequestFilterPopoverExtension	This extension point allows you to add more controls, data to the filter popover in Request Overview page.

View	Extension Point	Use
RequestDetailsRoleSkills.fragment.xml	RoleSkillsExtension	This extension point allows you to add more controls, data to the skill tab view in role details view.
RequestDetailsRoleProficiencyPopover.fragment.xml	RoleSkillProficiencyPopoverExtension	This extension point allows you to add more controls, data to the skill proficiency popover for any structured skill for a role.
RequestDetailsRoleCategoryPopover.fragment.xml	RoleSkillCategoryPopoverExtension	This extension point allows you to add more controls, data to the skill category popover for any unstructured skill for a role.
PrefillSkillDialog.view.xml	RolePrefillSkillDialogExtension	This extension point allows you to add more controls, data to the prefill skill dialog in the skill tab view under role details view.
RequestTable.view.xml	requestListCols	This extension point allows you to add more attributes to the requests table column of the Request screen
RequestTable.view.xml	requestListCells	This extension point allows you to add more attributes to the requests list item of the Request Overview screen
RequestDetailsAttachment.view.xml	RequestDetailsAttachmentExtension	This extension point allows you to add more controls to the Request Attachment view
RequestDetailsSummary.view.xml	requestSummaryTitleExtension	This extension point allows you to add more controls to the request summary title Line in the Summary View
RequestDetailsSummary.view.xml	requestSummaryDetailsExtension	This extension point allows you to add more controls or data to the request summary details part of the summary view
RequestHeaderChange.view.xml	RequestChangeViewExtension	This extension point allows you to add more controls to the request creation/edit view
RequestHeaderChange.view.xml	RequestChangeHeaderViewExtension	This extension point allows you to add more controls to the request header part of the request creation/edit view

View	Extension Point	Use
RequestHeaderChange.view.xml	RequestChangeAttributesExtension	This extension point allows you to add more controls/attributes to the request attributes part of the request creation/edit view
RequestStatusHistoryPopover.fragment.xml	requestStatusHistoryListItemExtension	This extension point allows you to add more attributes/controls to the request status history list item
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayHeader	This extension point allows you to add more attributes/controls to the header of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayColumn	This extension point allows you to add more attributes/controls to the table column of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	AssignmentDisplayEditPopoverExtension	This extension point allows you to add more attributes/controls to the popover of the assignment table in calendar view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code.

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	extCreateCsvColumns	This controller hook allows you to extend the export column.

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.2.3.1 App Extensibility: Candidates

You can extend the candidate-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can add more data to the advanced search dialog before the search input field.
- You can add more data to the advanced search dialog between the search input field and the filter list.
- You can add more data to the advanced search dialog between the filter list and the results list.
- You can add more data to the advanced search dialog between after the results list.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more column definitions (column header) to the result list.
- You can add more column contents to the result list.
- You can extend the request internal candidate view to the top of the form.
- You can extend the request internal candidate view to just below the Search Multi Input area of the form.
- You can extend the request internal candidate view to the bottom of the form.
- You can extend the external candidate form of a role.
- You can add data to the candidate attachment list view at the top.
- You can add more controls and data to the assignment dialog view for the candidate.
- You can add more data about the assignment details for the candidate.

Extension Points

The following extension points are available:

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeSearchTool- bar	Using this extension point, you can add the data to the advanced search dialog before the search input field.
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeFilterList	Using this extension point, you can add the data to the advanced search dialog between the search input field and the filter list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterResultList	Using this extension point, you can add the data to the advanced search dialog after the results list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterFooterTool- bar	Using this extension point, you can add the data to the advanced search dialog inside the footerbar after the add candi- date button.
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListColumn- Definition	Using this extension point, you can add more column definitions (column header) to the result list.
i Note This extension must be synchron- ized with the extension "Advanced- ConsultantResultListCellCon- tents" (for every new header added, the corresponding content/ field also needs to be added).		
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListCellCon- tents	Using this extension point, you can add more column contents to the result list.
i Note This extension must be synchron- ized with the extension "Advanced- ConsultantResultListColumnDefini- tion" (for every new content/field added the corresponding header also needs to be added).		

View	Extension Point	Use
RequestInternalCandidate.view.xml	requestAddInternalCandidateTopExtension	Using this extension point, you can extend the request internal candidate view to the top of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBelowSearchExtension	Using this extension point, you can extend the request internal candidate view to just below the Search Multi Input area of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBottomFormExtension	Using this extension point, you can extend the request internal candidate view to the bottom of the form.
RoleExternalCandidate.view.xml	RoleExternalCandidateForm	Using this extension point, you can extend the external candidate form of a role.
CandidateAttachment.view.xml	CandidateAttachmentExtension	Using this extension point, you can add data to the Candidate attachment list view at the top.
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can add more controls and data to the assignment dialog view for the candidate.
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can add more data about the assignment details for the candidate.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code:

Candidates UI Controller Hooks

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	mrs.resourcemanagement.view.request.AdvConsultSrchDialog~extCreateCsvColumns	Enhance csv export of the result list with custom fields

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.2.3.2 App Extensibility: Assignments

You can extend the assignment-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the assignment details view.
- You can extend the edit assignment view.
- You can extend the create assignment menu.
- You can extend the create assignment views for concrete, capacitive, and stretched assignments.
- You can extend the create other booking view.
- You can extend the assignment wizard view.

Extension Points

The following extension points are available:

View	Extension Point	Use
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can extend the bottom of the assignment detail view
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can extend the candidate assignment details dialog
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeFirstPage	Using this extension point, you can extend before the first Assignment Menu Page view
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeCreateList	Using this extension point, you can extend before the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterCreateList	Using this extension point, you can extend after the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterLastPage	Using this extension point, you can extend after the last Assignment Menu Page view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveTop	Using this extension point, you can extend at the top of the view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeAssignmentDates	Using this extension point, you can extend above the Assignment Date column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBottom	Using this extension point, you can extend at the bottom of the view
CreateConcreteAssignment.view.xml	CreateConcreteTop	Using this extension point, you can extend at the top of the view

View	Extension Point	Use
CreateConcreteAssignment.view.xml	CreateConcreteBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeCandidates	Using this extension point, you can extend above the Candidates name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeBottom	Using this extension point, you can extend at the bottom of the view
CreateOtherBooking.view.xml	OtherBookingTop	Using this extension point, you can extend at the top of the view
CreateOtherBooking.view.xml	OtherBookingBeforeDates	Using this extension point, you can extend Extends above the Assignment Date column
CreateOtherBooking.view.xml	OtherBookingBottom	Using this extension point, you can extend at the bottom of the view
CreateStretchedAssignment.view.xml	ScretchTop	Using this extension point, you can extend at the top of the view
CreateStretchedAssignment.view.xml	ScretchBeforeDates	Using this extension point, you can extend above the Assignment Date column
CreateStretchedAssignment.view.xml	ScretchBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateStretchedAssignment.view.xml	ScretchBeforeRequestRoles	Using this extension point, you can extend above the Request / Role name column
CreateStretchedAssignment.view.xml	ScretchBeforeBottom	Using this extension point, you can extend at the bottom of the view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeFirstPage	Using this extension point, you can extend before the first wizard page view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeRequestRole-Select	Using this extension point, you can extend before the request number selection view

View	Extension Point	Use
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterRequestRole-Select	Using this extension point, you can extend after the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterCreateList	Using this extension point, you can extend after the list of assignment types view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterLastPage	Using this extension point, you can extend after the last wizard page view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.2.4 Working in the Staffing Requests Overview

The request overview shows all requests that are in the pipeline or that you have to work on. That means all requests that were assigned to you as request owner or to one of the resource management groups that you belong to.

You can filter and sort the request overview to find requests more easily. Except for the date filters, you can also combine two or more of the available filter options. You can use the search function. If you have applied filters to the list, the system will only search in the filtered requests. You can also open a specific request if you know the request number.

You can display the request details from the request overview.

29.5.2.5 Creating a Request

Use

You create a request to get staffing for a customer project (service request) or an internal project (corporate request). The request needs to have one or several roles. A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a request from scratch or copy an existing request to use the data as template.

Procedure

Creating a request includes the following mandatory steps:

1. Enter a request title.
2. Fill out at least the mandatory fields in the request header: requester, responsible RM organization, requesting country, customer name, request type, and languages. Based on the Customizing settings, the system will use some of your entered information to determine the resource management group that receives your request once you have submitted it.
3. Add at least one role and fill out at least the mandatory fields on role level. You can also copy an existing role and use the copied data as the basis for your new role.

In addition, you can add internal comments and attachments to give the resource manager additional context information to help with staffing decisions.

Saving and Submitting

If you do not have all of the required information yet, you can save the request as draft version. The system sets the request status *Not Yet Submitted*. If you want to forward the request to the request owner group or request owner to start the staffing process, you submit the request. The system assigns a request number and forwards the request. The request status is changed to *Newly Submitted*.

29.5.2.6 Creating Roles as Resource Manager

Use

A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a role from scratch or copy an existing role to use the data as template.

Procedure

Creating a request includes the following steps:

1. Enter a role description.
2. Enter at least the mandatory information on the tabs *Details* and *Location*.
3. Enter the role start and end date and the number of requested days on the *Scheduling* tab. If required, you can change the number of requested resources or days per week. The system will recalculate the total number of requested days. You can still change the total number of requested days manually, but it must not exceed the value calculated by the system.
4. Optional: You can create time rules for the role if you need a resource for a specific number of hours on certain days of the week.
5. Optional: You can enter more information about the role on the *Scope* tab and the *Comments* tab.
6. Optional: You can add skills, candidates and broadcast targets.

Saving and Submitting

Save or Submit the role. If you do not have all of the required information yet, you can save the role as draft version. The system will set the role status *Not Yet Submitted*. If you want to forward the role to the role owner group or role owner, submit the role. The system assigns a role number and forwards the role. If your request has more than one role, you can also just forward one specific role. It depends on Customizing settings if the system submits the whole request as soon as the first role is submitted or only after all roles have been submitted.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

29.5.2.7 Creating Time Rules for Roles Using RM Apps

When you create a role, you can use time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.

Procedure

1. On the *Scheduling* tab of the role, choose *Maintain Time Rules*.
2. In the *Define Time Rules* screen, choose the + icon to add a new line.
3. Enter a title for the time rule.
4. Click the calendar icon to choose a start and end date and select the weekdays on which resources are required.
5. Specify how many hours per day or how many hours in total resources are required.

6. If you want to add another time rule, choose the + icon and add the information for the next time rule.
7. Save your entries.

Results

The system adapts the field values on the [Scheduling](#) tab based on the time rule information. When you close the detail role view, you can see that the role now has a time rule icon to indicate that at least one time rule was created.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

29.5.2.8 Adding Skills to a Role as Resource Manager

To find candidates with matching qualifications, you can add skills to the role. You have the following options to do this:

- You can add structured skills to the role as requirements. Structured skills are predefined skills from a catalog. The catalogs are maintained outside the RM app in the transaction [Qualification Catalogs](#) (/MRSS/SQM_CAT).
- You can add unstructured skills to a role as requirements. Unstructured skills are skill requirements entered as free text based on a category.
- You can add skills from an existing requirements profile to the role. These requirements profiles are templates that fill in the structured and unstructured skills. The requirements profiles are maintained outside the RM app using the MRS standard transaction [Requirements Profile](#) /MRSS/REQM.

i Note

In the RM apps, the term “skill” is used as a synonym for “qualification”.

29.5.2.9 Adding Candidates to a Role as Resource Manager

To add candidates, you have the following options:

Adding Internal Candidates

- Using the simple search:
 - You can search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-specific comments for the candidate.

- Using the advanced search:
 - If you want the system to look for candidates with specific skills, you can use the advanced search. You can specify a set of skills and let the system use these skills to look for candidates. If there are prefilled skills from the skills tab, you can remove or adapt these as required.
 - You can export the candidate search result list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.
 - In addition to the total matching result, you can now see separate results for the qualification matching for structured and unstructured qualifications and the availability. You can sort the advanced candidate search results list by each of the results columns.
 - If the role has time rules and the role has already been saved before, the system considers the time rules when it calculates the availability matching.
 - Using the calendar icon in the [Schedule](#) column of the results list, you can simulate the assignments that would be created.

Adding External Candidates

It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name.

Working in the Candidate List

When the candidates are added to the candidate list, the system displays the candidate with its name, status, status history, and availability information. The availability information is only displayed if you have authorization for the candidate. The following tasks can be carried out from the candidate list:

- You can call up more information about the candidate by clicking the  icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers.
- You can display the existing assignments for candidates for which you have authorization. In the candidate calendar, you can display the assignments for a day as a list by clicking the date.
- For both internal or external candidates, you can add attachments after they have been added to the candidate list.
- You can export the candidate list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.

Proposing Candidates to the Requester

If you want to inform the requester of your proposal, set the candidate status to [Proposed to Requester](#) and save. When the requester rejects or accepts a candidate (via e-mail or phone) you need to change the candidate status accordingly. The requester cannot change the status. If the requester has accepted a candidate, you can check the availability, change the status to [Hardbooking Approved](#) and create an assignment.

29.5.2.10 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the [Candidates](#) tab or by clicking the calendar icon in the [Schedule](#) column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type [Simulated](#).

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type [Simulated](#) under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for Assignment Display](#) ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field [Def. Assignment Type](#) defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace \(SAP GUI and Web-based Planning Board\)](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).

- The settings under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ► define if non-capacitive assignments are created as concrete or stretched assignments.

29.5.2.11 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose [Email](#) from the [Request Details](#) screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose [Create Email](#). Your default mail program opens. The body and subject of the e-mail are predefined by the system.
4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

29.5.2.12 Validating a Role

When a role was submitted to you, you first check the role information and get in touch with the requester if any further clarification is needed. Before you start to search or assign candidates, you validate the role so that the requester knows that the staffing process has started. As soon as you have set the role status to [Validated](#), the requester is no longer able to make critical changes to the role.

i Note

Depending on the Customizing settings you have made under ► [Resource Management](#) ► [Basic Settings](#) ► [PS Integration](#) ► [Manage RM Request and Role Status](#) ►, the request status is set to [Validated](#) as soon as the first role has been validated or once all roles of the request have been validated.

29.5.2.13 Getting Help to Find Suitable Candidates for a Role

If you cannot find a suitable candidate for a role, you can add broadcast information and forward it to searching parties or resource groups to get help finding suitable candidates.

Forwarding a Role to Searching Parties

If you need a searching party to help you find suitable candidates, take the following steps:

1. Add a broadcast and select a target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast the system determines the RM group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the searching party know that a candidate was found and they can stop looking, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

Forwarding the Role to Resource Groups So the Members Can Apply Directly

If you want to publish a role and thus allow possible candidates to apply directly, take the following steps:

1. Add a broadcast and select *Resource Group* as target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast, the system determines the resource group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the resources know that a candidate was found and they cannot apply any longer, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

29.5.2.14 Booking Resources as Resource Manager

Note

This section describes the booking process using the candidate status profiles and booking types assignments that are part of the sample Customizing delivered by SAP (status profiles RM_CAND1 and RM_CAND2). You can create customer-specific candidate status profiles in Customizing for *Resource Management* under ► *PS Integration* ► *Create User Status Profile* ►.

Booking a candidate means that you change the candidate status to *Hardbooking Approved* or *Softbooking Approved* before you create assignments. It is not mandatory to set the booking statuses before creating the assignments for a role, but if you don't set them the system does not take these assignments into account for the availability of the candidate.

When a candidate was accepted by the requester, proceed as follows:

1. You confirm the availability of the candidate. While you are checking the availability, you can set the candidate status to *Checking Availability* to let other resource managers in your group know what you are doing.
2. You book the candidate by changing the candidate status to *Hardbooking Approved* or *Softbooking Approved*. If the required Customizing settings are in place, the system sends out a notification to the candidate when he or she has been soft-booked or hard-booked for an assignment. As a resource manager, you can set the candidate status to *Hardbooking Approved* or *Softbooking Approved* only for candidates you are responsible for. For other candidates, you can only set the status to *Softbooking Approval Required* or *Hardbooking Approval Required*. The responsible resource manager of the candidate will set the status to *Hardbooking Approved* or *Softbooking Approved* and create the assignments.

i Note

If a candidate has applied to one of your roles directly but you are not responsible for this candidate as a resource manager, you need to broadcast the role to the responsible resource manager so he or she can do the booking and assignment creation.

Planning

If you are still in a planning phase, you can set the candidate status to *Forecasted* before you actually book candidates. Assignments created for a candidate with status *Forecasted* have the booking type *Planned* and do not affect the availability of the candidate.

Softbooking

If you are not sure about the final assignment of a candidate to a role, you might want to preliminarily block his or her availability by soft-booking the candidate. You do this by changing the candidate status to *Softbooking Approved*. The assignments created for a soft-booked candidate also have the booking type *Soft-booked*. To indicate that a role was soft-booked with candidates, you can set the role status to *Non-Binding Scheduled*.

Setting a Softbooking Expiration Date

After you have changed the candidate status to *Softbooking Approved*, you can enter a softbooking expiration date for the candidate. If the required Customizing settings are in place, the system will send you a workflow notification when the softbooking expiration date is reached.

Withdrawing Bookings

If required you can change the candidate status from *Hardbooking Approved* to *Hardbooking Withdrawn* or from *Softbooking Approved* to *Softbooking Withdrawn*. If there are already assignments created, the system removes these assignments automatically when you withdraw the booking.

29.5.2.15 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► *System* ► *User Profile* ► *Own Data* ►, open the *Defaults* tab page and enter the required time zone in the *Time Zone* field in the *Personal Time Zone* group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status *Hard-booking Approved* or *Soft-booking Approved*. However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status *Proposed to Requester* for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

i Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose [Other Booking](#). For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either [Softbooking Approved](#) or [Hardbooking Approved](#) is not allowed. If the status is changed to [Softbooking Withdrawn](#) or [Hardbooking Withdrawn](#), the system deletes the corresponding assignments automatically.

29.5.2.15.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).
6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose [Create](#).

29.5.2.15.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.

2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

29.5.2.15.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

29.5.2.15.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

29.5.2.16 Completing the Staffing Process

Completing the Staffing Process for a Role

When the role is staffed, set the role status to [Staffed](#). When the role could not be staffed (because no matching candidate was found for example), set the role status to [Closed](#). If you have broadcast the role to searching parties, the searching parties will be informed of the status change and know that they can stop the search.

Completing the Staffing Process for a Role Quickly

If you want to shorten the process (for example to meet the demands of time-critical projects), you can set the status of a role to [Quick Close](#) or [Quick Staffing](#) or [Quick Hard-booking](#) without performing all the intermediate status changes. If you choose one of these statuses, you need to specify a reason. The system checks if the status change is possible. You cannot set a role to [Quick Close](#) if there is a hard-booked candidate assigned to the role for example.

i Note

Once you have closed all roles belonging to a request, the system will set the request status to *Completed* automatically.

29.5.3 Role Overview

Use

With the transactional app *Role Overview*, you can get an overview of all roles assigned to you as a resource manager.

Key Features

- Display, filter, search, and sort the role overview
- Create roles
- Edit and delete roles
- Display details of requests and roles
- Validate roles
- Show request status history and role status history
- Send request information to e-mail recipients
- Broadcast roles
- Booking resources
- Create assignments
- Complete the staffing process for requests and roles

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Role Overview \[page 344\]](#).

i Note

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Role Overview \[page 344\]](#)

[App Extensibility: Role Overview \[page 349\]](#)

29.5.3.1 App History: Role Overview

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The [Role Overview](#) app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Role Overview MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Create roles: You can now create time rules for roles. When you perform an advanced candidate search, you can now see additional search results and you can export the candidate search result list to a CSV file. You can now also search for N.N. resources. • Filter the role overview: You can now use the new <i>Staffing</i> filter to filter the worklist for roles that are not yet staffed, partially staffed, fully staffed, or overstaffed. • Edit roles: When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role under specific conditions. • Display details of requests and roles: In the request details, you can now see the remaining duration for each role. In the candidate calendar, you can display the assignments for each day as a list. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.

Enhancement	Description
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Configure Additional Basic Settings You can use the Customizing activity Define Time Frame for Resource Validity Check to define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps > Define Time Frame for Resource Validity Check .
New Extensibility Option	New extensibility options: - You can use the BAAdI: Update of E-Mail Information / MRSS/RM_EMAIL_INFO tto change the list of recipients and provide default text and subjects for e-mails. - You can use the BAAdI: Additional Details for HR Resource or N.N. Resource to display additional information about the resource. - You use the BAAdI: Calculation of Remaining Duration to exclude assignments from the calculation of the remaining duration - You can now use the following new view and its extension points: <code>CandidateDisplayEditPopover.fragment.xml</code> <code>AdvConsultSrchDialog.view.xml</code> - You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code>

29.5.3.2 App Implementation: Role Overview

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* ►. In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Required SAP Notes

For the *Role Overview* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the [Role Overview](#) app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating OData Services](#) ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating ICF Services of UI5 Application](#) ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Even if you change the UI theme, the configured assignment colors remain as defined in Customizing.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Define Time Frame for Resource Validity Check

You can define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Optional Activities

Create BAdI Implementation to Change Request Default Values

You can use Business Add-In (BAdI) [BAdI: Default Values for Request](#) (/MRSS/RM_UI5_SET_DEF) to change the default values for a resource request.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#). ►

The default implementation class of this BAdI is /MRSS/CL_RM_UI5_DEFAULTS_REQ. For more information, see the documentation in the system.

Create BAdI Implementation to Determine and Display Role Statuses

You can use Business Add-In (BAdI) *BAdI: Display of Role Statuses* to determine and display the role statuses that the request owner can choose in the RM app *Role Overview*.

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. Resource

You can use the *BAdI: Additional Details for HR Resource or N.N. resource* to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class `/MRSS/CL_RM_UI5_PERSON_SEARCH` reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#) ►.

Create BAdI Implementation to Change The List of Recipients and Provide Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) *BAdI: Update of E-Mail Information* (`/MRSS/RM_EMAIL_INFO`) to change the list of recipients and provide default text and subjects for e-mails..

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Requests](#) ►.

Create BAdI Implementation to Exclude Assignments from Remaining Duration Calculation

You use Business Add-In (BAdI) *BAdI: Calculation of Remaining Duration* to exclude assignments from the calculation of the remaining duration.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Assignments](#) ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Role Overview \[page 349\]](#)

29.5.3.3 App Extensibility: Role Overview

Use

You can extend the *Role Overview* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add toolbar controls to the RoleOverview view.
- You can add more attributes to the roles table column and the roles list item of the Role Overview screen.

- You can add more filters and more controls and data to the filter bar in the Role Overview screen.

Extension Points

The following extension points are available:

View	Extension Point	Use
RoleOverview.view.xml	requestsToolbar	This extension point allows you to add toolbar controls to the RoleOverview view.
RoleTable.view.xml	roleListCols	This extension point allows you to add more attributes to the roles table column of the Role Overview screen
RoleTable.view.xml	roleListCells	This extension point allows you to add more attributes to the roles list item of the Role Overview screen
RoleFilterBar.view.xml	RoleFilterHBoxExtension	This extension point allows you to add more filters to the filter bar in Role Overview screen
RoleFilterBar.view.xml	RoleFilterExtension	This extension point allows you to add more controls, data to the filter bar in Role Overview screen.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.3.3.1 App Extensibility: Candidates

You can extend the candidate-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can add more data to the advanced search dialog before the search input field.
- You can add more data to the advanced search dialog between the search input field and the filter list.
- You can add more data to the advanced search dialog between the the filter list and the results list.
- You can add more data to the advanced search dialog between after the results list.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more column definitions (column header) to the result list.
- You can add more column contents to the result list.
- You can extend the request internal candidate view to the top of the form.
- You can extend the request internal candidate view to just below the Search Multi Input area of the form.
- You can extend the request internal candidate view to the bottom of the form.
- You can extend the external candidate form of a role.
- You can add data to the candidate attachment list view at the top.
- You can add more controls and data to the assignment dialog view for the candidate.
- You can add more data about the assignment details for the candidate.

Extension Points

The following extension points are available:

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeSearchTool-bar	Using this extension point, you can add the data to the advanced search dialog before the search input field.
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeFilterList	Using this extension point, you can add the data to the advanced search dialog between the search input field and the filter list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterResultList	Using this extension point, you can add the data to the advanced search dialog after the results list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterFooterTool-bar	Using this extension point, you can add the data to the advanced search dialog inside the footerbar after the add candidate button.

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListColumnDefinition	Using this extension point, you can add more column definitions (column header) to the result list.
		i Note This extension must be synchronized with the extension "AdvancedConsultantResultListCellContents" (for every new header added, the corresponding content/field also needs to be added).
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListCellContents	Using this extension point, you can add more column contents to the result list.
		i Note This extension must be synchronized with the extension "AdvancedConsultantResultListColumnDefinition" (for every new content/field added the corresponding header also needs to be added).
RequestInternalCandidate.view.xml	requestAddInternalCandidateTopExtension	Using this extension point, you can extend the request internal candidate view to the top of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBelowSearchExtension	Using this extension point, you can extend the request internal candidate view to just below the Search Multi Input area of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBottomFormExtension	Using this extension point, you can extend the request internal candidate view to the bottom of the form.
RoleExternalCandidate.view.xml	RoleExternalCandidateForm	Using this extension point, you can extend the external candidate form of a role.
CandidateAttachment.view.xml	CandidateAttachmentExtension	Using this extension point, you can add data to the Candidate attachment list view at the top.

View	Extension Point	Use
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can add more controls and data to the assignment dialog view for the candidate.
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can add more data about the assignment details for the candidate.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* 🔍.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* 🔍.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code:

Candidates UI Controller Hooks

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	mrs.resourcemanagement.view.request.AdvConsultSrchDialog~extCreateCsvColumns	Enhance csv export of the result list with custom fields

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* 🔍.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* 🔍.

29.5.3.3.2 App Extensibility: Assignments

You can extend the assignment-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the assignment details view.
- You can extend the edit assignment view.
- You can extend the create assignment menu.
- You can extend the create assignment views for concrete, capacitive, and stretched assignments.
- You can extend the create other booking view.
- You can extend the assignment wizard view.

Extension Points

The following extension points are available:

View	Extension Point	Use
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can extend the bottom of the assignment detail view
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can extend the candidate assignment details dialog
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeFirstPage	Using this extension point, you can extend before the first Assignment Menu Page view
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeCreateList	Using this extension point, you can extend before the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterCreateList	Using this extension point, you can extend after the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterLastPage	Using this extension point, you can extend after the last Assignment Menu Page view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveTop	Using this extension point, you can extend at the top of the view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column

View	Extension Point	Use
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBottom	Using this extension point, you can extend at the bottom of the view
CreateConcreteAssignment.view.xml	CreateConcreteTop	Using this extension point, you can extend at the top of the view
CreateConcreteAssignment.view.xml	CreateConcreteBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeCandidates	Using this extension point, you can extend above the Candidates name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeBottom	Using this extension point, you can extend at the bottom of the view
CreateOtherBooking.view.xml	OtherBookingTop	Using this extension point, you can extend at the top of the view
CreateOtherBooking.view.xml	OtherBookingBeforeDates	Using this extension point, you can extend Extends above the Assignment Date column
CreateOtherBooking.view.xml	OtherBookingBottom	Using this extension point, you can extend at the bottom of the view
CreateStretchedAssignment.view.xml	ScretchTop	Using this extension point, you can extend at the top of the view
CreateStretchedAssignment.view.xml	ScretchBeforeDates	Using this extension point, you can extend above the Assignment Date column
CreateStretchedAssignment.view.xml	ScretchBeforeCandidate	Using this extension point, you can extend above the Candidates name column

View	Extension Point	Use
CreateStretchedAssignment.view.xml	ScretchBeforeRequestRoles	Using this extension point, you can extend above the Request / Role name column
CreateStretchedAssignment.view.xml	ScretchBeforeBottom	Using this extension point, you can extend at the bottom of the view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeFirstPage	Using this extension point, you can extend before the first wizard page view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeRequestRole-Select	Using this extension point, you can extend before the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterRequestRole-Select	Using this extension point, you can extend after the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterCreateList	Using this extension point, you can extend after the list of assignment types view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterLastPage	Using this extension point, you can extend after the last wizard page view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.3.4 Working in the Role Overview

The role overview shows all roles that are in the pipeline or that you have to work on. That means all roles that were assigned to you as request owner or to one of the resource management groups that you belong to.

The *Requested Duration* column shows how much work is planned for the role. The *Remaining Duration* column shows how much work has not yet been assigned to candidates. If a role is overstaffed, the remaining duration is negative.

You can filter and sort the role overview to find requests more easily. Except for the date filters, you can also combine two or more of the available filter options. When you close the current session, the system saves the filter values you have chosen so that the list will be filtered the same way when you open the list the next time. You can also use the search function to find roles. If you have applied filters to the list, the system will only search in the filtered roles.

You can display the request and role details from the role overview.

Displaying Role Status History

The status history shows the status, when it was set, and who set the status.

29.5.3.5 Creating Roles as Resource Manager

Use

A role describes the function the resource will have on the project, for example the role of a consultant or a project manager. A role may be fulfilled by one or more persons. You can create a role from scratch or copy an existing role to use the data as template.

Procedure

Creating a request includes the following steps:

1. Enter a role description.
2. Enter at least the mandatory information on the tabs *Details* and *Location*.
3. Enter the role start and end date and the number of requested days on the *Scheduling* tab. If required, you can change the number of requested resources or days per week. The system will recalculate the total number of requested days. You can still change the total number of requested days manually, but it must not exceed the value calculated by the system.
4. Optional: You can create time rules for the role if you need a resource for a specific number of hours on certain days of the week.
5. Optional: You can enter more information about the role on the *Scope* tab and the *Comments* tab.

6. Optional: You can add skills, candidates and broadcast targets.

Saving and Submitting

Save or Submit the role. If you do not have all of the required information yet, you can save the role as draft version. The system will set the role status *Not Yet Submitted*. If you want to forward the role to the role owner group or role owner, submit the role. The system assigns a role number and forwards the role. If your request has more than one role, you can also just forward one specific role. It depends on Customizing settings if the system submits the whole request as soon as the first role is submitted or only after all roles have been submitted.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

29.5.3.6 Creating Time Rules for Roles Using RM Apps

When you create a role, you can use time rules to specify that employees assigned to the role are required for a specific number of hours on certain days of the week.

Procedure

1. On the *Scheduling* tab of the role, choose *Maintain Time Rules*.
2. In the *Define Time Rules* screen, choose the + icon to add a new line.
3. Enter a title for the time rule.
4. Click the calendar icon to choose a start and end date and select the weekdays on which resources are required.
5. Specify how many hours per day or how many hours in total resources are required.
6. If you want to add another time rule, choose the + icon and add the information for the next time rule.
7. Save your entries.

Results

The system adapts the field values on the *Scheduling* tab based on the time rule information. When you close the detail role view, you can see that the role now has a time rule icon to indicate that at least one time rule was created.

Related Information

[Long-Term Planning with Time Rules in Web-Based Resource Management \[page 287\]](#)

29.5.3.7 Validating a Role

When a role was submitted to you, you first check the role information and get in touch with the requester if any further clarification is needed. Before you start to search or assign candidates, you validate the role so that the requester knows that the staffing process has started. As soon as you have set the role status to *Validated*, the requester is no longer able to make critical changes to the role.

Note

Depending on the Customizing settings you have made under [► Resource Management ► Basic Settings ► PS Integration ► Manage RM Request and Role Status ►](#), the request status is set to *Validated* as soon as the first role has been validated or once all roles of the request have been validated.

29.5.3.8 Adding Candidates to a Role as Resource Manager

To add candidates, you have the following options:

Adding Internal Candidates

- Using the simple search:
 - You can search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-specific comments for the candidate.
- Using the advanced search:
 - If you want the system to look for candidates with specific skills, you can use the advanced search. You can specify a set of skills and let the system use these skills to look for candidates. If there are prefilled skills from the skills tab, you can remove or adapt these as required.
 - You can export the candidate search result list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.
 - In addition to the total matching result, you can now see separate results for the qualification matching for structured and unstructured qualifications and the availability. You can sort the advanced candidate search results list by each of the results columns.
 - If the role has time rules and the role has already been saved before, the system considers the time rules when it calculates the availability matching.
 - Using the calendar icon in the *Schedule* column of the results list, you can simulate the assignments that would be created.

Adding External Candidates

It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name.

Working in the Candidate List

When the candidates are added to the candidate list, the system displays the candidate with its name, status, status history, and availability information. The availability information is only displayed if you have authorization for the candidate. The following tasks can be carried out from the candidate list:

- You can call up more information about the candidate by clicking the *i* icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers.
- You can display the existing assignments for candidates for which you have authorization. In the candidate calendar, you can display the assignments for a day as a list by clicking the date.
- For both internal or external candidates, you can add attachments after they have been added to the candidate list.
- You can export the candidate list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.

Proposing Candidates to the Requester

If you want to inform the requester of your proposal, set the candidate status to *Proposed to Requester* and save. When the requester rejects or accepts a candidate (via e-mail or phone) you need to change the candidate status accordingly. The requester cannot change the status. If the requester has accepted a candidate, you can check the availability, change the status to *Hardbooking Approved* and create an assignment.

29.5.3.8.1 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the [Candidates](#) tab or by clicking the calendar icon in the [Schedule](#) column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type [Simulated](#).

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type [Simulated](#) under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for Assignment Display](#) ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field [Def. Assignment Type](#) defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace \(SAP GUI and Web-based Planning Board\)](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- The settings under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ► define if non-capacitive assignments are created as concrete or stretched assignments.

29.5.3.9 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the [Candidates](#) tab or by clicking the calendar icon in the [Schedule](#) column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type [Simulated](#).

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type [Simulated](#) under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for Assignment Display](#) ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field [Def. Assignment Type](#) defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for [SAP Multiresource Scheduling](#) under ► [Set Up Scheduler Workplace \(SAP GUI and Web-based Planning Board\)](#) ► [Workplace Profiles](#) ► [Web-based User Interface](#) ► [Define User Interface Profiles \(JGantt Chart\)](#) ► or [Define User Interface Profiles \(UI5 Gantt Chart\)](#).
- The settings under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ► define if non-capacitive assignments are created as concrete or stretched assignments.

29.5.3.10 Adding Skills to a Role as Resource Manager

To find candidates with matching qualifications, you can add skills to the role. You have the following options to do this:

- You can add structured skills to the role as requirements. Structured skills are predefined skills from a catalog. The catalogs are maintained outside the RM app in the transaction [Qualification Catalogs](#) (/MRSS/SQM_CAT).
- You can add unstructured skills to a role as requirements. Unstructured skills are skill requirements entered as free text based on a category.
- You can add skills from an existing requirements profile to the role. These requirements profiles are templates that fill in the structured and unstructured skills. The requirements profiles are maintained outside the RM app using the MRS standard transaction [Requirements Profile](#) /MRSS/REQM.

Note

In the RM apps, the term “skill” is used as a synonym for “qualification”.

29.5.3.11 Getting Help to Find Suitable Candidates for a Role

If you cannot find a suitable candidate for a role, you can add broadcast information and forward it to searching parties or resource groups to get help finding suitable candidates.

Forwarding a Role to Searching Parties

If you need a searching party to help you find suitable candidates, take the following steps:

1. Add a broadcast and select a target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast the system determines the RM group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the searching party know that a candidate was found and they can stop looking, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

Forwarding the Role to Resource Groups So the Members Can Apply Directly

If you want to publish a role and thus allow possible candidates to apply directly, take the following steps:

1. Add a broadcast and select [Resource Group](#) as target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast, the system determines the resource group that receives the broadcasted role based on Customizing settings.

4. If you have already submitted a broadcast and you want to let the resources know that a candidate was found and they cannot apply any longer, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

29.5.3.12 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose [Email](#) from the [Request Details](#) screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose [Create Email](#). Your default mail program opens. The body and subject of the e-mail are predefined by the system.
4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

29.5.3.13 Booking Resources as Resource Manager

Note

This section describes the booking process using the candidate status profiles and booking types assignments that are part of the sample Customizing delivered by SAP (status profiles RM_CAND1 and RM_CAND2). You can create customer-specific candidate status profiles in Customizing for [Resource Management](#) under ► [PS Integration](#) ► [Create User Status Profile](#) ►.

Booking a candidate means that you change the candidate status to [Hardbooking Approved](#) or [Softbooking Approved](#) before you create assignments. It is not mandatory to set the booking statuses before creating the assignments for a role, but if you don't set them the system does not take these assignments into account for the availability of the candidate.

When a candidate was accepted by the requester, proceed as follows:

1. You confirm the availability of the candidate. While you are checking the availability, you can set the candidate status to *Checking Availability* to let other resource managers in your group know what you are doing.
2. You book the candidate by changing the candidate status to *Hardbooking Approved* or *Softbooking Approved*. If the required Customizing settings are in place, the system sends out a notification to the candidate when he or she has been soft-booked or hard-booked for an assignment. As a resource manager, you can set the candidate status to *Hardbooking Approved* or *Softbooking Approved* only for candidates you are responsible for. For other candidates, you can only set the status to *Softbooking Approval Required* or *Hardbooking Approval Required*. The responsible resource manager of the candidate will set the status to *Hardbooking Approved* or *Softbooking Approved* and create the assignments.

i Note

If a candidate has applied to one of your roles directly but you are not responsible for this candidate as a resource manager, you need to broadcast the role to the responsible resource manager so he or she can do the booking and assignment creation.

Planning

If you are still in a planning phase, you can set the candidate status to *Forecasted* before you actually book candidates. Assignments created for a candidate with status *Forecasted* have the booking type *Planned* and do not affect the availability of the candidate.

Softbooking

If you are not sure about the final assignment of a candidate to a role, you might want to preliminarily block his or her availability by soft-booking the candidate. You do this by changing the candidate status to *Softbooking Approved*. The assignments created for a soft-booked candidate also have the booking type *Soft-booked*. To indicate that a role was soft-booked with candidates, you can set the role status to *Non-Binding Scheduled*.

Setting a Softbooking Expiration Date

After you have changed the candidate status to *Softbooking Approved*, you can enter a softbooking expiration date for the candidate. If the required Customizing settings are in place, the system will send you a workflow notification when the softbooking expiration date is reached.

Withdrawing Bookings

If required you can change the candidate status from *Hardbooking Approved* to *Hardbooking Withdrawn* or from *Softbooking Approved* to *Softbooking Withdrawn*. If there are already assignments created, the system removes these assignments automatically when you withdraw the booking.

29.5.3.14 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► *System* ► *User Profile* ► *Own Data* ►, open the *Defaults* tab page and enter the required time zone in the *Time Zone* field in the *Personal Time Zone* group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status *Hard-booking Approved* or *Soft-booking Approved*. However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status *Proposed to Requester* for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

i Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose [Other Booking](#). For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either [Softbooking Approved](#) or [Hardbooking Approved](#) is not allowed. If the status is changed to [Softbooking Withdrawn](#) or [Hardbooking Withdrawn](#), the system deletes the corresponding assignments automatically.

29.5.3.14.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).
6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose [Create](#).

29.5.3.14.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.

2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

29.5.3.14.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

29.5.3.14.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

29.5.3.15 Completing the Staffing Process

Completing the Staffing Process for a Role

When the role is staffed, set the role status to [Staffed](#). When the role could not be staffed (because no matching candidate was found for example), set the role status to [Closed](#). If you have broadcast the role to searching parties, the searching parties will be informed of the status change and know that they can stop the search.

Completing the Staffing Process for a Role Quickly

If you want to shorten the process (for example to meet the demands of time-critical projects), you can set the status of a role to [Quick Close](#) or [Quick Staffing](#) or [Quick Hard-booking](#) without performing all the intermediate status changes. If you choose one of these statuses, you need to specify a reason. The system checks if the status change is possible. You cannot set a role to [Quick Close](#) if there is a hard-booked candidate assigned to the role for example.

i Note

Once you have closed all roles belonging to a request, the system will set the request status to *Completed* automatically.

29.5.4 Broadcasted Roles

Use

With the transactional app *Broadcasted Roles* you can get an overview of all roles that were broadcasted to you as a searching party. You use the app to look for suitable candidates for the roles broadcasted to you and propose them to the resource manager.

Key Features

- Display, filter, search, and sort the broadcasted roles overview
- Display details of requests and roles
- Copy request
- Show request status history
- Send request information to e-mail recipients
- Search for suitable candidates and propose them to the resource manager
- Broadcast roles to other searching parties
- Book resources based on the feedback from the request owner
- Create assignments for the proposed candidates
- Edit and delete assignments for the proposed candidates

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Broadcasted Roles \[page 373\]](#).

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content. For more information about virus scanning and scan profiles for SAP Fiori apps, see <http://help.sap.com/fiori> ► [System Landscape Required for SAP Fiori](#) ► [Setup of SAP Fiori System Landscape with ABAP Environment](#) ► [Installation](#) ► [Virus Scanning](#) ►.

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [Role Overview \[page 341\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Broadcasted Roles \[page 373\]](#)

[App Extensibility: Broadcasted Roles \[page 378\]](#)

29.5.4.1 App History: Broadcasted Roles

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The *Broadcasted Roles* app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Broadcasted Roles MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Send request information to e-mail recipients Enhanced key features: • Search for candidates: When you perform an advanced candidate search, you can now see additional search results and you can export the candidate search result list to a CSV file. You can now also search for N.N. resources. • Filter the role overview: You can now use the new <i>Staffing</i> filter to filter the worklist for roles that are not yet staffed, partially staffed, fully staffed, or overstaffed. • Edit roles: When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role under specific conditions. • Display details of requests and roles: In the request details, you can now see the remaining duration for each role. In the candidate calendar, you can display the assignments for each day as a list. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.

Enhancement	Description
New/Changed Implementation Details	You can use a new Customizing setting to define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Configure Additional Basic Settings You can use the Customizing activity Define Time Frame for Resource Validity Check to define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps > Define Time Frame for Resource Validity Check .
New Extensibility Option	New extensibility options: - You can use the BAAdI: Update of E-Mail Information / MRSS/RM_EMAIL_INFO to change the list of recipients and provide default text and subjects for e-mails. - You can use the BAAdI: Additional Details for HR Resource or N.N. Resource to display additional information about the resource. - You use the BAAdI: Calculation of Remaining Duration to exclude assignments from the calculation of the remaining duration - You can now use the following new view and its extension points: - CandidateDisplayEditPopover.fragment.xml - You now have the hook <code>extCreateCsvColumns</code> in the controller <code>AdvConsultSrchDialog.controller.js</code> - AdvConsultSrchDialog.view.xml

29.5.4.2 App Implementation: Broadcasted Roles

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* ►. In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* ►. In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* ►.

Required SAP Notes

For the *Broadcasted Roles* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Broadcasted Roles* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Even if you change the UI theme, the configured assignment colors remain as defined in Customizing.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in grey color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Specify Duration Unit for Requested Duration and Remaining Duration

You can define if the requested duration and remaining duration are displayed in days or hours. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under [Configure Additional Basic Settings](#).

Define Time Frame for Resource Validity Check

You can define the time frame that the system uses to check the resource validity. Based on this check, the system determines the resources that it takes into account for the display in the candidate search results. You can make this setting in Customizing for [Resource Management](#) (/MRSS/RM_IMG) under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Optional Activities

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. Resource

You can use the [BAdI: Additional Details for HR Resource or N.N. resource](#) to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class /MRSS/CL_RM_UI5_PERSON_SEARCH reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Enhancements for RM Apps](#). ►

Create BAdI Implementation to Change The List of Recipients and Provide Default Text and Subjects for E-Mails

You can use Business Add-In (BAdI) *BAdI: Update of E-Mail Information* (/MRSS/RM_EMAIL_INFO) to change the list of recipients and provide default text and subjects for e-mails.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Requests](#) ►.

Create BAdI Implementation to Exclude Assignments from Remaining Duration Calculation

You use Business Add-In (BAdI) *BAdI: Calculation of Remaining Duration* to exclude assignments from the calculation of the remaining duration.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under ► [Enhancements](#) ► [Assignments](#) ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Broadcasted Roles \[page 378\]](#)

29.5.4.3 App Extensibility: Broadcasted Roles

Use

You can extend the *Broadcasted Roles* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add data to the group selection dialog: at the top of the page, above the search input field or below the search input field.
- You can add data to the create broadcasting view: at the top of the page, after the [Add Broadcast](#) button, after the create broadcast list, before the existing broadcast list, after the existing broadcast list.

Extension Points

The following extension points are available:

View	Extension Point	Use
BroadcastTreeTable.view.xml	BroadcastGroupBeforeSearch	Using this extension point, you can add data to the group selection dialog to the top of the page.
BroadcastTreeTable.view.xml	BroadcastGroupInsideSearch	Using this extension point, you can add data to the group selection dialog, at the top above the search input field.
BroadcastTreeTable.view.xml	BroadcastGroupAfterSearch	Using this extension point, you can add data to the group selection dialog, just below the search input field.
RequestCreateBroadcast.view.xml	BroadcastCreateBeforeNewButton	Using this extension point, you can add data to the create broadcasting view at the top of the page.
RequestCreateBroadcast.view.xml	BroadcastCreateAfterNewButton	Using this extension point, you can add data to the create broadcasting view right after the create new broadcast button.
RequestCreateBroadcast.view.xml	BroadcastCreateAfterTable	Using this extension point, you can add data to the create broadcasting view after the create broadcast list.
RequestShowBroadcast.view.xml	BroadcastShowBeforeTable	Using this extension point, you can add data to the create broadcasting view before the existing broadcast list.
RequestShowBroadcast.view.xml	BroadcastShowAfterTable	Using this extension point, you can add data to the create broadcasting view after the existing broadcast list.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.4.3.1 App Extensibility: Candidates

You can extend the candidate-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can add more data to the advanced search dialog before the search input field.
- You can add more data to the advanced search dialog between the search input field and the filter list.
- You can add more data to the advanced search dialog between the the filter list and the results list.
- You can add more data to the advanced search dialog between after the results list.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more data to the advanced search dialog inside the footer bar after the add candidate button.
- You can add more column definitions (column header) to the result list.
- You can add more column contents to the result list.
- You can extend the request internal candidate view to the top of the form.
- You can extend the request internal candidate view to just below the Search Multi Input area of the form.
- You can extend the request internal candidate view to the bottom of the form.
- You can extend the external candidate form of a role.
- You can add data to the candidate attachment list view at the top.
- You can add more controls and data to the assignment dialog view for the candidate.
- You can add more data about the assignment details for the candidate.

Extension Points

The following extension points are available:

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeSearchTool-bar	Using this extension point, you can add the data to the advanced search dialog before the search input field.

View	Extension Point	Use
AdvConsultSrchDialog.view.xml	AdvancedConsultantBeforeFilterList	Using this extension point, you can add the data to the advanced search dialog between the search input field and the filter list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterResultList	Using this extension point, you can add the data to the advanced search dialog after the results list.
AdvConsultSrchDialog.view.xml	AdvancedConsultantAfterFooterTool-bar	Using this extension point, you can add the data to the advanced search dialog inside the footerbar after the add candidate button.
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListColumn-Definition	Using this extension point, you can add more column definitions (column header) to the result list.
i Note This extension must be synchronized with the extension "Advanced-ConsultantResultListCellCon-tents" (for every new header added, the corresponding content/field also needs to be added).		
AdvConsultSrchDialog.view.xml	AdvancedConsultantResultListCellCon-tents	Using this extension point, you can add more column contents to the result list.
i Note This extension must be synchronized with the extension "Advanced-ConsultantResultListColumnDefini-tion" (for every new content/field added the corresponding header also needs to be added).		
RequestInternalCandidate.view.xml	requestAddInternalCandidateTopExten-sion	Using this extension point, you can extend the request internal candidate view to the top of the form.
RequestInternalCandidate.view.xml	requestAddInternalCandidateBelowS-earchExtension	Using this extension point, you can extend the request internal candidate view to just below the Search Multi In-put area of the form.

View	Extension Point	Use
RequestInternalCandidate.view.xml	requestAddInternalCandidateBottom-FormExtension	Using this extension point, you can extend the request internal candidate view to the bottom of the form.
RoleExternalCandidate.view.xml	RoleExternalCandidateForm	Using this extension point, you can extend the external candidate form of a role.
CandidateAttachment.view.xml	CandidateAttachmentExtension	Using this extension point, you can add data to the Candidate attachment list view at the top.
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can add more controls and data to the assignment dialog view for the candidate.
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can add more data about the assignment details for the candidate.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* ►.

UI Controller Hooks

To plug in and execute custom code, the following hooks are available in the controller code:

Candidates UI Controller Hooks

Controller	Hook	Use
AdvConsultSrchDialog.controller.js	mrs.resourceManagement.view.request.AdvConsultSrchDialog~extCreateCsvColumns	Enhance csv export of the result list with custom fields

For more information about UI controller hooks, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *Controller Extension* ► *Providing Hooks in the Standard Controller* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.4.3.2 App Extensibility: Assignments

You can extend the assignment-related UIs according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the assignment details view.
- You can extend the edit assignment view.
- You can extend the create assignment menu.
- You can extend the create assignment views for concrete, capacitive, and stretched assignments.
- You can extend the create other booking view.
- You can extend the assignment wizard view.

Extension Points

The following extension points are available:

View	Extension Point	Use
CandidateAssignmentDetails.fragment.xml	CandidateAssignmentDetailsExtension	Using this extension point, you can extend the bottom of the assignment detail view
CandidateAssignmentEditDialog.view.xml	CandidateAssignmentEditDialogExtension	Using this extension point, you can extend the candidate assignment details dialog
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeFirstPage	Using this extension point, you can extend before the first Assignment Menu Page view
CreateAssignmentMenu.view.xml	AssignmentMenuBeforeCreateList	Using this extension point, you can extend before the list of Assignments view
CreateAssignmentMenu.view.xml	AssignmentMenuAfterCreateList	Using this extension point, you can extend after the list of Assignments view

View	Extension Point	Use
CreateAssignmentMenu.view.xml	AssignmentMenuAfterLastPage	Using this extension point, you can extend after the last Assignment Menu Page view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveTop	Using this extension point, you can extend at the top of the view
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateCapacitiveAssignment.view.xml	CreateCapacitiveBottom	Using this extension point, you can extend at the bottom of the view
CreateConcreteAssignment.view.xml	CreateConcreteTop	Using this extension point, you can extend at the top of the view
CreateConcreteAssignment.view.xml	CreateConcreteBeforeAssignment-Dates	Using this extension point, you can extend above the Assignment Date column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeCandidates	Using this extension point, you can extend above the Candidates name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeRequestRole	Using this extension point, you can extend above the Request / Role name column
CreateConcreteAssignment.view.xml	CreateConcreteBeforeBottom	Using this extension point, you can extend at the bottom of the view
CreateOtherBooking.view.xml	OtherBookingTop	Using this extension point, you can extend at the top of the view
CreateOtherBooking.view.xml	OtherBookingBeforeDates	Using this extension point, you can extend Extends above the Assignment Date column
CreateOtherBooking.view.xml	OtherBookingBottom	Using this extension point, you can extend at the bottom of the view

View	Extension Point	Use
CreateStretchedAssignment.view.xml	ScretchTop	Using this extension point, you can extend at the top of the view
CreateStretchedAssignment.view.xml	ScretchBeforeDates	Using this extension point, you can extend above the Assignment Date column
CreateStretchedAssignment.view.xml	ScretchBeforeCandidate	Using this extension point, you can extend above the Candidates name column
CreateStretchedAssignment.view.xml	ScretchBeforeRequestRoles	Using this extension point, you can extend above the Request / Role name column
CreateStretchedAssignment.view.xml	ScretchBeforeBottom	Using this extension point, you can extend at the bottom of the view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeFirstPage	Using this extension point, you can extend before the first wizard page view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardBeforeRequestRole-Select	Using this extension point, you can extend before the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterRequestRole-Select	Using this extension point, you can extend after the request number selection view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterCreateList	Using this extension point, you can extend after the list of assignment types view
TeamAssignmentWizardDialog.view.xml	AssignmentWizardAfterLastPage	Using this extension point, you can extend after the last wizard page view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* .

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* .

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.4.4 Working in the Broadcasted Roles Overview

The request overview shows all roles that were broadcasted to you as a searching party.

The *Requested Duration* column shows how much work is planned for the role. The *Remaining Duration* column shows how much work has not yet been assigned to candidates. If a role is overstaffed, the remaining duration is negative.

You can filter and sort the request overview to find roles more easily. Except for the date filters, you can also combine two or more of the available filter options. When you close the current session, the system saves the filter values you have chosen so that the list will be filtered the same way when you open the list the next time. You can also use the search function to find roles. If you have applied filters to the list, the system will only search in the filtered roles.

You can display the role details from the role overview.

Note

If a broadcasted role has the status *Search Canceled*, the resource manager has canceled the broadcast for the time being. That means you don't have to look for suitable candidates for this role at the moment. The request may be rebroadcasted at a later point in time.

Displaying Role Status History

The status history shows the status, when it was set, and who set the status.

Informing the Resource Manager about Unavailability of Resources

If you don't have a suitable candidate to suggest, you change the broadcast status to *No Candidate*. This way, you inform the resource manager that there is no suitable resource available in your group for this role.

29.5.4.5 Adding Candidates to a Role as Resource Manager

To add candidates, you have the following options:

Adding Internal Candidates

- Using the simple search:
 - You can search by name or user ID to look for one or multiple internal candidates. For each candidate, you have to fill out the mandatory fields. You can also add request-specific comments for the candidate.
- Using the advanced search:
 - If you want the system to look for candidates with specific skills, you can use the advanced search. You can specify a set of skills and let the system use these skills to look for candidates. If there are prefilled skills from the skills tab, you can remove or adapt these as required.
 - You can export the candidate search result list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.
 - In addition to the total matching result, you can now see separate results for the qualification matching for structured and unstructured qualifications and the availability. You can sort the advanced candidate search results list by each of the results columns.
 - If the role has time rules and the role has already been saved before, the system considers the time rules when it calculates the availability matching.
 - Using the calendar icon in the [Schedule](#) column of the results list, you can simulate the assignments that would be created.

Adding External Candidates

It is not possible to use the search functions to look for external candidates. You just enter the candidate name, the number of proposed days and the partner name.

Working in the Candidate List

When the candidates are added to the candidate list, the system displays the candidate with its name, status, status history, and availability information. The availability information is only displayed if you have authorization for the candidate. The following tasks can be carried out from the candidate list:

- You can call up more information about the candidate by clicking the  icon. In the resource information popup, you can add notes for the candidate. These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers.
- You can display the existing assignments for candidates for which you have authorization. In the candidate calendar, you can display the assignments for a day as a list by clicking the date.
- For both internal or external candidates, you can add attachments after they have been added to the candidate list.
- You can export the candidate list to a CSV file. The system always exports the complete list irrespective of any selections you've made in the list.

Proposing Candidates to the Requester

If you want to inform the requester of your proposal, set the candidate status to [Proposed to Requester](#) and save. When the requester rejects or accepts a candidate (via e-mail or phone) you need to change the candidate status accordingly. The requester cannot change the status. If the requester has accepted a

candidate, you can check the availability, change the status to *Hardbooking Approved* and create an assignment.

29.5.4.6 Simulated Assignments

When you call up a candidate's schedule from the role details or the advanced candidate search, the system simulates the assignments for the given role.

Prerequisites

- The role has been submitted already.
- You have added a candidate to the role.

i Note

You don't need to save the role with the added candidate to simulate assignments.

- No assignments are created yet for this resource and role.

Use

When you call up the schedule for a candidate from the *Candidates* tab or by clicking the calendar icon in the *Schedule* column of the advanced candidate search, you can simulate the assignments that would be created. The system shows both the already existing assignments and other bookings and the simulated assignments for the found candidate and the given role. If you display the details of a simulated assignments, you can see that it has booking type *Simulated*.

Time rules are also taken into account by the system when simulating assignments provided that the role has been saved already.

Which Colors are Used for the Simulated Assignments?

The simulated assignments are displayed in a different color based on RM Customizing settings for the booking type *Simulated* under ► *Settings Specific to RM Apps* ► *Configure Color Codes for Assignment Display* ►.

Which Assignment Type is Used for the Simulated Assignments?

For the simulated assignments, the system uses the assignment type that is defined in Customizing for SAP Multiresource Scheduling:

- The field *Def. Assignment Type* defines if capacitive or non-capacitive assignments are used. You can find it in Customizing for *SAP Multiresource Scheduling* under ► *Set Up Scheduler Workplace (SAP GUI and Web-based Planning Board)* ► *Workplace Profiles* ► *Web-based User Interface* ► *Define User Interface Profiles (JGantt Chart)* ► or *Define User Interface Profiles (UI5 Gantt Chart)*.
- The settings under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ► define if non-capacitive assignments are created as concrete or stretched assignments.

29.5.4.7 Sending Request Information Via E-Mail

You can send the request information via e-mail. The system suggests recipients as well as text and subject of the mail. You can change this information in your default mail program.

Procedure

1. Choose *Email* from the *Request Details* screen.
2. Optional: Select one or more of the suggested recipients.
3. Choose *Create Email*. Your default mail program opens. The body and subject of the e-mail are predefined by the system.
4. Optional: Edit the e-mail as required (add recipients or attachments for example or edit the text or subject).
5. Send the e-mail using your mail program.

Results

You have sent an e-mail with the request information to the specified recipients.

29.5.4.8 Getting Help to Find Suitable Candidates for a Role

If you cannot find a suitable candidate for a role, you can add broadcast information and forward it to searching parties or resource groups to get help finding suitable candidates.

Forwarding a Role to Searching Parties

If you need a searching party to help you find suitable candidates, take the following steps:

1. Add a broadcast and select a target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast the system determines the RM group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the searching party know that a candidate was found and they can stop looking, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

Forwarding the Role to Resource Groups So the Members Can Apply Directly

If you want to publish a role and thus allow possible candidates to apply directly, take the following steps:

1. Add a broadcast and select *Resource Group* as target type and a target group.
2. Save the broadcast if you want to make further changes before submitting.
3. Submit the broadcast. If you submit the broadcast, the system determines the resource group that receives the broadcasted role based on Customizing settings.
4. If you have already submitted a broadcast and you want to let the resources know that a candidate was found and they cannot apply any longer, you can cancel the broadcast. If you want to submit the broadcast information again, you can rebroadcast it.

29.5.4.9 Booking Resources as Resource Manager

Note

This section describes the booking process using the candidate status profiles and booking types assignments that are part of the sample Customizing delivered by SAP (status profiles RM_CAND1 and RM_CAND2). You can create customer-specific candidate status profiles in Customizing for *Resource Management* under ► *PS Integration* ► *Create User Status Profile* ►.

Booking a candidate means that you change the candidate status to *Hardbooking Approved* or *Softbooking Approved* before you create assignments. It is not mandatory to set the booking statuses before creating the assignments for a role, but if you don't set them the system does not take these assignments into account for the availability of the candidate.

When a candidate was accepted by the requester, proceed as follows:

1. You confirm the availability of the candidate. While you are checking the availability, you can set the candidate status to *Checking Availability* to let other resource managers in your group know what you are doing.
2. You book the candidate by changing the candidate status to *Hardbooking Approved* or *Softbooking Approved*. If the required Customizing settings are in place, the system sends out a notification to the candidate when he or she has been soft-booked or hard-booked for an assignment. As a resource

manager, you can set the candidate status to *Hardbooking Approved* or *Softbooking Approved* only for candidates you are responsible for. For other candidates, you can only set the status to *Softbooking Approval Required* or *Hardbooking Approval Required*. The responsible resource manager of the candidate will set the status to *Hardbooking Approved* or *Softbooking Approved* and create the assignments.

i Note

If a candidate has applied to one of your roles directly but you are not responsible for this candidate as a resource manager, you need to broadcast the role to the responsible resource manager so he or she can do the booking and assignment creation.

Planning

If you are still in a planning phase, you can set the candidate status to *Forecasted* before you actually book candidates. Assignments created for a candidate with status *Forecasted* have the booking type *Planned* and do not affect the availability of the candidate.

Softbooking

If you are not sure about the final assignment of a candidate to a role, you might want to preliminarily block his or her availability by soft-booking the candidate. You do this by changing the candidate status to *Softbooking Approved*. The assignments created for a soft-booked candidate also have the booking type *Soft-booked*. To indicate that a role was soft-booked with candidates, you can set the role status to *Non-Binding Scheduled*.

Setting a Softbooking Expiration Date

After you have changed the candidate status to *Softbooking Approved*, you can enter a softbooking expiration date for the candidate. If the required Customizing settings are in place, the system will send you a workflow notification when the softbooking expiration date is reached.

Withdrawing Bookings

If required you can change the candidate status from *Hardbooking Approved* to *Hardbooking Withdrawn* or from *Softbooking Approved* to *Softbooking Withdrawn*. If there are already assignments created, the system removes these assignments automatically when you withdraw the booking.

29.5.4.10 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► *System* ► *User Profile* ► *Own Data* ►, open the *Defaults* tab page and enter the required time zone in the *Time Zone* field in the *Personal Time Zone* group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status *Hard-booking Approved* or *Soft-booking Approved*. However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status *Proposed to Requester* for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► *Sources of Demand* ► *Demand Settings* ► *Allow Stretched Assignments (ERP)* ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► *Basic Settings* ► *Configure Basic Settings* ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose *Other Booking*. For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either *Softbooking Approved* or *Hardbooking Approved* is not allowed. If the status is changed to *Softbooking Withdrawn* or *Hardbooking Withdrawn*, the system deletes the corresponding assignments automatically.

29.5.4.10.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).
6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the *Use Time Rules* checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose *Create*.

29.5.4.10.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.

5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

29.5.4.10.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

29.5.4.10.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

29.5.5 RM Team Schedule

Use

With the transactional app [RM Team Schedule](#), you can view the assignments and availability of a group of resources who belong together so you can assess their utilization over a given time period. This app is typically used by line managers.

Key Features

- Create new teams and manage existing teams
- Delete a team
- Display team schedule to check availability of team members
- Create assignments or other bookings
- Perform single or mass change of candidate status for assignments
- Export content of the team schedule to a spreadsheet application as a CSV file

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: RM Team Schedule \[page 298\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: RM Team Schedule \[page 398\]](#)

[App Extensibility: RM Team Schedule \[page 402\]](#)

29.5.5.1 App History: RM Team Schedule

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The *Team Schedule* app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

Team Schedule MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Change candidate status from a single assignment • Perform mass change of candidate status for all assignments in the currently displayed time frame Enhanced key features: • Creating and managing teams: You can now also add N.N. resources to your team. • Display team schedule: The system can now visualize in red if a resource is overbooked. You can prevent weekends from being displayed in the team schedule. Nonworking days such as weekends or holidays are displayed in light gray. If a person has not yet started working for the company or has left the company, these times are displayed using a dark gray. • Create other booking: When you create other bookings, you can define a recurrence pattern. • Create assignments: If you create assignments for roles with time rules, you can choose if you want the system to take the time rules into account.
New/Changed Implementation Details	You can use the Customizing activity Define Threshold for Overbooking to define when the system is to visualize in red color if a resource is overbooked. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps Define Threshold for Overbooking. You can use the Customizing activity Define Time Frame for Resource Validity Check to determine which resources are displayed in the team schedule. You can make this setting in Customizing for Resource Management (/MRSS/RM_IMG) under Settings Specific to RM Apps Define Time Frame for Resource Validity Check.

Enhancement	Description
New Extensibility Options	New extensibility options: You can use the BAPI: Additional Details for HR Resource or N.N. Resource to display additional information about the resource.

29.5.5.2 App Implementation: RM Team Schedule

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver - SAP Multiresource Scheduling 10 add-on based on SAP ERP
Front-End Components Delivered With	- User Interface Add-On for SAP Multiresource Scheduling 10 - User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Required SAP Notes

For the *RM Team Schedule* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *RM Team Schedule* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating ICF Services of UI5 Application](#) ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSTeamOfProjectResources
Business Role	/MRSS/RM_CONSULTING_MANAGER
Business Catalog	/MRSS/RM_CONSULTING_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_CONSULTING_MANAGER or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

Define Time Frame for Resource Validity Check

In this Customizing activity, you can define the time frame for which the system checks the validity of resources. Based on this check, the system determines which resources are displayed in the team schedule. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Time Frame for Resource Validity Check](#). ►

Define Threshold for Overbooking

In this Customizing activity, you can define threshold values for overbooking. The system uses the threshold values in the RM Team Schedule app to visualize if a resource is overbooked. Only if the extra work assigned to a resource exceeds the specified threshold, the system displays the availability information in red color. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Threshold for Overbooking](#). ►

Optional Activities

Create BAdI Implementation to Get Additional Details for HR Resource or N.N. resource

You can use the *BAdI: Additional Details for HR Resource or N.N. resource* to get additional details about the resource. For HR resources, the information is fetched from the SAP HR master data. The default implementation class `/MRSS/CL_RM_UI5_PERSON_SEARCH` reads the data from the personal data info type and the communication info type.

You can find the BAdI in Customizing for SAP Multiresource Scheduling under [► Enhancements ► Enhancements for RM Apps ►](#).

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information ► App Implementation Information ►](#). Check the documentation for your SAP NetWeaver version.
- [App Extensibility: RM Team Schedule \[page 402\]](#)

29.5.5.3 App Extensibility: RM Team Schedule

Use

You can extend the *RM Team Schedule* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more controls or data to the header bar of the team schedule calendar view.
- You can add more filters to the filter bar of the team schedule calendar view.
- You can add more controls or data to the team management organizational unit search within the team management dialog (before, inside or after the search field?).
- You can add more controls or data to the header bar of the team member list of the team schedule view.
- You can add more controls or data to the team member details panel of the team schedule view.
- You can add more controls or data to the footer bar of the team member details panel of the team schedule view.
- You can add data to add a new tab to the search bar in the team management dialog view
- You can add more controls or data to the team list item in the team management dialog view.
- You can add more buttons to the footer toolbar of the team management dialog view
- You can add more controls or data to the team selection list item in the team schedule view.
- You can add more buttons to the footer toolbar of the team selection list popover

Extension Points

The following extension points are available:

View	Extension Point	Use
TeamSchedule.view.xml	TeamScheduleCalendarHeaderExtension	This extension point allows you to add more controls, data to the header bar of the Team Schedule calendar view.
TeamScheduleFilterBar.view.xml	TeamScheduleFilterExtension	This extension point allows you to add more filters to the filter bar of the team schedule calendar view.
OrgUnitTree.view.xml	TeamManagementOrgBeforeSearch	This extension point allows you to add more controls, data to the team management org unit search within the team management dialog.
OrgUnitTree.view.xml	TeamManagementOrgInsideSearch	This extension point allows you to add more controls, data to the team management org unit search within the team management dialog.
OrgUnitTree.view.xml	TeamManagementOrgAfterSearch	This extension point allows you to add more controls, data to the team management org unit search within the team management dialog.
TeamMemberListHeader.fragment.xml	TeamScheduleResourceExtension	This extension point allows you to add more controls, data to the header bar of the team member list of Team Schedule view.
TeamMemberListItem.fragment.xml	TeamScheduleResourceExtension	This extension point allows you to add more controls, data to the team member details panel of the Team Schedule view.
TeamMemberListItemFooter.fragment.xml	TeamScheduleResourceFooterExtension	This extension point allows you to add more controls, data to the footer bar of the team member details panel of the Team Schedule view.
TeamManagementDialog.view.xml	teammanagementTabBar	This extension point allows you to add a new tab to the search bar in the team management dialog view.

View	Extension Point	Use
TeamManagementDialog.view.xml	teammanagementListControllItem	This extension point allows you to add more control, data to the team list item in the team management dialog view.
TeamManagementDialog.view.xml	teammanagementToolbar	This extension point allows you to add more buttons to the footer toolbar of the team management dialog view.
TeamSelectionPopover.fragment.xml	teammanagementSelectionList	This extension point allows you to add more control, data to the team selection list item in team schedule view.
TeamSelectionPopover.fragment.xml	teammanagementSelectionPopover-Toolbar	This extension point allows you to add more buttons to the footer toolbar of the team selection list popover.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* .

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* .

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* .

29.5.5.4 Creating and Managing Teams

Before you can display a team schedule, you need to create at least one team. If you need to work with more than one team, you can create several teams. You can mark a team as default team if you want the system to display it whenever you call up the *RM Team Schedule* app. To prevent weekends from being displayed in the team schedule, you can choose to hide weekends for this team. The system determines the weekend days based on the factory calendar that you specify for this feature. You can also change existing teams and remove or add team members.

i Note

You can only add resources for which you have authorization.

29.5.5.5 Working in the Team Schedule

The team schedule shows the name of the resources, the first availability (first date in the currently shown time period where there is no assignment), name of the assignments, and duration of the assignment. Nonworking days such as weekends or holidays are displayed in light gray. If a person has not yet started working for the company or has left the company, these times are displayed using a dark gray. If a resource is overbooked, the system displays the availability text in red if a certain threshold is exceeded.

To get displayed the information you want, you can do the following in the team schedule:

- Display data for the desired month and year
- Choose between days, weeks, and months view
- Narrow down or expand the displayed time frame using the slider
- Use filters in the title bar so that you see only matching assignments. You can also combine two or more of the available filter options within each of the filters.
- If you want to use the search functions to filter the displayed data, you can choose if the system looks for the search term in the team member data or in the assignment data.
- Flag team members to create your own filter
- Sort the list based on the resource name, first availability, or job title
- Switch to today's date
- You can call up more information about the team member by clicking the *i* icon. In the resource information popup, you can add notes for the team member (also possible for N.N resources). These notes are request-independent. According to Customizing settings, they can either be seen only by you or they are shared across resource managers

Creating Assignments

You can create assignments or other bookings for the team members from the team schedule.

i Note

The colors for the different assignment types and statuses can be configured in Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

Export Data to Excel

You can export the content of the assignment calendar to an Excel spreadsheet for the selected time period.

Changing the Candidate Status from a Single Assignment

In the assignment details, you can change the candidate status. If you choose a candidate status that affects the assignment booking type, this also changes the booking type for all other assignments that exist for this candidate for the role

Performing Mass Change of Candidate Status

You can simultaneously change the candidate status for all assignments that lie completely or partially within the currently displayed time frame. Note that the system considers only the filtered assignments. That means it changes the status only for the resources and assignments that are currently displayed based on applied filters and search results. To change the candidate status for all assignments visible in the team schedule, choose [Mass Status Change](#) in the footer bar, set the status, and choose [Apply](#)

29.5.5.6 Creating Assignments and Other Bookings

You can create assignments and other bookings only for candidates for which you have authorization.

Restrictions and Prerequisites

- In the RM apps, it is not possible to create individual concrete assignments stretching over several days. The system creates one assignment for each day.
- You cannot create assignments for external resources.
- If you have not defined a global time zone, assignments are shown in the user's browser time zone in the RM apps.. To avoid inconsistencies in the assignment display, we recommend to define a global time zone for all resources in Customizing for [SAP Multiresource Scheduling](#) under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►. If you have not defined a global time zone, you need to make sure that your browser time zone and your personal user time zone in the back-end system are the same. If they are not the same, adapt your personal time zone in the user settings so that it matches the browser time zone. To change the personal time zone, choose ► [System](#) ► [User Profile](#) ► [Own Data](#) ►, open the [Defaults](#) tab page and enter the required time zone in the [Time Zone](#) field in the [Personal Time Zone](#) group box.
- If you want to create an assignment that blocks the candidate's availability for the specified time, the candidate needs to have the status [Hard-booking Approved](#) or [Soft-booking Approved](#). However, it's not mandatory to set one of these booking statuses before creating assignments. For planning purposes, you can also create an assignment for a candidate with status [Proposed to Requester](#) for example, but in this case the system does not take this assignment into consideration for the availability of the candidate.

Choosing an Assignment Type

Depending on Customizing settings, the system offers you to create assignments of one or more of the following types:

- Concrete assignment: If you know the exact number of days and exact schedule for the assignment, create a concrete assignment. For more information, see [Creating a Concrete Assignment \[page 338\]](#).
- Stretched assignment: If you know the start date of the assignment, but the availability of the employee, holidays, and so on, should be calculated by the system, create a stretched assignment. For more information, see [Creating a Stretched Assignment \[page 338\]](#).
- Capacitive assignment: If you know the number of days for the assignment but the employee has flexibility of when to finish the work during those days, create a capacitive assignment. For more information, see [Creating a Capacitive Assignment \[page 339\]](#).

i Note

The system gives you either the option to create concrete assignments or the option to create stretched assignments. This depends on the Customizing settings you have made in the Customizing of SAP Multiresource Scheduling under ► [Sources of Demand](#) ► [Demand Settings](#) ► [Allow Stretched Assignments \(ERP\)](#) ►.

The system only gives you the option to create capacitive assignments if the function is activated in the Customizing of SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Configure Basic Settings](#) ►.

- Other booking: If you want to change the availability of a resource without referencing a role, choose [Other Booking](#). For more information, see [Creating an Other Booking \[page 340\]](#).

Deleting Assignments

Removing assignments for a candidate with the current status either [Softbooking Approved](#) or [Hardbooking Approved](#) is not allowed. If the status is changed to [Softbooking Withdrawn](#) or [Hardbooking Withdrawn](#), the system deletes the corresponding assignments automatically.

29.5.5.6.1 Creating a Concrete Assignment

Proceed as follows to create a concrete assignment:

1. Enter a title for the concrete assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Optional: You can select a workday for the assignment to start. When the assignment is created, the system adapts the start date accordingly.
4. Optional: You can either change the defaulted number of hours per day or you can specify for the individual weekdays if the assignment is to be created half-day or full-day.
5. Optional: You can specify if the resource has a 4/10 work week (that means he or she works four days per week, 10 hours per day).

6. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
7. Enter a duration for the assignment that fits into the time period specified with the start and end date. The number of working hours that the system calculates for each assigned day may vary depending on what you have entered as number of hours per day or in the weekday option (specifying full days or half days for certain days of the week - for the weekday option, the number of hours per day depends on the resource's work schedule. If there is no work schedule, the system takes 8 hours as a full day and 4 as a half day).
8. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
9. Choose [Create](#).

29.5.5.6.2 Creating a Stretched Assignment

Proceed as follows to create a stretched assignment:

1. Enter a title for the stretched assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. If the entered duration does not fit into the available slots of the specified time frame, the system will stretch the assignment and move the end date further into the future.
4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the stretched assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system will display the new stretched assignment in parallel. Existing assignments will not be changed

29.5.5.6.3 Creating a Capacitive Assignment

Proceed as follows to create a capacitive assignment:

1. Enter a title for the capacitive assignment.
2. Choose a start and end date. Per default the role dates are displayed as start and end date. You can change the dates as required.
3. Enter a duration for the assignment. The system spreads the hours evenly over the days of the time period that you have specified with the start and end date.

i Note

If you are working with days as duration unit, the system calculates eight working hours per day. If the assigned number of hours per day exceeds 24 hours per day, the system will not let you create the

assignment. The system creates one assignment per day and always takes midnight as starting time and end time.

4. Optional: You can change the settlement type if required. The default is taken from the settlement type specified for the role.
5. Optional: If time rules are defined for the role, you can select the [Use Time Rules](#) checkbox if you want the system to take the time rules into account when creating the assignments. For more information, see [Creation of Assignments for Demands with Time Rules \[page 290\]](#).
6. Choose [Create](#).

Result: The system creates the capacitive assignment and determines the booking type depending on the candidate status. If there are already assignments or other bookings created for the specified period, the system creates the concrete assignment as parallel assignment.

29.5.5.6.4 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose [Define Recurrence](#). In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the [Full Working Day](#) option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

29.5.6 My Schedule

Use

With the transactional app [My Schedule](#), you can display all your current assignments and other bookings so you know your schedule for a certain time period. You can update existing assignments and create new

bookings or self-booking requests so that the line manager and resource managers are aware of changes in your schedule and can plan accordingly. You can also create self-bookings for existing requests.

Key Features

- Display all current assignments and other bookings
- Filter assignments
- Create and update other bookings (for example education, administration, meeting, or absence)
- Create self-booking requests
- Create self-bookings for existing requests

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: My Schedule \[page 412\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: My Schedule \[page 412\]](#)

[App Extensibility: My Schedule \[page 416\]](#)

29.5.6.1 App History: My Schedule

Starting with the initial delivery date, the app is delivered with each support package of the respective SAP Multiresource Scheduling product. This document only lists support packages in which the app has been enhanced or changed. If the app was not changed in a particular support package, then this support package is not mentioned in this document.

The [My Schedule](#) app has been enhanced as follows:

SAP Multiresource Scheduling 10 SP02 (Delivery Date 09/2015)

Initial delivery.

SAP Multiresource Scheduling 10 SP03 (Delivery Date 10/2016)

My Schedule MRS 10 SP03 Enhancements

Enhancement	Description
New/Enhanced Key Features	New key features: • Create self-bookings for existing requests Enhanced key features: • Create other booking: When you create other bookings, you can define a recurrence pattern. • Working in my schedule: In the calendar, you can display the assignments for each day as a list.
New/Changed Implementation Details	You can use a new Customizing setting to choose if the system displays a search help for the requests when an employee creates a self-booking for an existing request. You can make this setting in RM Customizing under Basic Settings Configure Additional Basic Settings.

Enhancement	Description
New Extensibility Options	New extensibility options: - You can use the BAdI: Filter for Requests /MRSS/ BADI_RM_UI5_GET_REQUEST to implement a different filter logic for requests within the self-booking scenario. - You can now use the following new view and its extension points: <code>CandidateDisplayEditPopover.fragment.xml</code>

29.5.6.2 App Implementation: My Schedule

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver - SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component)

MRSS_UI

Required SAP Notes

For the *My Schedule* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *My Schedule* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating OData Services](#) ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [App Implementation Tasks on Front-End server](#) ► [Activating ICF Services of UI5 Application](#) ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSHumanResourceSchedule
Business Role	/MRSS/RM_RESOURCE
Business Catalog	/MRSS/RM_RESOURCE
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

i Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Optional Activities

Create BAdI Implementation to Filter Requests

You can use the [BAdI: Filter for Requests](#) to implement a different filter logic for requests within the self-booking scenario.

The BAdI is called when an employee wants to create a self-booking for an existing request. The system uses the BAdI to check if the resource is allowed to create assignments for the specified request. If Customizing is set up in a way that the system provides a search help for the request, the system also uses this BAdI to determine the requests to be displayed in the search help.

Display Request Search Help for Self-Booking

You can choose if the system displays a search help for the requests when an employee creates a self-booking for an existing request. You can activate the search help in *RM Customizing* under ► *Basic Settings* ► *Configure Additional Basic Settings* ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: My Schedule \[page 416\]](#)

29.5.6.3 App Extensibility: My Schedule

Use

You can extend the *My Schedule* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more controls and data to the MySchedule view.
- You can add data more buttons to the toolbar of the MySchedule view.
- You can add more filters to the filter bar of the MySchedule view.
- You can add more UI controls to the create selfbooking request view.
- You can add more UI controls to the request header of the selfbooking request view
- You can add more UI attributes or controls to the header or the table columns of the assignment table in the calendar view.

Extension Points

The following extension points are available:

View	Extension Point	Use
MySchedule.view.xml	MyScheduleViewExtension	This extension point allows you to add more controls, data to the MySchedule view of the resource.

View	Extension Point	Use
MyScheduleOverview.view.xml	myScheduleToolBar	This extension point allows you to add more buttons to the toolbar of the My-Schedule view.
MyScheduleFilterBar.view.xml	MyScheduleFilterExtension	This extension point allows you to add more filters to the filter bar for My-Schedule view
RequestCreateSelfBooking.view.xml	RequestCreateSelfBookingExtension	This extension point allows you to add more UI controls to the request create selfbooking view.
RequestCreateSelfBooking.view.xml	RequestChangeHeaderViewExtension	This extension point allows you to add more UI controls to the request header of the selfbooking view.
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayHeader	This extension point allows you to add more attributes or controls to the header of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	CandidateEditDisplayColumn	This extension point allows you to add more attributes or controls to the table column of the assignment table in calendar view.
CandidateDisplayEditPopover.fragment.xml	AssignmentDisplayEditPopoverExtension	This extension point allows you to add more attributes/controls to the popover of the assignment table in calendar view

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose **UI Development Toolkit for HTML5 (SAP UI5)** **Extending Applications** **View Extension**.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose **SAP Gateway Developer Guide** **SAP Gateway Cookbooks** **OData Channel Cookbooks** **Getting Started With the Service Builder** **Redefining Services**.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose **UI Development Toolkit for HTML5 (SAP UI5)** **Extending Applications**.

29.5.6.4 Working in My Schedule

In the *My Schedule* overview, you can see all your current assignments and other bookings. You can update existing assignments and create new bookings or self-booking requests so that the line manager and resource managers are aware of changes in your schedule and can plan accordingly.

To filter the *My Schedule* overview, apply one or several of the filters available in the title bar.

Self-Bookings

You can either create a self-booking for an existing project request or a self-booking request. A self-booking request is a new project request to be assigned only to yourself. Self-booking requests can for example be useful to reduce the processing time for staffing a spot request.

Creating a Self-Booking for an Existing Request

1. Choose ► *Create Self-Booking* ► *For Existing Project Request* ► in the footer bar.
2. Enter the request and role number.
3. Choose the desired assignment type and make the required entries
4. Choose *Create*.

Result: The system creates an assignment for you for the specified request with the status *Hard-booked*.

Creating a Self-Booking Request

1. Choose ► *Create Self-Booking* ► *Create New Project Request* ► in the footer bar.
2. Make the required entries for the request, role, and assignment details.
3. Choose *Submit*.

Result: The system creates a request. The statuses are determined by Customizing settings. They might be for example *Staffed* for the request and the role, and *Hardbooking Approved* for the candidate.

29.5.6.5 Creating an Other Booking

Proceed as follows to create an other booking:

1. Choose time allocation type (for example illness).
2. Choose a start and end date.
3. Optional: If you want to specify a recurrence pattern for the other booking, choose *Define Recurrence*. In this case you don't specify a number of assigned days, but you define on which weekdays and with which frequency the other booking is to recur. You can either specify a value for the hours per day or you can choose the *Full Working Day* option if you are not sure how long the resource works per day and you want the whole working day to be covered.

i Note

If the relevant Customizing setting is in place, breaks are taken into account. In this case, the system increases the duration of the other booking accordingly if the resource's basic availability is interrupted by a work break (time allocation type WORK_BREAK).

4. Enter the assigned duration (if you haven't defined a recurrence pattern). If the duration does not fit into the specified time frame, the system reduces the assigned duration accordingly. If the number of assigned days is fewer than the number of days between the specified start and end date, the system changes the end date accordingly.
5. Choose [Create](#).

Result: The system creates the other booking. If there are already assignments or other bookings created for the specified period, the system creates the new other booking in parallel

29.5.7 Published Roles

Use

With the transactional app [Published Roles](#), you can get an overview of all roles that were broadcast to your resource group by resource managers so that you can check the requirements and apply if you think you're a suitable candidate. From the role details, you can apply for a role or withdraw your application so the resource manager will be notified to not take your submission into consideration.

Key Features

- Display the published roles overview
- Filter and sort the published roles overview. Using the [Status](#) filter, you can also combine two or more of the available filter options.
- Search for published roles. If you have applied filters to the list, the system will only search in the filtered requests.
- Display request and role details
- Apply for a role
- Withdraw your application

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Published Roles \[page 298\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Published Roles \[page 420\]](#)

[App Extensibility: Published Roles \[page 425\]](#)

<http://help.sap.com/fiori>

29.5.7.1 App Implementation: Published Roles

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Required System Landscape](#) ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* . In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* .

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

i Note

The app offers the possibility to upload documents. For security reasons, we strongly recommend that you install an appropriate virus scanner in your SAP Fiori system landscape and define sufficiently restrictive scan profiles to prevent the upload of malicious content.

For more information about virus scanning and scan profiles for SAP Fiori apps, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Required System Landscape* . In the documentation for your SAP NetWeaver version, choose ► *Setup of SAP Fiori System Landscape* ► *(Installation)* ► *Virus Scanning* .

Required SAP Notes

For the *Published Roles* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Published Roles* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE
Business Catalog	/MRSS/RM_RESOURCE
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Recommended Activities

Configure Color Codes for Assignment Display

In this Customizing activity, you specify the colors in which the system displays the assignments according to their current status. You can specify different colors for any combination of assignment type, settlement type, and booking type. If you do not maintain any colors in the Customizing activity, the assignments will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Define Color Codes for Assignment Display](#). ►

i Note

For users with visual impairments, make sure to provide a high contrast display of the assignments. To obtain high contrasts, set an appropriate color scheme of distinctive colors.

Configure Color Codes for RM Statuses

In this Customizing activity, you specify the colors in which the system displays the following statuses in the app: request status, role status, candidate status, and broadcast status. If you do not maintain any colors in the Customizing activity, the statuses will be displayed in gray color by default. You find the Customizing activity in the Customizing of Web-based Resource Management under ► [Settings Specific to RM Apps](#) ► [Configure Color Codes for RM Statuses](#). ►

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Published Roles \[page 425\]](#)

29.5.7.2 App Extensibility: Published Roles

Use

You can extend the *Published Roles* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add toolbar controls to the RoleOverview view.
- You can add more attributes to the roles table column and to the roles list item of the Role Overview screen.

Extension Points

The following extension points are available:

View	Extension Point	Use
RoleOverview.view.xml	requestsToolbar	This extension point allows you to add toolbar controls to the RoleOverview view.
RoleTable.view.xml	roleListCols	This extension point allows you to add more attributes to the roles table column of the Role Overview screen
RoleTable.view.xml	roleListCells	This extension point allows you to add more attributes to the roles list item of the Role Overview screen

For more information about extension points, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► *Extensibility Information for SAP Fiori* ►. In SAP Library, choose ► *Extending the UI Layer* ► *UI Extensibility Workflow* ► *Checking the SAP-Enabled Extension Options* ► *Extension Points* ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► *Extensibility Information for SAP Fiori* ►. In SAP Library, choose ► *Extending the SAP NetWeaver Gateway Layer* ►.

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ►.

29.5.8 Alerts & Notifications

Use

With the transactional app [Alerts & Notifications](#), you can see workflow notifications triggered by the RM process. The app informs resource managers, line managers, searching parties and project resources about changes and conflicts so they can react accordingly.

i Note

The alerts displayed in the [Alerts & Notifications](#) app are not the same as the alerts that are shown in the alert monitor of the scheduler workplace in Multiresource Scheduling. The [Alerts & Notification](#) app does not use the alert profiles and check profiles defined in Customizing of SAP Multiresource Scheduling. Instead, it uses SAP Business Workflow notifications.

Key Features

- Show all alerts concerning the requests and roles assigned to you
- Typical alerts are for example:
 - New submitted role (alert for a resource manager)
 - Hardbooking approved (alert for a resource)
 - Deadline expired
- Navigate from the alert to the request or role or candidate for which the alert is for
- Filter the alerts so that you see only those alerts that match certain criteria.
- Acknowledge alerts to confirm that you have seen them and make sure that those alerts are no longer shown to you.

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see [App Implementation: Alerts & Notifications \[page 427\]](#).

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)

- [Role Overview \[page 341\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Create Multiple Bookings \[page 432\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Alerts & Notifications \[page 427\]](#)

[App Extensibility: Alerts and Notifications \[page 431\]](#)

29.5.8.1 App Implementation: Alerts & Notifications

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose  [SAP Fiori Implementation Information](#)  [Required System Landscape](#) . Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *Configuration Information* ►. In the documentation for your SAP NetWeaver version, choose ► *Configuration of SAP Fiori Infrastructure* ► *Setup of SAP Fiori Launchpad* ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component) MRSS_UI

Required SAP Notes

For the *Alerts & Notifications* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

i Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Alerts & Notifications* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* . In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* .

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* . In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* .

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSWorkflowMessage
Business Role	/MRSS/RM_RESOURCE_MANAGER
	/MRSS/RM_CONSULTING_MANAGER
	/MRSS/RM_RESOURCE
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
	/MRSS/RM_CONSULTING_MANAGER
	/MRSS/RM_RESOURCE

Component	Technical Name
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business roles: /MRSS/RM_RESOURCE_MANAGER /MRSS/RM_CONSULTING_MANAGER /MRSS/RM_RESOURCE or create a new role.

Configuration Tasks

This section describes the configuration tasks to be performed in the back-end system. For more information, see the Customizing documentation in the system.

Mandatory Activities

Configure Notification Type Filter

In this Customizing activity, you specify which kind of notifications are displayed in the RM app *Alerts & Notifications*. You do this in Customizing for Web-based Resource Management under ► *Settings Specific to RM Apps* ► *Configure Notification Type Filter* ►.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.
- [App Extensibility: Alerts & Notifications \[page 431\]](#)

29.5.8.2 App Extensibility: Alerts & Notifications

Use

You can extend the *Alerts & Notifications* app according to your business needs. For this purpose, the following extensibility options are available:

- You can extend the individual RMNotification list item shown on the AlertsList view.
- You can add more controls and data to the AlertsList view.
- You can add a new filter to the filter bar in the Alerts and Notification view.
- You can add more controls and data to the filter bar in the Alerts and Notification view

Extension Points

The following extension points are available:

View	Extension Point	Use
AlertsList.view.xml	RMNotificationItemExtension	This extension point allows you to extend the individual RMNotification list item shown on AlertsList view.
AlertsList.view.xml	RMNotificationViewExtension	This extension point allows you to add more controls or data to the AlertsList view.

View	Extension Point	Use
AlertsFilterBar.view.xml	RMNotificationFilterHBoxExtension	This extension point allows you to add a new filter to the Filter Bar in Alerts and Notification view.
AlertsFilterBar.view.xml	RMNotificationFilterExtension	This extension point allows you to add more controls or data to the Filter Bar in Alerts and Notification view.

For more information about extension points, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* ► *View Extension* .

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the application help on SAP Help Portal at <http://help.sap.com/nwgateway>. In SAP Library, choose ► *SAP Gateway Developer Guide* ► *SAP Gateway Cookbooks* ► *OData Channel Cookbooks* ► *Getting Started With the Service Builder* ► *Redefining Services* .

More Information

For a general description of the extensibility options, see the application help on SAP Help Portal at <http://help.sap.com/nw-uiaddon10>. In SAP Library, choose ► *UI Development Toolkit for HTML5 (SAP UI5)* ► *Extending Applications* .

29.5.9 Create Multiple Bookings

With the transactional app *Create Multiple Bookings* , you can create multiple other bookings for multiple resources at once. The app cannot be used to create HR-relevant time allocations.

Key Features

- Select time allocation type and create bookings for the specified time frame and employees.
- Define recurrence by specifying weekdays and hours per day

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see .

Related Apps

- [My Requests \[page 295\]](#)
- [Staffing Requests \[page 310\]](#)
- [Broadcasted Roles \[page 370\]](#)
- [Role Overview \[page 341\]](#)
- [Alerts and Notifications \[page 426\]](#)
- [RM Team Schedule \[page 395\]](#)
- [My Schedule \[page 409\]](#)
- [Published Roles \[page 419\]](#)
- [Reassign Assignments \[page 438\]](#)
- [Global Demand Search \[page 726\]](#)

Component for Customer Incidents

CA-MRS

More Information

[App Implementation: Create Multiple Bookings \[page 434\]](#)

[App Extensibility: Create Multiple Bookings \[page 437\]](#)

<http://help.sap.com/fiori>

29.5.9.1 App Implementation: Create Multiple Bookings

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options	SAP Fiori system landscape with ABAP environment For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Required System Landscape ►. Check the documentation for your SAP NetWeaver version.
Configuration of Front-End Server	You need to configure the SAP Fiori Launchpad. For more information, see the documentation at http://help.sap.com/fiori. Choose ► SAP Fiori Implementation Information ► Configuration Information ►. In the documentation for your SAP NetWeaver version, choose ► Configuration of SAP Fiori Infrastructure ► Setup of SAP Fiori Launchpad ►.
Back-End Components Delivered With	• SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver • SAP Multiresource Scheduling 10 add-on based on SAP ERP
Front-End Components Delivered With	• User Interface Add-On for SAP Multiresource Scheduling 10 • User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher
Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.	
Front-End Server: Front-End Component of App (Software Component)	MRSS_UI

Required SAP Notes

For the *Create Multiple Bookings* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Create Multiple Bookings* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* ►.

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* ►.

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► [SAP Fiori Implementation Information](#) ► [App Implementation Information](#) ►. Check the SAP Library documentation for your SAP NetWeaver version.
- [App Extensibility: Create Multiple Bookings \[page 437\]](#)

29.5.9.2 App Extensibility: Create Multiple Bookings

You can extend the *Create Multiple Bookings* app according to your business needs. For this purpose, the following extensibility options are available:

- You can add more controls and data to the header in the Create Multiple Booking page.
- You can add more controls and data to the form in the Create Multiple Booking page.

Extension Points

The following extension points are available:

View	Extension Point	Use
MultiBooking.view.xml	OtherBookingTop	This extension point allows you to add more filters to the header in the Create Multiple Booking page.
MultiBooking.view.xml	OtherBookingBeforeDates	This extension point allows you to add more controls and data to the form in Create Multiple Booking.

For more information about extension points, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► [Extensibility Information for SAP Fiori](#) ►. In SAP Library, choose ► [Extending the UI Layer](#) ► [UI Extensibility Workflow](#) ► [Checking the SAP-Enabled Extension Options](#) ► [Extension Points](#) ►.

You can also extend the app's Gateway layer if you want to expose additional back-end logic and content to the UI layer. For more information, see the documentation for SAP Fiori at <http://help.sap.com/fiori> ► [Extensibility Information for SAP Fiori](#) ►. In SAP Library, choose ► [Extending the SAP NetWeaver Gateway Layer](#) ►.

More Information

For a general description of the extensibility options and procedures of SAP Fiori apps, see the appropriate documentation on SAP Help Portal at <http://help.sap.com/fiori> ► *Extensibility Information for SAP Fiori* ►.

29.5.10 Reassign Assignments

With the transactional app *Reassign Assignments*, you can move assignments and time allocations from one resource to another. You might want to use this app for example when a new resource was hired and initially introduced as N.N. resource and you now want to move the schedule from the N.N. resource to a “real” SAP HR resource. SAP HR time allocations are not copied.

Key Features

- Move assignments or time allocations within a specified period
- Move assignments between HR resources and N.N. resources and vice versa.

System Landscape Requirements

The app consists of front-end components (such as the user interfaces) and back-end components (such as the OData service). The back-end components and the front-end components have to be installed in a system landscape that is enabled for SAP Fiori in an ABAP environment. For more information, see .

Related Apps

- [My Requests](#) [page 295]
- [Broadcasted Roles](#) [page 370]
- [Role Overview](#) [page 341]
- [Alerts and Notifications](#) [page 426]
- [RM Team Schedule](#) [page 395]
- [My Schedule](#) [page 409]
- [Published Roles](#) [page 419]
- [Create Multiple Bookings](#) [page 432]
- [Global Demand Search](#) [page 726]

Component for Customer Incidents

CA-MRS

More Information

<http://help.sap.com/fiori>

29.5.10.1 App Implementation: Reassign Assignments

System Landscape Requirements

Before you start implementing the app, ensure that your system landscape has been set up to enable SAP Fiori. This implies that the front-end components and back-end components for your app are already available in this system landscape.

SAP Fiori System Landscape Options

SAP Fiori system landscape with ABAP environment

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Required System Landscape](#) ►. Check the documentation for your SAP NetWeaver version.

Configuration of Front-End Server

You need to configure the SAP Fiori Launchpad.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► [SAP Fiori Implementation Information](#) ► [Configuration Information](#) ►. In the documentation for your SAP NetWeaver version, choose ► [Configuration of SAP Fiori Infrastructure](#) ► [Setup of SAP Fiori Launchpad](#) ►.

Back-End Components Delivered With

- SAP Multiresource Scheduling 10 add-on based on SAP NetWeaver
- SAP Multiresource Scheduling 10 add-on based on SAP ERP

Front-End Components Delivered With

- User Interface Add-On for SAP Multiresource Scheduling 10
- User Interface Add-On 1.0 for SAP NetWeaver, Support Package Stack (SPS) 13 or higher

Ensure that the front-end component of the app is in place on your front-end server. It is automatically installed with the UI add-on.

Front-End Server: Front-End Component of App (Software Component)

MRSS_UI

Required SAP Notes

For the *Reassign Assignments* app, you do not have to implement any SAP Notes.

Prerequisites for Implementation

- The SAP Multiresource Scheduling back-end application must be set up correctly and the appropriate master data, such as organizational structure and resource data, must be available.
- Web-based Resource Management must be configured. For more information, see [Setting Up Web-based Resource Management \[page 284\]](#).

Note

For more information about how to set up SAP Multiresource Scheduling, see the *Administrator's Guide for SAP Multiresource Scheduling* and the application help available on SAP Help Portal at <http://help.sap.com/mrs>.

Implementation Tasks

This section lists tasks that you have to perform to implement the *Reassign Assignments* app. The tables contain the app-specific data required for these tasks.

Front-End Server: Activate OData Services

Component	Technical Name
OData Service	/MRSS/RM_FIORI_PROJECT_SRV

For more information on how to activate OData services, see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* . In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating OData Services* .

Front-End Server: Activate SAP UI5 Application

Component	Technical Name
SAP UI5 Application	/MRSS/RM

For more information about how to activate the SAP UI5 application (ICF service), see <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* . In the documentation for your SAP NetWeaver version, choose ► *App Implementation Tasks on Front-End server* ► *Activating ICF Services of UI5 Application* .

Front-End Server: Enable App for Access in SAP Fiori Launchpad

You can integrate the SAP Multiresource Scheduling apps in the SAP Fiori launchpad. From a user perspective, the launchpad displays those apps that have been assigned to the catalog designed for this user's role. This presupposes that an administrator has made the necessary assignments in the launchpad designer to enable a user's access to the respective apps in the SAP Fiori launchpad.

There are several steps to be performed to enable the app for access in the SAP Fiori launchpad. You require the following data to perform these steps:

Component	Technical Name
Semantic Object	MRSRequest
Business Role	/MRSS/RM_RESOURCE_MANAGER
Business Catalog	/MRSS/RM_RESOURCE_MANAGER
Technical Role	None
LPD_CUST Role	MRS
LPD_CUST Instance	DEFAULT

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* . Check the documentation for your SAP NetWeaver version.

Front-End Server and Back-End Server: Assign OData Service Authorization to Users

You must assign OData service authorizations for the app to your users.

⚠ Caution

Several authorization default values are connected to the OData service. To ensure that all these default values are assigned to a user, you have to follow the instructions given under the documentation links provided.

Make the assignment on the front-end server. You must assign the OData service authorization to a new or existing role, such as a business role that has been adjusted according to your needs.

For more information, see the documentation at <http://help.sap.com/fiori>. Choose ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the documentation for your SAP NetWeaver version.

OData Service (Version Number)	Back-End Server: Delivered Authorization Role (PFCG Role)	Front-End Server: Assignment to Authorization Role
/MRSS/RM_FIORI_PROJECT_SRV	SAP does not deliver an example role. There are no app-specific authorizations in the back end.	Use the delivered business role /MRSS/RM_RESOURCE_MANAGER or create a new role.

More Information

- [Setting Up Web-based Resource Management \[page 284\]](#)
- [Installation and Implementation \[page 723\]](#)
- <http://help.sap.com/fiori> ► *SAP Fiori Implementation Information* ► *App Implementation Information* ►. Check the SAP Library documentation for your SAP NetWeaver version.
- [App Extensibility: Reassign Assignments \[page 442\]](#)

29.5.10.2 App Extensibility: Reassign Assignments

SAP does not provide any extensibility options for this app.

30 Operations Information

The following chapters cover topics that are related to the operation of SAP Multiresource Scheduling. These topics are related to the monitoring and analysis and the administration and management of the software.

For general operations information, see the *Administrator's Guide for SAP Multiresource Scheduling* available on SAP Help Portal at <http://help.sap.com/mrs>.

30.1 Monitoring and Analysis

30.1.1 Capacity Graphs

Use

The system uses capacity graphs to calculate the availability of the resources. You specify the method used to calculate the availability as part of the employee or demand search. The system then creates capacity graphs with the existing assignments in the planning board.

For more information, see [Availability Determination \[page 537\]](#).

Capacity graphs are updated in the system by means of background queues. Only graphs H and P are updated in the foreground since they are processed only when one of the transfer reports `/MRSS/HCM_RPTWFMIF` or `/MRSS/SGE_PN_MNT` is running. Furthermore, these two graphs are required to calculate all other capacity graphs.

The queue names for the capacity graphs begin with `MRS_CG_`.

Features

The application uses the following capacity graphs in background processes:

Capacity Graphs for Personnel Resources

- **Capacity graph H (`/MRSS/D_CAG_CG_H`)**
Capacity graph H indicates the basic availability of the resources. The system calculates this capacity graph when transfer report `/MRSS/HCM_RPTWFMIF` is running for personnel resources. The entries are saved in table `/MRSS/D_CAG_CG_H`. The calculation is based on the time allocation types `WORK` and `WORK_BREAK`, which form the basic availability of the personnel resource. The results are displayed in the planning board as gray and white areas in the resource row.

- **Capacity graph A (/MRSS/D_CAG.CG_A)**
Capacity graph A indicates the capacity-based availability of the resource. The system takes into account both capacitive and stretched assignments. This graph is calculated when an assignment is created, changed, or deleted.
The entries are saved in table /MRSS/D_CAG.CG_A. The results are used to calculate availability matching for a resource.
- **Capacity graph B (/MRSS/D_CAG.CG_B)**
Capacity graph B indicates the capacity-based availability of the resource without taking into account capacitive assignments or reservations. This graph is calculated when an assignment is created, changed, or deleted.
The entries are saved in table /MRSS/D_CAG.CG_B. The results are used to calculate availability matching for a resource.
- **Capacity graph C (/MRSS/D_CAG.CG_C)**
Capacity graph C indicates the capacity-based availability of the resource without capacitive assignments but with reservations. This graph is calculated when an assignment is created, changed, or deleted.
The entries are saved in table /MRSS/D_CAG.CG_C. The results are used to calculate availability matching for a resource.
- **Capacity graph D (/MRSS/D_CAG.CG_D)**
Capacity graph D indicates the capacity-based availability of the resource with capacitive assignments but without reservations. This graph is calculated when an assignment is created, changed, or deleted.
The entries are saved in table /MRSS/D_CAG.CG_D. The results are used to calculate availability matching for a resource.
- **Capacity graph E**
Capacity graph E indicates the slot-based availability of the resource with reservations. This graph is calculated only on request.
This capacity graph is used only for slot-based availability matching. The calculation results are not saved in the database.
- **Capacity graph F**
Capacity graph F indicates the slot-based availability of the resource without reservations. This graph is calculated only on request.
This capacity graph is used only for slot-based availability matching. The calculation results are not saved in the database.
- **Capacity graph G (/MRSS/D_CAG.CG_G)**
Capacity graph G indicates the total availability of a resource without taking into account the on-call times. This graph is calculated when the time allocations for a resource are created, changed, or deleted.
It is used to calculate stretched assignments. The results are saved in table /MRSS/D_CAG.CG_G.
- **Capacity graph I**
Capacity graph I indicates the total availability of a resource taking into account all time allocation types. This graph is calculated when the time allocations for a resource are created, changed, or deleted.
The capacity graph is used to model absolute availability and relative utilization. The calculation results are not saved.
- **Day-based capacity graphs**
You can activate the calculation of the day-based capacity graphs in Customizing under [Basic Settings](#)  [Configure Basic Settings](#) . In contrast to the other capacity graphs, the system aggregates the calculation results for day-based capacity graphs only once a day. The system uses these graphs in the following cases:
 - Web-based resource management integration scenario
To use this integration scenario, you must activate the calculation of the day-based capacity graphs.

- SAP Project and Portfolio Management (formerly known as Collaboration Projects) integration scenario
You should activate the calculation of the day-based capacity graphs if you are using the calendar view.
- Web-based planning board
You should also activate the day-based graphs if you are using the Web-based planning board. In this case, the graphs are used to display the resource list.

In the last two cases listed above, the activation of the graphs is optional. We recommend that you activate the calculation of the day-based capacity graphs for performance reasons: If the graphs are not calculated, the system calculates the resource availability on the fly. This may take more time than reading the data from the database.

The results are saved in table /MRSS/D_CAG_LONG.

Capacity Graphs for Work Centers

i Note

These capacity graphs are calculated when *Work Center Planning* is specified as the relevant planning node capacity scenario in Customizing for *SAP Multiresource Scheduling* under ► *Capacity and Demand Overview* ► *Configure Planning Node Capacity Calculation* .

- **Capacity graph P (/MRSS/D_CAG.CG_P)**

Capacity graph P indicates the basic availability of the work centers. The system calculates this capacity graph using the work center data.

It is calculated when transfer report /MRSS/SGE_PN_MNT is running for work centers.

Capacity graph P is required to calculate capacity graph Q. The results are saved in table /MRSS/D_CAG.CG_P.

The data is displayed as total capacity in the *Capacity and Demand Overview* report (/MRSS/SG_CAPACITY_REPORT).

- **Capacity graph Q (/MRSS/D_CAG.CG_Q)**

Capacity graph Q indicates the capacity-based availability of a work center. When the graph is calculated, the system considers the capacities of the demands. That is, the remaining capacity of the work center is reduced when demands are included.

This graph is calculated when a demand is created, changed, or deleted. The results are saved in table /MRSS/D_CAG.CG_Q.

The data is displayed in the planning board in the DPD bar chart of the capacity view and as free capacity in the *Capacity and Demand Overview* report (/MRSS/SG_CAPACITY_REPORT).

i Note

The work center capacity is not reduced if the demands lie in periods in which the work center has no availability (for example, at night). For these periods you will not be able see the P and Q graphs in the capacity view of the Scheduler Workplace (SAP GUI) and the Web-based planning board.

Capacity Graphs for Planning Nodes in a Human Resource Capacity Scenario

i Note

These capacity graphs are calculated when *Single Resource Planning* is specified as the relevant planning node capacity scenario in Customizing for *SAP Multiresource Scheduling* under ► *Capacity and Demand Overview* ► *Configure Planning Node Capacity Calculation* .

- **Capacity graph R (/MRSS/D_CAG.CG_R)**

Capacity graph R indicates the basic availability of the planning node. The system calculates this capacity graph using the sum of the basic availability of the human resources in this planning node. It is calculated when transfer report /MRSS/SGE_RES_PN_MNT is running for planning nodes.

Capacity graph R is required to calculate capacity graph S. The results are saved in table /MRSS/D_CAG.CG_R.

The data is displayed as total capacity in the [Capacity and Demand Overview](#) report (/MRSS/SG_CAPACITY_REPORT).

- **Capacity graph S (/MRSS/D_CAG.CG_S)**

Capacity graph S indicates the free capacity of a planning node. When the graph is calculated, the system considers the work of the demands (and if customized also of the work of the assignments). That is, the remaining capacity of the planning node is reduced when demands (and assignments) are included.

This graph is calculated when a demand (or an assignment) is created, changed, or deleted. The results are saved in table /MRSS/D_CAG.CG_S.

The data is displayed in the planning board in the DPD bar chart of the capacity view and as free capacity in the [Capacity and Demand Overview](#) report (/MRSS/SG_CAPACITY_REPORT).

Activities

If a queue fails, the system issues a warning message as soon as the user starts the planning board. To resolve this problem, proceed as follows:

1. Call transactions SMQ1 and SMQ2 to open the qRFC Monitors for inbound queues and outbound queues.
2. Find the queues with "CG" in its name and activate the failed queue.
The other queues are activated automatically at the same time.

More Information

[Capacity and Demand Overview \[page 657\]](#)

[Inbound Queue Processing in SAP Multiresource Scheduling \[page 948\]](#)

30.1.2 Monitoring Data Integration

How you monitor data integration depends on the integration scenario and on how your system landscape is set up. In some scenarios, queued Remote Function Call (qRFC) is used to exchange demands and related data between SAP Multiresource Scheduling and the demand source systems. In an SAP Cloud for Customer integration scenario, the systems use asynchronous web service messages to exchange demand and assignment data.

For more information, see the following sections:

- [Monitoring Data Integration for qRFC \[page 907\]](#)

- [Monitoring Data Integration for Web Service Messages \[page 909\]](#)

30.1.2.1 Monitoring Data Integration for qRFC

Use

Depending on how you set up your system landscape, queued Remote Function Call (qRFC) is used to exchange demands and related data between SAP Multiresource Scheduling and the demand source systems. This technology is relevant in the following integration scenarios:

- Integration of service orders from SAP CRM (single back-end system scenario and multi back-end system scenario)
- Integration of service orders from Plant Maintenance (PM) and Customer Service (CS) using a multi back-end system scenario

i Note

In all other integration scenarios (Project System, SAP Portfolio and Project Management, Web-Based Resource Management, PM/CS in a single back-end system scenario), the system does not use queued Remote Function Call.

In an SAP Cloud for Customer integration scenario, the systems use asynchronous web service messages to exchange demand and assignment data. For more information, see [Monitoring Data Integration for Web Service Messages \[page 909\]](#).

In addition, qRFC is used for the following:

- Transfer of employee availability information from SAP ERP HCM to SAP Multiresource Scheduling (report /MRSS/HCM_RPTWFMIF)
- Transfer of work center-related data from SAP ERP to SAP Multiresource Scheduling (report /MRSS/SGE_PN_MNT)
- Transfer of resource planning nodes from SAP ERP to SAP Multiresource Scheduling (report /MRSS/SGE_RES_PN_MNT)
- Creation and maintenance of capacity pots (reports /MRSS/POT_CREATE_CAPA_POTS and /MRSS/POT_MAINTENANCE)

Prerequisites

- You have set up the relevant integration scenarios as required.
- You have configured the use of inbound queues to ensure a proper serialization of the integration queues. For more information, see [Inbound Queue Processing in SAP Multiresource Scheduling \[page 948\]](#).
- You have implemented SAP Note [2221941](#) .

Features

- When integration-relevant data is saved in the demand source system (SAP CRM or SAP ERP), the data is automatically sent to SAP Multiresource Scheduling by means of qRFC.
For example, when you create and save a scheduling-relevant service order in SAP CRM, the system creates a corresponding demand in SAP Multiresource Scheduling.
If an error occurs during data integration in SAP Multiresource Scheduling, you can save the service order and related data in the demand source system but the system does not create or update the demand data in SAP Multiresource Scheduling.
- When you save demand-related data, such as a newly created assignment, in SAP Multiresource Scheduling, this data is sent to the demand source system by means of qRFC.

Caution

If an integration queue from the Plant Maintenance component to SAP Multiresource Scheduling (or from SAP Multiresource Scheduling to Plant Maintenance) is terminated, the system does not allow you to save the order data.

- You can view the current status of the queue in the *qRFC Monitor* (transactions **SMQ1** and **SMQ2**). The technical names of SAP Multiresource Scheduling integration queues begin with **MRS***.
You can use the *qRFC Monitor* in the demand source system as well as in SAP Multiresource Scheduling. If the data integration fails, the data remains in the queue. You can start the queue manually to transfer the service order and relevant data to SAP Multiresource Scheduling.
- If processing errors occur in one or more integration queues, you can configure alerts to be displayed automatically in the Alert Monitor.

Activities

- You can configure a job to restart the queues automatically. Alternatively, you can configure and activate queue monitoring in the *qRFC Administration* transaction (**SMQE**). For more information, see [Configuring the Reprocessing of Order Integration Queues \[page 955\]](#).
- Activate the alert function in Customizing for SAP Multiresource Scheduling under ► *Set Up Scheduler Workplace* ► *Workplace Profiles* ►:
 - Under ► *Check Profile* ► *Define Classes for Performing the Checks* ►, add the check class `/MRSS/CL_SGE_CHECK_QUEUE_STAT`.
 - Under ► *Check Profile* ► *Define Check Profiles* ►, add the check class to your profile.
 - Under ► *Alert Profile* ► *Define Alert Profiles* ►, add the alert message `/MRSS/SGE 411` to your alert profile.

More Information

- [Inbound Queue Processing in SAP Multiresource Scheduling \[page 948\]](#)

- [Configuring the Reprocessing of Order Integration Queues \[page 955\]](#)
- [Data Integration in SAP Multiresource Scheduling and SAP CRM \[page 490\]](#)

30.1.2.2 Monitoring Data Integration for Web Service Messages

Use

In an SAP Cloud for Customer integration scenario, the system uses asynchronous web service messages to exchange demand and assignment data between SAP Hybris Cloud for Customer and SAP Multiresource Scheduling. Errors in communication may occur, for example, if fields are invalid or mapping entries are missing. In this case, the data integration stops.

To check whether web service messages have been delivered and data has been integrated correctly in SAP Multiresource Scheduling, you can monitor the message exchange using the [Web Service Utilities: Message Monitor \(SRT_MONI\)](#).

i Note

For more information about how to monitor data integration in SAP Hybris Cloud for Customer, see the Administrator Guide for SAP Hybris Cloud for Customer. This guide is available on SAP Help Portal at <http://help.sap.com/cloud4customer> ► [SAP Cloud for Customer Solution Help](#) ►. Open the document and navigate to ► [Integration](#) ► [Configuring Integration Monitoring](#) ►.

Prerequisites

- To allow the exchange of web service messages between the systems, you must configure the web service runtime in SAP Multiresource Scheduling (report SRT_ADMIN).

i Note

For more information, see the application help for SAP NetWeaver at <http://help.sap.com/nw74> ► [Application Help](#) ► [Function-Oriented View](#) ►.

Open the application help and choose ► [Application Server](#) ► [Application Server ABAP](#) ► [Application Development on AS ABAP](#) ► [ABAP Workbench - Classic](#) ► [ABAP Workbench Tools](#) ► [ABAP Web Services](#) ► [Operating Web Services](#) ►.

- You must be assigned the required roles and authorization objects for monitoring web services.

i Note

For more information, see the application help for SAP NetWeaver at <http://help.sap.com/nw74> ► [Application Help](#) ► [Function-Oriented View](#) ►.

Open the application help and choose ► [Application Server](#) ► [Application Server ABAP](#) ► [Application Development on AS ABAP](#) ► [ABAP Workbench - Classic](#) ► [ABAP Workbench Tools](#) ► [ABAP Web Services](#) ► [Authorizations](#) .

Features

Using the *Web Service Utilities: Message Monitor* (**SRT_MONI**), you can track the status of web service messages, find errors that have occurred during processing and analyze what caused them. For example, you can re-start messages that have an error status (red traffic light).

If a message could not be processed due to temporary issues (yellow traffic light), the system automatically tries to re-process the message at regular intervals. A temporary issue may occur, for example, if the relevant data is currently locked.

For more information about how to use the *Web Service Utilities: Message Monitor*, see the application help for SAP NetWeaver at <http://help.sap.com/nw74> ► [Application Help](#) ► [Function-Oriented View](#) . Open the application help and choose ► [Application Server](#) ► [Application Server ABAP](#) ► [Application Development on AS ABAP](#) ► [ABAP Workbench - Classic](#) ► [ABAP Workbench Tools](#) ► [ABAP Web Services](#) ► [Operating Web Services](#) ► [Monitoring the Web Service Runtime](#) ► [Monitoring ABAP Web Service Messages](#) .

i Note

If an integration-related issue is not shown in the *Message Monitor* (**SRT_MONI**) or the information in the error log is not detailed enough for you to solve the issue, you can check the entries in the SAP Multiresource Scheduling application log.

To set up the SAP Multiresource Scheduling application log, you must configure the log in Customizing for SAP Multiresource Scheduling under ► [Basic Settings](#) ► [Define Logging](#) . When creating the log profile, use log area INTEGRATE.

30.1.3 Permanent Performance Monitoring

Use

You can record and monitor runtimes and memory consumption data for both the Scheduler Workplace in the SAP GUI and the Web-based planning board. In addition, you can delete the recorded data in the SAP Multiresource Scheduling system.

The following transactions and reports are provided:

Report	Transaction	Description
Runtime Performance Monitor (/MRSS/PPM_RUNTIME_BY_USER)	/MRSS/PPM_RUNTIME	You can use this report to display the runtime performance monitoring results. For more information, see the report documentation in the system.
Recording of Memory Consumption (/MRSS/PPM_MEMORY_RECORDING)	None	You can use this report to record memory consumption data in SAP Multiresource Scheduling. You must schedule this report as a periodic batch job. To display the data, you can use transaction /MRSS/PPM_MEMORY_GRA.
Memory Consumption Monitor (/MRSS/PPM_MEMORY_MONITORING)	/MRSS/PPM_MEMORY_MON	You can use this report to display the memory consumption data recorded by the /MRSS/PPM_MEMORY_RECORDING batch report. For more information, see the report documentation in the system.
Graphical Display of Memory Consumption (/MRSS/PPM_MEMORY_GRAPH)	/MRSS/PPM_MEMORY_GRA	You can use this report to graphically display the memory consumption data recorded by the /MRSS/PPM_MEMORY_RECORDING batch report. For more information, see the report documentation in the system.
Deletion of Performance Monitoring Data (/MRSS/CUP_PPM)	/MRSS/DELETE_PPM	You can use this report to delete the recorded performance monitoring and memory consumption data. For more information, see Deletion of Performance Monitoring Data [page 969].

Prerequisites

- You have activated permanent performance monitoring in Customizing for *SAP Multiresource Scheduling* under  [Basic Settings](#) .
- You are authorized to display the recorded performance and memory consumption data (authorization object /MRSS/PPM).

Features

Recording of Performance–Related Data

i Note

The recorded runtime reflects the runtime that is needed for initializing the SAP Multiresource Scheduling engine on the application server side. It does not include the runtime that is needed to build and deliver the UI to the user client.

When permanent performance monitoring is active, the system records the following runtime-related data:

- **Runtime for each start of the planning board**

When the planning board is started, the system records the following data:

- Start time stamp
- SAP user
- Application server
- Server name
- Transaction name or Web application name
- Number of loaded resources (personnel resources, tools, teams)
- Number of loaded complex demands
- Number of loaded single demands
- Number of loaded assignments
- Number of loaded time allocations
- Number of loaded alerts
- Resource start and end date
- Demand start and end date
- Runtime of the SAP Multiresource Scheduling start procedures (start and end of the engine initialization)

- **Runtime for each complete planning board refresh**

When a complete planning board refresh is performed, the system records the following data:

- Start time stamp
- SAP user
- Application server
- Server name
- Transaction name or Web application name
- Number of loaded resources (personnel resources, tools, teams)
- Number of loaded complex demands
- Number of loaded single demands
- Number of loaded assignments
- Number of loaded time allocations
- Number of loaded alerts
- Resource start and end date
- Demand start and end date
- Runtime of the SAP Multiresource Scheduling complete refresh procedures (start and end of refresh in the engine initialization)

- **Runtime for each delta refresh of the planning board**

When a delta refresh of the planning board is performed, the system records the following data:

- Start time stamp
- SAP user
- Application server
- Server name
- Transaction name or Web application name
- Number of additional resources that were loaded as a result of the refresh
- Number of additional complex demands that were loaded as a result of the refresh
- Number of additional single demands that were loaded as a result of the refresh
- Number of additional assignments that were loaded as a result of the refresh
- Number of additional time allocations that were loaded as a result of the refresh
- Number of all loaded alerts
- Resource start and end date
- Demand start and end date
- Runtime of the SAP Multiresource Scheduling delta refresh procedures (start and end of delta refresh in the engine initialization)

Recording of Memory Consumption Data

To record the memory that is consumed by the SAP Multiresource Scheduling application, you must schedule the [Recording of Memory Consumption](#) report (/MRSS/PPM_MEMORY_RECORDING) as a periodic batch job.

Using this report, you can record the following data:

- Time stamp
- Application server
- Server name
- Maximum available memory of the selected application server
- Total memory consumed by all planning board sessions that are currently running on the selected application server
- Total memory consumed by all other SAP application sessions that are currently running on the selected application server

30.1.4 Logging the Read Access to Resource-Related Data

Use

You can log all attempts made to display resource-related data. To display and delete the entries in the read access log, you can use the [Display and Deletion of Read Access Log Entries](#) report (/MRSS/SGE_RESOURCE_LOGS).

i Note

Read access logging is only relevant for personnel resources (HR persons and business partners). The access to resource data that is related to tools or teams is not logged.

Prerequisites

- You must activate read access logging in Customizing for *SAP Multiresource Scheduling* under ► *Basic Settings* ► *Configure Basic Settings* ►.
- You must be authorized to display the read access log entries (authorization object `/MRSS/LOG1`) and to delete the log entries (authorization object `/MRSS/LOG2`).

Features

You can log the attempt to access to resource-related data through multiple transactions and applications within SAP Multiresource Scheduling. This includes, for example, the attempt to display of qualifications or time allocation details, or the use of the Free Employee Search. Using the *Display and Deletion of Read Access Log Entries* report, you can access the log entries. The display and deletion of log entries is also logged.

The following information is logged and stored in database table `/MRSS/D_READ_LOG`:

- Date and time of access
- User who accessed the data
- Resource ID of the resource whose data was accessed
- Name of the resource whose data was accessed
- Attribute of the resource whose data was accessed
- Application that accessed the data
- Functionality within the application that triggered the access

30.2 Administration and Management

30.2.1 Operation of Web-Based Applications in SAP Multiresource Scheduling

This section contains information that is related to the operation of the Web-based applications provided for SAP Multiresource Scheduling. Some of these applications are based on the Web Dynpro for ABAP technology. Others are based on SAP UI5.

The following applications are based on the Web Dynpro for ABAP technology:

i Note

We strongly recommend that you read the operations information available for Web Dynpro for ABAP first. This information is provided with the documentation for your SAP NetWeaver release. You can access this information on SAP Help Portal at <http://help.sap.com/nw>.

- [Web-Based Planning Board](#) (/MRSS/WD_SGX_LEAN_PLB)
- [Web-Based Resource Management](#) (/MRSS/RM_MAINFRAME)
- [Resource Assignment List](#) (/MRSS/WD_RAL_MAIN)
- [N. N. Resource Maintenance](#) (/MRSS/WD_NN_RES_MAINT)
- [Capacity and Demand Overview](#) (/MRSS/WD_CAR_MAIN)

The following applications are based on SAP UI5:

- SAP UI5 Gantt chart
- The apps for SAP Multiresource Scheduling:
 - [Global Demand Search](#)
 - [My Assignments](#)
 - [Find Expertise](#)
 - The apps for Web-based resource management (for example, [My Requests](#), [My Schedule](#), [Published Roles](#))

Prerequisites

For more information about platforms, operating systems, and browser support for Web Dynpro for ABAP, see the Product Availability Matrix (PAM) for your SAP NetWeaver release. You can access the PAM at <http://support.sap.com/pam> .

For more information about the required software components, see the administration guide for SAP Multiresource Scheduling.

Related Information

[Activating ICF Services \[page 916\]](#)

[Operation of the Web-Based Planning Board \[page 918\]](#)

[The UI5 Gantt Chart \[page 180\]](#)

[Apps for SAP Multiresource Scheduling \[page 722\]](#)

30.2.1.1 Activating ICF Services

Before you can use the Web-based applications provided for SAP Multiresource Scheduling, you must activate the required ICF services.

Context

You must activate ICF services for the following applications:

- [Web-Based Planning Board](#) (including the UI5 Gantt chart)
- [Web-Based Resource Management](#)
- [Resource Assignment List](#)
- [N. N. Resource Maintenance](#)
- [Capacity and Demand Overview](#)
- All apps for SAP Multiresource Scheduling (such as [My Assignments](#), [Find Expertise](#), or the apps for Web-based resource management)

i Note

For more information about the Internet Communication Framework (ICF), see the documentation on SAP Help Portal at <http://help.sap.com/nw>. Open the product page for your SAP NetWeaver release and use the search term **ICF services**.

Procedure

1. Execute the [Maintain Services](#) transaction (transaction code **SICF**).
2. In the [Hierarchy Type](#) field, enter `SERVICE`.
3. In the [Virtual Host](#) field, enter **DEFAULT_HOST**.
4. In the [Service Path](#) field, open the input help. Expand the [default_host](#) node.
5. Depending on the application that you want to use, expand the relevant node and select the service you want to activate.

i Note

Instead of using the input help in the [Service Path](#) field, you can speed up the process by using the [Service Name](#) field. Just enter the name of the service or of the relevant node (for example, [mrss](#)) and choose the clock icon button (Execute) to quickly locate the service in the [default_host](#) tree.

Application	Path	ICF Service
Web-Based Planning Board (/MRSS/ WD_SGX_LEAN_PLB)	default_host > sap > bc > webdynpro > mrss	/MRSS/WD_SGX_LEAN_PLB
	If you want to show the employee profile in the Web-based planning board: default_host > sap > bc > webdynpro > mrss	/MRSS/DPR_EMPPRF
	If you want to use the Web-based planning board with the UI5 Gantt chart, you must activate services under the following nodes: default_host > sap > bc > ui5_ui5 > mrssui5g	ui5_gantt
	default_host > sap > bc > bsp > mrssui5g	ui5_gantt
	default_host > sap > bc > ui5_ui5 > ui2	All services under this node
	default_host > sap > public > bc > ui5_ui5	All services under this node
Resource Management (/MRSS/ RM_MAINFRAME)	default_host > sap > bc > webdynpro > mrss	/MRSS/RM_MAINFRAME /MRSS/RM_MAINFRAME_CORP /MRSS/DPR_EMPPRF /MRSS/OR_RMOR_REPORT_MIAN /MRSS/WD_REQ_DETAIL /MRSS/WD_REQ_DETAIL_MYVIEW /MRSS/RM_CAND_UTILITIES_TSPEC
Resource Assignment List (/MRSS/ WD_RAL_MAIN)	default_host > sap > bc > webdynpro > mrss	/MRSS/WD_RAL_MAIN
N. N. Resource Maintenance (/MRSS/ WD_NN_RES_MAINT)	default_host > sap > bc > webdynpro > mrss	/MRSS/WD_NN_RES_MAINT

Application	Path	ICF Service
<i>Capacity and Demand Overview</i> (/MRSS/WD_CAR_MAIN)	▶ default_host ▶ sap ▶ bc ▶ webdynpro ▶ mrss ▶	/MRSS/WD_CAR_MAIN

i Note

For more information about ICF services required for the apps for SAP Multiresource Scheduling, see the implementation information for the respective app. You can find this information under *Apps for SAP Multiresource Scheduling*.

6. Right-click the service and choose *Activate Service*.

i Note

To activate all services under a specific node, right-click the relevant node.

Related Information

[Apps for SAP Multiresource Scheduling \[page 722\]](#)

30.2.1.2 Operation of the Web-Based Planning Board

Find out more about how to manage and run the Web-based planning board. The information in this section applies regardless of whether you want to use the Web-based planning board with the JGantt chart or the UI5 Gantt chart.

i Note

Refer to SAP Note [1616659](#) for general recommendations and important hints regarding the use of the Web-based planning board.

Prerequisites

Before you can start using the Web-based planning board, you must activate the required ICF services.

If you want to use the Web-based planning board with the UI5 Gantt chart, make sure that the required software component (MRSS_UI5GT) is in place.

Related Information

[Activating ICF Services \[page 916\]](#)

[Notes on Using JNet \[page 919\]](#)

[Configuring the Display of Staffing View Variants \[page 920\]](#)

[Configuring the Direct Entry into the Web-Based Planning Board \[page 921\]](#)

[Displaying Transactions Using the SAP GUI for HTML \[page 922\]](#)

[Displaying Additional Attributes for Required Qualifications \[page 923\]](#)

[Setting Up the UI5 Gantt Chart \[page 181\]](#)

30.2.1.2.1 Notes on Using JNet

The following information is only relevant if you use the JGantt chart for the display of the Web-based planning board, that is, you have not activated the UI5 Gantt chart.

- Refer to SAP Note [1616659](#)  for general recommendations and important hints regarding the use of the Web-based planning board.
- Make sure that you have installed the up-to-date JNet version in order to operate the Web-based planning board. For more information, see SAP Note [1035436](#) .
- The Java Virtual Machine's memory consumption and runtime behavior caused by JNet/JGantt depends on the number of loaded objects. If the number of objects is very large, runtime can be very slow, and program terminations may occur due to insufficient memory availability.
- The system behavior has to be tested in each individual case; it depends mainly on the number of rows, the number of objects (assignments, time allocations) that are being displayed, the settings for the display of working times as well as customer-specific column enhancements and tooltips.
- If the system issues security warnings when you launch the Web-based planning board, see the following SAP Notes:
 - See SAP Note [1957772](#)  if you are running an SAP NetWeaver version between SAP NetWeaver 7.0 and SAP NetWeaver 7.30.
 - See SAP Note [1925833](#)  if you are running an SAP NetWeaver version between SAP NetWeaver 7.31 and SAP NetWeaver 7.40.

Note that you can only implement these SAP Notes if the following minimum system requirements are fulfilled:

SAP Note	Valid for SAP NetWeaver Release	Minimum Required Support Package
1957772 	7.0	SP 19
	7.01	SP 05
	7.02	SP 07
	7.10	SP 07

SAP Note	Valid for SAP NetWeaver Release	Minimum Required Support Package
1925833 	7.11	SP 10
	7.30	SP 02
	7.31	SP 01
	7.40	SP 01

30.2.1.2.2 Configuring the Display of Staffing View Variants

Use

You must perform the configuration steps described in this chapter in order to display the three default staffing view variants in the dropdown box that is available in the *Staffing View* screen area.

Prerequisites

You have copied the default delivery Customizing to your system.

Features

The following views are delivered with SAP Multiresource Scheduling:

- Default View
- Demand View
- Resource View

When in staffing view, you can switch between the views using the *View* dropdown box. Due to a technical limitation, the entries in the dropdown box cannot be transported but have to be created manually in each system and client.

Procedure

To configure the view descriptions in your system, proceed as follows:

1. Call up Web Dynpro component /MRSS/WD_SGX_LEAN_PLB using transaction SE80.
2. In the object list, expand the *Web Dynpro Applications* node and double-click on Web-Dynpro application /MRSS/WD_SGX_LEAN_PLB.

3. In the application menu, choose **Web Dynpro Application** > **Test** > **In Browser – Admin Mode**.
The system opens the Web-based planning board in Customizing mode and displays the selection screen.
4. Open the Web-based planning board and switch to the staffing view.
If you click in the **View** dropdown box, no entries are displayed for the delivered views.
5. Select the first position in the list (blank) and choose the **Open Settings Dialog** icon.
The **Settings** dialog box opens.
6. Choose **Properties...** and enter the description as “Default View”. Confirm your entry.
The **Select Transport Request** dialog box opens. Make sure to select the **No Transport Request** radio button.
7. In the **Settings** dialog box, choose **Apply** and then **OK**.
Check that the first entry is displayed as **Default View** in the **View** dropdown box.
8. Select the second position (blank) below the newly created entry and proceed as described in steps 5 to 7 to create the entry for the demand view.
9. Select the third position (blank) below the newly created entry and proceed as described in steps 5 to 7 to create the entry for the resource view.

i Note

Make sure to create the entries in exactly this sequence.

Result

The dropdown list that is available for the **View** field in the **Staffing View** screen area contains the following entries:

- Default View
- Demand View
- Resource View

30.2.1.2.3 Configuring the Direct Entry into the Web-Based Planning Board

If you want to configure the direct access to the Web-based planning board, you can use an interface inbound plug provided by Web Dynpro component /MRSS/WD_SGX_LEAN_PLB. Another Web Dynpro component must call the plug **DIRECT_ENTRY** in window **W_PLANNING_BOARD** and fill the following input parameters:

- General input parameters
 - Skip selection screen
Using this selection parameter, you can skip the selection screen. The Web-based planning board is displayed directly for the selected resources and demands.
 - Input parameters for resource selection
 - Organizational unit
 - Personnel number
 - Time frame

- Input parameters for demand selection
 - Organizational unit
 - Demand number
 - Time frame

These parameters must be passed on in XML format as defined in interface `CONVERT_SELECTION_TO_XML` of class `/MRSS/CL_SGX_DIRECT_ENTRY_SER`.

30.2.1.2.4 Displaying Transactions Using the SAP GUI for HTML

Use

Provided that the required Customizing settings are in place, you can navigate from the Web-based planning board to the sources of the demands that are displayed in the planning board (for example, the underlying PM orders or PS networks). To use this function, you must configure the SAP GUI for HTML. The system uses the SAP GUI for HTML technology to display the “classical” SAP GUI transactions.

For more information, see the following resources:

- For information about the functions and limitations of the SAP GUI for HTML, see SAP Note [314568](#).
- For information about the activation of the prerequisite services, see the SAP Library documentation on SAP Help Portal at <http://help.sap.com/nw> ► *<Your NetWeaver Release>* ► *Application Help* ► *Function-Oriented View* ► In SAP Library, choose ► *Application Platform by Key Capability* ► *ABAP Technology* ► *UI Technology* ► *Web UI Technology* ► *SAP ITS in SAP NetWeaver Application Server* ► *Installation and Activation* ►.

More Information

[Navigating to the Source of a Demand \[page 232\]](#)

30.2.1.2.5 Displaying Additional Attributes for Required Qualifications

Context

You can include additional attributes when displaying the required qualifications for a demand. These additional attributes are displayed on the [Additional Attributes](#) tab when you call up the [Required Qualifications](#) dialog box for a demand in the Web-based planning board.

Procedure

1. Start the Object Navigator ([SE80](#)). Create a Web Dynpro component in the customer namespace implementing Web Dynpro interface `/MRSS/SGX_WD_IF_CUSTOM`.
2. Fill the interface view `WD_IF_CUSTOM_REQM`.
3. Implement the `SET_DATA` interface method.
4. Activate the display of additional attributes in Customizing for SAP Multiresource Scheduling under ► [Set Up Scheduler Workplace](#) ► [Workplace Profiles](#) ► [Web-Based User Interface](#) ► [Define Profiles of the Web-Based User Interface](#) ► for the relevant profile.

30.2.2 Integrating Additional Data for Demands

Use

You can include additional data that is not integrated by default when transferring demands from their source system to SAP Multiresource Scheduling. This document describes what you have to do to display this data in custom fields for a demand in SAP Multiresource Scheduling.

Activities

Setting Up the Integration of Additional Data

Before you start, make sure that the required fields in which to include the additional data are available in the demand source system. If the required fields are not available, you must enhance the demand (for example, the service order) in the source system first.

Once the fields are available in the source system, proceed as follows:

1. In SAP Multiresource Scheduling, define the required fields in one of the Customer Includes (CIs) provided by SAP. In the CI, you map the relevant fields used in the source of demand to the new custom fields that you want to use in SAP Multiresource Scheduling.

→ Recommendation

SAP provides Customer Includes `CI_INFO`, `CI_PLR`, and `CI_PLRS`. We recommend that you use `CI_INFO`. The fields you define in this CI can be included in the Scheduler Workplace (SAP GUI) and in the Web-based planning board.

i Note

If the demand interface structure in SAP Multiresource Scheduling already includes a field to which you can map the original field, you do not need to define a custom CI field.

Please note that the mapping is always defined at demand item level.

2. To fill the fields with data during the demand integration in SAP Multiresource Scheduling, implement the relevant Business Add-In, depending on the integration scenario. SAP provides the following BADIs:

Integration Scenario	Business Add-In	Path in Customizing
Plant Maintenance and Customer Service (PM/CS)	<i>BAdI: Integration of Maintenance/Service Order with MRS (ERP) (/MRSS/RSG_PM_INT)</i>	Customizing for SAP Multiresource Scheduling under ► Enhancements ► Sources of Demand ► PM/CS Service Orders ►
	<i>BAdI: Control Integration of PM/CS Notifications (ERP) /MRSS/SNO_NOTIF_INT</i>	Customizing for SAP Multiresource Scheduling under ► Enhancements ► Sources of Demand ► PM/CS Notifications ►
Project System (PS) and Web-Based Resource Management (RM)	<i>BAdI: Network Integration with MRS (ERP) /MRSS/RAP_PS_INT</i>	Customizing for SAP Multiresource Scheduling under ► Enhancements ► Sources of Demand ► Networks ►
SAP Customer Relationship Management (SAP CRM)	CRM_MRS_CI_INCLUDE	Available in your SAP CRM system, but not included in the Customizing structure For more information, see SAP Note 2010569  .

Integration Scenario	Business Add-In	Path in Customizing
SAP Portfolio and Project Management (Collaboration Projects)	<i>BAdI: Integration of cProjects with MRS (/MRSS/DPR_CPRO_INT)</i>	Customizing for SAP Multiresource Scheduling under ► Enhancements ► Sources of Demand ► SAP Portfolio and Project Management (Collaboration Projects) ►

Note

As an alternative to filling the fields during demand integration, you can also define classes in Customizing to determine the required data in the planning board session. However, determining data in this way may impact system performance. Therefore, we recommend that you determine and fill any custom fields when integrating the demand in SAP Multiresource Scheduling.

After you have set up the integration of additional data and defined the required fields, you must make settings to show these fields on the UI.

Displaying Additional Fields in the Web-Based Planning Board

You can display additional fields in the following areas of the Web-based planning board:

- In the demand list ([Demands](#) screen area)
 - In the staffing view
 - In the table area of the demand view Gantt chart
 - On an additional tab in the demand details
- Depending on where you want to display the custom fields, make the following settings:
 - To enable the display of custom fields in the Web-based planning board, add these fields in Customer Include `CI_SGW_DEM`.
 - To specify which fields are shown in the **demand view**, you must also make settings for each relevant UI profile.
You do so in Customizing under ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Worklist Profiles](#) ► [Web-Based User Interface](#) ► [Define Profiles of the Web-Based User Interface](#) ► (folder [Add Worklist Fields in Demand View](#)).
 - To include custom fields on the [Additional Attributes](#) tab in the **demand details**, you must also make settings for each relevant UI profile.
You do so in Customizing under ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Worklist Profiles](#) ► [Web-Based User Interface](#) ► [Define Profiles of the Web-Based User Interface](#) ►. For more information, see [Configuring the Display of Custom Fields for a Demand](#) [page 927].
 - Define how the additional fields are filled by implementing Business Add-In [Filling of Additional Fields for Demands](#) (/MRSS/SGX_DEMAND_FIELDS).
The BAdI is available in Customizing under ► [Enhancements](#) ► [Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Web-Based User Interface](#) ►. For more information, see the BAdI documentation.

Displaying Additional Fields in the Scheduler Workplace (SAP GUI)

You can display additional fields in the demand planning layout as well as in the resource planning layout of the Scheduler Workplace (SAP GUI).

Make the following settings in Customizing under ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Workplace Profiles](#) ► [Worklist Profile](#) ⌵:

1. In Customizing activity [Define the Fields in the Worklist](#), create the required fields.

i Note

To determine how the fields are filled, you can assign each field a class. However, for performance reasons, we do not recommend this approach for custom fields. Instead, we recommend that you use Customer Includes (CIs) to specify the required fields and Business Add-Ins to fill these fields during the demand integration in SAP Multiresource Scheduling.

2. In activity [Assign Fields from Generic Demand](#), you map the relevant worklist fields to the relevant CI fields.
3. In Customizing activity [Create Worklist Profile](#), create worklist profiles and specify for each profile where the fields are to be shown:
 - In the resource planning layout, you can include the fields in the item worklist.
 - In the demand planning layout, you can include the fields in the table area of the Gantt chart.
 - You can also include the fields in the table-based resource planning layout.

You then assign the worklist profiles you created to the required planning board profiles. You do so in Customizing under ► [Set Up Scheduler Workplace \(SAP GUI\) and Web-Based Planning Board](#) ► [Workplace Profiles](#) ► [Define Planning Board Profile](#) ⌵.

❖ Example

You want to add two fields, [Total Work](#) and [Total Work Unit](#), to the worklist in the Scheduler Workplace (SAP GUI). These fields are included in demand substructure PLR. Proceed as follows:

1. In the [Define the Fields in the Worklist](#) activity, you create two entries with the following attributes:

Field Name	TOTAL_WORK	TOTAL_WORK_UNIT
Description	Total Work	Total Work Unit
Data Element	/MRSS/T_SGE_TOTAL_WORK	/MRSS/T_SGE_TOTAL_WORK_UNIT

2. In the [Assign Fields from Generic Demand](#) activity, you create the following entries:

Field Name	Subobject	Field Name
TOTAL_WORK	PLR	TOTAL_WORK
TOTAL_WORK_UNIT	PLR	TOTAL_WORK_UNIT

3. In the [Create Worklist Profile](#) activity, you open the relevant worklist profile and the [Fields in Item Worklist](#) folder. Enter the newly created fields and their description.
4. Open the Scheduler Workplace (SAP GUI). Adjust your item worklist layout by adding the new fields to the displayed column set.

More Information

- SAP Note [1920379](#) 
- [Configuring the Display of Custom Fields in the Demand Details](#) [page 927]

30.2.2.1 Configuring the Display of Custom Fields in the Demand Details

Prerequisites

You must set up the integration of additional data first. For more information, see [Integrating Additional Data for Demands](#) [page 923].

Context

In the Web-based planning board, in addition to including custom fields in the demand view and the demand list, you can add fields in the demand details. These fields are shown on the *Additional Attributes* tab.

Procedure

1. Start the Object Navigator ([SE80](#)). Create a Web Dynpro component in the customer namespace implementing Web Dynpro interface `/MRSS/WDIF_SGX_DEM_FIELDS`.
2. Fill the interface view `WIF_DEM_FIELDS`.
3. Implement the `SET_DATA` interface method.
4. Activate the display of the additional fields in Customizing for *SAP Multiresource Scheduling* under **► Set Up Scheduler Workplace ► Workplace Profiles ► Web-Based User Interface ► Define Profiles of the Web-Based User Interface ►** for the required profiles.

You can find the relevant settings in the *Maintain Profiles of the Web Interface* folder. Select the *Show Custom Fields* checkbox and enter the name of the Web Dynpro component.

30.2.3 Appointment Booking

Use

Customer service employees can use appointment booking to book appointments for service orders from SAP CRM and Plant Maintenance (PM) and Customer Service (CS). First the customer reports the demand and the required period in which the service should be carried out. Then the service employee determines a suitable appointment and informs the customer of it.

In SAP Multiresource Scheduling, you can set up appointment booking for demands from SAP CRM and PM/CS. For more information, see [Appointment Booking with a CRM Service Order \[page 497\]](#) and [Appointment Booking with a PM/CS Order \[page 254\]](#).

More Information

[Appointment Booking Types \[page 928\]](#)

[Using Appointment Interval Groups \[page 945\]](#)

[Management of Internal and External Resources \[page 931\]](#)

[Determining Blocked Periods \[page 934\]](#)

[Entering Appointments for Spare Parts Delivery \[page 935\]](#)

[Assigning Service Areas \[page 936\]](#)

[Search Strategies for Appointment Booking \[page 937\]](#)

[Management of Capacity Pots \[page 939\]](#)

[Creating Capacity Pots \[page 944\]](#)

[Deleting Capacity Pots \[page 945\]](#)

[Appointment Booking with a CRM Service Order \[page 497\]](#)

[Appointment Booking with a PM/CS Order \[page 254\]](#)

30.2.3.1 Appointment Booking Types

Use

You can use appointment booking types to control how the system assigns appointments for service assignments. For example, you can specify that a resource is hardbooked for an assignment when the appointment is booked and the assignment is automatically created in [SAP Multiresource Scheduling](#).

Features

You can define which of the following appointment booking types are to be used for each order type.

Automatic Creation of the Assignment for the Resource Planning Node

A service employee specifies an appointment based on the order and chooses an interval. The system then automatically creates the demand and assignment on the earliest possible date within the appointment time frame, that is, the resource is automatically assigned to the order.

This appointment booking type is supported for PM/CS orders only. CRM orders are not supported.

Note

For more information about the resource search, see [Search Strategies for Appointment Booking \[page 937\]](#).

Resource Capacity

This appointment booking type allows you to use internal and external time-based resources as well as external service providers to plan resources for orders. You can also control the utilization, that is, you can utilize all internal resources first and then external ones. The service employee chooses the resource directly when the appointment is booked.

You can book the following resource types for this appointment booking type:

- **HR persons (internal or external time-based resources)**
The system uses the Business Add-In (BAI) /MRSS/HCM_RES_INT to determine whether the HR person works internally or externally on a time basis, that is, whether the person works according to a work or shift schedule.
- **Business partners (internal or external time-based resources as well as external service providers)**
For the business partner, you specify in Customizing whether the resource is internal and time-based, external and time-based, or an external service provider that works on a time frame basis, that is, is available for a specific time frame for a certain number of orders rather than for fixed times.

A distinction can be made between the following:

- **Time-based internal or external resources**
The resource capacity of the time-based resources includes the availability of all HR resources and business partners that are deployed for fixed working times – including shifts – and assigned to orders. The basis of the capacity of these resources is the HR infotype 7 (Planned Working Time) for HR persons or the MRS shift schedule for business partners.
To manage MRS shift schedules for business partners, use transaction /MRSS/RES_DET_MAINT. For more information, see [Management of Internal and External Resources \[page 931\]](#).
- **Time frame-based external service providers**
External service providers offer time frames for a certain number of orders. The service employee can use this exact timeframe to place an order when an appointment is booked.
For external service providers, you can also enter an order limit up to which they can be overbooked. If the service employee has special authorization (authorization object /MRSS/OVB), these time frames are then available for the order placement when booking an appointment.
For this purpose, the external service provider must be created as a business partner in the system and assigned the role of external service provider in transaction BP.
The basis for the capacity of the external service providers are the time frames. You manage these with transaction /MRSS/RES_DET_MAINT.

For more information, see [Management of Internal and External Resources \[page 931\]](#).

i Note

For more information about the resource selection, see [Search Strategies for Appointment Booking \[page 937\]](#).

Planning Node Capacity

The basis for this capacity are capacity pots. A capacity pot models every day the total available capacity in minutes of the resources for an assigned planning node. When service employees book an appointment, they focus on searching for availability within a planning node rather than on the resource assignment.

If five employees work from 8 a.m. to 4 p.m. every day, for example, the capacity of the planning node is 40 hours per day. This capacity is available for booking appointments for service assignments.

i Note

The resources of a capacity pot must belong to the same time zone because the time zone of a capacity pot is determined by the planning node.

i Note

A qualification profile from [SAP Multiresource Scheduling](#) must be assigned to the qualification category in the system. HR qualifications are not supported. You cannot use a qualification category for CRM orders. The capacity must be managed at planning node level.

For more information, see [Management of Capacity Pots \[page 939\]](#).

Activities

Customizing Settings

You configure the appointment booking types in Customizing for [SAP Multiresource Scheduling](#) under [► Appointment Booking ► Determine Appointment Booking Type ►](#). You configure the required appointment booking type for each order type.

You can also carry out the [Planning Node Capacity](#) and [Resource Capacity](#) appointment booking types consecutively. To do so, enter the order as follows:

Order type	Operation Type	Appointment Booking Type	Sequence Number
PM01	PM01	Planning Node Capacity	1
PM01	PM01	Resource Capacity	2

In this case, the system first searches for planning node dates. If the planning node cannot offer any more dates because the internal, time-based resources of the planning node are fully utilized, the system then searches for dates of external service providers. For this purpose, the resource capacity must contain external service providers only and must not consist of internal, time-based resources. The system supports only this sequence combination.

i Note

Only one operation or one item for each order can be used for appointment booking. Appointment booking for multiple operations is not supported. Appointment booking does not take relationships between operations into account.

Resource Integration

You manage the resources and time frames in transaction `/MRSS/RES_DET_MAINT`. For more information, see [Management of Internal and External Resources \[page 931\]](#).

Capacity Pots

You create capacity pots in transaction `/MRSS/POT_CREATE`. For more information, see [Creating Capacity Pots \[page 944\]](#).

30.2.3.2 Management of Internal and External Resources

Use

As resources, you can use business partners or HR persons.

You can also maintain external service providers as resources who can take on a certain number of orders per day. When booking appointments, each resource is then no longer displayed individually but the service provider represents an external resource with a certain capacity.

You can also manage shift schedules for normal and special shifts, both for internal and external resources that have been created as business partners.

Prerequisites

- **HR persons**
 - You have implemented the Business Add-In (BAI) `/MRSS/HCM_RES_INT` for internal or external time-based resources.
 - You can transfer the HR persons to the [SAP Multiresource Scheduling](#) system with the HR transfer report (`/MRSS/HCM_RPTWFMIF`). For more information, see [Availability Transfer Between SAP HR and SAP Multiresource \[page 79\]](#).
- **Business partners**
 - You have created business partners in transaction `BP` and assigned a relevant role to them that identifies them as internal time-based, external time-based, or external service providers.
 - You have transferred the business partners to the [SAP Multiresource Scheduling](#) system with the `/MRSS/WFM_MASTERDATA_ADMIN` transfer report for business partners.

i Note

If you are transferring an internal or external time-based resource with the transfer report for business partners and have assigned an MRS shift schedule to the resources in transaction `/`

MRSS/RES_DET_MAINT, you do not need to enter any details about time allocations in the transfer report. Instead, select the *Retrieve Planned Working Time* checkbox so that the system uses the MRS shift schedules as a basis for the time allocations.

- In Customizing for *SAP Multiresource Scheduling*, you have assigned role types to the business partners under ► *Resource Integration* ► *Assign Role Type to Business Partner* ► and created resource groups under *Manage Resource Groups*.
- In Customizing for *SAP Multiresource Scheduling*, you have made all necessary settings under ► *Resource Integration* ► *Rules for MRS Shift Schedules* ►.
For more information, see the documentation in the system.
- If the *Resource* pot scenario is active (Customizing activity *Select Scenario for the Use of Capacity Pots*), all users who are to run the availability transfer reports (/MRSS/HCM_RPTWFMIF or /MRSS/WFM_MASTERDATA_ADMIN) must be assigned authorization object /MRSS/POT. This is because in this scenario, the system creates or updates capacity pots for individual resources whenever the transfer report is run.
Make sure to enter an asterisk (*) instead of a concrete object ID to cover the authorization at resource level.

Features

HR persons as internal or external time-based resources

The basis for the capacity of these resources is the daily work schedule from HR, which is determined from the related work schedule rule from infotype 0007 (*planned working time*).

Business partners as internal or external time-based resources

The basis for the capacity of these resources is a period work schedule which you define in Customizing for *SAP Multiresource Scheduling* under ► *Resource Integration* ► *Rules for MRS Shift Schedules* ► *Manage MRS Period Work Schedule* ►. You can use these work schedules for business partners to specify shifts. To do this, also create work schedule rules for normal or special shifts in Customizing.

i Note

You can also specify flexible breaks for business partner resources. You do in Customizing activity *Manage MRS Break Schedule*. For more information, see the documentation in the system.

To assign MRS work schedules to individual resources, proceed as follows:

1. Call transaction /MRSS/RES_DET_MAINT.
2. Select the relevant *Business Partner*.
3. Choose ENTER.
4. Select a *Resource Group*.
5. Select an MRS Work Schedule Rule.
6. Choose *Save*.

Business partners as external service providers with one time frame per day

The basis for the capacity of these resources are time frames. You assign these to the resource in transaction /MRSS/RES_DET_MAINT.

To define the time frame per day and thus determine the availability of the resource, proceed as follows:

1. Call transaction `/MRSS/RES_DET_MAINT`.
2. Select the relevant Business Partner.
3. Choose ENTER.
4. Select a [Resource Group](#).
5. Select a [Validity Period](#).
6. Determine the capacity:
 - Select the week number and the weekday.
 - Select a time frame for a weekday, a start time, and a finish time, and select the [Full Day](#) checkbox if it is a full-day interval.
 - You can also define a maximum number of orders as well as an order limit up to which a resource can be overbooked. Enter a figure for both the maximum number of orders that the resource can take on and a number up to which it can be overbooked. If the service employee has special authorization (authorization object `/MRSS/OVB`), these time frames are then available to place an order when an appointment is booked.
If the limit for accepting orders is 3 and the limit for overbooking is 4, the resource can be overbooked with 1 order.
 - You can assign a service area to the resource. To do so, select a service area with the input help. You can also assign various service areas to a resource. For example, you can determine that a resource works from Monday to Wednesday in service area A and from Thursday to Friday in service area B.
When service employees create service orders for customers, they can use the search strategy to search for resources within the service area of the customer from the service order.
 - You can assign a priority from 10 (low) to 1 (high) to the resource. You can use the priority to influence the result of the resource weighting and thus determine which resources are displayed in the upper part of the scheduling list.
7. Choose [Save](#).

You can use the [Display Capacity per Date](#) pushbutton to display the capacity of the resource and – if necessary – override the capacity on a day-to-day basis.

Business partners as external service providers with parallel time frames per day

The basis for the capacity of the external service providers are time frames. You define how many orders can be assigned to this external resource. This is done on a time frame basis. This means that the service employee uses time frames to specify that a certain number of orders will be completed within a time frame. You can be flexible and define that the external service provider can take on, for example, 4 orders in the morning and 6 orders in the afternoon. The time frames can also overlap as the service provider makes several resources available for assignments.

To assign the time frames to an external service provider, proceed as follows:

1. Call transaction `/MRSS/RES_DET_MAINT`.
2. Select the relevant Business Partner.
3. Choose ENTER.
4. Select a [Resource Group](#).
5. Select a [Validity Period](#).
6. Determine the capacity:
 - Select the week number and the weekday.

- Select a time frame for a weekday, a start time, and a finish time, and select the *Full Day* checkbox if it is a full-day interval.
You can define further time frames.
- You can also define a maximum number of orders as well as an order limit up to which a service provider can be overbooked. Enter a figure for both the maximum number of orders that the service provider can take on and a number up to which it can be overbooked. If the service employee has special authorization (authorization object /MRSS/OVB), these time frames are then available to place an order when an appointment is booked.
If the limit for accepting orders is 3 and the limit for overbooking is 4, the service provider can be overbooked with 1 order.
- You can assign a service area to the service provider.
- You can assign a priority from 10 (low) to 1 (high) to the resource.

7. Choose *Save*.

You can use the *Display Capacity per Day* pushbutton to display the capacity of the resource and – if necessary – override the capacity on a day-to-day basis.

❖ Example

An external service provider provides services from 01.01.2011 until 31.12.2011. On Mondays between 08:00 and 17:00, the service provider can take on 5 orders, from Tuesdays to Thursdays 6 orders, and on Friday only 4 orders within the same daily time frame.

In the *SAP Multiresource Scheduling* planning board, the system displays the service provider as an external service provider. The assignments are displayed capacitively as the exact time is irrelevant. External service provider assignments are all in parallel, whereas concrete time specifications are displayed for internal resources.

Output

To transfer the business partners to the *SAP Multiresource Scheduling* system, use the /MRSS/WFM_MASTERDATA_ADMIN transfer report. Under *Options*, select the *Retrieve Planned Working Time* checkbox.

More Information

[Determine Blocked Period \[page 934\]](#)

[Entering Appointments for Spare Parts Delivery \[page 935\]](#)

[Assigning Service Areas \[page 936\]](#)

30.2.3.3 Defining Frozen Periods

Use

In transaction /MRSS/RES_DET_MAINT on the *Frozen Period* tab page, you can specify in which period a resource is to be frozen. In the planning board for *SAP Multiresource Scheduling*, the resource planner cannot

make any changes to the assignments and time assignments of the resource in the frozen period. The system also does not show the service employee any appointments for the resource in the frozen period when appointments are booked. Only the period after the frozen period can be used for resource planning and appointment booking.

This means that technicians, for example, can synchronize the assignment data to their mobile devices the previous evening and assume that the assignment dates within the frozen period will remain the same (for example, the scheduler will not shift any assignments).

If schedulers or service employees have special authorization (/MRSS/FROZ), they are allowed to create assignments and change or assign appointments irrespective of the frozen period.

Prerequisites

In Customizing for *SAP Multiresource Scheduling* under ► *Resource Integration* ► *Determine Blocked Period* ►, you have entered the frozen periods.

In transaction /MRSS/RES_DET_MAINT, you have managed resources and assigned time windows or an MRS work schedule rule to these resources. For more information, see [Management of Internal and External Resources \[page 931\]](#).

Procedure

To specify the period in which the resource is to be frozen, proceed as follows:

1. Call transaction /MRSS/RES_DET_MAINT.
2. Choose the *Frozen Period* tab page.
3. Specify how many days into the future or, if required, into the past, the frozen period is to extend.
4. Specify the time on the current day as of which the resource is to be frozen.
5. Choose *Save*.

30.2.3.4 Entering Appointments for Spare Parts Delivery

Use

In transaction /MRSS/RES_DET_MAINT on the *Delivery Rule for Spare Parts* tab page, you can specify on which working days (for example, every second Monday) a spare parts supplier can deliver spare parts. The system can take this into account in appointment booking for a service assignment.

For example, if a spare part for an order has to be delivered to a technician, the earliest possible delivery date affects the dates that can be selected when the appointment is booked.

Prerequisites

In Customizing for *SAP Multiresource Scheduling* under ► *Resource Integration* ► *Manage Spare Parts Suppliers* ►, you have entered the spare part supplier.

In transaction /MRSS/RES_DET_MAINT, you have managed resources and assigned either time windows or a work schedule rule to these resources. For more information, see [Management of Internal and External Resources \[page 931\]](#).

Procedure

Proceed as follows:

1. Call transaction /MRSS/RES_DET_MAINT.
2. Choose the *Delivery Rule for Spare Parts* tab page.
3. Select a *Supplier*.
4. Choose a date as of which delivery is possible and on which weekday of the following week the spare part can be delivered.
5. Select a lead time.
6. Choose *Save*.

30.2.3.5 Assigning Service Areas

Use

You can use transaction /MRSS/SRVA_MAINTAIN to assign a service area to an internal or external resource created as an HR person or as a business partner in the system.

You can also assign various service areas to a resource. For example, you can specify that a resource is to work from Monday to Wednesday in service area A and from Thursday to Friday in service area B, or you can specify validity periods (such as Summer and Winter) for each service area for the resource.

Service areas can be used as search strategies for appointment booking to determine resources within the customer's service area.

Prerequisites

You have created resources and managed these according to resource type. For more information, see [Management of Internal and External Resources \[page 931\]](#).

You have implemented the Business Add-In (BAI) *MRSS/RES_SERVICE_AREA* and entered service areas. The service area can be determined, for example, based on geographic criteria.

Procedure

1. Call transaction `/MRSS/SRVA_MAINTAIN`.
2. Select a service area.
3. Choose ENTER.
4. Select the required attributes for the service area, for example, whether labor costs are high, no service is offered, or whether the location is remote.
Also specify the maximum distance within the service area and the average speed, for example, according to the road infrastructure. This can be taken into account when the appointment is booked.
5. If you want to enter a message, for example, to note special features for a service area, you can enter a language-specific text. This text is displayed when the appointment is booked.
6. Choose [Save](#).
7. Choose the [Resource Assignment](#) tab page to assign resources to the service area.
8. Insert a new row in the [Resources](#) table.
9. Select the business partner or an HR person with the corresponding personnel number.
10. This step is optional:
Choose a validity period for which the resource is to be assigned to the service area.
11. Select the checkbox for the validity period.
12. Under [Assigned On](#), select a weekday and the start and end times to specify on which weekdays and at what times the resource is to be assigned to the service area.
13. Choose ENTER.
The system displays an overview of the resource assignments to this service area for each day.
14. You can also display the availability of the resource within the validity period for each day. To do so, select the [Display Resource Availability](#) checkbox and select a time frame within the valid period.
15. Choose ENTER.
16. Choose [Save](#).

Note

You can also assign various service areas to a resource. You can do so by selecting the weekdays or the validity period.

Create service areas A and B. Assign service area A to a resource, for example, on Mondays and Wednesdays, and assign service area B to the resource on Tuesdays, Thursdays, and Fridays.

You can also restrict the validity of service area A to a specific period and the validity of service area B to a different period.

30.2.3.6 Search Strategies for Appointment Booking

Use

You can use various search strategies in the system for the appointment booking types [Automatic Assignment Creation for Planning Node](#) and [Resource Capacity](#) to preselect available resources by certain criteria when an appointment is booked and display these for selection in the search result. For the [Planning Node Capacity](#) appointment booking type, only the [Planning Node of Resource Planner](#) search strategy can be selected.

Prerequisites

You have selected the appointment booking type [Automatic Assignment Creation for Planning Node](#) or [Resource Capacity](#) in Customizing for [SAP Multiresource Scheduling](#) under [Appointment Booking](#) [Determine Appointment Booking Type](#).

Features

You can link the following search strategies to the order type:

- **Partner role**
Choose this search strategy so that the service employee can specify the preferred technician as the resource in the order. This technician is then displayed at the top of the search result when the appointment is booked.
- **Planning node of resource planner**
Choose this search strategy so that the system preselects the resources that are assigned to the planning node of the resource planner.
By doing so, you can ensure that the system searches for the resources across the planning nodes in the scheduler workplace. For example, two internal, time-based resources and three external, time-based resources as well as an external service provider can be assigned to this planning node. Depending on the resource type, the system then searches for availability in the planning node:
 - **Service organization in the CRM service order**
The planning node for a CRM service order is determined from the service employee group.
 - **Work center of the PM/CS order**
The planning node for a PM/CS order is determined from the work center.
- **Work center of technician**
With this search strategy, the system searches for resources that are assigned to the work center of the technician.

Note

This search strategy is only relevant for demands from Plant Maintenance (PM) and Customer Service (CS).

- **Postal code area**
This search strategy chooses the resources that have the same postal code area as the demand.
- **Service area**
With this search strategy, the system determines available resources within a service area of the order. The service area of the order can be determined, for example, using geographic criteria.
The resources are firmly assigned to the service area. You can use transaction `/MRSS/SRVA_MAINTAIN` to assign resources to a service area. Alternatively, you can enter the service area for a resource in transaction `/MRSS/RES_DET_MAINT`. At the start of the appointment request, the system determines the service area that is relevant for the demand using the Business Add-In `/MRSS/RES_SERVICE_AREA`.
For more information, see [Assigning Service Areas \[page 936\]](#).
- **Resource ID**

With this search strategy, the system searches for specific resource IDs. If, for example, a customer asks for a specific technician, the service employee can search for available appointments for this technician using the resource ID.

Activities

You enter the search strategies that are to be available in the appointment booking screen in Customizing for *SAP Multiresource Scheduling* under ► *Appointment Booking* ► *Determine Search Strategy for Appointment Scheduling* ►.

30.2.3.7 Management of Capacity Pots

Definition

You use capacity pots to support appointment booking. The system uses capacity pots to determine capacities for appointment booking when a demand is created.

i Note

You do not need to set up capacity pots if you are using the appointment booking type *Automatic Assignment Creation for Resource Planning Node*.

Prerequisites

In Customizing for *SAP Multiresource Scheduling* under *Appointment Booking*, you have carried out the Customizing activity *Select Scenario for the Use of Capacity Pots*.

In Customizing for *SAP Multiresource Scheduling*, you have carried out the Customizing activities under ► *Appointment Booking* ► *Appointment Booking at Resource Planning Node Level* ►.

Activities

You create capacity pots using transaction `/MRSS/POT_CREATE`. Alternatively, you can also create individual capacity pots using transaction `/MRSS/POT_MNT`. You also use this transaction if you later want to change or display existing capacity pots.

Depending on the appointment booking type and capacity pot scenario that you have configured, the following information is relevant when you create or view a capacity pot:

Capacity Pot Data

Appointment Booking Type	Capacity Pot Data
<i>Resource Capacity</i>	The capacity pot models the total available capacity per day for a specific resource within a defined time interval. The following information is relevant: • Resource ID • Validity of the capacity pot • Capacity pot interval The time interval indicates within a day the availability that can be used for the capacity pot. You can specify a higher-level all-day interval and lower-level intervals within this all-day interval. • Capacity in minutes
<i>Resource Planning Node Capacity</i>	The capacity pot models the total available capacity per day for a resource planning node within a defined time interval. When a qualification category has been defined, the available capacity is limited to resources with the same qualifications. The following information is relevant: • Resource planning node • Qualification category (if applicable) • Capacity pot validity • Capacity pot interval • Capacity in minutes • Capacity reserve in minutes

Capacity Consumption

When the service agent books an appointment in the source system of the demand, the capacity of the capacity pot in SAP Multiresource Scheduling is reduced by the duration of the demand item.

If you have set up average travel times for appointments, the system adds the average travel time to the demand item duration and reduces the capacity in the capacity pot by this combined amount of time.

Once an assignment is created for the appointment in SAP Multiresource Scheduling, the system updates the capacity in the capacity pot. This means that the capacity is reduced by the actual assignment duration and actual travel time (if applicable).

Using a Capacity Reserve

You can reserve a certain amount of time in the capacity pot. This capacity reserve can be used for priority assignments, for example for emergencies. You activate and configure the use of a capacity reserve in Customizing.

The capacity reserve is deducted from the capacity pot so that there is availability for emergencies. Only the remaining time can be updated for demands when appointments are booked. As the date of the capacity pot approaches, the fewer resources of the available capacity should be reserved.

Using Qualification Categories

Qualification categories are used to group similar qualifications and thus allow the available capacity of corresponding employees to be grouped together. For example, you can create a capacity pot for the [Electrician](#) qualification category and a capacity pot for the [Mechanic](#) qualification category.

i Note

- You must assign a qualification profile to each qualification category. You can use either standard HR qualification profiles or the SAP Multiresource Scheduling-specific qualification concept.
- You must be using the capacity pot scenario [Resource Planning Node + Resource Qualification](#).
- You cannot use a qualification category for demands that are based on SAP CRM orders.

Related Information

[Creating Capacity Pots \[page 944\]](#)

[Deleting Capacity Pots \[page 945\]](#)

[Appointment Booking Types \[page 928\]](#)

30.2.3.7.1 Setting Up Qualification Categories for Capacity Pots

Qualification categories allow you to link a requirements profile to a capacity pot. You set up qualification categories if you want the system to take into account the qualification required for a demand when looking for available capacity for an appointment.

Prerequisites

- You have activated the capacity pot scenario [Resource Planning Node + Qualification Category](#).
- You have created qualification catalogs with the relevant qualifications. You can use either standard HR qualifications or SAP Multiresource Scheduling-specific qualifications.

Procedure

1. Create requirements profiles as needed and assign a qualification to each requirements profile.
 - If you are using standard HR qualifications, use transaction [OOSQ](#) to create requirements profiles.
 - If you are using SAP Multiresource Scheduling-specific qualifications, use transaction [/MRSS/REQM](#) to create requirements profiles.

i Note

When using qualification categories, make sure to assign only **one** qualification to each requirements profile.

❖ Example

You want to create a qualification category for electricians and one for mechanics. In this step, you create a requirements profile *ELECRIC* and assign an appropriate qualification to it. In addition, you create a requirements profile *MECHANIC* and assign a qualification to it.

2. In Customizing under ► *Appointment Booking* ► *Appointment Booking at Resource Planning Node Level* ► *Manage Qualification Category* ►, create one qualification category for each requirements profile.

❖ Example

You create a qualification category *Electric* and assign the requirements profile *ELECTRIC* to it. In addition, you create a category *Mechanic* and assign the requirements profile *MECHANIC* to it.

Qual. Cat.	Qualification Category	Parent QC	Profile
1	Electric		ELECTRIC
2	Mechanic		MECHANIC

3. If you want to take into account resources with multiple qualifications for appointment booking, set up a parent qualification category. To do so, repeat the previous steps to create a category that you want to use as parent category.

❖ Example

You want to set up a category that combines the qualifications attached to the *ELECTRIC* and *MECHANIC* profiles. To do so:

1. Create a requirements profile *SMART* and assign a relevant qualification to it.

→ Tip

You can set up your qualification catalog hierarchically. For example, you can create a *Smart* qualification at the top level and two qualifications *Electric* and *Mechanic* at the subordinate level.

2. Create a qualification category *Smart* and assign the requirements profile *SMART* to it.

4. In Customizing under ► *Appointment Booking* ► *Appointment Booking at Resource Planning Node Level* ► *Manage Qualification Category* ►, assign the parent category to the individual qualification categories whose qualifications you want to combine. You indicate the relationship between parent category and child categories in the *Parent QC* field.

i Note

Note that each qualification category can only have **one** parent qualification category. If you want to set up a more complex scenario, you can set up a hierarchy of parent categories. That is, you assign a parent category to the parent category.

♣ Example

You indicate that the *Smart* qualification category is the parent category for the *Electric* and *Mechanic* categories.

Qual. Cat.	Qualification Category	Parent QC	Profile
1	Electric	3	ELECTRIC
2	Mechanic	3	MECHANIC
3	Smart	0	SMART

5. Create capacity pots using transaction **/MRSS/POT_CREATE**.

If you do not enter a specific qualification category and time interval, the system creates one capacity pot for each combination of qualification category and time interval per day. For example, if you define 3 qualification categories and 11 time intervals per day, the system creates 33 capacity pots per day.

i Note

The more categories and time intervals you set up, the higher the number of capacity pots per day. The higher the number of capacity pots per day, the higher the number of background processes that the system triggers to calculate capacity pots after a demand or a source of demand has been changed.

→ Tip

If you set up multiple qualification categories and time intervals, create capacity pots in batches. For example, create capacity pots separately for each qualification category and time interval.

Related Information

[Creating Capacity Pots \[page 944\]](#)

30.2.3.7.2 Creating Capacity Pots

Procedure

To create capacity pots, proceed as follows:

1. Call transaction
/MRSS/POT_CREATE to execute report /MRSS/POT_CREATE_CAPA_POTS.
2. Enter the creation horizon in days. The system adds the number of days you enter to the current date to determine the end date for the capacity pot.
For example, enter 90 to create capacity pots for the next 90 days, starting from the current date. Before these 90 days have passed, you need to execute this report again.
3. Enter a resource planning node.
4. If you have set up qualification categories, you can enter a qualification category.
If you do not enter a category, the system creates capacity pots for all categories.
5. If you have set up different time intervals, you can enter a time interval.
If you do not enter a time interval, the system creates capacity pots for all time intervals.
6. If required, specify the number of parallel processes that the system uses when processing capacity pots.
7. Indicate whether you want to create capacity pots for productive use in the database. If you want to display capacity pots for test purposes only, deselect this checkbox.
8. Execute the report.

Note

You can also create or display individual capacity pots in transaction /MRSS/POT_MNT.

Result

The system creates new capacity pots for each combination of resource planning node, qualification category, and time interval. When you execute this report, the system creates capacity pots for the selected horizon in the background. Create the capacity pots again before the horizon end data has passed.

More Information

[Management of Capacity Pots \[page 939\]](#)

[Deleting Capacity Pots \[page 945\]](#)

30.2.3.7.3 Deleting Capacity Pots

Use

Capacity pots that are no longer used, that is, those from the past, must be deleted to avoid potential performance issues. You can do this using transaction `/MRSS/POT_DELETE`.

Procedure

To delete capacity pots, proceed as follows:

1. Call transaction `/MRSS/POT_DELETE`.
2. Enter a *Resource Planning Node*.
3. You can specify a *Resource ID*.
4. You can select a *Qualification Category*.
5. You can select a *Time Interval*.
6. Specify a validity period using the *Valid From* and *Valid To* fields.
7. Select a *Time Zone*.
8. Choose *Execute*.

The system displays all attributes for the deleted capacity pot.

More Information

[Management of Capacity Pots \[page 939\]](#)

[Creating Capacity Pots \[page 944\]](#)

30.2.3.8 Using Appointment Interval Groups

Use

You can use appointment interval groups to allow service agents more flexibility in handling appointment booking requests. If you have set up appointment interval groups in Customizing, service agents can choose between various appointment windows that are geared towards different groups of customers. For example, service agents can do the following:

- Offer very short and reliable appointment windows to gold customers (for example, three different appointment windows in the morning)
- Offer appointment windows of medium length to silver customers (for example, one appointment window that spans the entire morning from 6:00 to 12:00)

- Offer long appointment windows to bronze customers (for example, one appointment window that spans the entire day from 6:00 to 20:00)

Using appointment interval groups, you can also control how the system sets the order dates when a service agent books an appointment.

❖ Example

The service agent and the customer have agreed on an appointment between 8:30 and 10:30. In this case, the system sets the order dates as starting at 8:30 and ending at 10:30. In the PM/CS appointment booking scenario, the system sets the dates at operation level. That is, the system sets the earliest and latest start and the earliest and latest end at the level of the order operation.

In the CRM appointment booking scenario, the system sets the date types `SRV_APPT_BEG` and `SRV_APPT_END` at the CRM service operation level.

In this example, the appointment is taken into account during a capacity pot update. Let's assume the capacity pot time intervals were defined at an hourly basis. Since the appointment starts only at 8:30, the system calculates the appointment's share in the 8:00 to 9:00 capacity pot. In addition, the system calculates the appointment's share in the 9:00 to 10:00 and the 10:00 to 11:00 capacity pots.

i Note

The system does **not** check whether the required number of resources is available during the appointment window. Instead the system takes into account the work of the order operation (= required number of resources multiplied with duration of the order operation) and compares it against the remaining pot capacity. For example, if a PM order operation has a duration of 1 h and 4 resources are required to fulfill the demand (= 4 hours of work), the system does not check if 4 resources are actually available at the required time, but rather whether the capacity pot can offer 4 hours of capacity.

Prerequisites

You have made settings in the following Customizing activities:

- [Determine Appointment Booking Type](#)
- [Determine Search Strategy for Appointment Booking](#)
- [Specify Time Unit for Capacity Pot](#)
- [Select Scenario for the Use of Capacity Pots](#)

For more information, see the documentation for the individual Customizing activities.

Activities

You set up appointment interval groups in Customizing for [SAP Multiresource Scheduling](#) under [Appointment Booking](#). For more information, see the documentation for the following Customizing activities:

- [Make General Settings for Appointment Booking](#)

Here you can define whether or not the demand duration is to be included in the appointment window that the service agent offers to customers.

- [Create Time Intervals](#)

In this activity you can define time intervals that are to be assigned to appointment interval groups.

→ Recommendation

If you want to create an appointment interval group that contains multiple time intervals, make sure that there are no gaps between the individual time intervals (see example).

- [Define Appointment Interval Groups](#)

Here you define appointment interval groups according to your requirements.

Example

You want your service agents to be able to offer appointment windows of various lengths to different groups of customers. The following three appointment interval groups shall be made available:

- `INT_MORN` (including multiple short intervals in the morning)
- `FULL_MORN` (including one time interval that covers the entire morning)
- `FULL_DAY` (including one time interval that covers the entire day)

The appointment window shall include the demand duration, that is, the time the service technician needs to complete his tasks at the customer's site.

You proceed as follows:

1. In Customizing activity [Create Time Intervals](#) you create the following time intervals:
 - Time interval 1 spanning from 6:00 to 20:00
 - Time interval 2 with superordinate time interval 1. This time interval spans from 6:00 to 12:00.
 - Time interval 3 with superordinate time interval 2. This time interval spans from 6:00 to 8:00.
 - Time interval 4 with superordinate time interval 2. This time interval spans from 8:00 to 10:00.
 - Time interval 5 with superordinate time interval 2. This time interval spans from 10:00 to 12:00.
2. In Customizing activity [Define Appointment Interval Groups](#) you create the following appointment interval groups and assign them the appropriate time intervals you created.
 - Appointment interval group `FULL_DAY` to which you assign time interval 1
 - Appointment interval group `FULL_MORN` to which you assign time interval 2
 - Appointment interval group `INT_MORN` to which you assign time intervals 3, 4, and 5

Note

Make sure that there are no gaps between the individual time intervals and that the superordinate time interval covers the subordinate time intervals completely. In addition, make sure that the subordinate time intervals do not overlap.

3. In Customizing activity [Make General Settings for Appointment Booking](#), you select the [Include Duration](#) checkbox to define that the demand duration is to be included in the appointment window that is offered to customers.

In the appointment booking dialog, the service agent can now choose between the three appointment interval groups. If the customer to whom he wants to offer an appointment is a gold customer, the service agent may

select the `INT_MORN` interval group. Consequently, the system displays three time intervals in the appointment result list, thus enabling the service agent to offer three short and reliable appointment windows to the customer.

30.2.4 Inbound Queue Processing in SAP Multiresource Scheduling

Use

You must configure the use of inbound queues in SAP Multiresource Scheduling to ensure a proper serialization of the queues. Outbound queue processing is not supported.

Inbound queue processing is relevant in the following scenarios:

- Inbound Queue Processing During Data Transfer and Maintenance
- Inbound Queue Processing During Order Integration in a Single Back-End System (SAP ERP)
- Inbound Queue Processing During Order Integration in a Single Back-End System (SAP CRM)
- Inbound Queue Processing During Order Integration in a Multi Back-End System

Inbound Queue Processing During Data Transfer and Maintenance

You have to configure the use of inbound queues if you run one of the following reports (either manually or in batch):

- `/MRSS/HCM_RPTWFMIF` to transfer employee availability information from the SAP HCM system to the SAP Multiresource Scheduling system
- `/MRSS/SGE_PN_MNT` to transfer work center-related data from SAP ERP to SAP Multiresource Scheduling
- `/MRSS/SGE_RES_PN_MNT` to transfer resource planning nodes from SAP ERP to SAP Multiresource Scheduling
- `/MRSS/POT_CREATE_CAPA_POTS` to create capacity pots
- `/MRSS/POT_MAINTENANCE` to maintain capacity pots

For more information, see [Configuring Inbound Queue Processing in a Single Back-End System Scenario \[page 950\]](#).

Inbound Queue Processing During Order Integration in a Single Back-End System (SAP ERP)

If you are using SAP Multiresource Scheduling in a single back-end system, that is, you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver and the SAP Multiresource Scheduling add-on based on SAP ERP in a single system or you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver in the SAP ERP system, you must configure the processing of inbound queues for the following asynchronous processing scenarios:

- Change document processing
- Resource capacity graph update processing
- Planning node capacity update
- Capacity pot update

The integration of orders from SAP ERP is not processed by queues in a single back-end system.

For more information, see [Configuring Inbound Queue Processing in a Single Back-End System Scenario \[page 950\]](#).

Inbound Queue Processing During Order Integration in a Single Back-End System (SAP CRM)

If you are using SAP Multiresource Scheduling in a single back-end system, that is, you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver and SAP CRM in the same system, you must configure the processing of inbound queues for the following asynchronous processing scenarios:

- Order processing

i Note

If you change the order in SAP CRM, the system updates the demand in SAP Multiresource Scheduling without locking the corresponding service order in SAP CRM. For more information, see SAP Note [2221941](#) .

- Change document processing
- Resource capacity graph update processing
- Planning node capacity update
- Capacity pot update

In contrast to the scenario described above, the integration of orders from SAP CRM is processed by queues in a single back-end system.

For more information, see [Configuring Inbound Queue Processing in a Single Back-End System Scenario \[page 950\]](#). For information about how to configure the reprocessing of order integration queues (for example, if the queue execution failed), see [Configuring the Reprocessing of Order Integration Queues \[page 955\]](#).

Inbound Queue Processing During Order Integration in a Multi Back-End System

If you are using SAP Multiresource Scheduling in a multi back-end system, that is, you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver and the SAP Multiresource Scheduling add-on based on SAP ERP in separate systems, you must configure the processing of inbound queues for the following asynchronous processing scenarios:

- Order processing

i Note

If you change the order in SAP ERP, the system updates the demand in SAP Multiresource Scheduling without locking the corresponding service order in SAP ERP. For more information, see SAP Note [2221941](#) .

- Change document processing
- Resource capacity graph update processing
- Planning node capacity update
- Capacity pot update

For more information, see [Configuring Inbound Queue Processing in a Multi Back-End System Scenario \[page 952\]](#). For information about how to configure the reprocessing of order integration queues, see [Configuring the Reprocessing of Order Integration Queues \[page 955\]](#).

More Information

- [Configuring Inbound Queue Processing in a Single Back-End System Scenario \[page 950\]](#)
- [Configuring Inbound Queue Processing in a Multi Back-End System Scenario \[page 952\]](#)
- [Configuring the Reprocessing of Order Integration Queues \[page 955\]](#)
- [Monitoring Data Integration for qRFC \[page 907\]](#)

30.2.4.1 Configuring Inbound Queue Processing in a Single Back-End System Scenario

Context

The configuration steps described in this chapter are relevant if you are using a single back-end scenario and if one of the following cases applies:

- You have installed both SAP Multiresource Scheduling Add-Ons in the SAP ERP system
- You have installed the SAP Multiresource Scheduling Add-On in the SAP CRM system

The configuration steps are required for the processing of change document queues and resource capacity graph update queues that result from the execution of the transfer reports. In the SAP CRM system, you must perform these steps for the SAP CRM service order integration.

In the case of a single back-end in the SAP ERP system, the order integration does not involve any queues. However, the processing of change documents and the resource capacity graph update is executed by queues.

Procedure

1. Register the destination in the outbound scheduler

Proceed as follows:

1. You are working in the SAP Multiresource Scheduling system. Call transaction `SMQS`.
2. Choose [Registration](#). A dialog box appears.
Create the following entry:

Field	Value
Destination	[Destination of the SAP Multiresource Scheduling system]

Field	Value
<i>Max.Conn.</i>	3
<i>Max. Runtime</i>	60
<i>W/o tRFC</i>	
<i>Scheduler Monitoring</i>	0

i Note

The maximum number of connections (*Max.Conn.*) can lead to a high load of dialog work processes in your system landscape. When you set the maximum number of connections, consider the information in SAP Note [1403974](#).

2. Register the queue name in the inbound scheduler

Proceed as follows:

1. You are working in the SAP Multiresource Scheduling system. Call transaction **SMQR**.
2. Choose *Registration*. A dialog box appears.

Create the following entry:

Field	Value
Client	[Enter the client]
<i>Queue Name</i>	MRS*
<i>Mode</i>	D
<i>Max. Runtime</i>	60
<i>Destination</i>	
<i>Attempts</i>	30
<i>Pause</i>	300
<i>Scheduler Monitoring</i>	0

i Note

Make sure to enter the queue name exactly as **MRS*** and not as **MRSINT***. This way, you ensure that each inbound queue (for example, HCM transfer, resource capacity update, order integration) is processed.

- Alongside the regular queue, also register the irregular integration queue that has the prefix "-". The system triggers the irregular integration queue if processing of the regular queue fails and processing terminates. Create the following entry:

Field	Value
Client	[Enter the client]
Queue Name	-RS*
Mode	D
Max. Runtime	60
Destination	
Attempts	30
Pause	300
Scheduler Monitoring	0

i Note

Make sure to enter the queue name exactly as **-RS*** and not as **-RSINT***. This way, you ensure that each inbound queue (for example, HCM transfer, resource capacity update, order integration) is processed.

i Note

The *Type* column in transaction **SMQR** indicates whether the queue is registered (the value is **R**) or not registered (the value is **U**).

30.2.4.2 Configuring Inbound Queue Processing in a Multi Back-End System Scenario

Context

The configuration steps described in this chapter are relevant if you have installed the SAP Multiresource Scheduling add-on based on SAP NetWeaver and the SAP Multiresource Scheduling add-on based on SAP ERP in separate systems. You must perform these steps in each system separately.

These configuration steps are required for the processing of order integration queues, change document queues and resource capacity graph update queues that result from the execution of the transfer reports.

In the case of a multi back-end in the SAP CRM system, you must perform these steps for the CRM service order integration, too.

Procedure

1. Register the destination in the outbound scheduler

Proceed as follows:

1. You are working in the SAP Multiresource Scheduling system. Call transaction **SMQS**.
2. Choose [Registration](#). A dialog box appears.
Create the following entry:

Field	Value
Destination	[Destination of the SAP ERP system]
Max.Conn.	3
Max. Runtime	60
W/o tRFC	
Scheduler Monitoring	0

Note

The maximum number of connections ([Max.Conn.](#)) can lead to a high load of dialog work processes in your system landscape. When you set the maximum number of connections, consider the information in SAP Note [1403974](#).

3. Access the SAP ERP system (or the SAP CRM system, respectively), that is, the system in which the orders are created and from which they are to be transferred to SAP Multiresource Scheduling.
4. Call transaction **SMQS**.
5. Repeat step 2 in the SAP ERP system (or the SAP CRM system), but make sure to enter the destination of the SAP Multiresource Scheduling system.

2. Register the queue name in the inbound scheduler

Proceed as follows:

1. You are working in the SAP Multiresource Scheduling system. Call transaction **SMQR**.
2. Choose [Registration](#). A dialog box appears.

Create the following entry:

Field	Value
Client	[Enter the client]
Queue Name	MRS*
Mode	D
Max. Runtime	60
Destination	
Attempts	30
Pause	300
Scheduler Monitoring	0

i Note

Make sure to enter the queue name exactly as **MRS*** and not as **MRSINT***. This way, you ensure that each inbound queue (for example, HCM transfer, resource capacity update, order integration) is processed.

- Alongside the regular queue, also register the irregular integration queue that has the prefix "-". The system triggers the irregular integration queue if processing of the regular queue fails and processing terminates. Create the following entry:

Field	Value
Client	[Enter the client]
Queue Name	-RS*
Mode	D
Max. Runtime	60
Destination	
Attempts	30
Pause	300
Scheduler Monitoring	0

i Note

Make sure to enter the queue name exactly as **-RS*** and not as **-RSINT***. This way, you ensure that each inbound queue (for example, HCM transfer, resource capacity update, order integration) is processed.

i Note

The *Type* column in transaction **SMQR** indicates whether the queue is registered (the value is **R**) or not registered (the value is **U**).

4. Access the SAP ERP system (or the SAP CRM system, respectively), that is, the system in which the orders are created and from which they are to be transferred to SAP Multiresource Scheduling.
5. Call transaction **SMQR**.
6. Create the two entries in the SAP ERP system (or the SAP CRM system) as well (steps 2 and 3).

30.2.4.3 Configuring the Reprocessing of Order Integration Queues

Context

These configuration steps are required to set up the reprocessing of failed order integration queues. This is relevant in the following cases:

- SAP ERP order integration in a multi back-end scenario
- SAP CRM order integration in a single back-end scenario

Procedure

1. Define reprocessing of inbound queues

Specify the number of attempts the system can make to reprocess queues for which processing has failed. If processing of an inbound queue fails, the system waits for a predefined amount of time before attempting to process the queue again. Proceed as follows:

1. You are working in the system in which you want to plan resources using SAP Multiresource Scheduling. In Customizing for *SAP Multiresource Scheduling*, choose **Basic Settings** > *Configure Multiple Back-End Systems* and select the logical system from which the demands originate.
2. Open the folder *Parameters for Reprocessing a Queue* from the dialog structure and enter the number of attempts and the time the system is to wait between each attempt.

i Note

If you do not make entries in Customizing, the system by default uses 5 attempts and waits for 30 seconds before attempting to process the queue again.

2. Configure qRFC administration

The processing of inbound queues allows you to reactivate failed queues after a waiting period. To do so, use function module `/MRSS/SGE_INQUEUE_MONITOR`. The system calls this function module if processing of the inbound queue fails.

i Note

Make sure that you use function module `/MRSS/SGE_INQUEUE_MONITOR` and not the obsolete function module `/MRSS/SGE_QUEUE_MONITOR`.

Register an event handler for failed inbound queues and configure the additional settings. You have the following options:

Option 1

1. Execute transaction code **SM36**.
2. Enter a job name (for example, `Z_MRSS_SGE_INQUEUE_MONITOR`) and choose [Step](#).
A dialog box opens that allows you to enter a program name and other details.
3. Enter the program name `/MRSS/SGE_INQUEUE_MONITOR` and language `EN` in the appropriate fields.
You do not need to enter a variant.

i Note

Report `/MRSS/SGE_INQUEUE_MONITOR` is available as of Support Package 03 for SAP Multiresource Scheduling 9.0. If the report is not available in your system, see SAP Note [2099125](#)  for more information.

4. Save your entries and go one step back.
5. Choose [Start condition](#).
A dialog box opens that allows you to define periodic jobs.
6. Define regular jobs for the period in which you want to re-process failed queues. We recommend the following settings:
 1. Choose [Date/Time](#). Enter the start date and time for the first run and select the [Periodic Job](#) checkbox.
 2. Choose [Period values](#).
A dialog box opens.
 3. Choose [Other period](#) and enter 1 minute as the interval.
With this setting you specify that the system starts the batch job every 60 seconds to re-process failed queues.
4. Save your entries.
7. Choose [Own jobs](#) to display the newly created batch job. Release the job by choosing the appropriate button.

Option 2

1. You are working in the system in which you want to plan resources using SAP Multiresource Scheduling. Call transaction `SMQE`.
2. Choose the *Event Registration* pushbutton. A dialog box appears. Create the following entry:

Field	Value
<i>Queue Name</i>	MRS*
	i Note Queue <code>MRSINT_FW</code> is used for forward integration (SAP ERP to SAP Multiresource Scheduling) and queue <code>MRSINT_PB</code> is used for backward integration (SAP Multiresource Scheduling to SAP ERP). The same queue names are used in the CRM order integration.
<i>Event ID</i>	3
<i>Function Module</i>	/MRSS/SGE_INQUEUE_MONITOR
<i>EXEMODE</i>	D
<i>USERDEST</i>	

3. Alongside the regular queue, also register the irregular integration queue that has the prefix "-". The system triggers the irregular integration queue if processing of the regular queue fails and processing terminates. Create the following entry:

Field	Value
<i>Queue Name</i>	-RS*
<i>Event ID</i>	3
<i>Function Module</i>	/MRSS/SGE_INQUEUE_MONITOR
<i>EXEMODE</i>	D
<i>USERDEST</i>	

4. Access the SAP ERP system (or the SAP CRM system, respectively), that is, the system in which the orders are created and from which they are to be transferred to SAP Multiresource Scheduling.
5. Call transaction `SMQE`.
6. Repeat step 2 in the SAP ERP system (or the SAP CRM system).

30.2.5 Using SAP Multiresource Scheduling in a Multi-System Landscape

You have various options for setting up a system landscape. In all scenarios, you install SAP Multiresource Scheduling in the system that you want to use for resource planning (= planning system). In a single-system scenario, you use one system for resource planning, demand processing, and the management of resources.

You can also use SAP Multiresource Scheduling in a system landscape with multiple systems. This means that you connect one or multiple other systems (= source systems) to the planning system.

Prerequisites

You must configure the use of multiple back-end systems (source systems) in Customizing for SAP Multiresource Scheduling.

For more information, see *Configuring the Use of Multiple Back-End Systems*.

Multi-System Scenarios

You set up a multi-system landscape in the following scenarios:

- Resource planning for SAP CRM service orders that are created in a remote SAP CRM system
- Resource planning for orders from Plant Maintenance and Customer Service that are created in a remote SAP ERP system

i Note

You cannot plan resources for notifications that are created in a remote system. Resource planning for notifications is only supported for notifications that are created in the planning system.

- Resource planning for work tickets from SAP Hybris Cloud for Customer
- Using HR data from a remote SAP ERP HCM system

i Note

You can connect more than one remote SAP ERP system to the planning system. You must install the SAP Multiresource Scheduling add-ons in all remote SAP ERP systems, not only in the planning system.

For more information about system landscape options and restrictions, see the *Administrator's Guide for SAP Multiresource Scheduling*.

Data Integration Using qRFC

Data from remote SAP CRM and SAP ERP systems is integrated in the planning system using the queued Remote Function Call (qRFC) technology. The following applies:

- If you save a planning-relevant service order in the remote system (SAP CRM or SAP ERP), the relevant data is sent to the planning system using qRFC.
In SAP Multiresource Scheduling, the system creates a complex demand for each service order. The order operations (or items) are represented as single demands.
- If you save the relevant demands in SAP Multiresource Scheduling, the relevant data is sent back to the remote system using qRFC.
- You must configure the use of inbound queues to ensure a proper serialization of the queues. Outbound queue processing is not supported.
- You can monitor data integration using the [qRFC Monitor](#) (transactions [SMQ1](#) and [SMQ2](#)).
- When setting up the integration of PM/CS service orders from a remote system or the integration of data from SAP ERP HCM, you can reduce the number of RFC calls by mirroring the Customizing data between the remote system and the planning system.

For more information, see *Monitoring Data Integration for qRFC*, *Inbound Queue Processing in SAP Multiresource Scheduling*, and *Mirroring of Customizing Data Between Multiple Back-End Systems*.

Data Integration Using Web Service Messages

In an SAP Hybris Cloud for Customer integration scenario, asynchronous web service messages are used to exchange demand and assignment data between SAP Hybris Cloud for Customer and the planning system. If appointment booking has been configured, synchronous web services are used to exchange appointment and capacity information between the two systems. You can monitor the exchange of web service messages using the [Web Service Utilities: Message Monitor](#) (SRT_MONI).

For more information, see *Monitoring Data Integration for Web Service Messages*.

Related Information

[Configuring the Use of Multiple Back-End Systems \[page 960\]](#)

[Monitoring Data Integration for qRFC \[page 907\]](#)

[Mirroring of Customizing Data Between Multiple Back-End Systems \[page 962\]](#)

[Inbound Queue Processing in SAP Multiresource Scheduling \[page 948\]](#)

[Monitoring Data Integration for Web Service Messages \[page 909\]](#)

[Administrator's Guide for SAP Multiresource Scheduling](#)

30.2.5.1 Configuring the Use of Multiple Back-End Systems

Context

In a multi-system scenario, you connect one or multiple other systems (= source systems) to the planning system. If the remote system is an SAP ERP system or an SAP CRM system, data from these systems is integrated in SAP Multiresource Scheduling (= planning system) using the queued Remote Function Call (qRFC) technology.

i Note

In an SAP Hybris Cloud for Customer integration scenario, the systems use synchronous and asynchronous web service messages to exchange data. For more information about how to configure this scenario, see *SAP Hybris Cloud for Customer Integration: Set-Up and Prerequisites*.

Procedure

- Set Up Customizing for SAP Multiresource Scheduling. Make the following settings according to your requirements:

► [Basic Settings](#) ► [Configure Multiple Back-End Systems](#) ►

Folder [RFC for Logical Systems](#):

For each remote system, enter a unique logical system name as well as the RFC destination for each logical system.

Also enter the logical system name for the SAP Multiresource Scheduling system (that is, the system in which you perform resource planning). However, do not enter an RFC destination for this system.

→ Recommendation

All RFC destinations should be trusted destinations since the user IDs are also used for the RFC communication. Using the user IDs, the system performs authorization checks.

Folder [Active Scenarios](#):

You can define the scenarios that are active in each system that is connected to SAP Multiresource Scheduling. Here you can specify whether the connected system is an SAP ERP system.

Folder [Parameters for Reprocessing a queue](#):

In this folder, you can define the wait time (in seconds) and number of attempts for reprocessing of an integration queue.

❁ Example

The wait time is defined as 60 seconds and the number of attempts is defined as 3. In this case, the system will activate the queue after waiting for 60 seconds. If the queue ended in an error again, the system will reprocess it again after 60 seconds. This will happen only 3 times, after which the system will stop processing the queue automatically. After this, the queue must be activated manually.

Path in Customizing	Settings
▶ HR Integration > Specify RFC Destination of HR System >	This activity is relevant if you are using a remote SAP ERP system as HR system. In this activity, you define the RFC destination of the HR system. Note You must also distribute the resource planning structure into all relevant systems to ensure that the resource planning structure ID is identical in all systems.

- Configure Inbound Queue Processing

You must configure the processing of order integration queues, change document queues and resource capacity graph update queues that result from the execution of the different transfer reports between. For more information, see *Inbound Queue Processing in SAP Multiresource Scheduling*.

- Optional: Mirror Customizing data

You can reduce the number of RFC calls between SAP Multiresource Scheduling and the remote SAP ERP system by mirroring the Customizing data between the systems. To do so, you use the [Customizing Mirror](#) report (/MRSS/NW_MIRROR_CUSTOMIZING). You can also use this report to delete the mirrored data. For more information, see *Mirroring of Customizing Data Between Multiple Back-End Systems*.

Related Information

[Mirroring of Customizing Data Between Multiple Back-End Systems \[page 962\]](#)

[Inbound Queue Processing in SAP Multiresource Scheduling \[page 948\]](#)

[Monitoring Data Integration for qRFC \[page 907\]](#)

[SAP Cloud for Customer Integration: Set-Up and Prerequisites \[page 504\]](#)

30.2.5.2 Mirroring of Customizing Data Between Multiple Back-End Systems

Use

You can reduce the number of RFC calls in a multi back-end system landscape by mirroring the Customizing data between the SAP ERP system and the SAP Multiresource Scheduling system. To do so, you use the [Customizing Mirror](#) (/MRSS/NW_MIRROR_CUSTOMIZING).

You can also use the [Customizing Mirror](#) to delete the mirrored data.

i Note

The SAP ERP system is the system in which the SAP Multiresource Scheduling add-on based on SAP ERP is installed. The SAP Multiresource Scheduling system is the system in which the SAP Multiresource Scheduling add-on based on SAP NetWeaver is installed.

Activities

By executing the [Customizing Mirror](#) report, you copy the Customizing data that is missing in the SAP Multiresource Scheduling system from the SAP ERP system. In turn, the Customizing data that is missing in the SAP ERP system is copied from the SAP Multiresource Scheduling system into the SAP ERP system. You must start this report in the system in which the SAP Multiresource Scheduling add-on based on SAP NetWeaver is installed. For more information, see the report documentation in the system.

We recommend that you schedule this report as a periodic batch job. However, whenever Customizing data is changed in one system, you must trigger this report manually in order to use the changed Customizing settings in both systems.

i Note

If you have implemented Business Add-In /MRSS/RAC_SEARCH_ALG in the SAP ERP system to determine the search algorithm for accessing the Customizing tables, you must discontinue the use of this BAdI. Instead, you must use Business Add-In /MRSS/NW_SEARCH_ALG that is provided in the SAP Multiresource Scheduling system in Customizing under ► [Enhancements](#) ► [Sources of Demand](#) ► [BAdI: Search Algorithm for Access to Customizing Tables](#) ►.

30.2.6 Deletion of SAP Multiresource Scheduling Data

You can delete the following data from the SAP Multiresource Scheduling database:

- Demands that are based on PM/CS orders or notifications, cProject roles, RM Web Requests, and SAP CRM service orders, as well as all assignments associated with these demands, including all related data
- Resources (personnel resources, N.N. resources, teams, tools, technical objects), including all related data
- RM teams (teams used in the Web-based resource management apps)
- Performance monitoring data
- Organizational assignments for [Find Expertise](#) app
- User settings
- Web Dynpro user variants

You can also delete employee data from the TREX search engine.

To delete this data, you use reports.

i Note

All customer-specific data that was imported into the SAP Multiresource Scheduling system by means of Business Add-Ins cannot be deleted using the provided reports.

i Note

The recovery of deleted data is not possible.

Prerequisites

You are authorized to delete data in SAP Multiresource Scheduling (authorization object `/MRSS/CUP`).

i Note

For more information about the deletion of data, also see the *Administrator's Guide for SAP Multiresource Scheduling* that is available on SAP Help Portal at <http://help.sap.com/mrs>.

Related Information

[Deletion of Demands and Assignments \[page 964\]](#)

[Deletion of Employee Data from the TREX Search Engine \[page 966\]](#)

[Deletion of Resources \[page 967\]](#)

[Deletion of RM Teams \[page 968\]](#)

[Deletion of Performance Monitoring Data \[page 969\]](#)

[Deletion of Organizational Assignments \[page 969\]](#)

[Deletion of User Settings \[page 970\]](#)

[Deletion of Web Dynpro User Variants \[page 970\]](#)

[Example: Deleting Personal Data for Resources \[page 971\]](#)

30.2.6.1 Deletion of Demands and Assignments

Use

You can use the *Deletion of Demands and Assignments* report (`/MRSS/CUP_DEMAND_ASSIGNMENT`) to delete demands and all assignments that are associated with these demands. You can delete demands of the following types:

- PM/CS orders
- PM/CS notifications

- CRM service orders
- cProject roles

Note

To delete demands that are based on PS networks and RM Web requests, you use archiving class `PS_PROJECTS` in the source system of the demand. Once you have archived the relevant PS network or RM Web request in the source system, all data related to the demand is deleted in SAP Multiresource Scheduling.

Integration

If you want to delete resources in SAP Multiresource Scheduling, you must execute this report first to delete all assignments that exist for the resources to be deleted.

For more information about how to delete resources, see [Deletion of Resources \[page 967\]](#).

Prerequisites

- You have specified a residence time for demands and assignments. You do so in Customizing under [Basic Settings > Define Residence Time for Deletion Objects](#).
- (Optional) You have created the appropriate logging profiles. This is only necessary if you want to store a log file after running the deletion report. You create logging profiles in Customizing under [Basic Settings > Define Logging](#).
- Before you can delete the demands and all associated assignments, you must archive the underlying orders (networks, requests, roles) in the source system. Make sure not to create historical documents in the process.
Use the following archiving classes (transaction `SARA`) in the source system of the demand:
 - `PM_ORDER` for PM/CS orders
 - `PM_QMEL` for PM/CS notifications
 - `CRM_SERORD` for CRM service orders
 - `CPROJECTS` for cProject roles

Activities

You call up the report by executing transaction `/MRSS/DELETE_DEMAND`. If you run the report in productive mode, the system deletes all data pertaining to the selected demands and assignments from the database.

For more information, see the report documentation in the system.

30.2.6.2 Deletion of Employee Data from the TREX Search Engine

You can use the [Deletion of Employee Data from the TREX Search Engine](#) report (/MRSS/CUP_TREX) to delete employee-related data from the TREX index.

You might need to use the report if the following applies:

- You have set up unstructured qualifications to be used during qualification matching. That means employee profile data created as unstructured qualifications has been indexed in the TREX search engine.
- You now need to delete this information from the TREX search engine for a specific employee.

Integration

If you are using unstructured qualifications in the qualification matching, you must run this report and delete any employee data from the TREX search engine before deleting the employee's personnel resource data using report [Deletion of Resources](#) (/MRSS/CUP_RESOURCE) and before archiving the relevant employee profiles (archiving class /MRSS/SQPE).

You use this report to start the deletion process for the unstructured qualification data in the TREX search engine. If you want to check the status of the deletion process, use the [TREX Administration tool](#) (transaction TREXADMIN)

Prerequisites

- You are authorized to delete data in SAP Multiresource Scheduling (authorization object/MRSS/CUP).
- Connection to the TREX server is set up in Customizing for SAP Multiresource Scheduling under [Qualifications > Functions > Enter RFC destination of TREX interface](#).

Activities

You call up the report by executing transaction /MRSS/DE_INDEX_TREX. If you run the report in production mode, the system starts the deletion report to delete the TREX data for the specified personnel numbers.

For more information, see the report documentation in the system.

Related Information

[Example: Deleting Personal Data for Resources \[page 971\]](#)

[Archiving Employee Profiles \[page 974\]](#)

30.2.6.3 Deletion of Resources

Use

You can use the [Deletion of Resources](#) report (/MRSS/CUP_RESOURCE) to delete personnel resources, N.N. resources, teams, tools, and technical objects including all data that is related to these resources.

You can delete either only the resource-related data (for example, time allocations, clocking information, or alerts) or both the entire resource, that is, the resource data (for example, resource ID and address) and the resource-related data.

Integration

Before you can delete resource data in SAP Multiresource Scheduling, you must delete all assignments that currently exist for the resources by running the [Deletion of Demands and Assignments](#) report. For more information, see [Deletion of Demands and Assignments \[page 964\]](#).

Prerequisites

You have made the following settings in Customizing for [SAP Multiresource Scheduling](#):

- You have specified a residence time for resources and time allocations. You do so in Customizing under ► [Basic Settings](#) ► [Define Residence Time for Deletion Objects](#) ►.
- (Optional) You have created the appropriate logging profiles. This is only necessary if you want to store a log file after running the deletion report. You create logging profiles in Customizing under ► [Basic Settings](#) ► [Define Logging](#) ►.

If you want to delete the entire resource in SAP Multiresource Scheduling, you must complete the following steps before running the [Deletion of Resources](#) report, depending on the type of resource you want to delete:

- If you want to delete **HR resources** completely in SAP Multiresource Scheduling, proceed as follows before running the report:
 - End the work relationship with the resource in your HR system. You do this by performing the [Leaving](#) personnel action (transaction PA40)
 - Run the /MRSS/HCM_RPTWFMIF availability transfer report . By running this report you delete all basic time allocations that exist after the resource leaving date in SAP Multiresource Scheduling.
 - Run the /MRSS/WFM_MASTERDATA_ADMIN_HR report to delete all exceptional time allocations that exist after the resource leaving date.

i Note

Make sure that the `/MRSS/HCM_RPTWFMIF` availability transfer report is not run again after the human resources were deleted in SAP Multiresource Scheduling.

- If you want to delete **business partner resources** completely in SAP Multiresource Scheduling, run the `/MRSS/WFM_MASTERDATA_ADMIN` report to delete all basic and exceptional time allocations that exist after the calculated deletion end date.
- If you want to delete a **tool** in SAP Multiresource Scheduling, make sure that no exceptional time allocations exist for the tool after the deletion end date. In addition, you must delete the associated tool demands before deleting the tool using this report. Proceed as follows:
 1. In the demand source system, open the relevant order and remove the PRT / tool at operation level.
 2. In SAP Multiresource Scheduling, run the [Deletion of Demands and Assignments](#) report (`/MRSS/CUP_DEMAND_ASSIGNMENT`).
- If you want to delete **N.N. resources**, delete the resource first using the Web-based [N.N. Resource Maintenance](#) application to delete all time allocations for the resources to be deleted
- If you want to delete **technical objects**, run the availability maintenance report `/MRSS/MAINTAIN_Tech_Obj_Avail` to delete all time allocations that exist for the technical objects after the calculated deletion end date.

Activities

You call up the report by executing transaction `/MRSS/DELETE_RESOURCE`. If you run the report in production mode, the system deletes all data pertaining to the selected resources.

For more information, see the report documentation in the system.

Related Information

[Deletion of Demands and Assignments \[page 964\]](#)

30.2.6.4 Deletion of RM Teams

You can use the [Deletion of RM Teams](#) report (`/MRSS/CUP_RM_TEAMS`) to delete teams that were created using the [RM Team Schedule](#) app.

Prerequisites

You are authorized to delete data in SAP Multiresource Scheduling (authorization object `/MRSS/CUP`).

Activities

You call up the report by executing transaction [/MRSS/DELETE_RM_TEAM](#). If you run the report in production mode, the system deletes all specified RM teams.

For more information, see the report documentation in the system.

30.2.6.5 Deletion of Performance Monitoring Data

Use

You can use the [Deletion of Performance Monitoring Data](#) report ([/MRSS/CUP_PPM](#)) to delete all performance monitoring and memory consumption data that was recorded in the SAP Multiresource Scheduling system. You can delete the following data:

- The data displayed by the [Runtime Performance Monitor](#) (report [/MRSS/PPM_RUNTIME_BY_USER](#))
- The data recorded by report [/MRSS/PPM_MEMORY_RECORDING](#)

For more information about performance monitoring in SAP Multiresource Scheduling, see [Permanent Performance Monitoring \[page 910\]](#).

Activities

You call up the report by executing transaction [/MRSS/DELETE_PPM](#). For more information, see the report documentation in the system.

30.2.6.6 Deletion of Organizational Assignments

The authorization concept for the [Find Expertise](#) app is based on the app user's assignment to one or multiple resource planning nodes. You can delete these organizational assignments using a report.

App users are allowed to see employees who are assigned as resources to organizational units (including their sub-units) to which the app users are assigned as resource finders. You have the following options to delete these organizational assignments:

- To delete organizational assignments for one or multiple resource planning nodes, you run the [Deletion of Organizational Assignments in SAP Multiresource Scheduling](#) report ([/MRSS/BASIS_ORG_ASGN_DELETE](#)). Using this report, you delete organizational assignments for all app users that are assigned to the selected planning node(s).
- To delete organizational assignment for individual users, you use transaction [PPOME](#).
Note that you must run the [Transfer of Organizational Assignments to SAP Multiresource Scheduling](#) report ([/MRSS/BASIS_ORG_TRANSFER](#)) after deleting the data in [PPOME](#) to make the change effective in SAP Multiresource Scheduling.

When you delete organizational assignments, the following data is deleted from the SAP Multiresource Scheduling database:

- Organizational unit details (validity and text)
- Hierarchical structure of the organizational units (including all sub-units)
- Resources assigned to the organizational units and their sub-units
- Users who are assigned as resource finders to the organizational units or their sub-units

i Note

The options described here are only relevant for deleting organizational assignments that are relevant for the *Find Expertise* app.

30.2.6.7 Deletion of User Settings

You can use the *Deletion of User Settings* report (/MRSS/CUP_USER_SETTINGS) to delete user settings for specific users and personalization keys.

Prerequisites

You are authorized to delete data in SAP Multiresource Scheduling (authorization object /MRSS/CUP).

Activities

You call up the report by executing transaction **/MRSS/DEL_SETTINGS**. If you run the report in production mode, the system deletes all specified user settings.

For more information, see the report documentation in the system.

30.2.6.8 Deletion of Web Dynpro User Variants

You can use the *Deletion of Web Dynpro User Variants* report (/MRSS/CUP_USER_VARIANTS_WEB) to delete user variants that were created for the Web-based planning board or the Web Dynpro version of Web-based Resource Management (RM).

Prerequisites

You are authorized to delete data in SAP Multiresource Scheduling (authorization object /MRSS/CUP).

Activities

You call up the report by executing transaction [/MRSS/DEL_WEB_VAR](#). If you run the report in production mode, the system deletes all specified Web Dynpro user variants.

For more information, see the report documentation in the system.

30.2.6.9 Example: Deleting Personal Data for Resources

Let's assume that you want to delete a number of retired personnel resources (HR persons), their assignments, and other related data from the SAP Multiresource Scheduling database. This example procedure shows you what you need to do.

Prerequisites

- Make sure that you are authorized to delete data in SAP Multiresource Scheduling (authorization objects /MRSS/CUP).
- Set up Customizing and fulfill all prerequisites as described for the relevant report. For example, define a residence time for the objects that you want to delete. For more information, see the report documentation in the system.

i Note

To delete resource-related data (including assignments), you must execute the deletion reports in the right order. To delete other data, such as RM teams, you can run the reports in any order.

Procedure

1. In the demand source system (for example, SAP ERP), archive the demands to which the resources were assigned. To do so, use the relevant archiving classes:
 - PM_ORDER for PM/CS orders
 - PM_QMEL for PM/CS notifications
 - CRM_SERORD for SAP CRM service orders
 - CPROJECTS for roles from SAP Portfolio and Project Management

- PS_PROJECTS for PS networks and RM Web requests

i Note

For more information about archiving, see the relevant sections in the application help on SAP Help Portal at <http://help.sap.com/mrs>.

2. In your SAP ERP HCM system, end the work relationship with the resources (if not already done). You do this by performing the *Leaving* personnel action (transaction **PA40**).
3. In SAP Multiresource Scheduling, delete all basic time allocations that exist after the resource leaving date. To do so, run the /MRSS/HCM_RPTWFMIF transfer report.
4. In SAP Multiresource Scheduling, delete demands and assignments for the resources that you want to delete. To do so, run the /MRSS/CUP_DEMAND_ASSIGNMENT report.
5. In SAP Multiresource Scheduling, delete all exceptional time allocations that exist after the resource leaving date. To do so, run the /MRSS/WFM_MASTERDATA_ADMIN_HR transfer report.
6. If you are using unstructured qualifications, delete the relevant resource data from the TREX search engine. To do so, run the /MRSS/CUP_TREX report.
7. In SAP Multiresource Scheduling, delete the desired resources. To do so, run the /MRSS/CUP_RESOURCE report.

i Note

If a resource is part of a team, make sure to also delete the relevant team data.

8. In SAP Multiresource Scheduling, delete other resource-related data as required, for example, RM teams. To do so, run the relevant reports. You can run these reports in any order.

Related Information

[Deletion Reports](#)

30.2.7 Data Archiving in SAP Multiresource Scheduling

Use

To reduce the load of your database, you can archive data that you no longer need operatively and store it in an external store. You archive data in SAP Multiresource Scheduling using the SAP standard tool for archiving, the Archive Development Kit (ADK):

- To create archive files and subsequently delete the archived data from the database, you use Archive Administration (transaction **SARA**).
- To display the contents of the archive files, you use the Archive File Browser (transaction **AS_AFB**).

i Note

For more information about data archiving, see the documentation available in the SAP NetWeaver Library on SAP Help Portal at <http://help.sap.com/nw> ► *SAP NetWeaver Platform* ►. Choose your SAP NetWeaver

release and then choose [Application Help](#) > [Function-Oriented View](#) > [Solution Life Cycle Management](#) > [Data Archiving](#) > [Data Archiving in the ABAP Application System](#).

The following table lists the archiving objects that you can use in SAP Multiresource Scheduling:

Archiving Object	More Information
/MRSS/SQPD	Archiving Requirements Profiles [page 973]
/MRSS/SQPE	Archiving Employee Profiles [page 974]
/MRSS/SQMC	Archiving Qualification Catalogs [page 975]
/MRSS/SQMM	Archiving Qualification Matrices [page 975]
/MRSS/CPOT	Archiving Capacity Pots [page 976]
/MRSS/CRES	Archiving Capacity Reserves [page 977]

Note that Information Lifecycle Management (ILM) is not enabled.

Prerequisites

In addition to the general archiving authorization, authorization object S_SCD0 is required for the deletion of change documents.

30.2.7.1 Archiving Requirements Profiles

Use

You can use archiving object /MRSS/SQPD to archive requirements profiles that are no longer used. Once the data is written to archive files, it is deleted from the database. You can display the archived data but there is no provision for the retrieval of previously archived data.

Before creating an archive file, the system checks whether the requirements profile to be archived is still used. You cannot archive requirements profiles that are still in use.

Structure

The following functions are available for archiving object /MRSS/SQPD:

Function	Activity	Report Program
Archiving	The write program writes the relevant database tables to the archive.	/MRSS/SQP_DPR_ARC_A
Deleting	The delete program deletes all database records that were successfully archived.	/MRSS/SQP_DPR_ARC_D

30.2.7.2 Archiving Employee Profiles

Use

You can use archiving object /MRSS/SQPE to archive employee profiles. Once the data is written to archive files, it is deleted from the database. You can display the archived data but there is no provision for the retrieval of previously archived data.

Prerequisites

If you are using unstructured qualifications during qualification matching, make sure to run the report [Deletion of Employee Data from the TREX Search Engine](#) (transaction /MRSS/CUP_TREX) first.

Structure

The following functions are available for archiving object /MRSS/SQPE:

Function	Activity	Report Program
Archiving	The write program writes the relevant database tables to the archive.	/MRSS/SQP_EPR_ARC_A
Deleting	The delete program deletes all database records that were successfully archived.	/MRSS/SQP_EPR_ARC_D

30.2.7.3 Archiving Qualification Matrices

Use

You can use archiving object `/MRSS/SQMM` to archive qualification matrices that are no longer used. Once the data is written to archive files, it is deleted from the database. You can display the archived data but there is no provision for the retrieval of previously archived data.

Before creating an archive file, the system checks whether the qualification matrix to be archived is still used. You cannot archive qualification matrices that are still used, for example, in a requirements profile or an employee profile.

Structure

The following functions are available for archiving object `/MRSS/SQMM`:

Function	Activity	Report Program
Archiving	The write program writes the relevant database tables to the archive.	<code>/MRSS/SQM_MAT_ARC_A</code>
Deleting	The delete program deletes all database records that were successfully archived.	<code>/MRSS/SQM_MAT_ARC_D</code>

30.2.7.4 Archiving Qualification Catalogs

Use

You can use archiving object `/MRSS/SQMC` to archive qualification catalogs that are no longer used. Once the data is written to archive files, it is deleted from the database. You can display the archived data but there is no provision for the retrieval of previously archived data.

Before creating an archive file, the system checks whether the qualification catalog to be archived is still used. You cannot archive qualification catalogs that are still in use, for example, in a requirements profile or an employee profile.

Structure

The following functions are available for archiving object /MRSS/SQMC:

Function	Activity	Report Program
Archiving	The write program writes the relevant database tables to the archive.	/MRSS/SQM_CAT_ARC_A
Deleting	The delete program deletes all database records that were successfully archived.	/MRSS/SQM_CAT_ARC_D

30.2.7.5 Archiving Capacity Pots

Use

You can use archiving object /MRSS/CPOT to archive capacity pots that are no longer used.

Using this archiving object, you can archive capacity pots whose master data were created based on one of the following scenarios:

- [Resource Planning Node](#)
- [Resource Planning Node and Resource Qualification](#)

i Note

You configure the capacity pot scenario in Customizing for SAP Multiresource Scheduling under [Appointment Booking](#) > [Select Scenario for the Use of Capacity Pots](#).

To delete capacity pots that were created based on the [Resource](#) pot scenario, you use report /MRSS/POT_DELETE.

Once the data is written to archive files, it is deleted from the database. You can display the archived data. You can also retrieve previously archived data.

Prerequisites

Before creating an archive file, make sure that the capacity pot is no longer used. The system does not check automatically whether the capacity pot is still in use.

Structure

The following functions are available for archiving object `/MRSS/CPOT`:

Function	Activity	Report Program
Archiving	The write program writes the relevant database tables to the archive.	<code>/MRSS/POT_ARC_WRITE</code>
Deleting	The delete program deletes all database records that were successfully archived.	<code>/MRSS/POT_ARC_DELETE</code>
Reading	The read program allows you to display the archived data.	<code>/MRSS/POT_ARC_READ_SEQUENTIAL</code>
Retrieving	The reload program allows you to retrieve previously archived data.	<code>/MRSS/POT_ARC_RELOAD</code>

30.2.7.6 Archiving Capacity Reserves

Use

You can use archiving object `/MRSS/CRES` to archive capacity reserves that are no longer used.

Once the data is written to archive files, it is deleted from the database. You can display the archived data. You can also retrieve previously archived data.

Prerequisites

Before creating an archive file, make sure that the capacity reserve is no longer used. The system does not check automatically whether the reserve is still in use.

Structure

The following functions are available for archiving object /MRSS/CRES:

Function	Activity	Report Program
Archiving	The write program writes the relevant database tables to the archive.	/MRSS/POT_CR_ARC_WRITE
Deleting	The delete program deletes all database records that were successfully archived.	/MRSS/POT_CR_ARC_DELETE
Reading	The read program allows you to display the archived data.	/MRSS/POT_CR_ARC_READ_SEQ
Retrieving	The reload program allows you to retrieve previously archived data.	/MRSS/POT_CR_ARC_RELOAD

30.2.7.7 Archiving PS Projects or RM Web Requests

You can use archiving object PS_PROJECT to archive PS projects or RM Web requests that are no longer used.

When the data is written into the archive file, the MRS-specific demand and assignment data are also written into the file.

Once the data is written to archive files, it is deleted from the database. You can display the archived data but there is no provision for the retrieval of previously archived data.

i Note

The actual deletion of MRS data is done using the function modules in the function groups /MRSS/RMDA and /MRSS/DEMA

More information

For more information, go to the product page for your SAP ERP release and search for **Archiving PS projects**.

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.

About the icons:

- Links with the icon  : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
 - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
 - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon  : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.

The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Bias-Free Language

SAP supports a culture of diversity and inclusion. Whenever possible, we use unbiased language in our documentation to refer to people of all cultures, ethnicities, genders, and abilities.

© 2022 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see <https://www.sap.com/about/legal/trademark.html> for additional trademark information and notices.