Release Notes for
SAP Supply Chain Management 2007
(SAP SCM 2007)
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1 SCM Supply Chain Management

1.1 SCM-CA SCM Cross-Application Components
1.1.1 Ocean Carrier Booking (New)

Use

As of SAP SCM 5.1, you can book capacity on a ship for sea transportation.

This covers the following functions:
- Using final shipments from Extended Warehouse Management (EWM) or manually creating shipments
- Manual creation of booking orders
- Manual assignment of shipments to booking orders
- Automatic printing of shipping instructions
- Communication with an external communication partner, for example, a platform or a partner for ocean carrier bookings, via EDI documents
- Tracking of processes using SAP Event Management (SAP EM)

Enhancement spot /SCTM/ES_MSG_SRV_OCB is available for message communication.

The following transactions have been added to the SAP menu for Advanced Planning and Optimization under Supply Chain Collaboration -> Ocean Carrier Booking:
- Perform Ocean Carrier Booking
- Assign Shipments
- Maintain Partner ID
- Assign Location Code
- Start IDoc/EDI Conversion and Transfer

Note

These functions have already been delivered with SAP SCM 5.0, Support Package 6.0, and SAP SCM 5.0 Add-On Transportation Management (TM) (see Release Note).

Effects on Customizing

You make the settings for ocean carrier booking in Customizing for ocean carrier booking. For more information, see the Implementation Guide (IMG) for SCM under Cross-Application Components -> Ocean Carrier Booking.

For more information about the enhancement spot, see the IMG for SCM under Cross-Application Components -> Ocean Carrier Booking -> Message Communication for Ocean Carrier Booking

See also
For more information, see the SAP Library under *SAP Advanced Planning and Optimization (SAP APO)* -> *Supply Chain Collaboration* -> *Ocean Carrier Booking.*
1.2 SCM-APO  

Advanced Planning and Optimization

1.2.1 Structure Changes in the IMG for SAP APO

Use

As of SAP SCM 5.1, the structure of the Implementation Guide (IMG) for SAP APO has changed. To copy these changes to the project IMGs, you must regenerate the project IMGs.

Deleted IMG Activities
- IMG for Service Parts Planning (SPP)
  - Forecasting -> Configure Automatic Model Selection

New IMG Activities
- IMG for Vehicle Scheduling
  - Basic Settings -> Define Number Range for HU Compartment Type
  - Trailers and Compartments -> Activate Trailers and Compartments
  - Interfaces -> Maintain Mapping Table for Vehicles/Compartment Type
  - Business Add-Ins (BAdIs) for TP/VS -> Optimizer -> BAdI: Messages (Costs) from the Optimizer
  - Business Add-Ins (BAdIs) for TP/VS -> Interfaces -> Shipment Transfer -> BAdI: Shipment Transfer

- IMG for Demand Planning (DP)
  - Node Connection of Planning Areas to SAP SNC
  - Forecasting -> Define Profile for Automatic Model Selection
  - Forecasting -> Define Leading Indicators
  - Forecasting -> Define Final Forecast Determination Profile
  - Distribution Requirements Planning (DRP) -> Determination of DRP Planning Mode -> Define Service Profile for DRP Planning Mode
  - Distribution Requirements Planning (DRP) -> Determination of DRP Planning Mode -> Make Settings for BAdI for DRP Planning Mode
  - Monitoring -> Inbound Delivery Monitor -> Make Global Settings for Inbound Delivery Monitor
  - Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdI: Define Procurement Lead Time Component
  - Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdI: Define Modifications and Enhancements for User Interfaces
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Forecasting**
  - BAld: Define Customer-Defined Forecast Strategy
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Forecasting**
  - BAld: Define Customer-Defined Forecast Errors
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Forecasting**
  - BAld: Define Customer-Defined Outlier Correction
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Forecasting**
  - BAld: Determine First Stockholding Loc. for Leading-Indicator-Based FCSTing
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Forecasting**
  - BAld: Define Forecast Approval Logic
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Inventory Planning**
  - BAld: Calculate Safety Stock for Repairs
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Inventory Planning**
  - BAld: Calculate EOQ and SFT for Products Planned Using Reorder Point
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Distribution Requirements Planning (DRP)**
  - BAld: Define Repair or Buy Logic
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Distribution Requirements Planning (DRP)**
  - BAld: Define Versions and Sublocations for Repair or Buy
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Distribution Requirements Planning (DRP)**
  - BAld: Determine DRP Planning Mode
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Distribution Requirements Planning (DRP)**
  - BAld: Determine Additional Quantities for Reorder-Point-Based Planning
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Distribution Requirements Planning (DRP)**
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Distribution Requirements Planning (DRP)**
  - BAld: Calculate Date of Last Net Demand
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Deployment**
  - BAld: Determination of Demand in Deployment
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Deployment**
  - BAld: Define Fair Share Distribution
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Deployment**
  - BAld: Define Logic for Release of Stock Transport Orders
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Inventory Balancing**
  - BAld: Define Surplus Quantity and Shortage Quantity
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Inventory Balancing**
  - BAld: Define Logic for Release of Stock Transport Orders
- **Business Add-Ins (BAdIs) for Service Parts Planning (SPP)** -> **BAlds for Monitoring**
and Reporting -> BAdI: Define Logic for Shortage Analysis
- Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdIs for Monitoring and Reporting -> BAdI: Read Additional Values from CIF Interface
- IMG for Global Available-to-Promise (Global ATP)
  - General Settings -> Demand Profile -> Create Field Catalog
  - General Settings -> Demand Profile -> Define Condition Tables
  - General Settings -> Demand Profile -> Define Access Sequences
  - General Settings -> Demand Profile -> Define Condition Types
  - General Settings -> Demand Profile -> Define Determination Procedure
  - General Settings -> Demand Profile -> Create Condition Maintenance Group
  - General Settings -> Make Settings for Number Range Objects
  - Backorder Processing -> Perform Item Bundling
  - Enhancements -> Rules -> Multi-Item Single Delivery Location -> BAdI: Result for Multi-Item Single Delivery Location (MISL)
  - Enhancements -> Rules -> BAdI: Result Restriction
- IMG for Product Determination
  - Switch to Old Condition Technique
  The following IMG activities for product determination were previously under Inventory Collaboration Hub -> Customer Collaboration -> Responsive Replenishment -> Product Determination:
    - Define Product Determination
    - Maintain Field Catalog for Product Determination
    - Create Condition Table (Product Determination)
    - Change Condition Table (Product Determination)
    - Display Condition Table (Product Determination)
    - Change Access Sequences (Product Determination)
    - Change Condition Type (Product Determination)
    - Change Rule Strategies (Product Determination)
    - Assign Rule Strategy (Product Determination)
- IMG for Enterprise Services
  A new IMG structure was added for Enterprise Services. Here you can find the IMG documentation for Business Add-Ins (BAdIs) for all Enterprise Services in SAP APO.

Reassigned IMG Activities
- IMG for Service Parts Planning (SPP)
  All the IMG activities under Monitoring -> SPP Alert Monitor are available in the IMG for Service Parts Planning as of SAP SCM 5.1. They were previously available in the IMG for SAP Inventory Collaboration Hub (SAP ICH).
- IMG for Global Available-to-Promise (Global ATP)
The IMG activity Demand Profile is available under General Settings -> Demand Profile as of SAP SCM 5.1. It was previously available under General Settings.

1.2.2 SCM-APO-VS Vehicle Scheduling

1.2.2.1 Trailers, Compartments, and Decreasing Capacities (New)

Use

As of SAP SCM 5.1, the following new functions are available in Transportation Planning/Vehicle Scheduling (TP/VS):

- Planning with compartments and trailers
  - You define compartments by defining compartment types in Customizing for TP/VS. You can use steps to define whether the capacity consumption is to be based on the step rather than linear.
  - You define trailers by setting the Passive indicator for the means of transport assigned to a vehicle resource in the transaction Maintain Means of Transport.
  - You can combine vehicles and trailers to form vehicle combinations by defining means-of-transport combinations for the assigned means of transport in Customizing for TP/VS.
  - You can define that the vehicle in a vehicle combination is not to have any capacity. To do this, set the No Cap. (No Capacity) indicator for the assigned means of transport in the transaction Maintain Means of Transport.
  - You can now define compatibility levels when defining compatibility types in Customizing for TP/VS. Furthermore, two new object types are available: Means-of-Transport Combination and Compartment.
    
    Note:
    The Default option in the Compatibility Level field enables downward compatibility.

- Definition of decreasing capacities
  You can model decreasing capacities if you transport goods for multiple customers on one means of transport (in other words, multiple stop-offs) and you want to separate the goods using partitions. Each partition consumes capacity and therefore leads to a reduction in the total capacity of the means
The *Capacity Decrease* tab page has been added to the cost profile to enable you to define decreasing capacities.

**Note:**
- These functions were already provided with SAP SCM 5.0, Support Package 06 and SAP SCM 5.0 Add-On Transportation Management (TM) (see Release Note).
- Dynamic route determination does **not** support trailers, compartments, or decreasing capacities.

### Effects on Customizing

The following fields have been added to Customizing for TP/VS:

- **Passive**
  For more information, see the Implementation Guide (IMG) under *Basic Settings -> Maintain Means of Transport*.

- **No Cap. (No Capacity)**
  For more information, see the IMG under *Basic Settings -> Maintain Means of Transport*.

- **Compatibility Level**
  For more information, see the IMG under *Optimizer -> Define Compatibility Types*.

The two new object types *Means-of-Transport Combination* and *Compartment* are available in the *Object Type* field. For more information, see the IMG under *Optimizer -> Define Field Catalog*.

Furthermore, you can also find the following new IMG activities in Customizing for TP/VS:

- *Basic Settings -> Define Number Range for HU Compartment Type*
- The new structure node *Trailers and Compartments* with the following IMG activity:
  - *Activate Trailers and Compartments*
- *Interfaces -> Maintain Mapping Table for Vehicles/Compartment Type*

You can find additional IMG activities in SCM Basis under *Master Data -> Trailers and Compartments*:

- *Define Compartment Type*
- *Define Means-of-Transport Combination*
- *Define Attributes for Means-of-Transport Combination/Compartment*
- *Define Coupling/Uncoupling Duration*
1.2.3 SCM-APO-SNP             Supply Network Planning (SNP)

1.2.3.1 Interactive Planung (enhanced)

Use

As SAP SCM 5.1, the following functions are available in interactive planning for Demand Planning (DP) and Supply Network Planning (SNP):

- Display of selected values as a graphic
  In the table for interactive planning, you can mark multiple cells, rows or columns by holding down the CTRL key, and then display their values as a graphic. One of the following prerequisites must be met for this:
  - You have marked the cells or rows in a group (in other words, there are no unmarked cells or rows between the marked cells or rows).
  - You have marked at least two cells or rows.
  - You have marked the entire table.

- Change in the enlargement factor
  You can use the enlargement factor to change the display size of the table.

- Calculation of minimum, maximum, number of filled cells, and user-defined calculation
  In the table for interactive planning, you can mark multiple cells by holding down the CTRL key, and choose one of the following calculations from the context menu:
  - Minimum or maximum of corresponding cell value
  - Number of filled cells
  - Own, user-defined calculation
    You can use the Business Add-In (BAdI) /SAPAPO/USR_DEF_CALC to implement your own user-defined calculation. For more information, see the Implementation Guide (IMG) for Advanced Planning and Optimization under Supply Chain Planning -> Demand Planning (DP) -> Business Add-Ins (BAdIs) -> Interactive Planning -> Execute User-Defined Calculation.

The result of the respective calculation is displayed in the status row.
1.2.3.2 Selection Organization (Enhanced)

Use

As of SAP SCM 5.1, you can execute the following functions in the selection organization in Demand Planning (DP) and Supply Network Planning (SNP):

- Create selection variants (up to now, this was only possible in interactive planning)
- Assign selection variants to one or more selection profiles
- Delete the assignment of selection variants to one or more selection profiles or folders
- Copy the assignment of selection variants in a selection profile to another selection profile

To assign selection variants to multiple selection profiles and to delete their assignment in multiple selection profiles, you can combine the profiles to form a user group.

To access selection management, on the SAP Easy Access screen, choose Advanced Planning and Optimization -> Demand Planning -> Environment -> Selection Organization -> Maintain Selection Assignment (transaction /SAPAPO/MC77).

1.2.3.3 Product Interchangeability (Enhanced)

Use

In Supply Network Planning (SNP) the interchangeability of products is already considered during heuristic-based and optimization-based planning. As of SAP SCM 5.1, the product interchangeability is also considered by deployment. This is valid for both deployment heuristic and the deployment optimizer.

Furthermore, the functions for product interchangeability in SNP and integration of SAP ERP with SAP SCM have also been enhanced.

Product Interchangeability in Deployment

As of SAP SCM 5.1, the deployment heuristic and the deployment optimizer consider SNP product substitution orders that have been created during heuristic or optimization-based planning. Deployment confirms these orders and converts them into deployment product substitution orders. For products that replace expired products, deployment creates deployment stock transfers.

The results are displayed in interactive SNP planning in the new key figures Substitution Demand (Confirmed) and Substitution Receipt (Confirmed).

The interchangeability rules can be defined for the deployment heuristic at both the source and target
location. For the deployment optimizer, the rules must be defined for each location that is relevant for product interchangeability.

**Enhancements to Product Interchangeability in SNP Planning**

Product interchangeability in SNP has been enhanced for the following functions:

- With completely interchangeable **supersession chains**, such as A<->B<->C<->D, stock can now be sent across the whole interchangeability group. This means that demand for A can be covered not only by the stock of B (as previously possible), but also directly by the stock of D, for example. The substitution can, however, be restricted by defined use-up dates for the stock of a product.

- For **FFF-classes** stock can now be transferred directly from one product of the class to another. This means, the demand of all products of an FFF-class can be covered by all other products of that FFF-class, and not only by the leading product (as was previously possible).

- You can use the **Business Add-In (BAdI)** /SAPAPO/SNP_INC_STFW to define how the existing stock of a product is used. If you do not implement the BAdI, the stock is first used to cover the demand of the product itself, and only then for the demand of the other products in the supersession chain. If you implement this BAdI, the system passes on stock to possibly valid substitution products in the supersession chain before it covers the demand of the product itself.

- You can use the **BAdI** /SAPAPO/SNP_INC_HRCH to define that neither of the SNP planning horizons (SNP production horizon and SNP stock transfer horizon) are considered during product interchangeability.

**Integration of SAP ERP in SAP SCM**

As of SAP SCM 5.1, simple discontinuation information can be transferred from the SAP ERP system to the SAP SCM system using the integration model of the Core Interface (CIF). This includes the initial transfer and the periodic transfer of data changes, but not the online transfer of data changes, if simple discontinuation information is changed in the material master data of the SAP ERP system.

If you set the simple discontinuation indicator in the integration model, CIF transfers the master data of the simple discontinuation of a level to the SAP SCM system. The SAP SCM system presents the master data of the simple discontinuation from the SAP ERP system as a forward interchangeable supersession chain. The setup information for discontinuation data in the bill of materials is not considered.

**Effects on Customizing**

As of SAP SCM 5.1, for product interchangeability in optimization-based planning and planning with the deployment optimizer, you can define in Customizing for SNP, whether supersession chains and FFF classes are considered. You make the settings in the optimization profiles under Define SNP Optimizer Profiles und Define SNP Deployment Optimizer Profiles.

**See also**

For more information, see the SNP documentation in SAP Library under *SNP Planning Run -> Product Interchangeability in Supply Network Planning.*
1.2.3.4 Consideration of Shelf Life Data (New)

Use

Up to now, Supply Network Planning (SNP) has considered shelf life data only to a very limited extent. As of Release 5.1, an alert functionality based on shelf life data is available in SNP. You can display the shelf life data of demands, receipts and stocks, propagate shelf life data of demands across the supply chain, and generate alerts for goods that will expire soon, or for shelf life mismatches between demands and stocks. Some shelf life data is transferred to Production Planning and Detailed Scheduling (PP/DS) and SAP ERP. The new functionality however, is not integrated into existing SNP planning applications.

Display of Shelf Life Data

For the shelf life functionality, a new standard planning book 9ASNP_SHLF with data view SHELF_LIFE is now available, based on the standard planning area 9ASNP02.

You can use this planning book in SNP interactive planning to display shelf life data. Data for individual orders (maturation date, expiration date, minimum/maximum required shelf life date) can be displayed in the detail view. For certain order types, you can also change shelf life data in the detail view. Data aggregated by location product, key figure, and period can be displayed in the new shelf life view. Data on expiring/wasted goods and the shelf life-based stock balance per location product are displayed in new key figures of the planning table.

In the new shelf life profile you determine the key figures and periods shelf life data is displayed for in the shelf life view. To create the profile in the SAP Easy Access Menu choose Advanced Planning and Optimization -> Supply Network Planning -> Environment -> Current Settings -> Profile -> Define SNP Shelf Life Profile.

Propagation of Shelf Life Data

After you carried out the SNP planning process, you can use the new shelf life propagation report to propagate the shelf life data of demands (for example, customer orders) across the supply chain. During this process, the system will set the shelf life data of SNP stock transfers and SNP planned orders linked to these demands. To perform the propagation report in the SAP Easy Access Menu choose Advanced Planning and Optimization -> Supply Network Planning -> Supply Network Planning in the Background -> Propagation of Shelf Life Data.

Generation of Alerts

After you carried out shelf life propagation, you can generate alerts in SNP interactive planning, using the shelf life planning book. The system will check for goods that will expire soon and for mismatches between shelf life requirements and actual shelf life. You can display the generated alerts in SNP interactive planning or in the Alert Monitor.
See also

For more information, see the SAP Library under Supply Network Planning -> Supply Network Planning Run -> Considering Shelf Life Data in SNP.

1.2.3.5 SCM-APO-SNP-OPT         SNP Plan Optimization

1.2.3.5.1 Prioritization of Customer Demand and High Volume Demand (New)

Use

As of SAP SCM 5.1, you can prioritize customer demands and high volume demands as part of optimization-based planning in Supply Network Planning (SNP). In this way, you can, for example, ensure that demand from important customers or those with a high service level are covered with preference by the SNP optimizer.

Furthermore, the SNP optimizer now considers sequence-dependent setup costs, and generates proposals for capacity reservation and block planning as part of Production Planning and Detail Scheduling (PP/DS)

Prioritization of Customer Demand

As of SAP SCM 5.1, you can prioritize customer demand for optimization-based SNP planning by assigning customer-dependent penalty costs. First, you create penalty cost groups in the application-specific master data under Define Penalty Cost Groups. You can use the Business Add-In (BAdI) /SAPAPO/SDP_RELDATA to assign penalty cost groups to forecasts and sales orders. You then release forecasts with descriptive characteristics, such as customer, to SNP or transfer sales orders from SAP ERP to SAP SCM via the Core Interface (CIF).

On the SNP 1 tab page in the product master data, which now features an ALV Grid, you can assign penalty costs for non-delivery and delays to the penalty cost groups. In this way, the penalty costs become customer-dependent, for example.

You can use the new penalty cost group profile to define that the SNP optimizer first covers demand from penalty cost groups with higher priority, and only then covers demand from penalty cost groups with a lower priority. You define the penalty cost group profile from the SAP Easy Access menu, by choosing Advanced Planning and Optimization -> Supply Network Planning -> Environment -> Current Settings -> Profiles -> Define SNP Penalty Cost Group Profiles and then assign it to an optimization run.

In the details view of interactive SNP planning and in the results log for the optimization, the system shows which penalty cost group an order belongs to.
Prioritization of High Volume Demand

As of SAP SCM 5.1, you can prioritize high volume demands for optimization-based SNP planning by assigning quantity-based penalty costs. To do this, you first create a profile for quantity-based penalty costs in the application-specific master data. You then assign this profile to the product (you can also specify that it is time-dependent, if necessary) on the SNP 1 tab page of the product master data.

Considering Sequence-Dependent Setup Costs

As of SAP SCM 5.1, the SNP optimizer considers sequence-dependent setup costs that you have already defined in the setup matrix for PP/DS. In the setup matrix, you can define setup transitions and setup costs for setup groups. The setup groups are transferred from SAP ERP into the production data structures (PDS). The SNP optimizer then optimizes the setup costs during planning.

In the detail view of interactive planning and in the results log of the optimizer, the order sequence number is shown. This determines the sequence of the planned orders in a period.

Generation of Proposals for Capacity Reservation and Block Planning in PP/DS

As of SAP SCM 5.1, the SNP optimizer can generate proposals for capacity reservation and the grouping of orders into blocks for block planning in PP/DS. These proposals are based on the planning results. The proposals can be loaded into the relevant PP/DS resource master data by pushing a button or they can be imported. Block information for individual orders are displayed in the detail view of interactive SNP planning. You also view a list of all orders that belong to a block.

For more information, see the PP/DS release note Capacity Reservation in PP/DS.

Effects on Customizing

In Customizing for SNP, under Define SNP Optimizer Profiles, on the Discrete Constraints tab page, you can enter a period for which the SNP optimizer considers sequence-dependent lot sizes.

Furthermore, under Maintain Global SNP Settings, you can define whether the SNP optimizer generates proposals for block planning and displays them in interactive SNP planning.

1.2.3.5.2 Quota Arrangements and Receipt Bounds in SNP Optimization (New)

Use
Consideration of Quota Arrangements

Previously in optimization-based planning in Supply Network Planning (SNP), quota arrangements were created but no existing quota arrangements were considered. As of SAP SCM 5.1, the SNP optimizer considers inbound, time-dependent quota arrangements that you have defined in the quota arrangement master data.

You can define quota arrangements for products and product groups. You assign products to product groups on the Properties 2 tab page in the product master data. For defining quota arrangements for product groups, a new product group type has been introduced (QT).

Consideration of Receipt Bounds

Previously, the SNP optimizer considered a series of time-dependent constraints that you could define in interactive SNP planning (for example, upper bound for procurement). As of SAP SCM 5.1, the SNP optimizer also considers upper and lower bounds for receipts. For this purpose, the SNP planning folder 9ATSOPT has been enhanced to include the data view OPT_TSRCBD, which contains new key figures.

Receipt Type and Penalty Costs

The consideration of quota arrangements and receipt bounds is valid for the following receipt types:

- In-house production
- External procurement
- Stock transfers from other locations

Exceeding and falling below quota arrangement values as well as receipt upper and lower bounds are soft constraints in the SNP optimizer. The system can violate these constraints and calculate the associated penalty costs. You define penalty costs for quota arrangements in the quota arrangement master data, and penalty costs for receipt bounds in interactive SNP planning. The penalty costs calculated by the optimizer are displayed in the optimization chart of interactive SNP planning and also in the results log of the optimization.

Effects on Customizing

In Customizing or in the current settings of SNP, under Define SNP Optimizer Profiles you can specify whether the SNP optimizer considers quota arrangements. Furthermore, you can define the system response for the following cases:

- multiple quota arrangements exist in a period
- quota arrangements have not been defined for all sources of supply

If you do not want the SNP optimizer to consider time-dependent constraints and thus also the receipt upper and lower bounds, you can set the corresponding indicator in the SNP optimizer profile.

See also
For more information, see the SNP documentation in SAP Library under SNP Planning Run -> Optimization-Based Planning -> Definition of Time-Based Constraints in Interactive Planning and Considering Inbound Quota Arrangements.

1.2.4 SCM-APO-SDM Multilevel Supply & Demand Matching

1.2.4.1 SCM-APO-SDM-CTM Capable-to-Match

1.2.4.1.1 Capable-to-Match (CTM) (enhanced)

Use

As of SAP SCM 5.1, Capable-to-Match (CTM) contains the following enhancements:

New Function in Supply Distribution

You can now make the settings for supply distribution in the CTM profile on the Supply Distribution tab page. You can execute the supply distribution automatically directly after the CTM run, or you can start it separately in the CTM profile.

Before you execute supply distribution, you can now define if multiple distribution is allowed. If you set the corresponding indicator in the CTM profile on the Supply Distribution tab page, the system assigns surplus receipt quantities or stock quantities, which can result from lot sizes, for example, to the next receipt or stock.

Consideration of Minimum Receipt Quantities

You can now define that CTM is to consider the corresponding Supply Network Planning key figure (SNP key figure) when planning the minimum receipt quantities. To do this, set the Plan Minimum Receipt Quantity indicator in the CTM profile on the Strategies -> Special Strategies tab page.

In addition, you can define how CTM is to proceed if it cannot reach the desired minimum receipt quantity. This can apply, for example, if CTM can only plan a larger quantity due to lot size specifications or can only plan a smaller quantity due to capacity restrictions. CTM planning then calculates any surplus or shortfall that results in this manner in a subsequent period.

If you want to use this function, set the Clear Surplus or Shortfall indicator in the CTM profile on the ZK>Strategies -> Special Strategies tab page.

New Advice Codes

The advice codes in the CTM customizing were enhanced with the following settings:

- **No External Procurement**
  If you set this indicator, the system does not create any purchase requisitions for this demand.

- **Product Replacement: Only Allow for Discontinuation**
  If CTM cannot cover a demand, it uses for this demand the successor product that was defined for the discontinuation. To define this, under Product Replacement, choose the option Only Allow for Discontinuation.
Collaboration between CTM and Distribution Resource Planning (DRP) in Service Parts Planning (SPP)

CTM now considers receipts from DRP stock transport orders when planning. A prerequisite for this is that the orders of the active SPP planning version are saved in the liveCache.

You can now also define that CTM transfers the planning of selected locations to DRP. To do this, you must make the following settings:

- CTM Master Data Selection: Choose the master data for the locations that CTM is to plan, including the locations at which the transfer to DRP is to occur (das verstehe ich nicht ganz ????)
- CTM Profile: On the Settings -> Technical Settings tab page, under External Procurement, choose the option SPP: Set Trigger for Planning File Entry
- SPP Customizing: You have set the Consider External STR Requisitions and Replacement Orders indicator under Distribution Requirements Planning (DRP) -> Make General Settings for DRP, under Product Group Type for Product Group Procurement.
- CTM Customizing: If no planning file entry is to occur for a demand, use the No External Procurement advice code.

1.2.5 SCM-APO-FCS Demand Planning

1.2.5.1 Interactive Planung (enhanced)

Use

As SAP SCM 5.1, the following functions are available in interactive planning for Demand Planning (DP) and Supply Network Planning (SNP):

- Display of selected values as a graphic
  In the table for interactive planning, you can mark multiple cells, rows or columns by holding down the CTRL key, and then display their values as a graphic. One of the following prerequisites must be met for this:
  - You have marked the cells or rows in a group (in other words, there are no unmarked cells or rows between the marked cells or rows).
  - You have marked at least two cells or rows.
  - You have marked the entire table.
- Change in the enlargement factor
  You can use the enlargement factor to change the display size of the table.
Calculation of minimum, maximum, number of filled cells, and user-defined calculation
In the table for interactive planning, you can mark multiple cells by holding down the CTRL key, and choose one of the following calculations from the context menu:

- Minimum or maximum of corresponding cell value
- Number of filled cells
- Own, user-defined calculation

You can use the Business Add-In (BAdI) /SAPAPO/USR_DEF_CALC to implement your own user-defined calculation. For more information, see the Implementation Guide (IMG) for Advanced Planning and Optimization under Supply Chain Planning -> Demand Planning (DP) -> Business Add-Ins (BAdIs) -> Interactive Planning -> Execute User-Defined Calculation. The result of the respective calculation is displayed in the status row.

1.2.5.2 Demand Planning (DP) (Enhanced)

Use

As of SAP SCM 5.1, the following enhancements are available in Demand Planning (DP):

Interactive Planning

See Enhancements in Interactive Planning

Characteristic Values Combinations

You can now find out which characteristic values combinations are no longer relevant to planning so that you can then delete them, for example. The result of the request is based on the following criteria:

- Characteristic values combinations without master data
  The system determines all characteristic values combinations that contain locations and products that no longer exist and or that contain products with a deletion flag.

- Characteristic values combinations without planning data
  The system determines all characteristic values combinations for which no planning data exists in liveCache.

Selection Organization

See Enhancements in Selection Organization
1.2.5.3 Selection Organization (Enhanced)

Use
As of SAP SCM 5.1, you can execute the following functions in the selection organization in Demand Planning (DP) and Supply Network Planning (SNP):

- Create selection variants (up to now, this was only possible in interactive planning)
- Assign selection variants to one or more selection profiles
- Delete the assignment of selection variants to one or more selection profiles or folders
- Copy the assignment of selection variants in a selection profile to another selection profile

To assign selection variants to multiple selection profiles and to delete their assignment in multiple selection profiles, you can combine the profiles to form a user group.

To access selection management, on the SAP Easy Access screen, choose Advanced Planning and Optimization -> Demand Planning -> Environment -> Selection Organization -> Maintain Selection Assignment (transaction /SAPAPO/MC77).

1.2.6 SCM-APO-SPP Service Parts Planning

1.2.6.1 Berücksichtigen externer UL-Banfen und Ersetzungsaufträge (neu)
1.2.6.2 Product Interchangeability in SPP with Form-Fit-Function Classes (New)

Use

As of SAP SCM 5.1, form-fit-function classes are available in Service Parts Planning (SPP).

In terms of product interchangeability, you could previously only use product supersession in Service Parts Planning. As of SAP SCM 5.1, you can also plan with form-fit-function classes. All products in a form-fit-function class are completely interchangeable. So, if for example, products A, B and C belong to the same form-fit-function class and there is a demand for product A, this demand can also be covered by product B or product C.

In Service Parts Planning, you define a product as the leading product for each subgroup (location-specific) of a form-fit-function class. Distribution Requirements Planning (DRP) then consolidates the demands and stock of the location products in a subgroup by adding the demand and stock of the non-leading location products with substitution orders to the demand and stock of the leading location product.

The leading products of each subgroup of a form-fit-function class must be identical.

See also

For more information, see SAP Library for SAP Supply Chain Management (SAP SCM) under SAP Advanced Planning and Optimization (SAP APO) -> Service Parts Planning (SPP) -> Master Data and General Functions for SPP -> Product Interchangeability in SPP.
1.2.6.3 Procurement Lead Time for Service Parts Planning (SPP) (Enhanced)

Use

As of SAP SCM 5.1, you can define your own procurement lead time component. For this, the Business Add-In BAdI: Define Procurement Lead Time Component (/SAPAPO/BADI_SPP_SCHEDULER) is available.

You can then assign these procurement lead time components to a procurement lead time group, which in turn you can assign to a procurement lead time scenario.

See also

For more information, see the Implementation Guide (IMG) for Advanced Planning and Optimization under Supply Chain Planning -> Service Parts Planning (SPP) -> Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdI: Define Procurement Lead Time Component.

1.2.6.4 Simulation (Enhanced)

Use

As of SAP SCM 5.1, you can assign a simulation version for the user interface in the simulation of Service Parts Planning (SPP). You can define version-dependent standard service profiles for the user interface, whereby the standard service profile that you use for planning, can be differentiated from the standard service profile used for the simulation.

1.2.6.5 Service Parts Planning (SPP) User Interfaces (Enhanced)

Use

As of SAP SCM 5.1, the Business Add-In (BAdI) BAdI: Define Modifications and Enhancements...
for User Interfaces (/SCF/UIMDL_APPCUST) is available. You can use this BAdI, for example, to define that the system displays additional columns on the Service Parts Planning user interfaces.

See also

For more information, see the Implementation Guide (IMG) for Advanced Planning and Optimization under Supply Chain Planning -> Service Parts Planning (SPP) -> Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdI: Define Modifications and Enhancements for User Interfaces.

1.2.6.6 SCM-APO-SPP-CPD Entry and Maintenance of Historical Data

1.2.6.6.1 Generating Demand History (Enhanced)

Use

As of SAP SCM 5.1, you are also able to create the demand history for Service Parts Planning (SPP) on the basis of order and stock transfer data from SAP ERP.

Previously you could only create the demand history on the basis of order data from SAP Customer Relationship Management (SAP CRM). As of SAP SCM 5.1, new functions and new objects from SAP Business Intelligence (SAP BI) are available for extracting order and stock transfer data from SAP ERP, for collecting this data in SAP SCM as historical data and for maintaining and reorganizing it to generate the final demand history for Service Parts Planning.

See also

For more information, see SAP Library for SAP Supply Chain Management (SAP SCM) under SAP Advanced Planning and Optimization (SAP APO) -> Service Parts Planning (SPP) -> Demand History Creation.

1.2.6.7 SCM-APO-SPP-SFC Service Parts Forecast

1.2.6.7.1 Functions in Forecasting (Enhanced)
Use

As of SAP SCM 6.0, new functions will exist for forecasting in the following areas:

- Forecasting strategies
- Forecasting profiles
- Outlier correction
- Forecast errors
- Automatic model selection
- Forecast approval

Forecasting Strategies

Up to now, it was only possible to use the forecasting strategies delivered by us for forecast creation. As of SAP SCM 6.0, you can create your own forecasting strategy in the Business Add-In (BAdI) \textit{BAdI: Define Customer-Defined Forecast Strategy} (/SAPAPO/BADI_FCST_STRATEGY) and select it in the forecast profile.

Forecasting profiles

Previously you could only pass on forecasting profiles along a specific hierarchy. As of SAP SCM 5.1, you can, for example, also copy a forecasting profile that you created for a product or location product to another location product. To copy a forecasting profile, you can either use the planning service manager or you can manually copy the forecasting profile (or even just particular parameters from it) in the \textit{Forecast Profile} screen.

Outlier correction

Up to now, it was only possible to use the outlier correction delivered by us. As of SAP SCM 6.0, you can create your own outlier correction in the BAdI \textit{BAdI: Define Customer-Defined Outlier Correction} (/SAPAPO/BADI_OUTLIER_CTRL) and select it in the forecast profile.

We deliver the BAdI \textit{BAdI: Define Customer-Defined Outlier Correction} with an example implementation based on medians and inter-quartile ranges, and especially suited to slow-moving location products.

Forecast errors

Up to now, it was only possible to use the Root Mean Square Error (RMSE) forecast error in automatic model selection. As of SAP SCM 6.0, you can also work with the following forecast errors:

- mean percent error (MPE)
- mean absolute percent error (MAPE)
- mean square error (MSE)

You can select the desired forecast error in the forecast profile.

In the BAdI \textit{BAdI: Define Customer-Defined Forecast Errors} (/SAPAPO/BADI_FCST_ERROR), you can define your own forecast error and select it in the forecast profile.

We deliver the BAdI \textit{BAdI: Define Customer-Defined Forecast Errors} with an example implementation. We have defined the mean absolute error (MAE) forecast error in this example implementation.
Automatic model selection

Previously you could only define one configuration for automatic model selection. As of SAP SCM 5.1, you can define profiles for automatic model selection and assign these on location product level in the forecast profile.

To be able to use automatic model selection in SAP SCM 5.1, you must implement SAP Note 102945.

Forecast Approval

Up to now it was only possible to use the forecast approval with the logic delivered by us. As of SAP SCM 6.0 you can also create a final forecast determination profile, in which you define which forecast key figures(s) you want the system to adopt for the final forecast. In addition you can create a customer-defined forecast approval logic in the BAdI BADI: Define Forecast Approval Logic (/SAPAPO/FCST_APPR_CUST_DEF).

In the forecast profile you can either specify which of the final forecast determination profiles the system should use, or whether the system should use the logic implemented by you in the BAdI.

See also

For more information, see the SAP Library for SAP Supply Chain Management (SAP SCM) under SAP Advanced Planning and Optimization (SAP APO) -> Service Parts Planning -> Forecasting. Alternatively, see the Implementation Guide (IMG) for Advanced Planning and Optimization under Supply Chain Planning -> Service Parts Planning (SPP) -> Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdIs for Forecasting.

1.2.6.7.2 Leading-Indicator-Based Forecasting (New)

Use

As of SAP SCM 5.1, you can also create forecasts for Service Parts Planning (SPP) based on leading indicators.

Previously you could only create forecasts based on the demand history. In other words, on the basis of past demands. As of SAP SCM 5.1, you can also use leading-indicator-based forecasting. With leading-indicator-based forecasting, you can use your knowledge of your installed base (that is your equipment in the market) or particular key figures from your installed base. For example, you could create a forecast based on the default rate or the operation time.

With SAP SCM 5.1, we deliver the following leading indicators:

- Installed Base
- Operation Time
- Number of Uses
In addition to these leading indicators, you can define your own ones.

During the leading-indicator-based forecast the system first generates time series with historical data for the chosen leading indicator and coefficient (you can map the default rate in the coefficient). For this, a new planning service is available in the planning service manager (PSM) is available. This is the planning service **SPP: Preparation Service for Leading-Indicator-Based Forecasting**. The system creates the forecast for the leading indicator and coefficient itself based on the historical data. The system then uses the forecast values for the leading indicator and the coefficient to determine the leading-indicator-based forecast for your service part (your location product).

See also

For more information see SAP Library for **SAP Supply Chain Management (SAP SCM)** under **SAP Advanced Planning and Optimization (SAP APO)** -> Service Parts Planning (SPP) -> Forecasting and also the Implementation Guide (IMG) for **Advanced Planning and Optimization** under **Supply Chain Planning** -> Service Parts Planning (SPP) -> Forecasting.

1.2.6.8 SCM-APO-SPP-SIP  Service Parts Inventory Planning

1.2.6.8.1 SFT and EOQ Calculation in Inventory Planning (Enhanced)

Use

As of SCM 5.1, you are able to define your own logic for calculating the safety stock (SFT) and economic order quantity (EOQ) in inventory planning.

- **Safety Stock for Repairable Products**
  You can define how the system calculates a safety stock for repairable products.
  In SCM 5.1, you can define an additional safety stock calculation for repairable products using Business Add-In (BAdI) **BAdI: Calculate Safety Stock for Repairable Products** (/SAPAPO/PINV_REPSFT) regardless of the existing combined calculation of economic order quantities and safety stock.

- **Safety Stock and Economic Order Quantity for Location Products Planned Using Reorder Point**
  You can define how the system calculates the safety stock and the economic order quantity for location products that you plan using reorder point. For this, you can implement the BAdI **BAdI: Calculate EOQ and SFT for Products Planned Using Reorder Point** (/SAPAPO/PINV_ROP_EOQSFT). If you do not implement this BAdI, the system does not calculate a safety stock or economic order quantity for location products that are planned using reorder-point-based planning.

- **Forecast Method in Surplus and Obsolescence Planning**
As of SCM 5.1, the BAdI **BAdI: Determine Forecast Method for Surplus and Obsolescence Planning** (/SAPAPO/SOR_SRPLDET_FCST_TYPE) is available. You can use this BAdI to define which forecast the system uses for determining the surplus quantity.

**See also**
For more information, see the SAP Library for *SAP Supply Chain Management (SAP SCM)* under *SAP Advanced Planning and Optimization (SAP APO) -> Service Parts Planning (SPP)* as well as the Implementation Guide (IMG) for *Advanced Planning and Optimization under Supply-Chain-Planning -> Service Parts Planning (SPP) -> Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdIs for Inventory Planning.*

### 1.2.6.9 SCM-APO-SPP-SDR Distribution Requirements Planning for Service Part

#### 1.2.6.9.1 Functions for Distribution Requirements Planning (DRP) (Enhanced)

**Use**
As of SAP SCM 5.1, the Business Add-In (BAdI) **BAdI: Calculate Date of Last Net Demand** (/SAPAPO/INC_LAST_NETDEMAND) is available in Distribution Requirements Planning (DRP). You can use this BAdI to define when Distribution Requirements Planning (DRP) calculates a net demand for a location product for the final time. It is sensible, for example, to no longer calculate the net demand for a location product after a specific date, if this location product is the predecessor product in a product substitution.

#### 1.2.6.9.2 Repair or Buy in Distribution Requirements Planning (DRP) (New)

**Use**
As of SAP SCM 5.1, the repair-or-buy function is available in Distribution Requirements Planning.
Previously, you could primarily use DRP for planning the external procurement of service parts. However, it is often more sensible and more cost-effective to repair expensive service parts instead of procuring new parts. Therefore, the repair-or-buy function is available as of SAP SCM 5.1. You can use this to decide, for each location product, whether you want to externally procure it, whether the system makes a repair-or-buy decision, or whether it always schedules the location product for repairs.

If you choose the repair-or-buy decision or to repair in every case, DRP schedules, according to your requirements, either the internal repair or the external repair at a subcontractor.

- In the repair-or-buy decision, the system chooses repair if the following conditions are met:
  Enough unserviceable products exist (stock plus forecast for repairable products), to cover the demand for repaired products.
  If a demand cannot be completely covered by repaired products, DRP decides that the remaining demand is procured externally. Before it does this, however, DRP checks whether external procurement is more cost-effective than a late delivery.

  **Example:**
  There is a demand of 25 pieces.
  Only 15 pieces of the demand can be covered by repairs.
  DRP decides to repair 15 pieces.
  For the remaining uncovered demand of 10 pieces, DRP checks whether the external procurement is more cost-effective than a late delivery:
  In 2 days time, 4 more repaired products will be available. For this product a 2 day delay to the delivery is more cost-effective than external procurement. This means that DRP accepts a shortage for 4 pieces and decides to repair them.
  In 20 days time, a further 6 repaired products will be available. For this product a 20 day delay to the delivery is more expensive than external procurement. This means that DRP decides against a shortage and instead decides to externally procure 6 pieces.
  Therefore, DRP makes a repair decision for 19 pieces and an external procurement decision for 6 pieces.

- If you have decided that a location product should be repaired in every case, but this then results in a delivery delay that would not otherwise occur with the repair-or-buy decision, the system generates an alert.

See also

For more information, see SAP Library for *SAP Supply Chain Management (SAP SCM)* under *SAP Advanced Planning and Optimization (SAP APO)* -> *Service Parts Planning* -> *Distribution Requirements Planning (DRP)* and also the Implementation Guide (IMG) for *Advanced Planning and Optimization* under *Supply Chain Planning* -> *Service Parts Planning (SPP)* -> *Distribution Requirements Planning (DRP)* and under *Business Add-Ins (BAdIs)* for *Service Parts Planning (SPP)* -> *BAdIs for Distribution Requirements Planning (DRP).*
1.2.6.9.3 Reorder-Point-Based Planning in DRP (New)

Use

As of SAP SCM 5.1, reorder-point-based planning is available in Distribution Requirements Planning (DRP).

Previously, DRP only planned using periods on the basis of forecast results. As of SAP SCM 5.1, reorder-point-based planning is also available. With this, you can decide which of your location products you want to plan period-based and which you want to plan based on reorder point. Reorder-point-based planning can, for example, be useful for slow-moving location products or for location products for which no significant forecast results exist.

In reorder-point-based planning, DRP checks whether the current stock (including the planned receipts) falls below the reorder point that was defined by either you or the system. The system then determines the difference between the current stock (including the planned receipts) and the reorder point as the unrounded net demand. DRP then uses this for planning.

See also

For more information, see the SAP Library for SAP Supply Chain Management (SAP SCM) under SAP Advanced Planning and Optimization (SAP APO) -> Service Parts Planning -> Distribution Requirements Planning (DRP) and also the Implementation Guide (IMG) for Advanced Planning and Optimization under Supply Chain Planning -> Service Parts Planning (SPP) -> Distribution Requirements Planning (DRP) -> Determination of DRP Planning Mode and under Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdIs for Distribution Requirements Planning (DRP).

1.2.6.10 SCM-APO-SPP-SDE Service Parts Deployment

1.2.6.10.1 Functions for Deployment and Inventory Balancing (Enhanced)

Use

As of SAP SCM 5.1, the following additional functions for deployment and inventory balancing are available:

- Determination of Demand in Deployment
  As of SAP SCM 5.1, the Business Add-In (BAdI) BAdI: Determination of Demand in Deployment (/SAPAPO/DEPL_DEMAND_CALC) is available. In the method IDENTIFY_PUSH_PULL_LOCATIONS of this BAdI you can define that incoming goods that are intended to cover the demand a child location are not distributed to this child location, but instead remain at the parent location. In this way, it is possible to not supply the child location with goods
during deployment, but still consider the demand of this child location while holding the goods at the parent location and not distributing them to other child locations.

- **Fair Share Distribution in Deployment**
  As of SAP SCM 5.1, the BAdI **BAdI: Define Fair Share Distribution** (/SAPAPO/DEPL_FAIR_SHARE) is available. You can use this BAdI to define your own logics for fair share distribution in the following cases:
  - Fair share distribution in the normal instance
  - Fair share distribution for rush orders
  - Fair share distribution for open sales orders
  - Fair share distribution for fixed demands

- **Release of Stock Transport Orders in Deployment and Inventory Balancing**
  Previously, you could only specify that you wanted to manually confirm all stock transport orders created by deployment or inventory balancing, or that you did not want to manually confirm any of these stock transport orders. As of SAP SCM 5.1, the BAdI **BAdI: Define Logic for Release of Stock Transport Orders** (/SAPAPO/SPP_DEPL_REDEPL_STO) is available. In the method CHANGE_FLG_APPROVAL of this BAdI, you can specify which of the stock transport orders created by deployment or inventory balancing you want to manually release.

- **Determination of Surplus Quantity and Shortage Quantity**
  As of SAP SCM 5.1, you can adjust the surplus and shortage quantities that were determined by the inventory balancing service. For this purpose, the BAdI **BAdI: Define Surplus Quantity and Shortage Quantity** (/SAPAPO/SPP_REDEPL) is available as of SAP SCM 5.1.

**See also**

For more information, see the Implementation Guide (IMG) for *Advanced Planning and Optimization* under Supply Chain Planning -> Service Parts Planning (SPP) -> Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdIs for Deployment and under BAdIs for Inventory Balancing.

### 1.2.6.11 SCM-APO-SPP-SFA Service Fill Analysis

#### 1.2.6.11.1 Functions for Supplier Delivery Performance Rating (SDPR) (Enhanced)

**Use**

As of SAP SCM 5.1, the following new functions for supplier delivery performance rating (SDPR) are available:
- **Definition of Time of Supplier Delivery Performance Rating**
  As of SAP SCM 5.1, you can no longer define the times of supplier delivery performance rating globally, but instead specifically for suppliers and product groups. This means that you can specify, for each supplier and product group, whether the system uses the goods issue date and the goods issue quantity or the goods receipt date and the goods receipt quantity when determining the supplier delivery performance rating.

- **Product Group as Additional Criterion**
  As of SAP SCM 5.1, the product group is available as an additional selection criterion for the following settings in supplier delivery performance rating:
  - Time of Supplier Delivery Performance Rating
  - Quantity Tolerance for Correctness of ASN
  - Time Window for On-Time Delivery
  - Quantity Tolerance for On-Time Delivery

- **DataSources**
  In the following DataSources, the field *Number of Days* (SPAN_ANY_DAYS) has been added:
  - *Consumption ASN with Purchase Order* (0SPL_SDPR ASN2PO_1)
  - *Consumption ASN with Scheduling Agreement Release* (0SPL_SDPR ASN2SCH_1)
  The number of days that is entered in this field, is the difference between the delivery time requested in the purchase order or scheduling agreement release and the delivery time confirmed in the advanced shipping notification.

**Note:**
To be able to use the functions for supplier delivery performance rating, you must be using SAP Supply Network Collaboration (SAP SCN).

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**See also**
For more information see the Implementation Guide (IMG) for *Supply Network Collaboration* under *Functions for Service Parts Planning (SPP) -> Supplier Delivery Performance Rating (SDPR)*.

### 1.2.6.11.2 Functions for SF Monitor and SL Analysis (Enhanced)

**Use**
As of SAP SCM 5.1, the the Business Add-In (BAAdI) *BAAdl: Read Additional Values from CIF Interface* (/SAPAPO/CL_EX_SRVF_CIF_IN) is available for the Service Fill Monitor and Service Loss Analysis. You can use this BAAdl to read addition values that you want to evaluate using the Service Fill Monitor and in the Service Loss Analysis, from the Core Interface (CIF).
1.2.6.12 SCM-APO-SPP-SHA  
Shortage Analysis

1.2.6.12.1 Functions for Shortage Analysis (Enhanced)

Use

As of SAP SCM 5.1, the following enhanced functions for shortage analysis are available:

- **Marking Alerts as Viewed**
  As of SAP SCM 5.1, the **viewed** indicator is available to internal planners in the shortage monitor. The planner can use this to suppress certain entries for a certain amount of time in the shortage monitor. These entries are ones that the planner has seen but cannot resolve for the time being. With the **viewed** indicator, there is also a new date field available. This date field shows when the system will reset the **viewed** field. In other words, the time from when the system no longer suppresses the **viewed** entry, and redisplays it for processing.
  To change the logic that is delivered in the standard setup for resetting the indicator, the Business Add-In (BAdI) **BAdI: Define Logic for Shortage Analysis (/SAPAPO/SPP_SHORTAGE_ANALYSIS)** is available.

- **Alert Monitor**
  As of SAP SCM 5.1, the following new alert types are available:

  - **7813 - Critical Product (Shortage Analysis)**
    If the shortage analysis of a product is identified as being **critical** or **potentially critical**, the system sets an alert of this type.

  - **7868 - Inconsistency of DRP Planning Mode in the BOD**
    If the DRP planning mode of a parent location is reorder-point-based, but the DRP planning mode of one of its child locations is period-based, the system sets an alert of this type.

  - **7877 - SPP DRP: Invalid Master Data**
    The system sets an alert of this type to refer to master data settings which Distribution Requirements Planning (DRP) cannot use for planning.

  - **7888 - Determining the DRP Planning Mode**
    The system sets an alert of this type if the DRP planning mode that you have specified in the location product master data does not match the DRP planning mode that the BAdI **BAdI: Determine DRP Planning Mode (/SAPAPO/DRP_PLANNING_MODE)** determined.

  - **7890 - DRP Repair or Buy**
    The system sets an alert of this type to indicate particular situations when you work with the repair-or-buy function for a location product. For example, the system sets this alert type if you...
have specified that a location product is always repaired and never replaced by a new product, but for this location product a supply shortage occurs that could be reduced by procuring a new product.

As of SAP SCM 5.1, there are new criteria that can be displayed in the table in the Statistical View area of the alert monitor, in order to provide the desired overview of your alerts. As well as the group criteria, you can also choose a criterion for which the system shows the alerts in the statistical view. If, for example, you choose the criterion Product, the system adds an additional column for each product (for which the chosen alerts exist) to the table. In these columns you can see the alerts per product.

- **Calculate Days’ Supply and Open Quantities**
  As of SAP SCM 5.1, you can define how the system calculates days’ supply and open quantities. For this the BAdI BAdI: Define Logic for Shortage Analysis (/SAPAPO/SPP_SHORTAGE_ANALYSIS) is available.

- **Adjust Planning Results**
  As of SAP SCM 5.1, you can define how the system changes the planning results for shortage analysis. For this, the BAdI BAdI: Define Logic for Shortage Analysis (/SAPAPO/SPP_SHORTAGE_ANALYSIS) is available.

**See also**
For more information, see SAP Library for SAP Supply Chain Management (SAP SCM) under SAP Advanced Planning and Optimization (SAP APO) -> Service Parts Planning (SPP) -> Analysis, Reporting and Monitoring for Service Parts Planning -> Shortage Analysis and also the Implementation Guide (IMG) for Advanced Planning and Optimization under Supply Chain Planning -> Service Parts Planning (SPP) -> Monitoring -> Shortage Analysis and under Business Add-Ins (BAdIs) for Service Parts Planning (SPP) -> BAdIs for Monitoring and Reporting -> BAdI: Define Logic for Shortage Analysis.

**1.2.7 SCM-APO-PPS Production Planning and Detailed Scheduling**

**1.2.7.1 CIF Comparison/Reconciliation of Transaction Data(Enhanced)**

**Use**
As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the CIF comparison/reconciliation of transaction data (CCR):

The transaction /SAPAPO/CCR in the SAP SCM system, has been enhanced to allow for comparing and reconciliation of manual reservations. If you want to carry out a comparison/reconciliation for manual reservations, you have to set the indicator Manual Reservations on the tab page Comparison/Reconciliation.
Effects on Existing Data

The transaction data such as planned orders or production orders are compared using this transaction. /SAPAPO/CCR carries out a comparison of the selected orders between the SCM and the specified enterprise resource planning (ERP) system. You can reconcile the errors that are shown. This is done either by triggering a transfer of the order between the systems or by deleting it.

Note: You can use transaction CFM1 for material reservations which are integrated from ERP to SCM via integration model for manual reservations.

Effects on System Administration

The following data element has been created for /SAPAPO/CCR:
- /SAPAPO/CIF_DELTA3_CBOX_RSV

1.2.7.2 Collaborative Management of Delivery Schedules (Enhanced)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the collaborative management of delivery schedules (CMDS) to improve performance:

- Release History
  This report contains all data pertaining to the purchasing scheduling agreement release such as details of the supplier, quantities, and dates. Currently this report has a hierarchical structure which displays operative delivery schedules, forecast delivery schedules, and confirmations. This report has been enhanced for a better look and feel. A new screen has been created. It displays scheduling agreement releases grouped by creation date and requirement/demand date.

- Goods Receipt Consumption
  The planning run has been enhanced to ensure that there are no deficits due to goods receipt (GR) consumption. In the earlier releases, there is a possibility that an unwanted deficit could occur during planning run. This is caused due to GR consumption. For example, if a new schedule line is created earlier than an existing but completely consumed schedule line, then GR consumption consumes the new schedule line and the previously consumed schedule line is left unconsumed. This leads to unwanted deficit as the requirement is not met on time after a planning run.

Effects on Existing Data

The BAdI /SAPAPO/RRP_PLANNING has been enhanced to include the interface method PEGID_GET_IO, for the function goods receipt consumption. This BAdI method is invoked during all planning scenarios. It allows you to change requirements, receipts, and virtual safety stock requirements, prior to the net requirements calculation.
1.2.7.3 Enhancements in Capable-to-Promise (CTP) (Enhanced)

Use

In the previous releases, the CTP process has been used to check whether the requested product is available or not. If the requested product is not available, PP/DS is automatically called to procure the missing amount. The system calculates the production date for the planned order, taking into account the available capacity and the available components. As of this release, the following enhancements have been made to the CTP process:

1. The online CTP process has been enhanced to consider the capacity reservations maintained in the resource master data. As of SAP Supply Chain Management (SAP SCM) 5.1, the user can maintain reservations on the PP/DS bucket capacity for different descriptive characteristic values. It is possible to configure the online CTP to do a finite check on the bucket capacity. In this mode you can also do a finite check on reservations. The descriptive characteristic values from the sales order can be used to check against reservations in the resource.

2. A new interactive CTP heuristic (SAP_CTG_DLG) has been introduced in SAP SCM 5.1, using which the production planner can interactively carry out an availability check for the sales order. After all delays and unavailability at component level have been rectified, this heuristic can be used to simulate the CTP to determine the new availability date for the sales order. When you accept the proposal from the interactive CTP heuristic by merging the simulation, the system invokes Back Order Processing (BOP). BOP updates the sales order with the new confirmed date and the confirmed quantity.

See also

Capacity Reservations in PP/DS (New)

1.2.7.4 Subcontracting with Source Location in PP/DS (Enhanced)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, the process subcontracting with source location in Production Planning and Detailed Scheduling (PP/DS) has been enhanced. It is now possible to have more than one production version at the location of the subcontractor. This enhancement is available with the SAP ECC 7.0 release.
In the subcontracting scenario with source location, the system creates a purchase requisition at the plant and a stock transport requisition at the location of the subcontractor. Then the system creates an in house production order for the location of the subcontractor.

Up to now, you could assign only one source of supply (Product Process Model or Production Data Structure) to an in house production order. The reason was that only one production version could be associated to a purchasing info record. With the new development, it is now possible to have multiple production versions associated to the purchasing info record.

Therefore, it is now possible to change the source of supply for a subcontracting planned order. The source of supply can be changed via order processing or the Detailed Scheduling Planning Board. When you change the source of supply for a subcontracting planned order at the supplier location, the system makes appropriate changes to the data in the ERP system. The planning at the subcontractor also considers all available sources of supply.

For the above functions to work, you should consider the following prerequisites:

- In the ERP system, a new indicator Transfer Multiple Selection of PDS is available in the Customizing in the following path: Integration with Other mySAP.com Components -> Advanced Planning and Optimization -> Basic Settings for the Data Transfer -> Change Transfer -> Change Transfer for Master Data -> Configure Change Transfer for Master Data.
  When you set this indicator, the system allows you to select several productions versions in the integration model.

- Additionally you have to assign the relevant production versions to the purchasing info record using the transaction CMPDS1 in the ERP system. For more information about CMPDS1, see the SAP menu in the ERP system under Logistics -> Central Functions -> Supply Chain Planning Interface -> Core Interface Advanced Planner and Optimizer -> Environment -> Data Transfer -> Assign Multiple Production Versions. You assign multiple production versions to the purchasing info record. You transfer these production versions to APO. The system then creates a PPM or a PDS for each production version in APO.

See also

For more information, see SAP Library under Documentation -> mySAP Business Suite -> SAP Supply Chain Management -> SAP Supply Chain Management (SAP SCM) -> SAP Advanced Planning and Optimization (SAP APO) -> Production Planning and Detailed Scheduling (PP/DS) -> External Procurement -> Subcontracting -> Subcontracting with Source Location in PP/DS.

1.2.7.5 Production Data Structure (Enhanced)

Use
As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to eliminate rounding errors in the production data structure (PDS):

The PDS explosion now ensures that the quantity of components forming the PDS have data types or variables of higher level of precision. This includes mode duration and bucket capacity consumption. In earlier releases, only three decimal places were allowed resulting in a rounding error.

**Effects on System Administration**

The following data element has been created for the rounding errors in the PDS:

- `/SAPAPO/CULL_MENGE`

**1.2.7.6 SCM-APO-PPS-DST**  
**Detailed Scheduling Planning Board**

**1.2.7.6.1 Campaign Planning (Enhanced)**

**Use**

As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the Production Campaign Planning function in the Production Planning and Detailed Scheduling (PP/DS) component. These enhancements, added in the Advanced Planning and Optimization (APO) system, includes several new developments in the area of reconciliation.

**Split Campaigns**

The new Split Campaign function allows you to split a campaign into two. A planned order within a campaign is selected as the split point, with all orders after it being assigned to the newly created campaign.

The split can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling) using the Split Campaign pushbutton on the Production Campaign toolbar. Alternately, use the same pushbutton from the Change Production Campaign screen; choose Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path Functions -> Production Campaign -> Split.

**Merge Campaigns**
The new **Merge Campaigns** function allows you to merge two or more campaigns into one single campaign. Campaigns across resources can also be merged.

To merge campaigns, select the target campaign that you wish to merge into, and then select the **Merge Campaigns** pushbutton. You then view the list of all campaigns currently available, except for the target campaign. The selected source campaigns are merged into the target campaign.

The merging can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in **Advanced Planning and Optimization** -> **Production Planning** -> **Interactive Production Planning** -> **Detailed Scheduling**) using the **Merge Campaigns** pushbutton on the **Production Campaign** toolbar. Alternately, use the same pushbutton from the **Change Production Campaign** screen; choose **Advanced Planning and Optimization** -> **Production Planning** -> **Interactive Production Planning** -> **Production Campaign** -> **Change Production Campaign**.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path **Functions** -> **Production Campaign** -> **Merge**.

### Move Orders Between Campaigns

This new function allows you to move planned orders between production campaigns. Until now it was only possible to insert an order in a production campaign. A prerequisite was that the order not be associated with another campaign.

To insert or move orders from one campaign to another, the **Include Orders in Campaign** function in the Detailed Scheduling Planning Board and the **Add Existing Orders** function in **Production Campaign** have been enhanced.

In the Detailed Scheduling Planning Board (which you access choosing one of the views in **Advanced Planning and Optimization** -> **Production Planning** -> **Interactive Production Planning** -> **Detailed Scheduling**), select the order you want to move. On choosing the **Include Orders in Campaign** pushbutton, you view all currently active campaigns, out of which you select the target campaign. Note that moving orders between campaigns may also reschedule the order; in such cases the movement is done in alignment with the scheduling profile (maintained on the Detailed Scheduling Planning Board), which may disallow movement if required.

On the **Production Campaign** screen (which you access choosing **Advanced Planning and Optimization** -> **Production Planning** -> **Interactive Production Planning** -> **Production Campaign** -> **Change Production Campaign**), you first select the target campaign into which the planned order must be moved; you carry out this selection in the screen area to the left. When you choose **Add Existing Orders**, all orders are displayed in the **Add Existing Orders to Production Campaign** window with campaign associations, if relevant. You then select the required orders and move them to the target campaign by choosing **Move Orders to Production Campaign**.

### CIF Comparison/Reconciliation of Transaction Data

The report **CIF Comparison /Reconciliation of Transaction Data** was enhanced by a new check for campaign consistency. This check enables the comparison of production campaigns in the ERP and APO systems in an integrated landscape. It also allows the reconciliation of any differences using a suitable strategy. For this purpose, a new indicator for production campaign has been introduced into the existing **Comparison/Reconciliation** transaction; to access it choose **Advanced Planning and Optimization** -> **APO Administration** -> **Integration** -> **CIF Comparison/Reconciliation of Transaction Data** ->
Execute Comparison/Reconciliation.

You select the ERP system as well as the product and locations for which the production campaign reconciliation is to be carried out. Then select the Production Campaigns indicator and execute the report. The results of the report are categorized according to the nature of the inconsistency detected, for example, existing in the ERP system but missing in APO, existing in APO but missing in the ERP system, missing integration model, and so on.

You can select an error category to view the inconsistent production campaigns. Then select one or more campaigns and choose the active resolution strategy to eliminate the inconsistency.

The Production Campaigns indicator does not alter any existing business processes but introduces a new one. The existing processes of planned order reconciliation, for example, remain and must be carried out if required.

Add External Campaign Information from ERP System to APO

This function allows you to see the external campaign number (the number for the production campaign in the ERP system) and select planned orders using the APO campaign number as a selection criterion in the Process Order View and Product View transactions. Currently only the APO campaign numbers are visible. Access the Process Order View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Order Processing; similarly you can access Product View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Product View.

In addition, you can now choose to see either the APO campaign number or the external campaign number in the Production Campaign toolbar on the Detailed Scheduling Planning Board. This is turned on or off using a customizing indicator.

By default, the new function is not visible in existing ALV tables. To see the external campaign number, you must add it to the visible columns from the field catalog.

Select All Orders of Campaign in Receipts View and Conversion of Planned Orders

This function allows you to select planned orders in Receipts View using the APO production campaign number as a selection criterion. Access Receipts View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Receipts View. You can also see the APO's production campaign number and the external production campaign number for the planned order in the Details View, if relevant.

Alternately, you can select planned orders for conversion in the Mass Conversion transaction using the APO production campaign number as a selection criterion.

Effects on Customizing

A new indicator, Ext. Camp. No., has been introduced in Customizing for the Planning Board Profile.
You access this Customizing activity from **Advanced Planning and Optimization -> Supply Chain Planning -> Production Planning and Detailed Scheduling (PP/DS) -> Detailed Scheduling -> Settings for the Detailed Scheduling Planning Board -> Maintain Planning Board Profiles.** Within the activity, select the required planning board profile and choose **Chart -> Resources Chart -> Details.** You must select the **Ext. Camp. No.** indicator to see the external campaign number in the Detailed Scheduling Planning Board.

No customizing settings are required to see the external campaign number in **Process Order View** or **Product View.**

### 1.2.7.6.2 MRP-based Detailed Scheduling (New)

#### Use

As of SAP Supply Chain Management (SAP SCM) 5.1, it is possible to combine **Material Requirements Planning (MRP)** in ERP and **Detailed Scheduling** in **Advanced Planning and Optimization (APO)** without transferring **bill of materials** (BOMs), routings, or production versions to APO. This enhanced process enables you to derive benefits from detailed scheduling in APO while continuing to use the planning functions of ERP.

The following functions have been improved:

- **Transfer of Planned Orders with Capacity Requirements**
  The Core Interface (CIF) has been enhanced to transfer planned orders with operations and capacity requirements from ERP to APO. These planned orders do not need a source of supply, for example, production data structure (PDS) or production process model (PPM) in APO. The APO system derives the operations from a temporary conversion of the planned orders into production orders. Note: If no routing is present, it is possible to generate a dummy operation based on an existing ERP customizing setting. For more information, see **Customizing** in the ERP system under **Production -> Shop Floor Control -> Operations -> Task List Selection -> Define Default Values.**

- **Fixed Pegging based on Collective Orders in ERP**
  A new heuristic **MRP for DS: Collective order Heuristic (SAP_PP_MRPDS)** has been developed. This heuristic is based on the algorithm HEU_MRPDS_COLL_ORDER. The algorithm reads collective orders in ERP and replicates the relationships, which exist between orders, to APO using fixed pegging.
  In addition, the ERP buffer times (wait time and move time) of the last operation for the preceding order in a collective order are transferred as offset or planning relevant offset for the input node of the succession order.
  An overall profile SAP_MRPDS has also been created for the DS planning board.

- **Transfer Orders meant for Direct Procurement**
  Earlier purchasing documents (purchase requisitions or purchase orders) meant for direct procurement did not get transferred from ERP to APO. Now transfer of such an order has been made possible.
  The following changes have been made so that ERP system now transfers:

  - Purchase requisitions for direct procurement
  - Purchase orders for direct procurement
Transfer Alternative Sequences
As of SAP ECC 7.0, you can transfer alternative sequences for the production order from ERP to APO. These are transferred as alternative modes. The prerequisite for the transfer is that the alternative sequences have the same number of operations. If an alternative mode is chosen in APO for an activity in the DS planning board, then it leads to a mode switch of all related activities in the sequence. In addition the system automatically changes the alternative sequence in ERP.

Adjust Purchase Requisition Creation in ERP
In the earlier release, a purchase requisition could get recreated in ERP system even though a later MRP run had deleted it. This happened in case there was a time lag in the information exchange between APO and ERP. This is now overcome using a customizing setting that ignores any requests from APO for recreation of a purchase requisition.
Note: The customizing setting should only be used in combination with the MRP-based DS process.

Adjust Planning File Entry Creation in ERP
As of this release, it is possible to suppress the creation of planning file entries that are caused due to scheduling changes made by APO. There is a new indicator MRP DS: No Planning File Entries for Changes from APO in Customizing, which ensures that planning file entries are not created. Since there are no planning file entries, the ERP system does not reschedule orders.
For more information, see Customizing in the ERP system under Integration with Other mySAP.com Components -> Advanced Planning and Optimization -> Application-Specific Settings and Enhancements -> Settings for MRP-Based Detailed Scheduling -> Activate MRP-Based Detailed Scheduling.

You can transfer operation texts from ERP to APO.

Effects on Customizing
- In the ERP system, a new IMG activity has been created in the following path:
  Integration with Other mySAP.com Components -> Advanced Planning and Optimization -> Application-Specific Settings and Enhancements -> Settings for MRP-Based Detailed Scheduling -> Activate MRP-Based Detailed Scheduling.
  When you activate this IMG activity, MRP-based DS is enabled for a plant. This means temporary conversion of planned orders to production orders takes place.

- In the ERP system, a new BAdI has also been created in the following path:
  Integration with Other mySAP.com Components -> Advanced Planning and Optimization -> Application-Specific Settings and Enhancements -> Settings for MRP-Based Detailed Scheduling -> Influence MRP-Based Detailed Scheduling.
  When you implement this BAdI, the buffer times (wait time and move time) of a planned order in the APO system are overwritten with the buffer times in ERP.

- In the APO system, a new BAdI has been created in the following path:
  Integration with Other SAP Components -> Integration via APO Core Interface (CIF) -> Application-Specific Settings and Enhancements -> Settings for MRP-Based Detailed Scheduling -> Influence MRP-Based Detailed Scheduling.
See also

For more information, see SAP Library under Documentation -> mySAP Business Suite -> SAP Supply Chain Management -> SAP Supply Chain Management (SAP SCM) -> SAP Advanced Planning and Optimization (SAP APO) -> Production Planning and Detailed Scheduling (PP/DS) -> Processes with SAP R/3 and SAP APO -> MRP-based Detailed Scheduling.

1.2.7.7 SCM-APO-PPS-PVW         Product View

1.2.7.7.1 Campaign Planning (Enhanced)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the Production Campaign Planning function in the Production Planning and Detailed Scheduling (PP/DS) component. These enhancements, added in the Advanced Planning and Optimization (APO) system, includes several new developments in the area of reconciliation.

Split Campaigns

The new Split Campaign function allows you to split a campaign into two. A planned order within a campaign is selected as the split point, with all orders after it being assigned to the newly created campaign.

The split can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling) using the Split Campaign pushbutton on the Production Campaign toolbar. Alternately, use the same pushbutton from the Change Production Campaign screen; choose Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path Functions -> Production Campaign -> Split.

Merge Campaigns

The new Merge Campaigns function allows you to merge two or more campaigns into one single campaign. Campaigns across resources can also be merged.

To merge campaigns, select the target campaign that you wish to merge into, and then select the Merge Campaigns pushbutton. You then view the list of all campaigns currently available, except for the target campaign. The selected source campaigns are merged into the target campaign.

The merging can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling) using the Merge Campaigns pushbutton on the
Production Campaign toolbar. Alternately, use the same pushbutton from the Change Production Campaign screen; choose Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path Functions -> Production Campaign -> Merge.

Move Orders Between Campaigns

This new function allows you to move planned orders between production campaigns. Until now it was only possible to insert an order in a production campaign. A prerequisite was that the order not be associated with another campaign.

To insert or move orders from one campaign to another, the Include Orders in Campaign function in the Detailed Scheduling Planning Board and the Add Existing Orders function in Production Campaign have been enhanced.

In the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling), select the order you want to move. On choosing the Include Orders in Campaign pushbutton, you view all currently active campaigns, out of which you select the target campaign. Note that moving orders between campaigns may also reschedule the order; in such cases the movement is done in alignment with the scheduling profile (maintained on the Detailed Scheduling Planning Board), which may disallow movement if required.

On the Production Campaign screen (which you access choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign), you first select the target campaign into which the planned order must be moved; you carry out this selection in the screen area to the left. When you choose Add Existing Orders, all orders are displayed in the Add Existing Orders to Production Campaign window with campaign associations, if relevant. You then select the required orders and move them to the target campaign by choosing Move Orders to Production Campaign.

CIF Comparison/Reconciliation of Transaction Data

The report CIF Comparison /Reconciliation of Transaction Data was enhanced by a new check for campaign consistency. This check enables the comparison of production campaigns in the ERP and APO systems in an integrated landscape. It also allows the reconciliation of any differences using a suitable strategy. For this purpose, a new indicator for production campaign has been introduced into the existing Comparison/Reconciliation transaction; to access it choose Advanced Planning and Optimization -> APO Administration -> Integration -> CIF Comparison/Reconciliation of Transaction Data -> Execute Comparison/Reconciliation.

You select the ERP system as well as the product and locations for which the production campaign reconciliation is to be carried out. Then select the Production Campaigns indicator and execute the report. The results of the report are categorized according to the nature of the inconsistency detected, for example, existing in the ERP system but missing in APO, existing in APO but missing in the ERP system, missing integration model, and so on.

You can select an error category to view the inconsistent production campaigns. Then select one or more campaigns and choose the active resolution strategy to eliminate the inconsistency.
The *Production Campaigns* indicator does not alter any existing business processes but introduces a new one. The existing processes of planned order reconciliation, for example, remain and must be carried out if required.

**Add External Campaign Information from ERP System to APO**

This function allows you to see the external campaign number (the number for the production campaign in the ERP system) and select planned orders using the APO campaign number as a selection criterion in the *Process Order View* and *Product View* transactions. Currently only the APO campaign numbers are visible. Access the *Process Order View* by choosing *Advanced Planning and Optimization* -> *Production Planning* -> *Interactive Production Planning* -> *Order Processing*; similarly you can access *Product View* by choosing *Advanced Planning and Optimization* -> *Production Planning* -> *Interactive Production Planning* -> *Product View*.

In addition, you can now choose to see either the APO campaign number or the external campaign number in the *Production Campaign* toolbar on the Detailed Scheduling Planning Board. This is turned on or off using a customizing indicator.

By default, the new function is not visible in existing ALV tables. To see the external campaign number, you must add it to the visible columns from the field catalog.

**Select All Orders of Campaign in Receipts View and Conversion of Planned Orders**

This function allows you to select planned orders in *Receipts View* using the APO production campaign number as a selection criterion. Access *Receipts View* by choosing *Advanced Planning and Optimization* -> *Production Planning* -> *Interactive Production Planning* -> *Receipts View*. You can also see the APO's production campaign number and the external production campaign number for the planned order in the *Details View*, if relevant.

Alternately, you can select planned orders for conversion in the *Mass Conversion* transaction using the APO production campaign number as a selection criterion.

**Effects on Customizing**

A new indicator, *Ext. Camp. No.*, has been introduced in Customizing for the *Planning Board Profile*. You access this Customizing activity from *Advanced Planning and Optimization* -> *Supply Chain Planning* -> *Production Planning and Detailed Scheduling (PP/DS)* -> *Detailed Scheduling* -> *Settings for the Detailed Scheduling Planning Board* -> *Maintain Planning Board Profiles*. Within the activity, select the required planning board profile and choose *Chart* -> *Resources Chart* -> *Details*. You must select the *Ext. Camp. No.* indicator to see the external campaign number in the Detailed Scheduling Planning Board.

No customizing settings are required to see the external campaign number in *Process Order View* or *Product View*. 
1.2.7.7.2 Miscellaneous Enhancements in PP/DS (New)

Use

- **Advanced Search for Pegging Alternatives**
  Until now the search for pegging alternatives was restricted to receipts within the same pegging area. As of SAP Supply Chain Management (SAP SCM) 5.1, there is an advanced search for pegging alternatives. Using this function, you can search for receipts from other pegging areas to satisfy the demand under consideration.
  In the Pegging Overview tab in the Product View, the user can search for receipts from a specified set of pegging areas. The search selection can be further refined to include receipts within a certain date range and only those matching the required characteristic valuation.

- **Download SNP Blocks**
  As of SAP SCM 5.1, Supply Network Planning (SNP) has the capability to derive blocks based on the characteristic evaluations of the receipts from the SNP plan. The users can now transfer these block proposals from SNP to PP/DS, modify, and save them in the resource.
  In the resource, there is a new pushbutton Create Blocks on the Block Plng. tab, which takes the user to a detail screen. Here, you can choose the Intervals tab and then proceed with transferring of SNP blocks to PP/DS for a specified time interval.

1.2.7.8 SCM-APO-PPS-LPP       Length-Based Planning

1.2.7.8.1 Enhancements for Long Products Planning (New)

Use

As of SAP SCM 5.1, the following new functions are available for Long Products Planning (LPP):

- **Enhancements for Scraps, Length Plan, and Non-LPP Material (New)**
  - Consideration of Different Types of Fixed Scraps in Length Calculation
  - Length plan with LPP master data
- Length plan with Full Reels method
- Adjustment of Component Quantity of Non-LPP Material
- Change Options for LPP Master Data in Planned Orders and Display Options in Production Orders (New)
- Enhancements for LPP Heuristic and Availability Check (New)
- Length-Based Logistics with Planning Strategy
- Planning according to Requirement Sorting Rule
- Rounding quantities to whole lengths
- Planning on-order stock via reorder point method
- Long Products Planning with Fixed Lot Size (New)

1.2.7.8.2 Long Products Planning with Fixed Lot Size (New)

Use

As of SAP SCM 5.1, the lot-sizing procedure Fixed Lot Size is available for length-based products.

If you select the lot-sizing procedure Fixed Lot Size, the system creates an order (planned order or purchase requisition) with the defined lot size every time there is a shortage situation.

Note: Long products planning with a fixed lot size only works with product variants: The system transfers the valuation of the individual length characteristic of the product variants to the planned order it created. The fixed lot size must be an exact multiple of this length so that the lengths in the planned order are consistent.
1.2.7.8.3 Enhancements for LPP Heuristic and Availability Check (New)

Use

As of SAP SCM 5.1, the following new functions are available for Long Products Planning (LPP):

Length-Based Logistics with Planning Strategy

You use this planning strategy to define which strategy you want the system to use when assigning receipts to requirements for length-based products. The planning strategy determines the assignment sequence for Long Products Planning when planning using the LPP heuristic, during the characteristic-dependent availability check (Available-to-Promise), and during component planning when creating planned orders.

So that the system can better support you in your planning scenarios, you can now choose between the two planning strategies Assign Earliest Receipts First and Assign On-Time Receipts First.

Planning According to the Requirement Sorting Rule

You can now use a Requirement Sort Rule to define the criterion according to which you want the system to sort requirements before the heuristic processes them:

- Sort Ascending According to Delivery Date
  The system processes the requirements with the earliest delivery date first.

- Sort Ascending According to Time of Creation
  The system processes the requirements in the sequence they arise.

Rounding Quantities to Whole Lengths

In certain cases during planning for length-based products, the system might not be able to create an exact multiple of the individual length for an open receipt or requirement quantity anymore. The system then rounds the receipt or requirement quantity up or down according to what is known as the 50% rule.

You can use the Business Add-In (BAdI) /SAPAPO/EOGL_ROUNDING to adjust the rounding logic of long products planning for open receipt quantities or requirement quantities to customer-specific needs.

Example

Production first delivered 3 x 900 meters for an order for 10 x 1,000 meters of cable. The open quantity is therefore 7,300 (3 x 900 m = 2,700 m; 10,000 m - 2,700 m = 7,300 m), although only 7 x 1,000 m can actually be expected.

Planning On-Order Stock via Reorder Point Method

The Reorder Point lot-sizing procedure now provides you with an additional length-based planning procedure. If you select the Reorder Point lot-sizing procedure with reorder point method 1 (reorder point from location product master), and the total of fixed receipts is less than the value of the reorder point, the system creates a procurement proposal in Long Products Planning.
1.2.7.8.4 Change Options for LPP Master Data in Planned Orders and Display Options in Production Orders (New)

Use

Up to now, you could only process LPP master data in the ERP system. If a planned order already existed in SAP SCM and the planned scraps deviated from what could really be expected, you were not able to make adjustments.

As of SAP SCM 5.1, enhanced processing options for length calculation-relevant master data for planned orders, as well as display options for production orders are now available.

You can now subsequently change the length calculation parameters in the planned order (in the SCM system) without affecting the master data (in the ERP system). You can make a setting in Customizing to add a push button to the product view (transaction /SAPAPO/RRP3) that enables you to go directly to the length calculation-relevant parameters of the respective planned order and make changes there. You can use the changed data to then execute a new length calculation of the respective planned order and save it. The system then converts the planned order with the current data and not with the master data it used for calculating before. This is true independent of whether or not the master data was changed in the meantime. The system saves the master data for each production order.

1.2.7.8.5 Enhancements for Scraps, Length Plan, and Non-LPP Materials (New)

Use

As of SAP SCM 5.1, the following new functions are available in the component Long Products Planning (SCM-APO-PPS-LPP):
Consideration of Different Types of Fixed Scraps in Length Calculation

In all length calculation methods, the system can take fixed scraps for the following lengths into account:
- Every length
- First length
- Last length

Length Plan with LPP Master Data

Up to now, the system considered subsequent manual changes to the BOM or routing in the length plan. Now the system calculates the length plan with the original LPP master data which was also used to carry out length calculation when the planned order was created.

Length Plan with Full Reels Method

You can now use the Full Reels method without restrictions to create a length plan. Up to now, you could only do this for the methods Pass On Lengths and Group Together Lengths.

Adjustment of Component Quantity of a Non-LPP Material

If you work with Long Products Planning you can now take dependencies between an LPP material and a non-LPP material into account.

In Long Products Planning (LPP), if you implement the BAdI/SAPAPO/EOGL_ADJ_QUAN you can adjust the component quantity of non-LPP materials (required quantity) to the operation quantity of the produced LPP material which was increased by length calculation.

1.2.7.9 SCM-APO-PPS-CDS Sales Scheduling Agreement Processing

1.2.7.9.1 Collaborative Management of Delivery Schedules (Enhanced)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the collaborative management of delivery schedules (CMDS) to improve performance:
- Release History
This report contains all data pertaining to the purchasing scheduling agreement release such as details of the supplier, quantities, and dates. Currently this report has a hierarchical structure which displays operative delivery schedules, forecast delivery schedules, and confirmations. This report has been enhanced for a better look and feel. A new screen has been created. It displays scheduling agreement releases grouped by creation date and requirement/demand date.

- **Goods Receipt Consumption**
  The planning run has been enhanced to ensure that there are no deficits due to goods receipt (GR) consumption. In the earlier releases, there is a possibility that an unwanted deficit could occur during planning run. This is caused due to GR consumption. For example, if a new schedule line is created earlier than an existing but completely consumed schedule line, then GR consumption consumes the new schedule line and the previously consumed schedule line is left unconsumed. This leads to unwanted deficit as the requirement is not met on time after a planning run.

**Effects on Existing Data**

The BAdI /SAPAPO/RRP_PLANNING has been enhanced to include the interface method PEGID_GET_IO, for the function goods receipt consumption. This BAdI method is invoked during all planning scenarios. It allows you to change requirements, receipts, and virtual safety stock requirements, prior to the net requirements calculation.

1.2.7.10 SCM-APO-PPS-PCM Production Campaign

1.2.7.10.1 Campaign Planning (Enhanced)

**Use**

As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the Production Campaign Planning function in the Production Planning and Detailed Scheduling (PP/DS) component. These enhancements, added in the Advanced Planning and Optimization (APO) system, includes several new developments in the area of reconciliation.

**Split Campaigns**

The new *Split Campaign* function allows you to split a campaign into two. A planned order within a campaign is selected as the split point, with all orders after it being assigned to the newly created campaign.

The split can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in *Advanced Planning and Optimization* -> *Production Planning* -> *Interactive Production Planning* -> *Detailed Scheduling*) using the *Split Campaign* pushbutton on the *Production Campaign* toolbar. Alternately, use the same pushbutton from the *Change Production*
Campaign screen; choose Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path Functions -> Production Campaign -> Split.

Merge Campaigns

The new Merge Campaigns function allows you to merge two or more campaigns into one single campaign. Campaigns across resources can also be merged.

To merge campaigns, select the target campaign that you wish to merge into, and then select the Merge Campaigns pushbutton. You then view the list of all campaigns currently available, except for the target campaign. The selected source campaigns are merged into the target campaign.

The merging can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling) using the Merge Campaigns pushbutton on the Production Campaign toolbar. Alternately, use the same pushbutton from the Change Production Campaign screen; choose Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path Functions -> Production Campaign -> Merge.

Move Orders Between Campaigns

This new function allows you to move planned orders between production campaigns. Until now it was only possible to insert an order in a production campaign. A prerequisite was that the order not be associated with another campaign.

To insert or move orders from one campaign to another, the Include Orders in Campaign function in the Detailed Scheduling Planning Board and the Add Existing Orders function in Production Campaign have been enhanced.

In the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling), select the order you want to move. On choosing the Include Orders in Campaign pushbutton, you view all currently active campaigns, out of which you select the target campaign. Note that moving orders between campaigns may also reschedule the order; in such cases the movement is done in alignment with the scheduling profile (maintained on the Detailed Scheduling Planning Board), which may disallow movement if required.

On the Production Campaign screen (which you access choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Change Production Campaign -> Production Campaign), you first select the target campaign into which the planned order must be moved; you carry out this selection in the screen area to the left. When you choose Add Existing Orders, all orders are displayed in the Add Existing Orders to Production Campaign window with campaign associations, if relevant. You then select the required orders and move them to the target campaign by choosing Move Orders to Production Campaign.
CIF Comparison/Reconciliation of Transaction Data

The report CIF Comparison /Reconciliation of Transaction Data was enhanced by a new check for campaign consistency. This check enables the comparison of production campaigns in the ERP and APO systems in an integrated landscape. It also allows the reconciliation of any differences using a suitable strategy. For this purpose, a new indicator for production campaign has been introduced into the existing Comparison/Reconciliation transaction; to access it choose Advanced Planning and Optimization -> APO Administration -> Integration -> CIF Comparison/Reconciliation of Transaction Data -> Execute Comparison/Reconciliation.

You select the ERP system as well as the product and locations for which the production campaign reconciliation is to be carried out. Then select the Production Campaigns indicator and execute the report. The results of the report are categorized according to the nature of the inconsistency detected, for example, existing in the ERP system but missing in APO, existing in APO but missing in the ERP system, missing integration model, and so on.

You can select an error category to view the inconsistent production campaigns. Then select one or more campaigns and choose the active resolution strategy to eliminate the inconsistency.

The Production Campaigns indicator does not alter any existing business processes but introduces a new one. The existing processes of planned order reconciliation, for example, remain and must be carried out if required.

Add External Campaign Information from ERP System to APO

This function allows you to see the external campaign number (the number for the production campaign in the ERP system) and select planned orders using the APO campaign number as a selection criterion in the Process Order View and Product View transactions. Currently only the APO campaign numbers are visible. Access the Process Order View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Order Processing; similarly you can access Product View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Product View.

In addition, you can now choose to see either the APO campaign number or the external campaign number in the Production Campaign toolbar on the Detailed Scheduling Planning Board. This is turned on or off using a customizing indicator.

By default, the new function is not visible in existing ALV tables. To see the external campaign number, you must add it to the visible columns from the field catalog.

Select All Orders of Campaign in Receipts View and Conversion of Planned Orders

This function allows you to select planned orders in Receipts View using the APO production campaign number as a selection criterion. Access Receipts View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Receipts View. You can also see the APO's production campaign number and the external production campaign number for the planned order in the Details View, if relevant.

Alternately, you can select planned orders for conversion in the Mass Conversion transaction using the APO production campaign number as a selection criterion.
Effects on Customizing

A new indicator, Ext. Camp. No., has been introduced in Customizing for the Planning Board Profile. You access this Customizing activity from Advanced Planning and Optimization -> Supply Chain Planning -> Production Planning and Detailed Scheduling (PP/DS) -> Detailed Scheduling -> Settings for the Detailed Scheduling Planning Board -> Maintain Planning Board Profiles. Within the activity, select the required planning board profile and choose Chart -> Resources Chart -> Details. You must select the Ext. Camp. No. indicator to see the external campaign number in the Detailed Scheduling Planning Board.

No customizing settings are required to see the external campaign number in Process Order View or Product View.

1.2.7.11 SCM-APO-PPS-MMP Model Mix Planning

1.2.7.11.1 Model Mix Planning/Sequencing (Enhanced)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the model mix planning (MMP) and sequencing:

- The planning run using the linear program (LP) has been enhanced to provide the customer with the flexibility to choose the required lines of the line network to be considered for path calculation. If the time measured for different paths of a complex line network with multiple groups of alternative lines is not much and does not change the planning results, then the customer has the flexibility to consider only the default paths involving the planning segment. This reduces the processing time. In previous releases, the optimizer required all possible paths on the line network to consider the upper limit for delay in time.

- Interactive sequencing has been enhanced so that you have the freedom to choose between whether to firm the order, in case of manual rescheduling of the orders, using drag and drop or not. The current situation is that the system firmed the order after each drag and drop. Hence a deallocated order, which has been rescheduled by drag and drop, is firmed and cannot be rescheduled in a new sequence optimization. Therefore flexible and switchable line-specific profiles for firming the orders during manual rescheduling are provided. You can specify this behavior using a line-specific profile. To specify line-specific profiles, you can use the transaction /SAPAPO/SEQC11. To access this transaction on the SAP Easy Access screen, choose Advanced Planning and Optimization -> Production Planning -> Automated Production Planning and Optimization -> Model Mix Planning -> Sequencing: Line-Specific Profiles.

Effects on Existing Data
- The BAdI /SAPAPO/SEQ_LP_01 has been enhanced. The method ELIMINATE_FLOOBJECTS has been created. It allows you to choose the required lines of the line network to be considered for path calculation.

- The BAdI /SAPAPO/SEQ_MULTI_02 has been enhanced. The method ROUND_BT_UPDOWN has been created. It allows you to decide whether you want to round off the base rate used during the capacity calculation or not.

1.2.7.12 SCM-APO-PPS-CAP          Capacity Reservation

1.2.7.12.1 Capacity Reservations in PP/DS (New)

Use

As of SAP SCM 5.1, you can define reservations on the capacity of a resource for different capacity dimensions. Each capacity dimension is represented by a descriptive characteristic, such as customer, sales organization and so on. These reservations can be maintained for up to three different descriptive characteristics. To improve production lead times and ensure most profitable capacity utilization, the reservations can be made based on profitability and differentiated service level agreements.

- Capacity Reservation Maintenance
  You can define reservations for each capacity dimension in the PP/DS bucket capacity in the resource master, by assigning the capacity reservation group to the resource. The capacity reservation groups are defined in Customizing based on a consumption group in demand planning. You can select up to three characteristics from the consumption group as a capacity reservation group.
  In the resource, the capacity reservation is maintained via the Capacity Reservation pushbutton on the PP/DS Bucket Capacity tab. The user can define the bucket schema for reservation that includes the aggregated time intervals for which the reservations are to be maintained.
  In this release, you can define aggregated reservations for each bucket for a set of descriptive characteristic values. For example, for the characteristic Customer, the available bucket capacity for each bucket can be distributed among different customers. This can be done by allocating the capacity for the respective bucket, such as 50% for customer A, 30% for customer B and 20% for customer C. The system groups the unallocated capacity under a collective allocation that can be used by other customers.
  A finiteness level is assigned to the reservation for each descriptive characteristic. This value together with the finiteness level in the scheduling strategy enables you to control reservations. Thus it is possible to maintain a priority for the reservation for each characteristic.
- **Importing Capacity Reservation Proposals from SNP**
  Based on the Supply Network Planning (SNP) plan, SNP can determine a proposal for capacity reservations on a resource. This plan is generated on a predefined set of objectives such as profit maximization. Here the capacity reservation proposal indirectly aids most profitable capacity utilization.
  As of 5.1 release, the proposal from SNP can be accessed via the *Import Reservation from SNP* in the capacity reservation maintenance.

- **Report to Release Capacity Reservations**
  You can define a reservation release date with each reservation for a bucket. This defines the date on which the reservation ceases to exist. The system releases all reservations with a release date in the past via a report and the capacity is made available for general use.
  You can release capacity reservations via a report that should be run periodically. The report releases only those capacity reservations where the reservation release date <= current date.

- **Capacity Reservation Planning**
  The capacity reservations maintained in the resource master data are taken into consideration during the operation scheduling in various planning processes.
  The *Capable-To-Promise (CTP)* derives all characteristic values from the sales order field catalog and propagates these values to the generated planned order. The planning process uses these values to check for reservations during scheduling. When finite bucket scheduling is used, the scheduler searches for buckets with sufficient capacity as well as adequate reservation.
  The procurement planning heuristics also consider reservations. In this case, the descriptive characteristic values determined during lot-sizing are based on the values maintained for the forecast requirement (make-to-stock scenario) and the sales order (make-to-order scenario).
  Note: The PP/DS optimizer also takes into account the capacity reservations defined by the user.

- **Display Utilization of Capacity Reservations in the Resource Planning Table**
  In the resource planning table, there is a new pushbutton *Display Capacity Reservations*. It displays a new chart which provides an overview of capacity reservations for a resource.
  This chart displays the following data:
  a) Reserved capacity
  b) Available reservation
  c) Reservation release date
     Per bucket, per descriptive characteristic value, aggregated over a specific time period.

- **Evaluation List**
  The evaluation list report is enhanced to display an aggregated view of the capacity reservation data for a resource. Using the report, it is possible to view:
  d) Reserved capacity per descriptive characteristic value
  e) Free available reservation
  f) Detailed view of the utilization of the reservation
g) Utilization (%) of the reserved capacity
For more information, see SAP Easy Access menu under Advanced Planning and Optimization -> Production Planning -> Reporting -> Order and Resource Reporting.

- Alert Monitor
  The alert monitor for resource overload in the PP/DS bucket has been enhanced to display any overload in the capacity reservation.
  For more information, see SAP Easy Access menu under Advanced Planning and Optimization -> Supply Chain Monitoring -> Alert Monitor -> Alert Monitor.

Effects on Customizing

A new IMG activity has been created in the following path:


See also

Enhancements in Capable to Promise (CTP) (Enhanced)

For more information, see SAP Library under Documentation -> mySAP Business Suite -> SAP Supply Chain Management -> SAP Supply Chain Management (SAP SCM) -> SAP Advanced Planning and Optimization (SAP APO) -> Production Planning and Detailed Scheduling (PP/DS) -> Capable-to-Promise (CTP) in PP/DS.

1.2.7.13 SCM-APO-PPS-SL Expiration Date

1.2.7.13.1 Shelf Life in PP/DS (Enhanced)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, the shelf life function of Production Planning and Detailed Scheduling (PP/DS) has been enhanced.

You convert a Supply Network Planning (SNP) planned order to a PP/DS planned order using the SNP to PP/DS order conversion heuristic (SAP_SNP_SINGL). During conversion, the system copies the relevant shelf life dates (for example, maturation date and expiration date) from the SNP to the PP/DS planned order as characteristics values in liveCache.

These shelf life dates are order-specific and are retained throughout the lifespan of the planned order. Any changes to the shelf life parameters in the pegging area do not affect the maturation and expiration dates.
of the planned order (for the pegging area), which has order-specific shelf life dates.

1.2.8 SCM-APO-ATP  Global Available-to-Promise

1.2.8.1 Advice Code (Enhanced)

Use

As of SAP SCM 5.1, Global Available-to-Promise also considers the advice code *Interchangeability Only, No Substitution*. This advice code defines that the ATP check does not consider substitute products from FFF classes or from integrated rule maintenance. The ATP check only considers substitute products from master data for interchangeability that belong to interchangeability group type *Supersession Chain*, and are relevant for the *Planning and ATP* application.

1.2.8.2 ATP Characteristic View (Enhanced)

Use

As of SAP SCM 5.1, the system automatically assigns a new product (created by CIF in SAP SCM) to the corresponding ATP Characteristic View, according to its CDP class. If no ATP characteristic view exists, the system creates one. This ATP characteristic view then carries the name of the CDP class.
See also

For more information, see SAP Library for SAP Supply Chain Management (SAP SCM) under the following paths:

- SAP Advanced Planning and Optimization (SAP APO) -> Production Planning and Detailed Scheduling (PP/DS) -> Planning with Characteristics -> Prerequisites for Planning -> Integration of Classes and Characteristics -> Characteristics for CDP and Block Planning
- SAP Advanced Planning and Optimization (SAP APO) -> Global Available-to-Promise (Global ATP) -> Check Methods -> Product Availability Check -> Characteristics-Based Product Availability Check

1.2.8.3 Multi-Item Single Delivery Location (Enhanced)

Use

As of SAP SCM 5.1, if the requirement of the requirements grouping cannot be completely fulfilled in any of the found locations, you can also select one of the following three actions:

- Generate remaining requirement for input product in first substitute location
- Generate remaining requirement for first substitute product in first substitute location
- Generate remaining requirement for last substitute product in first substitute location

This enables you to create remaining requirements for the whole requirements grouping in the first location for the entire requirement quantity.

1.2.8.4 Check Instruction (Enhanced)

Use

As of SAP SCM 5.1, the product availability check can also consider separate fixed pegging relationships of the document that is currently being checked. In this, the system first assigns the quantity from the fixed pegging relationship to the requirement; if a remaining quantity exists, the system then assigns the quantity from the time series to it.
In the check instruction, you can define whether the product availability check is to consider only time series, only fixed pegging relationships, or fixed pegging relationships and then time series.

### 1.2.8.5 Selection when Calling up Product Allocation Reports (Enhanced)

**Use**

As of SAP SCM 5.1, when calling different reports of the product allocation, you can make the selection based on characteristic combinations. This enhancement reduces the number of time series or characteristic combinations that you have to maintain or correct.

The following report were enhanced:

- `/SAPAPO/ATPQ_PAREA_R` - *Copy Data from Planning Area*
- `/SAPAPO/ATPQ_PAREA_W` - *Transfer Data to Planning Area*
- `/SAPAPO/ATPQ_PAREA_C` - *Characteristic Combinations in the Planning*
- `/SAPAPO/ATPQ_CHKCHAR` - *Characteristic Combinations*
- `/SAPAPO/ATPQ_COLLECT` - *Characteristics of Collective Product Allocations*
- `/SAPAPO/ATPQ_ALERT` - *Shortage Check*
- `/SAPAPO/ATPQ_CHKUSG` - *Product Allocation Assignment Check*
- `/SAPAPO/ATPQ_KCGRP_U` - *Product Allocation Assignment Update*

**Effects on Data Transfer**

This enhancement speeds up the data exchange between product allocation and demand planning for the following reports:

- `/SAPAPO/ATPQ_PAREA_R` - *Copy Data from Planning Area*
- `/SAPAPO/ATPQ_PAREA_W` - *Transfer Data to Planning Area*
- `/SAPAPO/ATPQ_PAREA_C` - *Characteristic Combinations in the Planning Area*
1.2.8.6 Enterprise Services (Enhanced)

Use

As of SAP SCM 5.1 Support Package 04, you can use the following new operations for the Supply and Demand Matching process component:

- Create Preselection
- Cancel Preselection
- Create Preselection based Requirement

Effects on Customizing

In Customizing, you can find additional Business Add-Ins (BAdIs) for each service under:

- Advanced Planning and Optimization -> Enterprise Services -> Business Add-Ins (BAdIs) for Enterprise Services (APO) -> Global Available-to-Promise -> Product Availability Preselection
- Advanced Planning and Optimization -> Enterprise Services -> Business Add-Ins (BAdIs) for Enterprise Services (APO) -> Global Available-to-Promise -> Product Availability Requirement

As of this release, you can find new versions of the BAdIs that used to be found under this path prior to this release. The previous BAdI versions can now be found under Advanced Planning and Optimization -> Enterprise Services -> Business Add-Ins (BAdIs) for Enterprise Services (APO) -> Global Available-to-Promise -> Product Availability Requirement -> Previous BAdI Versions. The new BAdI versions contain the following changes compared to the previous versions:

- The node BaseBusinessTransactionDocumentReference has been changed.
- A description has been added to the nodes Product, BuyerLocation, and SellerLocation.

We recommend using the new BAdI versions.

You can use the BAdIs to change or enhance the data that is transferred via the message interfaces.

See also

For more information, see the Enterprise Services Workplace in the SAP Developer Network (SDN) at sdn.sap.com -> Enterprise SOA.

1.2.8.7 SCM-APO-ATP-RBA Rules-Based ATP Check

1.2.8.7.1 Access Strategy of the ATP Rule (Enhanced)
Use

As of SAP SCM 5.1, in rule control you can define that the rules-based ATP check is to access the input product, input location, or input location product before the substitute product, substitute location, or substitute location product.

1.2.8.7.2 Evaluation of Supersession Chains (Enhanced)

Use

As of SAP SCM 5.1, the system can skip individual substitutions in a supersession chain located in master data for interchangeability. This function is useful if multiple product lines find their way into a common successor product line.

To use this function, implement Business Add-In (BAdI) Rule Resolution.

1.2.8.8 SCM-APO-ATP-BOP Backorder Processing

1.2.8.8.1 Backorder Processing (Enhanced)

Use

As of SAP SCM 5.1, the following enhancements for backorder processing are available to you:

- Item bundling
  Backorder processing can use item bundling to perform the *Check* step for item bundles instead of for individual items.

- Equal quantity distribution
  In the case of shortage, backorder processing can use equal quantity distribution to distribute available quantities equally to items.
Effects on System Administration

To make settings for item bundling, in Customizing for Global Available-to-Promise, choose Perform Item Bundling.

See also

For more information about equal quantity distribution, see SAP Library for SAP SCM under Advanced Planning and Optimization -> Global Available-to-Promise (Global ATP) -> Redistribution Functions -> Backorder Processing -> Batch Backorder Processing -> Equal Quantity Distribution.

1.2.8.8.2 Interactive Backorder Processing (Enhanced)

Use

As of SAP SCM 5.1, you can perform a search within the item list in the product view of interactive backorder processing.

To call the search, choose Edit -> ATP Search.

1.2.8.8.3 Parallelization Based on Variant Splitting (New)

Use

As of SAP SCM 5.1, the system can perform preconfigured backorder processing in parallel, by splitting up BOP variants. Parallelization based on variant splitting enables you to reduce the overall runtime.

Effects on Customizing

To be able to execute this function, you must create a profile in Customizing for Global ATP Check as
part of parallelizing backorder processing, and configure the Check step.

See also

For more information, see SAP Library for SAP SCM under Advanced Planning and Optimization -> Globale Available-to-Promise (Global ATP) -> Redistribution Functions -> Backorder Processing -> Batch Backorder Processing -> Parallelization.

1.2.8.9 SCM-APO-ATP-ODL Order Due List

1.2.8.9.1 Enterprise Services (Enhanced)

Use

As of SAP SCM 5.1 Support Package 03, you can use additional enterprise services for the process component Supply and Demand Matching. You can use the new operations:

- Order Due List SCM Property by Type Code Query Response
- Order Due List SCM by ID Query Response
- Order Due List SCM Item by Material ID and Supply Planning Area ID Query Response
- Order Due List SCM Worklist Item Create Request Confirmation
- Order Due List SCM Worklist Item Cancel Request Confirmation
- Order Due List SCM Reassignment Execute Request
- Order Due List SCM Reassignment Execute Request Confirmation

Effects on Customizing

In Customizing, under Advanced Planning and Optimization -> Enterprise Services -> Business Add-Ins (BAdIs) for Enterprise Services (APO) -> Global Available-to-Promise -> Order Due List, you can find an additional Business Add-In (BAdI). You can use this BAdI to change or enhance the data that is transferred via the message interfaces.

See also

For more information, see the Enterprise Services Workplace in the SAP Developer Network (SDN) at sdn.sap.com -> Enterprise SOA.
1.2.9 SCM-APO-OPT  Optimization

1.2.9.1 SCM-APO-OPT-BF  Basic Functions

1.2.9.1.1 Remote Control and Communication Framework (New)

Use
As of SAP Supply Chain Management (SAP SCM) 5.1, the new Remote Control and Communication Framework (RCCF) in the SCM Basis 5.1 replaces the Optimizer Framework of SAP Advanced Planning and Optimization (SAP APO). In SAP APO, the previous transaction codes and IMG activities are still available, but they now refer to the new user interfaces. For more information, see the Basis Release Info.

Effects on Data Transfer
To copy existing data from SAP APO to the new RCCF, you must run the upgrade report /SAPAPO/OPT_UPGRADE in SAP APO. Before the start of the upgrade report, you can display the old data for comparison using the transaction codes /SAPAPO/COPT01_OLD, /SAPAPO/COPT00_OLD, and /SAPAPO/COPT10_OLD.

1.2.9.2 SCM-APO-OPT-SNP  Supply Network Planning

1.2.9.2.1 Prioritization of Customer Demand and High Volume Demand (New)

Use
As of SAP SCM 5.1, you can prioritize customer demands and high volume demands as part of optimization-based planning in Supply Network Planning (SNP). In this way, you can, for example, ensure that demand from important customers or those with a high service level are covered with preference by the SNP optimizer.

Furthermore, the SNP optimizer now considers sequence-dependent setup costs, and generates proposals for capacity reservation and block planning as part of Production Planning and Detail Scheduling (PP/DS)

Prioritization of Customer Demand
As of SAP SCM 5.1, you can prioritize customer demand for optimization-based SNP planning by assigning customer-dependent penalty costs. First, you create penalty cost groups in the application-specific master data under Define Penalty Cost Groups. You can use the Business Add-In (BAdI) /SAPAPO/SDP_RELDATA to assign penalty cost groups to forecasts and sales orders. You then
release forecasts with descriptive characteristics, such as customer, to SNP or transfer sales orders from SAP ERP to SAP SCM via the Core Interface (CIF).

On the SNP tab page in the product master data, which now features an ALV Grid, you can assign penalty costs for non-delivery and delays to the penalty cost groups. In this way, the penalty costs become customer-dependent, for example.

You can use the new penalty cost group profile to define that the SNP optimizer first covers demand from penalty cost groups with higher priority, and only then covers demand from penalty cost groups with a lower priority. You define the penalty cost group profile from the SAP Easy Access menu, by choosing Advanced Planning and Optimization -> Supply Network Planning -> Environment -> Current Settings -> Profiles -> Define SNP Penalty Cost Group Profiles and then assign it to an optimization run.

In the details view of interactive SNP planning and in the results log for the optimization, the system shows which penalty cost group an order belongs to.

**Prioritization of High Volume Demand**

As of SAP SCM 5.1, you can prioritize high volume demands for optimization-based SNP planning by assigning quantity-based penalty costs. To do this, you first create a profile for quantity-based penalty costs in the application-specific master data. You then assign this profile to the product (you can also specify that it is time-dependent, if necessary) on the SNP tab page of the product master data.

**Considering Sequence-Dependent Setup Costs**

As of SAP SCM 5.1, the SNP optimizer considers sequence-dependent setup costs that you have already defined in the setup matrix for PP/DS. In the setup matrix, you can define setup transitions and setup costs for setup groups. The setup groups are transferred from SAP ERP into the production data structures (PDS). The SNP optimizer then optimizes the setup costs during planning.

In the detail view of interactive planning and in the results log of the optimizer, the order sequence number is shown. This determines the sequence of the planned orders in a period.

**Generation of Proposals for Capacity Reservation and Block Planning in PP/DS**

As of SAP SCM 5.1, the SNP optimizer can generate proposals for capacity reservation and the grouping of orders into blocks for block planning in PP/DS. These proposals are based on the planning results. The proposals can be loaded into the relevant PP/DS resource master data by pushing a button or they can be imported. Block information for individual orders are displayed in the detail view of interactive SNP planning. You also view a list of all orders that belong to a block.

For more information, see the PP/DS release note Capacity Reservation in PP/DS.

**Effects on Customizing**

In Customizing for SNP, under Define SNP Optimizer Profiles, on the Discrete Constraints tab page,
you can enter a period for which the SNP optimizer considers sequence-dependent lot sizes.
Furthermore, under Maintain Global SNP Settings, you can define whether the SNP optimizer generates proposals for block planning and displays them in interactive SNP planning.

1.2.9.2.2 Quota Arrangements and Receipt Bounds in SNP Optimization (New)

Use

Consideration of Quota Arrangements

Previously in optimization-based planning in Supply Network Planning (SNP), quota arrangements were created but no existing quota arrangements were considered. As of SAP SCM 5.1, the SNP optimizer considers inbound, time-dependent quota arrangements that you have defined in the quota arrangement master data.

You can define quota arrangements for products and product groups. You assign products to product groups on the Properties 2 tab page in the product master data. For defining quota arrangements for product groups, a new product group type has been introduced (QT).

Consideration of Receipt Bounds

Previously, the SNP optimizer considered a series of time-dependent constraints that you could define in interactive SNP planning (for example, upper bound for procurement). As of SAP SCM 5.1, the SNP optimizer also considers upper and lower bounds for receipts. For this purpose, the SNP planning folder 9ATSOPT has been enhanced to include the data view OPT_TSRCBD, which contains new key figures.

Receipt Type and Penalty Costs

The consideration of quota arrangements and receipt bounds is valid for the following receipt types:
- In-house production
- External procurement
- Stock transfers from other locations

Exceeding and falling below quota arrangement values as well as receipt upper and lower bounds are soft constraints in the SNP optimizer. The system can violate these constraints and calculate the associated penalty costs. You define penalty costs for quota arrangements in the quota arrangement master data, and penalty costs for receipt bounds in interactive SNP planning. The penalty costs calculated by the optimizer are displayed in the optimization chart of interactive SNP planning and also in the results log of the optimization.

Effects on Customizing
In Customizing or in the current settings of SNP, under Define SNP Optimizer Profiles you can specify whether the SNP optimizer considers quota arrangements. Furthermore, you can define the system response for the following cases:

- multiple quota arrangements exist in a period
- quota arrangements have not been defined for all sources of supply

If you do not want the SNP optimizer to consider time-dependent constraints and thus also the receipt upper and lower bounds, you can set the corresponding indicator in the SNP optimizer profile.

See also

For more information, see the SNP documentation in SAP Library under SNP Planning Run -> Optimization-Based Planning -> Definition of Time-Based Constraints in Interactive Planning and Considering Inbound Quota Arrangements.

1.2.10 SCM-APO-INT Interfaces

1.2.10.1 Enterprise Services (New)

Use

As of SAP SCM 5.1, you can use enterprise services for SAP Advanced Planning and Optimization (SAP APO). The introduction of enterprise services constitutes a new, more standardized way of accessing SAP APO functions from other applications, alongside conventional access mechanisms like Business Application Programming Interfaces (BAPIs), Remote Function Calls (RFCs) and the SAP Exchange Infrastructure (SAP XI). Another application in this context may be a third-party application or another SAP application.

Enterprise services are available for the following process components:

- Demand Planning
- Supply and Demand Matching
- Customer Requirement Processing
- Production Model Processing
- Production
- Service Parts Planning

Note that these enterprise services have also been available in the SAP SCM ES 5.0 add-on for SAP SCM 5.0.

Effects on Customizing
We supply the associated message interfaces and Business Add-Ins (BAdIs) for each service. You can use these BAdIs to change or enhance the data that is transferred via the message interfaces.

**See also**

For more information, see the SAP Library under *Enterprise Services* and the Enterprise Services Workplace in the SAP Developer Network (SDN) at sdn.sap.com -> Enterprise SOA.

### 1.2.10.2 Enterprise Services (Enhanced)

**Use**

As of SAP SCM 5.1 Support Package 02, you can use additional enterprise services for the following process components:

- Supply and Demand Matching
  You can use enterprise services for the business object *Stock Transport Planning Order*.

- Service Parts Planning
  You can use new enterprise services for the business objects *Service Part Supply Plan* and *Service Part Order History*. You can use the new operation *Find Demand Forecast for Approval by Elements*.

You can also use enterprise services for the following new process components:

- External Procurement Trigger and Response
- Purchase Scheduling Agreement Processing
- Production Model Management

**Effects on Customizing**

In Customizing, under *Advanced Planning and Optimization* -> *Enterprise Services*, you can find additional IMG activities for Customizing and Business Add-Ins (BAdIs) for each service. You can use the BAdIs to change or enhance the data that is transferred via the message interfaces.

**See also**

For more information, see the Enterprise Services Workplace in the SAP Developer Network (SDN) at sdn.sap.com -> Enterprise SOA.

### 1.2.10.3 SCM-APO-INT-IMO Integration Model

#### 1.2.10.3.1 Assignment of Multiple Production Versions in SAP ERP
Use

As of SAP ERP 2007, the subcontracting process has been enhanced. You can now assign multiple production versions to a subcontracting purchase info record in SAP ERP. To do the assignment, in SAP ERP, choose Logistics -> Central Functions -> Supply Chain Planning Interface -> Core Interface Advanced Planner and Optimizer -> Environment -> Data Transfer -> Assign Multiple Production Versions.

You can also define whether purchase info records, to which multiple production versions are assigned, are transferred from SAP ERP to SAP APO.

For more information, see the Implementation Guide (IMG) for SAP ERP under Integration with Other SAP Components -> Advanced Planning and Optimization -> Basic Settings for Data Transfer -> Change Transfer -> Change Transfer for Master Data -> Configure Change Transfer for Master Data.

You can also mark individual production versions as invalid in cases where a purchase info record has multiple production versions assigned to it. As part of the initial data transfer to SAP APO, SAP ERP transfers only those production versions that are valid. To mark production versions as invalid, you have two options:

- You can manually define this by setting the Production Version Invalid indicator for the relevant production version. To do so, in SAP ERP, choose Logistics -> Central Functions -> Supply Chain Planning Interface -> Core Interface Advanced Planner and Optimizer -> Environment -> Data Transfer -> Assign Multiple Production Versions.
- You can use the report SET_PRODVER_VALIDITY to have the system automatically check whether production versions are valid in the background. You have two options when you use the check report:
  - Set not valid entries
  If you choose this option, the invalid production versions are simply marked by the system and are not transferred to SAP APO as part of the initial data transfer. This is the default setting.
  - Delete not invalid entries
  If you choose this option, the invalid production versions are automatically deleted by the system.

See also

For more information, see the SAP Library under SAP Supply Chain Management (SAP SCM) -> SAP Advanced Planning and Optimization (SAP APO) -> Integration via Core Interface (CIF) and see the Release Note "Multiple Sources of Supply for Subcontracting".
1.2.10.4 SCM-APO-INT-CCR          CIF Compare/Reconcile

1.2.10.4.1 SCM-APO-INT-CCR-PCM    Production Campaign

1.2.10.4.1.1 Campaign Planning (Enhanced)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, the following enhancements have been made to the Production Campaign Planning function in the Production Planning and Detailed Scheduling (PP/DS) component. These enhancements, added in the Advanced Planning and Optimization (APO) system, includes several new developments in the area of reconciliation.

Split Campaigns

The new Split Campaign function allows you to split a campaign into two. A planned order within a campaign is selected as the split point, with all orders after it being assigned to the newly created campaign.

The split can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling) using the Split Campaign pushbutton on the Production Campaign toolbar. Alternately, use the same pushbutton from the Change Production Campaign screen; choose Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path Functions -> Production Campaign -> Split.

Merge Campaigns

The new Merge Campaigns function allows you to merge two or more campaigns into one single campaign. Campaigns across resources can also be merged.

To merge campaigns, select the target campaign that you wish to merge into, and then select the Merge Campaigns pushbutton. You then view the list of all campaigns currently available, except for the target campaign. The selected source campaigns are merged into the target campaign.

The merging can be carried out from the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling) using the Merge Campaigns pushbutton on the Production Campaign toolbar. Alternately, use the same pushbutton from the Change Production Campaign screen; choose Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign.

In the Detailed Scheduling Planning Board, you can also call up the function by choosing the new menu path Functions -> Production Campaign -> Merge.
Move Orders Between Campaigns

This new function allows you to move planned orders between production campaigns. Until now it was only possible to insert an order in a production campaign. A prerequisite was that the order not be associated with another campaign.

To insert or move orders from one campaign to another, the Include Orders in Campaign function in the Detailed Scheduling Planning Board and the Add Existing Orders function in Production Campaign have been enhanced.

In the Detailed Scheduling Planning Board (which you access choosing one of the views in Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Detailed Scheduling), select the order you want to move. On choosing the Include Orders in Campaign pushbutton, you view all currently active campaigns, out of which you select the target campaign. Note that moving orders between campaigns may also reschedule the order; in such cases the movement is done in alignment with the scheduling profile (maintained on the Detailed Scheduling Planning Board), which may disallow movement if required.

On the Production Campaign screen (which you access choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Production Campaign -> Change Production Campaign), you first select the target campaign into which the planned order must be moved; you carry out this selection in the screen area to the left. When you choose Add Existing Orders, all orders are displayed in the Add Existing Orders to Production Campaign window with campaign associations, if relevant. You then select the required orders and move them to the target campaign by choosing Move Orders to Production Campaign.

CIF Comparison/Reconciliation of Transaction Data

The report CIF Comparison /Reconciliation of Transaction Data was enhanced by a new check for campaign consistency. This check enables the comparison of production campaigns in the ERP and APO systems in an integrated landscape. It also allows the reconciliation of any differences using a suitable strategy. For this purpose, a new indicator for production campaign has been introduced into the existing Comparison/Reconciliation transaction; to access it choose Advanced Planning and Optimization -> APO Administration -> Integration -> CIF Comparison/Reconciliation of Transaction Data -> Execute Comparison/Reconciliation.

You select the ERP system as well as the product and locations for which the production campaign reconciliation is to be carried out. Then select the Production Campaigns indicator and execute the report. The results of the report are categorized according to the nature of the inconsistency detected, for example, existing in the ERP system but missing in APO, existing in APO but missing in the ERP system, missing integration model, and so on.

You can select an error category to view the inconsistent production campaigns. Then select one or more campaigns and choose the active resolution strategy to eliminate the inconsistency.

The Production Campaigns indicator does not alter any existing business processes but introduces a new one. The existing processes of planned order reconciliation, for example, remain and must be carried out if required.

Add External Campaign Information from ERP System to APO

This function allows you to see the external campaign number (the number for the production campaign
in the ERP system) and select planned orders using the APO campaign number as a selection criterion in the Process Order View and Product View transactions. Currently only the APO campaign numbers are visible. Access the Process Order View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Order Processing; similarly you can access Product View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Product View.

In addition, you can now choose to see either the APO campaign number or the external campaign number in the Production Campaign toolbar on the Detailed Scheduling Planning Board. This is turned on or off using a customizing indicator.

By default, the new function is not visible in existing ALV tables. To see the external campaign number, you must add it to the visible columns from the field catalog.

Select All Orders of Campaign in Receipts View and Conversion of Planned Orders

This function allows you to select planned orders in Receipts View using the APO production campaign number as a selection criterion. Access Receipts View by choosing Advanced Planning and Optimization -> Production Planning -> Interactive Production Planning -> Receipts View. You can also see the APO's production campaign number and the external production campaign number for the planned order in the Details View, if relevant.

Alternately, you can select planned orders for conversion in the Mass Conversion transaction using the APO production campaign number as a selection criterion.

Effects on Customizing

A new indicator, Ext. Camp. No., has been introduced in Customizing for the Planning Board Profile. You access this Customizing activity from Advanced Planning and Optimization -> Supply Chain Planning -> Production Planning and Detailed Scheduling (PP/DS) -> Detailed Scheduling -> Settings for the Detailed Scheduling Planning Board -> Maintain Planning Board Profiles. Within the activity, select the required planning board profile and choose Chart -> Resources Chart -> Details. You must select the Ext. Camp. No. indicator to see the external campaign number in the Detailed Scheduling Planning Board.

No customizing settings are required to see the external campaign number in Process Order View or Product View.
1.3 SCM-BAS

SCM Basis

1.3.1 Structural Changes to SCM Basis IMG (new)

Use

As of SAP SCM Basis 5.1 the structure of the implementation guide (IMG) of SCM Basis has changed.

Newly-Added IMG Structure Nodes and IMG Activities

Integration IMG

Integration
- Basic Settings for Creating the System Landscape
  - Name Logical Systems
  - Assign Logical Systems to a Client
  - Set Up RFC Destination
  - Assign RFC Destinations to Various Application Cases
  - Maintain Business System Group
  - Assign Logical System and Queue Type
- Basic Settings for Creating the System Landscape --> Settings for qRFC Communication
  - Configure qRFC Communication
  - Set Up QOUT Scheduler
  - Set Up QIN Scheduler
  - Set Up qRFC Administration for CIF Queue Display
- Basic Settings for Data Transfer
  - Set User Parameters
- BAdIs for Specific Applications --> Location and Business Partner
  - BAdI: Inbound Processing for Location
  - BAdI: Inbound Processing for Business Partner
- BAdIs for Specific Applications --> Product
  - BAdI: Inbound Processing for Product
  - BAdI: Master Data Hierarchy for Product
  - BAdI: Master Data Hierarchy for Location Product
- BAdIs for Specific Applications --> Classes, Characteristics, and Classifications
- **BAdI: Inbound Processing for Classification**
- **BAdI: Inbound Processing for Characteristics**
- **BAdI: Inbound Processing for Class Hierarchies**
- **BAdI: Inbound Processing for Classes**

- **BAdIs for Specific Applications --> Sources of Supply**
  - **BAdI: Inbound Processing for Sources of Supply**

- **BAdIs for Specific Applications --> Transportation Lanes**
  - **BAdI: Transportation Lanes**

- **BAdIs for Specific Applications --> Batches**
  - **BAdI: CIF Inbound Processing for Batches**

- **BAdIs for Specific Applications --> CIF Core**
  - **BAdI: Inbound Processing for CIF Error Handling**

**Master Data IMG**

**Master Data**
- **Define Parameters for Master Data Locking Concept (moved)**
- **Maintain Freely-Definable Attributes**
- **Calendar**
  - **Maintain Factory Calendar**
  - **Maintain Planning Calendar (Time Stream)**
- **Location**
  - **Activate Change Documents**

**Product**
- **Maintain Product-Relevant Hierarchies and Hierarchy Structures**
- **Specify Output Format of Product Number**
- **Configure Time Base of Fields**
- **Maintain Rounding Profiles**
- **Activate Change Documents**
- **Maintain Type of Alternative Product Number**
- **Define Replenishment Indicator**
- **Define ABC Indicators**
- **Maintain Transportation Group**

- **Product --> Product Groups**
- Define Product Group Types
- Define Product Groups

- **Resource**
  - Specify Capacity Variants

- **Resource --> Processor**
  - Make Settings for the HR System

- **Transportation Lane**
  - Maintain Transportation Mode
  - Maintain Means of Transport
  - Set Usage of GIS Tool
  - Activate Change Documents

- **Transportation Lane --> Transportation Service Provider Profile**
  - Define Freight Code Sets and Freight Codes
  - Define Product Freight Groups

- **Trailers and Compartments**
  - Define Compartment Type
  - Define Means of Transport Combination
  - Define Attributes of TM Combination/Compartment
  - Define Coupling/Decoupling Duration

- **Quota Arrangement**
  - Activate Change Documents

- **Business Add-In (BAdI) for Source Determination**
  - BAdI: Source Determination

- **Hierarchy**
  - Define Hierarchy Structure

- **Specify Person Responsible (Planner)**

**Configurable Process Scheduling IMG**

- **Condition Technique**
  - Create Field Catalog
  - Define Condition Tables
  - Define Access Sequences
  - Define Condition Types
- Define Determination Procedure
- Determine Condition Maintenance Groups for Context
- Create Condition Maintenance Group
- Assign Schema and Activity to a Condition Type List

- Interfaces
  - Maintain Transportation Zone
  - Define Assignment of Transportation Zones to Locations
  - Define Assignment of Default Means of Transport to Shipping Conditions
  - Perform Consistency Check
  - Determine Assignment of Item Category to Process Alias

Pack IMG

Packaging Specification
- Business Add-Ins for Packaging Specifications -> Packaging Specification -> BAdI: PDF printing of Packaging Specification

Transport Load Builder IMG
- Define TLB Parameters
- Make TLB Basic Settings

IMG for Basic Settings for Analysis Applications of Supply Chain
- Define Mapping for Business Objects
- Define Error Queue for Business Objects
- Define Analysis Objects
- Define Analysis Applications and Processing Sequence
- Define Application Log for Analysis Tools
- Create Customer-Defined Analytic Applications
- Create Customer-Defined Document Types

- Enterprise Services
  Business Add-Ins (BAdIs)
  - BAdI for Delivery Information
  - BAdI for Information Messages About Sales Orders
  - BAdI for Information Messages About Purchase Orders
  - BAdI for Notifications about Delivery Schedules
Routing Guide IMG

Routing Guide
- General Settings for Route Determination
- Define Request Types for Routing Guide
- Define Modes of Transport for Foreign Trade
- Define Transportation Zone Hierarchy

Remote Control and Communication Framework IMG
- Edit Destinations
- Make Settings for Experts

Cross-System and Cross-Partner Document Flow
The structure node Cross-System and Cross-Partner Document Flow is also shown in SCM Basis.

Moved IMG Activities
- Define Parameters for Master Data Locking Concept
  This IMG activity is now located under Master Data.

Changed IMG Activities

Time Series Data Management IMG
- Configure Time Series Data Management

Deleted IMG Structure Nodes and IMG Activities

Alert Monitor IMG
- Alert Monitor -> Maintain Database Alert Types for Demand Planning and SNP
- Alert Monitor -> Maintain Dynamic Alert Types for Demand Planning and SNP
- Alert Monitor -> Business Add-Ins (BAdIs) for the Alert Monitor -> BAdI: Overconfirmation/Underconfirmation Alerts
- Alert Monitor -> Business Add-Ins (BAdIs) for the Alert Monitor -> BAdI: Enhancement of the PP/DS Alert List

These IMG activities are only available if you use SAP Supply Chain Management (SAP SCM).

Validation IMG

This IMG node and the subordinate IMG activities are only relevant for SAP Supply Network
Collaboration (SAP SNC). The IMG activities are only available if you use SAP Supply Network Collaboration (SAP SNC). (In this case you would find the IMG activities in the SAP SNC IMG).

**Processing Inbound and Outbound Messages IMG**

This IMG node and the subordinate IMG activities are only relevant for SAP Supply Network Collaboration (SAP SNC). The IMG activities are only available if you use SAP Supply Network Collaboration (SAP SNC). (In this case you would find the IMG activities in the SAP SNC IMG).

### 1.3.2 Define Incoterms (New)

**Use**

As of SAP SCM Basis 5.1, you can define Incoterms for master data.

**Note**

Make sure that cross checks are made between the Incoterms from the R/3 or ERP system and the SCM system at regular intervals. The data is not replicated automatically between the systems.

**See also**

For more information, see the Implementation Guide (IMG) for SCM Basis under Master Data -> Define Incoterms.

### 1.3.3 Time Series Data Management (Changed)

**Use**

As of SAP SCM 5.1, you can use the following enhanced functions for time series data management
Effects on Customizing

You use the enhanced functions for TSDM by choosing SAP SCM - Implementation Guide -> SCM Basis

1.3.4 SCM-BAS-INT  Interfaces

1.3.4.1 Editing Master Data from SAP ERP (New)

Use

As of SAP SCM Basis 5.1, you can use various Business Add-Ins (BAAdIs) to edit master data that was transferred via Core Interface (CIF) from SAP ERP:

- Location and business partner
  - BAAdI: Inbound Processing for Location
  - BAAdI: Inbound Processing for Business Partner
- Product
  - BAAdI: Inbound Processing for Product
  - BAAdI: Master Data Hierarchy for Product
  - BAAdI: Master Data Hierarchy for Location Product
- Classes, characteristics, and classifications
  - BAAdI: Inbound Processing for Classification
  - BAAdI: Inbound Processing for Characteristics
  - BAAdI: Inbound Processing for Class Hierarchies
- BAAdl: Inbound Processing for Classes
- Sources of supply
  - BAAdl: Inbound Processing for Sources of Supply
- Transportation lanes
  - BAAdl: Transportation Lanes
- Batches
  - BAAdl: CIF Inbound Processing for Batches
- CIF Core
  - BAAdl: Inbound Processing for CIF Error Handling

See also
For more information, see the Implementation Guide (IMG) for SCM Basis under Integration -> BAAdls for Specific Applications.

1.3.4.2 Enterprise Services (New)

Use
As of SAP SCM Basis 5.1, Enterprise Services are available for the following business objects:
- Location
- Bill of Distribution
- Supply Planning Area
- Transportation Lane
- Material

Effects on Customizing
We supply the associated message interfaces and Business Add-Ins (BAAdls) for each service. You can use these BAAdls to change or enhance the data that is transferred via the message interfaces.
See also

1.3.4.3 Enterprise Services (Enhanced)

Use
As of SAP SCM Basis 5.1 Support Package 05, you can use additional enterprise services for the following process components:

- Supply Planning Area
  You can use the new operations Find Supply Planning Area by Location ID and Location TypeCode and Respond Supply Planning Area by Location ID and Location TypeCode Query.

- Location Data management
  You can use the new operations Find Location by ID and TypeCode and Description and Respond Location by ID and TypeCode and Description Query.

You can also use enterprise services for the following new process components:

- Source of Supply Determination
- Interchangeability Group Management
- Supply and Demand Matching

Effects on Customizing
In Customizing, under SCM Basis -> Master Data -> Enterprise Services and under SCM Basis -> Enterprise Services, you can find additional IMG activities for Customizing and Business Add-Ins (BAdIs) for each service. You can use the BAdIs to change or enhance the data that is transferred via the message interfaces.

See also
For more information, see the Enterprise Services Workplace in the SAP Developer Network (SDN) at sdn.sap.com -> Enterprise SOA.
1.3.4.4 Enterprise Services (Enhanced)

Use

As of SAP SCM Basis 5.1 Support Package 06, you can use additional enterprise services for the following process components:

- Source of Supply Determination
  You can use the new operation Find Source of Supply by Elements.

- Product Data Management
  You can use the new operation Find Material Location by ID and Location ID and Location Radius.

- Location Data management
  You can use the new operation Find Location by ID and Radius.

Effects on Customizing

In Customizing, under SCM Basis -> Master Data -> Enterprise Services and under SCM Basis -> Enterprise Services, you can find additional IMG activities for Customizing and Business Add-Ins (BAdIs) for each service. You can use the BAdIs to change or enhance the data that is transferred via the message interfaces.

See also

For more information, see the Enterprise Services Workplace in the SAP Developer Network (SDN) at sdn.sap.com -> Enterprise SOA.

1.3.4.5 SCM-BAS-INT-MD CIF Master Data

1.3.4.5.1 Improvements to the Core Interface (CIF)

Use

As of SAP SCM Basis 5.1, various improvements were made to the Core Interface (CIF) to simplify data transfer between SAP ERP and SAP SCM.

CIF Postprocessing

To simplify error correction in CIF postprocessing, transaction /sapapo/cpp in SAP SCM now includes an additional column for displaying error messages. If you double-click an error message, the system displays the application log for the selected entry.

CIF Restart

System failures or other system-related errors can lead to a large number of queue entries in the RFC queues in the SCM or ERP system. To avoid performance problems when processing using the RFC
queue scheduler, a total of four reports are now available, two for SCM and two for ERP.

**Different Stocks in SAP ERP and SAP SCM**

Until now, in SAP SCM you were unable to define which stock types were MRP-relevant. You can now use a user exit to change the stock category internally, making the stock display the behavior you require.

For more information, see SAP Note 487166.

**Copying Purchase Order Changes from SAP SRM to SAP SCM**

Until now, you were not able to activate or deactivate the transfer of purchase order changes from SAP SRM to SAP SCM. By changing Customizing in the ERP system, you can now define whether purchase order changes are to be copied from SAP SRM to SAP SCM.

For more information, see SAP Note 947032 or see the Implementation Guide (IMG) for the ERP system, under *Integration with Other SAP Components* - > *Advanced Planning and Optimization* - > *Basic Settings for the Data Transfer* - > *Change Transfer* - > *Change Transfer for Transaction Data* - > *Activate Copy of Purchase Order Changes*.

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### 1.3.4.5.2 Integration of Master Data (Enhanced)

**Use**

Previously, you could transfer master data from purchasing documents and purchasing info records from ERP systems to SAP SCM systems by means of the SAP Core Interface (CIF). As of SAP SCM Basis 5.1, you can additionally transfer the following fields for contracts and scheduling agreements from SAP ERP to SAP SCM Basis via the CIF:

- Terms of payment
- Incoterms
- Document currency
- Indicator for goods-receipt-related invoice verification
- Indicator for evaluated receipt settlement (ERS)
- Indicator for no cash discount
- Invoice receipt indicator
- Price
- Price unit
- Purchase order price unit
- Conversion of purchase order price unit to purchase order unit
- Conversion of purchase order unit to base unit
- Different invoice recipient
- Jurisdiction code
- Final invoice indicator

In the case of purchasing info records and contracts, the overdelivery indicator is now also transferred.

**Note:** Note that you need SAP ERP with a suitable Release. For further information, refer to the SAP Library for SAP Supply Chain Management (SAP SCM) and SAP Supply Network Collaboration (SAP SNC).

### 1.3.4.6 SCM-BAS-INT-EXT Interface to External Systems

#### 1.3.4.6.1 Conversion of Invoice Numbers and Invoice Item Numbers (New)

**Use**

As of SAP SCM Basis 5.1, Business Add-Ins (BAdIs) that enable you to convert invoice numbers and invoice item numbers into incoming and outgoing XML messages are available:

- BAdI /SCMB/BOL_IVCNV for the conversion of invoice numbers
- BAdI /SCMB/BOL_IITCV for the conversion of invoice item numbers

These BAdIs are relevant to SAP Supply Network Collaboration (SAP SNC) only. You can only use these BAdIs if you have installed SAP SNC.

**See also**

For more information, refer to the Implementation Guide (IMG) for *Supply Network Collaboration* under *Business Add-Ins (BAdIs) for SAP SNC -> Invoice -> Conversion Exits.*
1.3.5 SCM-BAS-ODM  Order Document Management

1.3.5.1 Settings in Order Document Management (Changed)

Use

In SAP Supply Network Collaboration (SAP SNC) 5.1, you have to make settings in order document management for the following order documents:
- Advanced shipping notification
- Return delivery instruction
- Returns ASN
- Scheduling agreement release
- Purchase order and replenishment order
- Supplier confirmation
- Kanban object
- Work order
- Invoice
- TLB shipment
- Planned replenishment order

For more information, see SAP Note 1019289.

Effects on Customizing

You make the settings in Customizing for SCM Basis under Order Document Management.

1.3.6 SCM-BAS-SCH  Configurable Process Scheduling

1.3.6.1 Scheduling (Changed)

Use

SAP Supply Network Collaboration (SAP SNC) already uses configurable process scheduling for the scheduling. SAP SNC 5.1 uses the PLANNING process alias (PLANNING scheduling schema) delivered in the standard system. For the Responsive Replenishment business scenario, you have to configure
the VMIPLANNING process alias (VMIPLANNING scheduling schema). You can configure which process alias the system uses, on the SAP Easy Access screen under Master Data -> User-Specific Master Data -> Scheduling -> Assign Process Aliases, depending on the following characteristics:

- Customer
- Supplier
- Ship-from location
- Customer location
- Product

1.3.7 SCM-BAS-PSM          Planning Service Manager

1.3.7.1 Features of the Planning Service Manager (PSM) (Enhanced)

Use

As of SAP SCM Basis 5.1, you can define a version-dependent standard service profile for the user interface. Until now, you could only define one standard service profile for the user interface.

You can display the version-dependent standard service profile from the SAP Easy Access screen by choosing Planning Service Manager (PSM) -> Current Settings.

1.3.8 SCM-BAS-DMX          DataMatrix

1.3.8.1 Data Matrix Configuration (New)

Use

A data matrix contains the key figures for an application as well as the different aggregation levels upon
which these key figures exist. The following Web applications of SAP Supply Network Collaboration (SAP SNC) are based on a data matrix:

- Overview and detail screens for sales forecast collaboration
- Overview and detail screens in the order forecast monitor
- Overview and detail screens in the SMI Monitor
- Overview and detail screens in the Min/Max Replenishment Monitor
- Overview and detail screens in the Responsive Replenishment Monitor
- Overview and detail screens in the SNI Monitor
- Detail screens in the TPOP forecast
- Audit trail for time series data
- History comparison for time series data

As of SAP SNC 5.1, there is a Customizing is available that you can use to do the following:

- Display the data matrices delivered by us
- Add your own key figures to a data matrix
- Change the computation of key figures
- Change the sequence and descriptions of key figures on a Web screen (data matrix view)

Effects on Customizing

You make the settings in Customizing for Supply Network Collaboration under Basic Settings -> Data Matrix.

1.3.9 SCM-BAS-MD         Master Data

1.3.9.1 SCM-BAS-MD-PR     Product

1.3.9.1.1 Product Master (New)

Use

As of SAP SCM Basis 5.1, the following enhancements have been made to the product master:

- You can search for the following relationships and display them:
- Relationships between products
- Relationships between locations
- Until now, you could set the EAN/UPC indicator in the product master for SAP SCM Basis to start product determination for a certain product. As of SAP SCM Basis 5.1, the EAN/UPC indicator has been renamed Product Determ. The value #T# (Time-Dependent Product Determination) has been added so that you can now choose between static and time-dependent product determination.
- Static product determination determines a supplier back-end product for a corresponding product in the product master on a one-off basis.
- Time-dependent product determination determines a supplier back-end product for each period in the planning horizon.
Note: these functions are relevant to SAP Supply Network Collaboration (SAP SNC) only. You can only use the functions if you have installed SAP SNC 5.1 in your system.

See also
For more information, see the SAP Library for SAP SCM under Master Data.

1.3.9.2 SCM-BAS-MD-PRT Partner-Specific Master Data

1.3.9.2.1 Partner-Dependent Master Data (New)

Use
As of SAP SCM Basis 5.1, you can maintain partner-dependent master data in the SAP Easy Access menu under Master Data -> Partner-Dependent Master Data. You can maintain, for example in the case of partner-dependent product data, the product number and description that your partner uses.
Maintenance of partner-dependent data is available for the following master data:
- Business Partner
- Location
- Product
1.3.10 SCM-BAS-TLB  Transport Load Builder

1.3.10.1 Weight/Volume Mix (New)

Use
As of SAP SCM Basis 5.1, the TLB algorithm can load a transportation vehicle so that a predefined target weight/volume ratio is achieved. The target weight/volume ratio is the relationship between the total weight and the total volume of the products that are loaded in a transportation vehicle. You can choose between the following types of ratio:

- Static
  The static weight/volume ratio is a fixed predefined value.

- Dynamic
  The dynamic weight/volume ratio is the ratio between the total weight and total volume of planned receipts in a predefined horizon.

You can specify a tolerance for the weight/volume ratio. When the weight/volume ratio on the load falls outside the range during loading, the TLB algorithm tries to select a product with the proper weight/volume ratio to bring the weight/volume ratio on the load back to the range.

Effects on Customizing
To use weight/volume mix, make the following settings in Customizing for SCM Basis by choosing Transport Load Builder (TLB) -> Make TLB Basic Setting:

- Weight/Volume Ratio
- Weight/volume Tolerance
- Weight/Volume Horizon

1.3.11 SCM-BAS-RG  Routing Guide

1.3.11.1 Routing Guide (Enhanced)
Use

The following areas of the routing guide for route determination in Extended Warehouse Management (EWM) were enhanced:

- **Carrier profile**
  - Transaction *Maintain Transportation Cost Profile for Route Determination* was deleted. The corresponding functions are now part of the carrier profile.
  - Product freight groups are now considered.

- **General cost profile**
  - Transaction *Maintain General Cost Profile* (/SAPAPO/CTRP) was replaced by transaction *Define General Transportation Cost Profile* (/SAPAPO/TPK). This new transaction only contains the functions that are relevant for EWM.

- **Zones**
  - You can now define mixed zones made up of locations, postal code zone intervals and regions.
  - Mixed zones and region zones now allow the user to select a country.
  - In the application menu, a report for deleting zones is now provided under *Extended Warehouse Management -> Master Data -> Shipping and Receiving -> Route Determination -> Delete Zones*.

- **Route**
  - At header level, you can now restrict routes to a quantity of transport groups.
  - Instead of defining the sequence strategy at leg-level, you now make stops as *Required* or *Optional*.
  - You now define export relevance at stop-level (until now, you did this at leg-level).
  - You now define the departure calendar of the leg as part of the request-type-specific departure calendars.
  - You can now define departure calendars separately for each subordinate means of transport.
  - In the application menu, a report for deleting zones is now provided under *Extended Warehouse Management -> Master Data -> Shipping and Receiving -> Route Determination -> Delete Zones*.

In addition, the routing guide functions moved to SCM Basis, Release 5.1. You can now find the relevant IMG activities in Customizing for SCM Basis, under *Routing Guide*.

Effects on Data Transfer

The data conversion is provided by XPRAs.

Effects on Customizing

You must execute IMG activity *Define Transportation Zone Hierarchy*. For more information, see the Implementation Guide (IMG) for SCM Basis, under *Routing Guide -> Define Transportation Zone Hierarchy*.
1.3.12 SCM-BAS-SCR  

SCM Analysis Tools - Base Functions

1.3.12.1 Supply Chain and Enterprise Services Analytics Applications (New)

Use

As of SAP SCM Basis 5.1, basic settings for supply chain and enterprise services analytics applications are available to you.

You can use these new basic settings to implement analytics applications in various system landscapes flexibly, such as in a system landscape containing SAP SCM and SAP ERP. You can use these settings for the analytic applications delivered as standard, such as the service fill monitor or the supplier delivery performance rating, or for analytic applications you have defined yourself.

Enterprise services enable you to get data required for the analytic applications in SAP SCM from different systems, such as from SAP ERP. The following enterprise services are available to you:

- **DeliveryInformationMessage**
  This service refers to the following business objects:
  - Supply Chain Analytical View of Inbound Delivery
  - Supply Chain Analytical View of Outbound Delivery

- **PurchaseOrderCreatedInformationMessage**
  This service refers to business object Supply Chain Analytical View of Purchase Order.

- **PurchaseOrderChangedInformationMessage**
  This service refers to business object Supply Chain Analytical View of Purchase Order.

- **PurchaseOrderCancelledInformationMessage**
  This service refers to business object Supply Chain Analytical View of Purchase Order.

- **SalesOrderCreatedInformationMessage**
  This service refers to business object Supply Chain Analytical View of Sales Order.

- **SalesOrderChangedInformationMessage**
  This service refers to business object Supply Chain Analytical View of Sales Order.

- **SalesOrderCancelledInformationMessage**
  This service refers to business object Supply Chain Analytical View of Sales Order.

- **DeliveryScheduleNotification**
  This service is used as part of the analysis applications of the supply chain to get information about
scheduling agreement releases. For this reason, the service is also called

\textit{PurchaseSchedulingAgreement}.

Effects on Customizing

We deliver an Implementation Guide (IMG) for the supply chain analysis tools. We also deliver relevant message interfaces and Business Add-Ins (BAdIs) for each enterprise service. You can use these BAdIs to change or extend data that is transferred through the message interfaces.

See also

- For more information about enterprise services, see SAP Library under \textit{Enterprise Services}, and the Enterprise Services Workplace in the SAP Developer Network (SDN) under \textit{sdn.sap.com} \textendash; \textit{Enterprise SOA} \textendash; \textit{ES Workplace} \textendash; \textit{Start browsing now} \textendash; \textit{Enterprise Services Index} \textendash; \textit{Process Components in SCM}.

- For more information about supply chain analysis tools, see the IMG for \textit{SCM Basis} under \textit{Supply Chain Analysis Tools}.

- For more information about the analytic applications delivery in the standard system, see SAP Library for \textit{SAP Supply Chain Management (SAP SCM)} under \textit{SAP Advanced Planning and Optimization (SAP APO)} \textendash; \textit{Service Parts Planning (SPP)} \textendash; \textit{Analysis, Monitoring, and Reporting for Service Parts Planning}.

1.3.13 SCM-BAS-RCC \hspace{1cm} \textbf{Remote Control and Communication Framework}

1.3.13.1 Remote Control and Communication Framework (neu)

Use

The Remote Control and Communication Framework (RCCF) is available as of SAP SCM Basis 5.1. It replaces the previous Optimizer framework of SAP Advanced Planning and Optimization (SAP APO).

RCCF supports the call, control, communication, and logging of engines to external destinations. For this purpose, similar functions were combined to reduce the number of transactions. The previous transaction codes and IMG activities are still available in SAP APO. However, they now refer you to the new user interfaces.

You find the new transactions for RCCF in the user menu for SCM Basis under \textit{Remote Control and Communication Framework}.

You make the settings for RCCF in Customizing for SCM Basis, under \textit{Remote Control and Communication Framework}.

Effects on Existing Data

\textbf{SAP APO:}
To copy existing data from SAP APO to the new RCCF, you have to execute the upgrade report /SAPAPO/OPT_UPGRADE in SAP APO. Before you start the upgrade report, you can display the old data for comparison, using the transaction scodes /SAPAPO/COPT01_OLD, /SAPAPO/COPT00_OLD, and /SAPAPO/COPT10_OLD.

Effects on System Administration

The administrative transactions were updated and enhanced with new functions:

- **Log Display** (transaction RCCF_LOG; previous transaction in SAP APO: /SAPAPO/OPT11)
  Allows you to download compressed engine data and all relevant data in a single ZIP archive. In addition, the default functions of the SAP List Viewer (filtering, sorting, and so on) were integrated.

- **Display Active Sessions** (transaction RCCF_SESSION; previous transactions in SAP APO: /SAPAPO/OPT03 and /SAPAPO/OPT_STOP)
  Allows you to display the operational state (Active or No longer active) of an engine run as well as the associated process and host information.

1.4 SCM-EWM Extended Warehouse Management

1.4.1 Batch Management in EWM (Enhanced)

Use

As of SAP EWM 5.1, batch management is integrated into the inbound and outbound delivery process. Until now, you could create batches in the batch master, create batches in the inbound delivery, and the system considered the country of origin during warehouse order creation.

The following additional functions are now available to you:

- **Batch search in the picking process**
  You can perform the batch search in the picking process using characteristics or selection criteria that are stored in the selection class.

- **ERP Integration**
  ERP sends the evaluated batch selection criteria to EWM with the outbound delivery.

- **Batches in the outbound delivery**
  You can display the selection criteria per delivery item in the outbound delivery request and outbound delivery order. In addition, when creating a warehouse task, the system only selects batches that correspond to the selection criteria.

- **Batch search**
  If you specify batches in the outbound delivery, the system uses the batches you have specified.
- Create batches in the inbound delivery
  You can copy the shelf life expiration date, country of origin, and production date into the corresponding batch characteristics from the inbound delivery.

- Batch status management
  Batches can have the characteristics **free** and **not free**. You can prevent warehouse tasks from being created for batches that have characteristic **not free**. You can also use an indicator in the delivery attributes to control that **not free** batches cannot be posted for goods issue or goods receipt.

- Documentary batch charge
  Batches of products that are classified as documentary batches are not inventory-managed by the system, although it is possible to track the batch in the ERP system. The system records a documentary batch as additional information before goods receipt. This additional information is then located in the batch field of the inbound or outbound delivery.

**Effects on System Administration**

To be able to use the new batch functions, you have to define a number range for batches in Customizing, and configure update control.

- For more information, see the Implementation Guide (IMG) for *Extended Warehouse Management (EWM)* under **Cross-Process Settings -> Batch Management**
  - Define Number Range for Batch.
  - Set Update Control (Centralized, Decentralized)

If you want to:
- Create batches in the inbound delivery manually or automatically
- Classify batches when creating them in the inbound delivery with delivery data
- Use batch status management
- Have the system check the minimum remaining shelf life of a batch

then you have to make delivery settings in Customizing.

- For more information, see the IMG for EWM under **Cross-Process Settings -> Batch Management -> Batch Status Management** -> Make Settings for Delivery

If you want to use batch status management, you must make settings for deliveries and settings for creating warehouse tasks in Customizing.

- For more information, see the IMG for EWM under **Cross-Process Settings -> Batch Management -> Batch Status Management**
  - Make Settings for Delivery
  - Settings for Warehouse Task Creation

If you want to work with documentary batches, you must configure the documentary batch in Customizing.
- For more information, see the IMG for EWM under Cross-Process Settings -> Batch Management -> Set Documentary Batch.

1.4.2 Catch Weight in EWM (New)

Use

As of SAP EWM 5.1, you can use two quantities that are independent of each other and have equal rights, for keeping stock records for your products (for example, in units of measure 'piece' and 'kilogram'). This means that each catch weight product has a logistics unit of measure and a valuation unit of measure. This affects the following areas of SAP Extended Warehouse Management:

- Product master
- EWM processes (goods movements, warehouse tasks, handling units)
- Delivery
- Physical inventory
- Integration
- Quality inspection
- Warehouse management monitor
- Radio Frequency

Effects on Customizing

Make the following optional settings in Customizing for Extended Warehouse Management under Master Data -> Product -> Catch Weight:

- Define Catch Weight Tolerance Groups
- Define Catch Weight Tolerance Groups at Warehouse Level
- Define Catch Weight Profile for Catch Weight Quantities
- Define Catch Weight Profiles for Catch Weight Quantities at Warehouse Level

The following BAdI is also available to you in the Implementation Guide (IMG) for Extended Warehouse Management under Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Catch Weight:

- BAdI: Label Printing with Catch Weight Quantity

See also
For more information, see SAP Library for SAP SCM under Extended Warehouse Management -> Catch Weight.

1.4.3 Travel Distance Calculation (New)

Use

As of SAP SCM 5.1, you can implement a travel distance calculation in the Extended Warehouse Management component (SCM-EWM).

This gives you the following options. You can:
- Define paths and distances between storage bins and storage types by using networks (Settings for the Travel Distance Calculation).
- Define one-way lanes and restrictions regarding the resource types for paths.
- Use an enhanced function in the RF environment to define the location of resources.
- Integrate the travel distance calculation into the following components:
  - Labor management (LM), using engineered labor standards (ELS)
  - Determine Processing Time
  - The material flow system (MFS)

Effects on Customizing

Make the following settings in Customizing for Extended Warehouse Management under Master Data: Master Data -> Define Warehouse Number Control

Here you can set whether you want to use the travel distance calculation, and that metric that you want to use (Euclidean metric or Manhattan metric).

See also

For more information, see SAP Library under Extended Warehouse Management -> Settings -> Travel Distance Calculation.

1.4.4 Direct Outbound Delivery Order (New)

Use

As of SAP EWM 5.1, you can generate direct outbound delivery orders.
Previously, you could only work with EWM outbound delivery orders that were based on reference documents that had already been created in ERP. In this case, the outbound delivery in ERP is first generated in ERP, and then sent to EWM. Now you are able to generate outbound delivery orders in EWM directly, and use them in the following example scenarios:

- Pickup (direct sale or sell from stock)
- Account assignment
- Immediate delivery
- Scrapping

When you save a direct outbound delivery order in EWM, ERP receives a corresponding message, and generates a corresponding ERP outbound delivery.

You can also add direct outbound delivery orders to packing items.

**Effects on Existing Data**

**Compatibility with Earlier SAP SCM Releases**

As of SAP SCM 5.1, we deliver predefined process profiles. If you want to upgrade to SAP SCM 5.1 from SAP SCM 5.0, you must define existing document types for the scrapping process that correspond to the shipped process profiles for scrapping:

- /SCWM/OUT_PRD_SCRAP Outbound Delivery Order Scrapping
- /SCWM/OUT_FD_SCRAP Outbound Delivery Scrapping

If you are using an existing document type for correction deliveries, when upgrading from SAP SCM 5.0 to SAP SCM 5.1, you must also make sure that the process indicator for correction deliveries is set to *A Obligatory* in the corresponding process profile for the delivery document header.

**Effects on System Administration**

If you have worked with outbound delivery orders or outbound deliveries in scrapping processes, or with correction deliveries in SAP SCM 5.0, and are upgrading from SAP SCM 5.0 to SAP SCM 5.1, you must note the following before you can continue to work with these outbound delivery orders or outbound deliveries:

- For outbound delivery orders or outbound deliveries that you use for scrapping, you have defined a process profile for the delivery document header, and have set the process indicator for scrapping to *A Obligatory*.
- For inbound deliveries, inbound delivery requests, outbound delivery requests, outbound delivery orders and outbound delivery that you use as correction deliveries, you have defined a process profile for the delivery document header, and set the process indicator for the correction delivery to *A Obligatory*.
- EWM sends the information about goods movements due to a scrapping process to ERP. You have ensured that the configuration of the ERP to which EWM sends this information for the distribution of direct outbound deliveries has been correctly configured in EWM (Configure Control Parameters for ERP Version Control).
Recommendation

SAP recommends the following, so that you avoid using delivery types incorrectly:

- For outbound delivery document types that you use for scrapping, you have set the process indicator for manually creating documents to \textit{B Obligatory} in the process profile for the delivery document header, and you have set the indicator in the corresponding process profile for item types to \textit{B Obligatory}.

- For outbound delivery document types that you use as correction deliveries, you have set the process indicator for manually creating documents to \textit{C Not Allowed} in the process profile for the delivery document header, and set the indicator in the corresponding process profile for item types to \textit{C Not Allowed}.

- For outbound delivery document types that you do not use for invoicing before goods issue, you have set the process indicator for invoicing before goods issue to \textit{D Not Allowed} in the process profile for the delivery document header, and set the indicator to \textit{Not Allowed} in the corresponding process profile for item types.

When you have made these settings, you can execute the following:

- All deliveries for scrapping from SAP SCM 5.0
- All correction deliveries from SAP SCM 5.0

Effects on Customizing

If you want to work with direct outbound delivery orders, you have executed the following in Customizing for EWM:

- You have defined document types and item types, which you can use to create direct outbound delivery orders manually and locally in EWM:
  - Define Document Types for Outbound Delivery Process
  - Define Item Types for Outbound Delivery Process
  - Define Document Types for Posting Change Process
  - Define Item Types for Posting Change Process

- You have defined one or more process profiles for the delivery document header.
- You have defined one or more process profiles for the delivery document items.

If you want to use the availability check for direct outbound delivery orders, you have executed the following in Customizing for EWM:

- You have set the requirements profile.
- You have defined the configuration of the availability check.

If you want to upgrade from SAP SCM 5.0 to SAP SCM 5.1, you have executed the following:

- If you want to guarantee the scrapping process for existing document types, in Customizing for EWM, you have defined the existing document types corresponding to the shipped process profiles (Define Process Profiles for the Delivery Document Header and Define Process Profiles for the Delivery Document Item).
- For the existing document types, you have made sure that the process indicators of existing document types for correction deliveries mark these as correction deliveries (Define Process Profiles for the Delivery Document Header and Define Process Profiles for the Delivery Document Item).

See also

For more information, see the SAP Library for SAP Supply Chain Management, under Extended Warehouse Management -> Delivery Processing -> Warehouse Request ->
- Direct Outbound Delivery Order
- Creation of Whse Req. for Inbnd Deliv. or Outbnd Deliv. Order

1.4.5 Printer Determination (Enhanced)

Use

As of SAP EWM 5.1, printer determination for printing documents for delivery processes has been enhanced.

You use printer determination in Extended Warehouse Management (EWM) to enable you to use printers in the various storage sections, such as the goods receipt or goods issue area, to print different documents, for example unloading instructions or delivery notes.

Effects on System Administration

EWM attempts to determines the printer in the following order:

1. EWM checks if you have specified a print profile for the pickup in default values on the user interface, and uses the printer in this print profile.
2. If EWM is unable to find a printer in step 1, it checks if you have implemented your own printer determination in BAdl /SCDL/PPF_ADD_DATA and then uses this printer.
3. If EWM is unable to determine a printer in step 2, it checks if you have implemented your own printer determination in BAdl /SCWM/EX_DLV_PRINT_PROFILE. EWM uses the printer in this print profile.
4. If EWM is unable to determine a printer in step 3, it checks if you have defined a print profile determination for the goods issue or goods receiving process in Customizing. EWM then uses the printer in the print profile.
5. You can define an access sequence for the print profile determination. This allows EWM to consider one or more combinations of different parameters for the print profile determination, such as goods receipt office, ship-to location, and warehouse number.
6. If EWM is unable to determine a printer in step 3, it checks if you have specified a printer in the user interface.
master data. From the SAP Easy Access screen, choose System -> User Profile -> Own Data and specify you own output device in the Spool Control group box on the Defaults tab page.

If EWM does not find a printer, it does not schedule the PPF action for printing.

**Effects on Customizing**

To use the printer in step 3 of the determination sequence, you have implemented your own print profile determination in BAdI /SCWM/EX_DLV_PRINT_PROFILE.

In Customizing for EWM, you have defined a Print Profile for Delivery Processing.

If required, you have defined the Print Profile Determination for the Goods Receipt Process or Print Profile Determination for the Goods Issue Process in Customizing for EWM.

**See also**

For more information, see SAP Library under Extended Warehouse Management -> Delivery Processing ->

Basic Functions in Delivery Processing -> Print Profile Determination in Delivery Processing.

### 1.4.6 Expected Goods Receipt (New)

**Use**

As of SAP EWM 5.1, you can work with expected goods receipt.

The expected goods receipt contains the data of an open purchase order or an open production order. When you create an inbound delivery locally in EWM, you can use the expected goods receipt as a copy template to copy the data from the purchase order or the production order.

**Effects on System Administration**

You must schedule the report /SCWM/ERP_DLV_DELETE. This report deletes existing expected goods receipts in EWM and requests new expected goods receipts for a specified period from ERP. On the SAP Easy Access screen, choose Extended Warehouse Management -> Delivery Processing -> Inbound Delivery -> Expected Goods Receipt -> Generate or Delete Expected Goods Receipt.

**Effects on Customizing**

- If you want to work with expected goods receipts, in Customizing for EWM, you have allowed the manual creation of individual delivery items. You have defined these in the following Customizing activities:
  
  Goods Receipt Process -> Expected Goods Receipt ->
  
  - Use Wizard to Define Document Types for Expected Goods Receipt
  - Use Wizard to Define Item Types for Expected Goods Receipt
  - Define Allowed Item Types for Expected Goods Receipt
- Define Document Type Determination for Expected Goods Receipt
- Define Item Type Determination for Expected Goods Receipt

Goods Receipt Process -> Inbound Delivery ->
- Define Document Type Determination for Inbound Delivery Process
- Define Item Type Determination for Inbound Delivery Process

- You have defined the profiles required for the document and item types in Customizing for EWM under Cross-Process Settings -> Delivery Processing.
- You have defined the integration with ERP in Customizing for EWM under Interfaces -> ERP Integration -> Delivery Processing.

Note

You can use the BC Set /SCWM/DLV_EXPGR Delivery Processing in EWM - Expected Goods Receipt to execute the Customizing settings mentioned above.

- In Customizing for EWM, you have defined number range intervals for expected goods receipt.

See also

For more information, see the SAP Library under Extended Warehouse Management -> Delivery Processing.

1.4.7 Configuration for Scheduling PPF Actions in the Delivery (New)

Use

As of SAP EWM 5.1, you can configure post-processing framework actions (PPF actions), which you schedule in delivery processing. This allows you to control whether SAP EWM is to consider delivery data when scheduling certain PPF actions, such as particular partners or status changes. For this, SAP EWM uses the condition technique.

Prerequisites

- You have installed the call for the class belonging to the scheduling configuration into the schedule condition of the PPF action.
- You have made the following Customizing settings.
- You have defined condition records for the PPF action. From the SAP Easy Access screen, choose Extended Warehouse Management -> Delivery Processing -> Actions -> Maintain Condition Records for PPF Schedule Conditions.

When defining condition records, you can control for each delivery whether SAP EWM schedules relevant PPF actions or not.
For the follow PPF actions delivered in the standard SAP system, condition records are already defined and added to the corresponding schedule conditions:

- Actions for printing delivery note, loading instruction, unloading instruction, scrapping request
- Action for creating warehouse tasks
- Action for creating a vehicle
- Action for sending a transport message
- Actions for posting goods movements
- Actions for sending XI messages

**Effects on System Administration**

Since the call of the configuration function is already installed in the schedule conditions of the actions executed above, the system behaves as follows:

- If you do not assign a determination procedure in Customizing for SAP EWM, the system reacts to this action as in SAP SCM 5.0.
- If you assign a determination procedure that matches a delivery, you must also execute the Customizing settings listed below completely, and create a suitable condition record. Only then are the schedule conditions fulfilled for the actions of this delivery.

**Effects on Customizing**

If you want to use the configuration for scheduling PPF actions in delivery processing, make the following settings in Customizing for Extended Warehouse Management (EWM) under Cross-Process Settings -> Delivery Processing -> Actions -> Configure Action Scheduling:

- Create Field Catalog
- Create Condition Tables
- Create Access Sequences
- Create Condition Types
- Maintain Determination Procedure
- Assign Determination Procedure
- Create Condition Maintenance Group
- Register Condition Maintenance Group

If you extend the field catalog by adding additional fields on the delivery, you can use Business Add-In (BAdI) /SCWM/EX_DLV_PPF_CONF BAdI: Determination of Deliv. Data for User-Defined Condition Record Fields to write the corresponding data from the delivery into the structure for the condition record determination.

**See also**

For more information, see SAP Library for SAP SCM under Extended Warehouse Management -> Delivery Processing -> Configuration for Scheduling PPF Actions.

**1.4.8 Business Configuration Sets in SAP EWM (New)**

**Use**
As of SAP EWM 5.1, new Business Configurations Sets (BC Sets) are available to you. For an overview of all the BC Sets that are available in EWM, see BC Sets. For more detailed information (IMG activities in the BC Set, BC Set activation sequence, prerequisites), refer to the documentation of the individual BC Sets.

**Effects on System Administration**

If you want to use one of the new BC Sets, read the BC Set documentation:

- `/SCWM/DLV_STANDARD` Create settings for standard processes of delivery processing without Catch Weight Management or restoring sample Customizing
- `/SCWM/DLV_STANDARD_CW` Create standard processes for delivery processing with support for Catch Weight Management
  
  **Note**
  Only this BC Set supports Catch Weight Management for the standard processes. For other processes, you have to adjust the item types yourself, after activating the respective BC Sets.
- `/SCWM/DLV_INBOUND_PROD` Create document types and item types, required customer profiles, and ERP integration for the inbound delivery for the production order in EWM
- `/SCWM/DLV_EXPGR` Create document types and item types, required customer profiles, and ERP integration for expected goods receipt, as well as determination of document types and item types when creating an inbound delivery from an expected goods receipt
- `/SCWM/DLV_EXPGR_PROD` Create document types and item types, required customer profiles, and ERP integration for expected goods receipt for production, as well as determination of document types and item types when creating an inbound delivery from an expected goods receipt
- `/SCWM/DLV_OUTBOUND_DIRODO_1` Create document and item types (OPIG and ODPI) and required customer profiles for the process Direct Outbound Delivery with Pickup Without Picking
- `/SCWM/DLV_OUTBOUND_DIRODO_2` Create document and item types (OPIG and ODPI) and required customer profiles for the process Direct Outbound Delivery with Pickup with Picking
- `/SCWM/DLV_OUTBOUND_DIRODO_3` Create document and item types (ODSH und ODSH) and required customer profiles for the process Direct Outbound Delivery, No Pickup
- `/SCWM/DLV_OUTBOUND_DIRODO_1A` Adjust document and item types of BC Set `/SCWM/DLV_OUTBOUND_DIRODO_1`, to start process in the ERP system as well
- `/SCWM/DLV_OUTBOUND_DIRODO_2A` Adjust document and item types of BC Set `/SCWM/DLV_OUTBOUND_DIRODO_2`, to start process in the ERP system as well
- `/SCWM/DLV_OUTBOUND_SCRAP` Create document and item types and required customer profiles for the outbound delivery for scrapping
- `/SCWM/DLV_OUTBOUND_SUBS` Create item types, required customer profiles, and ERP integration for the item types for product substitution in the outbound delivery
- `/SCWM/DLV_OUTBOUND_VAL` Create item types, required customer profiles, and ERP integration for the value item in the outbound delivery
- /SCWM/KTR Create basic configuration for the process Reverse Kitting
- /SCWM/KTR_DLV Delivery-relevant settings for the process Reverse Kitting
- /SCWM/KTR_ERP ERP integration settings for the process Reverse Kitting
- SCWM/KTR_VAS_TYPE Define order types for value-added services (VAS) for the process Reverse Kitting
- /SCWM/KTR_WHPROCTYPE Define warehouse process types for process Reverse Kitting
- /SCWM/KTR_WH_DEPEND Warehouse-number-dependent settings for process Reverse Kitting
- /SCWM/KTR_WH_INDEPEND Warehouse-number-independent settings for process Reverse Kitting
- /SCWM/KTR_WORKCENTER Settings for work center and work center layout for the process Reverse Kitting
- /SCWM/KTS Create basic configuration for process Kit to Stock
- /SCWM_KTS_DLV Delivery-relevant settings for the process Kit to Stock
- /SCWM/KTS_ERP ERP integration settings for process Kit to Stock
- /SCWM/KTS_ERP Settings for using production order within process Kit to Stock
- /SCWM/KTS_PS Define structure of the packaging specification for process Kit to Stock
- /SCWM/KTS_VAS_TYPE Define VAS order type for process Kit to Stock
- /SCWM/KTS_WHPROCTYPE Define warehouse process type for process Kit to Stock
- /SCWM/KTS_WH_DEPEND Warehouse-number-dependent settings for process Kit to Stock
- /SCWM/KTS_WH_INDEPEND Warehouse-number-independent settings for process Kit to Stock
- /SCWM/KTS_WORKCENTER Settings for the work center and work center layout for process Kit to Stock
- /SCWM/KTS_KTR Create basic configuration for processes Reverse Kitting and Kit to Stock
- /SCWM/KTS_KTR_DLV Settings for deliveries within the processes Reverse Kitting and Kit to Stock

If, after an upgrade, you want to adjust your Customizing to the standard Customizing in SAP SCM 5.1, you can use BC Set /SCWM/DLV_U5051_STANDARD. To update Customizing of the individual processes, you can use one of the following BC Sets:
- /SCWM/DLV_U5051_INBOUND Adjust standard document types and item types for the inbound delivery after upgrading from SAP SCM 5.0 to SAP SCM 5.1
- /SCWM/DLV_U5051_OUTBOUND Adjust standard document types and item types for the outbound delivery after upgrading from SAP SCM 5.0 to SAP SCM 5.1
- /SCWM/DLV_U5051_STOCK_TRANS Adjust standard document types and item types for posting change after upgrading from SAP SCM 5.0 to SAP SCM 5.1
- /SCWM/DLV_U5051_TRANSFER Adjust standard document types and item types for posting change after upgrading from SAP SCM 5.0 to SAP SCM 5.1
1.4.9 Structure changes in the EWM IMG

Use

As of SAP EWM 5.1, the structure of the implementation guide (IMG) of SAP EWM has changed. To transfer these changes to the project IMGs, you must regenerate the project IMGs.

Deleted IMG Activities

- In the area Goods Receipt Process -> Inbound Delivery ->
  - Define EWM-Specific Settings for Document Types
  - Define EWM-Specific Settings for Item Types
- In the area Goods Issue Process ->
  - Controlling the Kit Information Confirmation for the ERP System
- In the area Goods Issue Process -> Transportation Management -> Route Determination ->
  - Connection to Delivery Processing
- In the area Goods Issue Process -> Outbound Delivery ->
  - Define EWM-Specific Settings for Document Types
  - Define EWM-Specific Settings for Item Types
- In the area Internal Warehouse Processes -> Delivery Processing -> Transfer Postings ->
  - Define EWM-Specific Settings for Item Types
- In the area Internal Warehouse Processes -> Delivery Processing -> Stock Transfers ->
  - Define EWM-Specific Settings for Item Types

New IMG Structure Nodes

- In the area Master Data -> Product
  - Catch Weight
- In the area Goods Receipt Process
  - Expected Goods Receipt
- In the area Goods Receipt Process -> Expected Goods Receipt
  - Manual Settings
- In the area Goods Issue Process -> Outbound Delivery
  - Route Determination
- In the area Cross-Process Settings
- Batch Management
  - In the area Cross-Process Settings -> Delivery Processing -> Actions
    - Configure Action Scheduling
  - In the area Cross-Process Settings -> Delivery Processing
    - Process Management and Control
  - In the area Extended Warehouse Management
    - Labor Management
  - In the area Monitoring
    - Easy Graphics Framework
  - In the area Monitoring
    - Measurement Services
  - In the area Interfaces
    - RFID
    - Availability Check
  - In the area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Master Data ->
    - Routes
  - In the area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Goods Receipt Process ->
    - Goods Receipt Optimization
  - In the area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings
    - Catch Weight
    - Batch Management
  - In the area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Delivery Processing
    - Post-Processing Framework (customer enhancement)
  - In the area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Delivery Processing
    - Configuration for Scheduling PPF Actions added.
  - In the area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces
    - RFID
    - Enterprise Services
  - In the area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> RFID
    - RFID Enhancements
- Printing using RFID
- In the area Business Add-Ins (BAdIs) for Extended Warehouse Management
- Material Flow System (MFS)

New IMG Activities
- Area Master Data -> Product -> Catch Weight ->
  - Define Catch Weight Tolerance Groups
  - Define Catch Weight Tolerance Groups at Warehouse Level
  - Define Catch Weight Profile for Catch Weight Quantities
  - Define Catch Weight Profiles for Catch Weight Quantities at Warehouse Level
  - Batch Management and Remaining Shelf Life Check in the Inbound Delivery
  - Define Settings for Physical Goods Receipt
- Area Goods Receipt Process -> Expected Goods Receipt
  - Use Wizard to Define Document Types for Expected Goods Receipt
  - Use Wizard to Define Item Types for Expected Goods Receipt
  - Define Allowed Item Types for Expected Goods Receipt
  - Define Document Types for Expected Goods Receipt
  - Define Item Types for Expected Goods Receipt
  - Define Document Types for Expected Goods Receipt
  - Define Item Types for Expected Goods Receipt
- Area Goods Issue Process -> Outbound Delivery ->
  - Define Account Assignment Category and Allow in Warehouse Number
  - Batch Management in the Outbound Delivery
- Area Goods Issue Process -> Outbound Delivery -> Route Determination
  - Define Scheduling Within Route Determination
- Area Warehouse-Internal Processes -> Physical Inventory -> Physical-Inventory-Area-Specific Settings ->
  - Define Physical Inventory Area
- Area Warehouse-Internal Processes -> Delivery Processing ->
  - Parallel Processing in the Delivery
- Area Cross-Process Settings -> Warehouse Task -> Creation of Warehouse Tasks
  - BAdI: Combine Quants for Serial Numbers Corresponding to Available Quantity
- Area Cross-Process Settings -> Value-Added Services (VAS) ->
- Define Order Types for VAS for Kit to Stock
- Define Order Types for VAS for Reverse Kitting
- Define Order Types for VAS for Internal Warehouse Processes

- Area Cross-Process Settings -> Batch Management ->
  - Make Setting for Delivery
  - Set Documentary Batch
  - Set Update Control (Centralized, Decentralized)
  - Define Number Range for Batch

- Area Cross-Process Settings -> Batch Management -> Batch Status Management ->
  - Make Setting for Delivery
  - Settings for Warehouse Task Creation

- Area Cross-Process Settings -> Delivery Processing
  - Check of Customizing for Delivery Processing

- Area Cross-Process Settings -> Delivery Processing -> Number Ranges ->
  - Define Number Range Intervals for Expected Goods Receipt

- Area Cross-Process Settings -> Delivery Processing -> Actions -> Configure Action Scheduling ->
  - Create Field Catalog
  - Create Condition Tables
  - Create Access Sequences
  - Create Condition Types
  - Maintain Determination Procedure
  - Assign Determination Procedure
  - Create Condition Maintenance Group
  - Register Condition Maintenance Group

- Area Cross-Process Settings -> Delivery Processing -> Process Management and Control ->
  - Define Process Profile for Delivery Document Header
  - Define Process Profile for Delivery Document Item

- Area Labor Management ->
  - Activate Labor Management
  - Define External Process Steps
  - Define Activities
  - Assign Planning Activity Areas
  - Activate Order Document Management for Indirect Labor Tasks
- Define Number Range for Indirect Labor
- Define Number Range for Performance Document
- Define Engineered Labor Standards
- Define Delivery Date/Time for Preprocessing
- Set Preprocessing
- Preprocessing with Assistant
- **Area Material Flow System (MFS) -> Master Data ->**
  - Define PLC Interface Type
  - Define MFS Queue
  - Define MFS Resource Type
- **Area Material Flow System (MFS) -> Storage Control -> Define Communication Point Dependencies**
- **Area Material Flow System (MFS) -> Exception Handling -> EWM Exceptions ->**
  - Define EWM Exceptions for Communication Errors
  - Define EWM Exception for PLC Errors
  - Define EWM Exception for PLC Access Control Errors
- **Area Material Flow System (MFS) -> Exception Handling -> Assign Telegram Errors to PLC Errors**
- **Area Monitoring -> Easy Graphics Framework ->**
  - Define Chart Types
  - Define Authorization Groups
  - Define Functions
  - Define Objects
  - Define Cockpits
- **Area Monitoring -> Measurement Services ->**
  - Define Basic Measurement Service Group
    - Define Basic Measurement Service (BMS)
    - Tailored Measurement Service with Wizard
    - Calculated Measurement Service with Wizard
    - Define Tailored Measurement Service
    - Define Calculated Measurement Service
- **Area Interfaces -> RFID ->**
  - Define Filter Value for Packaging Material Type
  - Activate RFID Process per Warehouse Number
- Define Transponder Coding Type
- Determine RFC Connection for SAP All Communication
- Area Interfaces -> ERP Integration -> General Settings
  - Define Separate Business System
  - Set Control Parameters for ERP Version Control
- Area Interfaces -> ERP Integration -> Delivery Processing ->
  - Define Account Assignment Category and Allow in Warehouse Number
  - Map Routes and Route Schedule from ERP System to EWM
- Area Interfaces -> ERP Integration -> Goods Movements ->
  - Define Customer-Specific Movement Types
- Area Interfaces -> GTS Integration ->
  - Assign Sales Organization to Warehouse Number
- Area Interfaces -> Availability Check ->
  - Define Configuration per Party Entitled to Dispose
  - Define Configuration per Product Group and Party Entitled to Dispose
  - Set Requirements Profile
- Area Mobile Data Entry
  - Define Destination HU Input
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Master Data -> Routes ->
  - Enhance Route Search Help with External Data
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Master Data -> Product ->
  - BAdI: Converting Serial Number
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Work Center -> Adjust User Interface for Work Center ->
  - BAdI: Separate Detail Screens on Workstation Desktop UI
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Goods Receipt Process ->
  - BAdI: Workload GR - Control for Reading HU Data in Inbound Deliveries
  - BAdI: Workload GR - Determination of Number of HUs/Pallets
  - BAdI Workload GR - Enhancement of Results List with User-Defined Fields
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Goods Receipt Process ->
  Expected Goods Receipt ->
  - BAdI: Copy Additional Data from Expected GR into the Inbound Delivery
  - Fill Additional Fields for Comparison of Expected Goods Receipt and Inbound Delivery
  - BAdI: Change Texts During Creation of Inbound Deliveries from Expected Goods Receipt
- **Validate Expected GR and Inbound Delivery Before Creating Inbound Delivery from Expected Goods Receipt**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Goods Issue Process -> Wave Management ->**
  - **BAdI: Change Wave Data When Saving**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Goods Issue Process -> Transportation Management -> Route Determination enhancement spot Enhancement Spot for Route Master Data for route master data with the BAdI**
  - **BAdI: Enhancements to Route Master Data**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Handling Units -> Basics -> Print -> Customer-Specific Data Selection for PDF Forms**
  - **Data Selection for HU-Based PDF Forms**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Catch Weight with BAdI**
  - **BAdI: Label Printing with Catch Weight Quantity**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Batch Management the enhancement spot**
  - **Batches in Warehouse Task Processing with the BAdIs**
    - **Determine Batch Selection Criteria and Transfer to the Batch Search**
    - **Allow or Stop Process Depending on Batch Status**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Batch Management the enhancement spot**
  - **Batches in Delivery Processing with the BAdIs**
    - **Create Batch for Delivery**
    - **Batch Number Assignment When Creating Batches**
    - **Allow Goods Movement for Locked Batch**
    - **Batch: Check Selection Criteria Against Characteristics**
    - **Batch Customer Characteristics Valuation**
    - **Batch Valuation: Additional Characteristics**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Goods Movement Postings ->**
  - **Stock Type Determination for Transfer Postings**

- **Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> of enhancement spot Travel Distance Calculation with BAdIs**
  - **BAdI: Change Storage Bin List for Travel Distance Calculation**
  - **BAdI: Travel Distance Calculation Using Storage Bins**
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Delivery Processing -> Determinations in Delivery ->
  - BAdI: Processing Input and Output Data of the Availability Check
  - BAdI: Determine Shipping Office / Receiving Office
  - BAdI: Determining the Goods Movement Bin
  - BAdI: Distribution of Quant Quantities to Subitems in Split Dialog Box

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Delivery Processing ->
  - BAdI: Enhancement of Route Determination Help with Route Schedules from ERP
  - BAdI: Screen Enhancements for Customer Enhancement Structures

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Delivery Processing -> Post Processing Framework (Customer Enhancement)
  - BAdI: Data Selection for Printing
  - BAdI: Data Selection for Printing Using External Communication

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Delivery Processing -> Validations Within Delivery ->
  - BAdI: Validation of Direct Outbound Deliveries
  - BAdI: Validation of Account Assignment Data of Delivery Item

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Cross-Process Settings -> Delivery Processing -> Configuration for Scheduling PPF Actions ->
  - BAdI: Determination of Deliv. Data for User-Defined Condition Record Fields

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Labor Management -> Indirect Labor
  - BAdI: Change an Indirect Labor Task
  - BAdI: Changing Dynamic Attributes of an Indirect Labor Task

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Labor Management -> Preprocessing
  - BAdI: Selection Period Calculation
  - BAdI: Changing Preprocessing Workload

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Labor Management -> Standardized Standard Time Determination
  - BAdI: Changing Standard Time Determination

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Labor Management -> Times At Which Processor Is Available
  - BAdI: Determine Available Time of Processor
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Labor Management -> Performance Document
  - BAdI: Calculate Amount

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Labor Management -> Workload
  - BAdI: Fill Quantity Field for Executed Workload
  - BAdI: Fill Quantity Field for Planned Workload

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> RFID -> enhancement spot RFID Enhancements with BAdIs
  - BAdI: Identification for HU or Product
  - BAdI: Action After RFID Scan
  - BAdI: Check for Whether Loading/Unloading, GR/GI Posting Is Allowed
  - BAdI: Changing Packing Hierarchy for Packing After RFID Scan
  - BAdI: Changes Before Encoding/Decoding
  - BAdI: Additional Functions on Completion of Standard Actions
  - BAdI: Structure of Call Table for Coding

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> RFID -> enhancement spot Printing with RFID with BAdIs
  - BAdI: RFID Label Printing for Handling Units
  - BAdI: RFID Label Printing for Warehouse Orders
  - BAdI: BAdI: Write Transponder for Resource

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> Enterprise Services -> Delivery Processing -> XML Messages: Delivery Processing ->
  - BAdI for DespatchedDeliveryNotification
  - BAdI for DeliveryInformation
  - BAdI for InboundDeliveryByElementsQueryResponse
  - BAdI for OutboundDeliveryByElementsQueryResponse

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> Enterprise Services -> Yard Management -> XML Messages: Setting the Expiry Date of the External Lock ->
  - BAdI for Setting Expiry Date of External Lock

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> Enterprise Services -> Yard Management -> XML Messages: Scheduling Conditions for Vehicles, TUs and Doors ->
  - BAdI for Vehicle Assignment - Scheduling Condition
  - BAdI for TU Assignment - Scheduling Condition
  - BAdI for Door Assignment - Scheduling Condition
- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> Enterprise Services -> Yard Management -> XML Messages: Door, Vehicle, and TU Assignment ->
  - BAdI for DockAppointmentNotification
  - BAdI for DockAppointmentByElementsQueryResponse
  - BAdI for DockAppointmentRequestConfirmation
  - BAdI for VehicleAppointmentNotification
  - BAdI for VehicleAppointmentByElementsQueryResponse
  - BAdI for VehicleAppointmentRequestConfirmation
  - BAdI for TransportationUnitAppointmentNotification
  - BAdI for TransportationUnitAppointmentLoadingAdvancedNotification
  - BAdI for TransportationUnitAppointmentByElementsQueryResponse
  - BAdI for TransportationUnitAppointmentRequestConfirmation

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> SAP Business Information Warehouse ->
  - BAdI: Enrichment of Data During Extraction (PULL)
  - BAdI: Aggregation of Warehouse Tasks During Extraction (PULL)

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> ERP Integration -> Outbound Messages from EWM to ERP System ->
  - BAdI: Validate Inbound Deliveries from Production

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> ERP Integration -> Goods Movements ->
  - BAdI: Enhancement for ERP Goods Movement Interface

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Material Flow System (MFS) -> enhancement spot BAdIs for the Material Flow System with the BAdIs
  - BAdI: Identification Point Processing
  - BAdI: Redetermination of Target Storage Bin for Inactive Warehouse Task
  - BAdI: Generate PLC Objects from EWM Object
  - BAdI: Determination of Empty Storage Bin in Current Aisle
  - BAdI: Redetermination of Next Delivery Order

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Material Flow System (MFS) -> enhancement spot Telegram Communication BAdIs with the BAdIs
  - BAdI: Manipulation of Confirmation Telegram
  - BAdI: Determine Communication Channel
  - BAdI: Check Incoming Telegram for Errors
  - BAdI: Determine Communication Point for Incoming Telegrams
- BAdI: Map EWM Objects to PLC Objects
- BAdI: Map PLC Objects to EWM Objects
- BAdI: Determination of PLC Object Type from Telegram Data
- BAdI: Manipulation of Receiving Telegram
- BAdI: Dragging a Sequential Number
- BAdI: Manipulation of Sending Telegram
- BAdI: Assignment of MFS Errors to Exception Code

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Material Flow System (MFS) -> enhancement spot Layout-Oriented Storage Control with the BAdIs
  - BAdI: Capacity Check in Layout-Oriented Warehouse Management
  - BAdI: Layout-Oriented Storage Control
  - BAdI: Prioritizing in Layout-Oriented Warehouse Control

- Area Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> ERP Integration -> Outbound Messages from EWM to ERP System
  - BAdI: Assign Handling Class to a Message
  - BAdI: Insert Customer-Specific Data in ERP Message
  - BAdI: Define Customer-Specific Message Type for Outbound Delivery
  - BAdI: Define Customer-Specific Message Type for Inbound Delivery
  - BAdI: Define Customer-Specific Message Type for Outbound Delivery Order
  - BAdI: Define Customer-Specific Message Type for Posting Change Delivery
  - BAdI: Sorting Determined Messages

Renamed IMG Activities

Renamed IMG Structure Nodes
- In the area Goods Issue Process -> Transportation Management -> Basic Settings -> Freight Code Set, Define Freight Codes and Determination

Reassigned IMG Activities
- IMG of Route Determination
  You can find the following IMG activities in SCM Basis under Master Data -> Routing Guide:
  - General Settings for Route Determination
Define Request Types for Routing Guide

Define Modes of Transport for Foreign Trade

The IMG activities were previously located under Goods Issue Process -> Transportation Management -> Route Determination. This structure node was deleted.

Material Flow System (MFS)

You can find the following IMG activities in the IMG for EWM under Material Flow System (MFS) -> Master Data ->

- Define Programmable Logic Controller (PLC)
- Define Communication Channel
- Assign Communication Channel to Objects
- Define Ranking Order of Communication Channel Objects
- Define Communication Point Types
- Define Communication Point
- Define Conveyor Segment
- Define Conveyor Segment Group Type
- Define Conveyor Segment Group
- Assign Conveyor Segments for Conveyor Segment Groups

These IMG activities were previously located under Master Data -> Material Flow System (MFS). This structure node was deleted.

You can now find the following IMG activities under Material Flow System (MFS) -> Storage Control ->

- Define Storage Groups for Layout-Oriented Storage Control
- Define Layout-Oriented Storage Process Control

These IMG activities were previously located under Cross-Process Settings -> Material Flow System (MFS). This structure node was deleted.

You can now find the following IMG activities under Material Flow System (MFS) -> Telegram Processing ->

- Define MFS Actions
- Find MFS Actions
- Define Telegram Structure

These IMG activities were previously located under Interfaces -> Material Flow System (MFS). This structure node was deleted.
1.4.10 Kit to Stock (New)

Use
As of SAP EWM 5.1, you can create kits and then transfer them to the stock. You can either trigger the kit creation in the ERP system using a value-added service order (VAS order) based on a production order, or create it manually using a VAS order in the EWM system.

This provides you with a streamlined and simple kit creation process that is carried out and documented in the warehouse.

You can also dismantle kits into their respective components. This process is the opposite of kit creation. You can create the corresponding VAS order manually in the system.

Additionally, you can carry out internal warehouse procedures that do not involve goods movements. This means that you can carry out ad-hoc procedures, such as re-packing or re-painting a product more quickly and more flexibly.

Effects on Customizing
In the implementation guide for EWM under Cross-Process Settings -> Value-Added Service (VAS), make the following settings:

A: Define Order Types for VAS for Kit to Stock
B: Define Order Types for VAS for Reverse Kitting
C: Define Order Types for VAS for Internal Warehouse Processes

1.4.11 RFID (New)

Use
As of SAP EWM 5.1, you can use RFID functions in the warehouse. The following options are available to you. You can:
- Write and print RFID tags for handling units and packed products
- Scan RFID tags and read the data contained in them (such as EPCs)
- Trigger required standard actions after the scanning procedure. SAP EWM provides you with the following standard actions:
Confirming warehouse tasks
- Loading
- Unloading
- Automatic packing
- If required, you can also define your own actions that are to be triggered after the scanning procedure.

**Effects on Customizing**

In Customizing for Extended Warehouse Management (EWM), make the following optional settings:

- Under **Interfaces -> RFID:**
  - Determine Filter Value for Packaging Material
  - Activate RFID Process per Warehouse Number
  - Determine Standard Transponder Coding Type
  - Define RFC Destination for SAP AII Communication

- Under **Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> RFID -> RFID Enhancements:**
  - BAdI: Identification for HU or Product
  - BAdI: Action After RFID Scan
  - BAdI: Check for Whether Loading/Unloading, GR/GI Posting Is Allowed
  - BAdI: Changing Packing Hierarchy for Packing After RFID Scan
  - BAdI: Changes Before Encoding/Decoding
  - BAdI: Additional Functions on Completion of Standard Actions
  - BAdI: Structure of Call Table for Coding

- Under **Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> RFID -> Printing with RFID:**
  - BAdI: RFID Label Printing for Handling Units
  - BAdI: BAdI: RFID Label Printing for Warehouse Orders
  - BAdI: Write Transponder for Resource

**See also**

For more information, see SAP Library for SAP SCM under *Extended Warehouse Management -> RFID.*
1.4.12 Serial Numbers (Changed)

Use

As of SAP EWM 5.1, you can specify serial numbers for the outbound delivery process, for example with a sales order in ERP. Previously, EWM only copied predefined serial numbers into the inbound delivery notification. Now EWM also copies predefined serial numbers into the outbound delivery request. For the outbound delivery request, EWM generates a corresponding outbound delivery order and a corresponding outbound delivery. If you are processing a warehouse task for the outbound delivery order, you can only pick and confirm the predefined serial numbers. EWM copies the confirmed serial numbers from the outbound delivery order into the outbound delivery. If EWM is unable to find the serial numbers for the outbound delivery order, it performs a pick denial. EWM reserves the predefined serial numbers for generating warehouse tasks, and uses them there.

EWM only copies the predefined serial numbers if you have defined that serial numbers are mandatory for a product in the corresponding serial number profile.

EWM prints the predefined serial numbers to the warehouse task, and onto the handling unit papers.

The user interfaces enable you to specify entire serial number ranges instead of individual serial numbers, in the delivery or in the radio frequency environment, for example.

See also

For more information, see the SAP Library for SAP SCM, under Extended Warehouse Management -> Serial Numbers.

1.4.13 SCM-EWM-ANA Analytic Functions

1.4.13.1 Analytics (New)

Use

As of SAP EWM 5.1, the following functions are available to you in the Extended Warehouse Management (EWM) component:

- Measurement services
- Warehouse cockpit
- New nodes in the warehouse management monitor, such as 'Exceptions'
- BI Content SAP NetWeaver 2004s BI Content Add-On3
You can use these for the following:

- You can use measurement services to display your own warehouse key figures in the system. This allows you to evaluate your actual data and call its history automatically at regular intervals, using the warehouse cockpit and report *Start Measurement Services*. You can use exceptions to trigger follow-up actions in critical situations, or to send notifications.

- You can use the warehouse cockpit to display your current warehouse data or critical overdue objects graphically, and analyze them in the warehouse management monitor.

- You can use BI Content for the following:
  - You can use tools for analyzing data and reporting, and evaluate the efficiency of your employees and warehouse based on historical data.
  - You can use strategic planning to perform long-term, cross-system planning, by creating a forecast based on historical data.

**Effects on Existing Data**

You can use the extraction to load data from the warehouse management system into BI, which is then available to you 1:1.

For more information about the data flow, see *SAP Library for SAP NetWeaver* under *SAP NetWeaver Library -> SAP NetWeaver by Key Capability -> Information Integration by Key Capability -> BI Content -> Supply Chain Management -> Extended Warehouse Management*.

**Effects on Data Transfer**

You must install and activate the shipped BI Content. You can then find the new InfoArea (0WM) Extended Warehouse Management under Supply Chain Management.

Note that you must activate the DataSources as 7.0 DataSources with transformations.

To load data, you then have to create InfoPackages and data transfer processes (DTPs) in your system yourself.

**Effects on System Administration**

If you want to use BI Content, you must set up a connection between your EWM system and the BI system.

For more information about the data warehousing process, see *SAP Library for SAP NetWeaver* under *SAP NetWeaver Library -> SAP NetWeaver by Key Capability -> Information Integration by Key Capability -> Business Intelligence -> Data Warehousing -> Data Acquisition*.

**Effects on Customizing**

Make the following settings in Customizing for Extended Warehouse Management under *Interfaces -> SAP Business Information Warehouse*:

- *Business Content DataSources* -> Transfer DataSources
- *General Settings* -> Configure Update Mode
- **General Settings** -> Activate SID Update

**See also**

For more information about the data warehousing process, see SAP Library for SAP NetWeaver under SAP NetWeaver Library -> SAP NetWeaver by Key Capability -> Information Integration by Key Capability -> Business Intelligence -> Data Warehousing.

For more information, see the Implementation Guide (IMG) for Extended Warehouse Management under Interfaces -> SAP Business Information Warehouse.

For more information, see SAP Library under Extended Warehouse Management.

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**1.4.14 SCM-EWM-DLP**  Delivery Processing

**1.4.14.1 SCM-EWM-DLP-BF**  Basic Functions

**1.4.14.1.1 Route Determination in the Delivery (New)**

**Use**

As of SAP EWM 5.1, the following functions for route determination in the delivery are available to you:

- You can now copy routes (SD) and route schedule information from outbound deliveries into EWM outbound deliveries. You can then use this information in the outbound delivery order for processes such as wave determination or monitoring purposes. In Customizing, you set how and whether routes and route schedule information in the delivery is mapped from ERP to EWM.

- Route determination in the delivery can now also use transportation groups and shipping conditions as an additional finding parameter. For this, route master data maintenance was extended by adding transportation groups and shipping conditions.

- Route determination in the delivery now also supports backward scheduling and backward scheduling where definable dates/times are reversed. In Customizing, you set how scheduling is to be performed.

- You can now extend the search help for routes using BAdIs, so that routes from other systems (such as ERP systems) can be selected and displayed. In other words, you can use this in the route search help to display routes from SCM and routes from a connected ERP system.
You can now extend the search help for departure calendars in the delivery using BAdIs, so that departure calendars from other external systems (such as ERP systems) can be selected and displayed.

**Effects on Customizing**

To be able to use the new functions for route determination in delivery processing, you must make settings in Customizing.

For more information, see the Implementation Guide (IMG) for Extended Warehouse Management (EWM) under

- **Goods Issue Process -> Outbound Delivery -> Route Determination:**
  - Activate or Deactivate Route Determination (changed)
    You can now also specify whether the route origin (ERP SD or SCM) is to be considered. This allows you to define, for example, that no route determination is to take place for a route entered in ERP (SD), but that it is to take place for all other cases.
  - Define Scheduling Within Route Determination (new)
    For example, backward scheduling or backward scheduling with reversal

- **Interfaces -> ERP Integration -> Delivery Processing**
  - Map Routes and Route Schedule from ERP System to EWM (new)
    Copying ERP routes and route schedule information contained in outbound deliveries into EWM outbound deliveries.

**See also**

For more information, see SAP Library for SAP SCM under Extended Warehouse Management -> Shipping and Receiving -> Route Determination.

### 1.4.15 SCM-EWM-IF Interfaces

#### 1.4.15.1 Enterprise Services (New)

**Use**

As of SAP EWM 5.1, enterprise services for the following areas are available to you:

- Delivery processing
- Yard management
- Warehouse organization data
- Handling units
Effects on Customizing

For each service, we deliver relevant message interfaces and Business Add-Ins (BAdIs). You can use these BAdIs to change or enhance data transferred through the message interfaces.

For more information, see the Implementation Guide (IMG) for EWM under Business Add-Ins (BAdIs) for Extended Warehouse Management -> Interfaces -> Enterprise Services.

1.4.16 SCM-EWM-LM Labor Management

1.4.16.1 Labor Management (New)

Use

As of SAP EWM 5.1, you can use labor management (LM) in your warehouse as part of Extended Warehouse Management (EWM). Labor management allows you to:

- Display your employees using the business partner (business partner role Processor), and specify LM attributes such as capabilities, activity areas or activities in the business partner master record.

- Measure the times for all executed work using the executed workload, therefore calculating labor capacity, performance level, efficiency, and attendance. The evaluation is flexible and can be performed by the individual workers or by the group responsibilities. You can therefore use the executed workload (EWL) to create a performance document, and forward it to HR of required to trigger bonus payments, for example.

- Record direct, indirect and unproductive labor without gaps.

- Plan warehouse activities such as picking operatively for a warehouse number (short-term or medium-term planning), using the planned workload, calculated measurement services (CMS), and employee data.

- Define engineered labor standards (ELS), which can be used later to calculate plan times for the individual activities (such as picking). These plan times are saved in the workload, and can be used when planning or evaluating the employees (for example, by comparing the planned time with the actual measured time).

- Perform a simulation for the expected workload, using preprocessing. Preprocessing is based on information that comes from open deliveries and expected goods receipt.

- Use BI Content.
Effects on Customizing

In Customizing for Extended Warehouse Management, make the following settings under Labor Management:

- Activate Labor Management
- Define External Process Steps
- Determine Engineered Labor Standards
- Set Preprocessing

See also

For more information, see the Implementation Guide (IMG) for Extended Warehouse Management under Labor Management.

For more information, see SAP Library under Extended Warehouse Management -> Labor Management.

1.4.17 SCM-EWM-MFS Material Flow System

1.4.17.1 Material Flow System (Enhanced)

Use

As of SAP EWM 5.1, enhancements in the material flow system (MFS) area are available. These provide you with the following features:

- Deployment of stacker cranes
- Status management for various objects and their connection to exception handling
- Enhanced log functions
- Sending telegrams actively
- New objects in the Easy Graphics Framework (EGF)
- Enhanced functions in the warehouse management monitor

Changed:

- As of SAP EWM 5.1, you can use comprehensive interface types, or make PLC interface settings for each programmable logic controller (as before). If you are using SAP EWM for the first time, we recommend that you use comprehensive interface types.
- Log switches for the telegram log are now only available in the programmable logic controller (PLC). The switches that were formerly available at the communication point and in the action are no longer available.

- Under menu point EWM -> Master Data -> MFS -> Maintain Communication Points, you no longer have the option of activating the telegram log. Counters for received and sent telegrams are also no longer available here, they are now available at communication-channel level. If the telegrams contain information about communication points, you can use the count function of the ALV grid to determine the telegrams for each communication point, in the warehouse management monitor under MFS -> Telegram.

- The menu nodes Stock in Bin -> MFS -> Communication Point and Stock and Bin -> MFS -> Telegram were inserted into the highest level of new subtree MFS.

- Under menu point Monitoring -> Material Flow System -> Telegram, the field Action is no longer filled as of SAP EWM 5.1.

- The business context for exception CHBD Change Destination Bin has changed from MFS Material Flow System to MF3 - Telegram.

Deleted:

- Menu EWM -> Master Data -> MFS -> Maintain Conveyor Segment Groups is no longer available, since as of SAP EWM 5.1, you set the status for the conveyor segment in the warehouse management monitor directly.

- Menu point EWM -> Master Data -> MFS -> Maintain MFS Action is no longer available, since the log switch for the telegram log is now only available in the PLC (see section 'Changed' above).

Effects on Customizing

Make the following settings in the Implementation Guide for EWM, under Material Flow System (MFS).

If you want to use status management for conveyor segments, the following settings are required:

As of SAP EWM 5.1, the field Inactive is no longer supported for a communication segment. If the system was upgraded from SCM 5.0 to 5.1, you must activate the communication segment before the upgrade, or set an exception code after the upgrade.

If you want to use status management for conveyor segment groups, the following settings are required:

As of SAP EWM 5.1, the User Status and System Status fields are no longer supported. If the system was upgraded from SCM 5.0 to 5.1, you must activate the communication segment group before the upgrade, or set an exception code after the upgrade.

Due to the change of business context for the exception CHBD Change Destination Bin, the following settings are required:

In Customizing for EWM, under Cross-Process Settings -> Exception Handling -> Define
**Exception Codes**, call exception code *CHDB Change Destination Bin*. Create an additional entry for business context *MF3 - Telegram* and execution step *A0 - Data Verification in Background*. Assign internal process code *CHBD* to this entry.

To set up MFS, execute the following mandatory activities in Customizing for SAP EWM under *Material Flow System (MFS)*:

- **Master Data**:
  - Define Programmable Logic Controller (PLC)
  - Define Communication Channel
  - Define Communication Point
  - Define Conveyor Segment
  - Define MFS Queue

- **Storage Control**:
  - Define Storage Groups for Layout-Oriented Storage Control
  - Define Layout-Oriented Storage Process Control
  - Find MFS Actions

- **Telegram Processing**:
  - Define Telegram Structure

- **Exception Handling**:
  - Define EWM Exceptions for Communication Errors
  - Define EWM Exception for PLC Errors
  - Define EWM Exception for PLC Access Control Errors
  - Assign Telegram Errors to PLC Errors

**See also**

For more information about MFS, see SAP Library, under *Extended Warehouse Management -> Warehouse Order Creation -> Material Flow System*.

For more information about the EGF, see SAP Library, under *Extended Warehouse Management -> Monitoring -> Easy Graphics Framework*.

For more information about the warehouse management monitor, see SAP Library, under *Extended Warehouse Management -> Monitoring -> Warehouse Management Monitor*.

**1.4.18 SCM-EWM-MON Monitoring**

**1.4.18.1 Easy Graphics Framework (New)**

**Use**
As of SAP EWM 5.1, you can use the Easy Graphics Framework (EGF) in the warehouse. You can use the EGF to configure cockpits for applications that graphically display your data and you can use them to enhance text-based monitors.

Effects on System Administration

- If you use the EGF standard graphics, you must have installed a SAP GUI 6.40 or higher. For more information, see the SAP Service Marketplace under service.sap.com/patches.
- By default, EGF uses the SAP Internet Graphics Server (SAP IGS) as a graphics provider that generates graphics from data. However, you can use any other graphics provider that generates graphics from data. These graphics must be transferred to EGF as a Uniform Resource Locator (URL).
- To display the EGF cockpit without errors, it is advisable to install Microsoft Internet Explorer Version 5 or higher. For more information about the security settings in your Internet Explorer, see the SAP Help Portal under help.sap.com -> mySAP ERP -> SAP ERP Central Component -> Logistics > Production Planning and Control (PP) -> Production Planning for Process Industries (PP-PI) -> Process Management (PP-PI-PMA) -> Make Browser Settings for PI Sheets and Cockpits.

Effects on Customizing

Make the following settings in Customizing for EWM under Monitoring -> Easy Graphics Framework:

- Define Chart Types
- Define Authorization Groups
- Define Functions
- Define Objects
- Define Cockpits

See also

For more information, see the implementation guide of EWM under Monitoring -> Easy Graphics Framework.

For more information, see the SAP Library under Extended Warehouse Management -> Monitoring -> Easy Graphics Framework.

1.4.19 SCM-EWM-PRN Print

1.4.19.1 Printing PDF-Based Forms in EWM (New)

Use

As of SAP EWM 5.1, you can also print the following forms for the corresponding areas as PDF:
- Handling Units (HUs)
  - HU contents document
  - HU hazardous substance label
  - HU label
  - HU serial number label
  - HU shipping label
- Warehouse order
  - Warehouse order list
  - Warehouse order single document
  - Warehouse order freight list
  - Warehouse order unloading instruction
  - Warehouse order HU label
- Physical inventory
  - Physical inventory count document
- Delivery
  - Delivery note
  - Loading instruction
  - Scrapping document
- Express delivery company
  - EDC label
  - Day's closing manifest
- Transportation
  - Master bill of lading
  - Freight list
  - Bill of lading (VICS standard)
  - International bill of lading (CMR)
- Shipping and receiving
  - Freight list
- Packaging specification
  - Label for auxiliary packaging material
Effects on System Administration

To be able to print the above forms using PDF, you must make the following settings:

1. Enhance the existing condition tables that have been used for print control up to now, by adding PDF printing. To do this, from the SAP Easy Access screen, choose Extended Warehouse Management -> Work Scheduling -> Print -> Settings -> Enhance Print Condition Tables.

2. Create a form using transaction SFP.

3. In the respective settings, you can enter either the SmartForm name or PDF form name that the system is to use for printing.

You do not need to make any settings in the Implementation Guide (IMG). The respective IMG activities include general settings for printing forms.

1.4.20 SCM-EWM-RG Routing Guide

1.4.20.1 Routing Guide (Enhanced)

Use

The following areas of the routing guide for route determination in Extended Warehouse Management (EWM) were enhanced:

- Carrier profile
  - Transaction Maintain Transportation Cost Profile for Route Determination was deleted. The corresponding functions are now part of the carrier profile.
  - Product freight groups are now considered.

- General cost profile
  - Transaction Maintain General Cost Profile (/SAPAPO/CTRP) was replaced by transaction Define General Transportation Cost Profile (/SAPAPO/TPK). This new transaction only contains the functions that are relevant for EWM.

- Zones
  - You can now define mixed zones made up of locations, postal code zone intervals and regions.
  - Mixed zones and region zones now allow the user to select a country.
  - In the application menu, a report for deleting zones is now provided under Extended Warehouse Management -> Master Data -> Shipping and Receiving -> Route Determination -> Delete Zones.

- Route
  - At header level, you can now restrict routes to a quantity of transport groups.
Instead of defining the sequence strategy at leg-level, you now mark stops as **Required** or **Optional**.

- You now define export relevance at stop-level (until now, you did this at leg-level).
- You now define the departure calendar of the leg as part of the request-type-specific departure calendars.
- You can now define departure calendars separately for each subordinate means of transport.
- In the application menu, a report for deleting zones is now provided under *Extended Warehouse Management* -> *Master Data* -> *Shipping and Receiving* -> *Route Determination* -> *Delete Zones*.

In addition, the routing guide functions moved to SCM Basis, Release 5.1. You can now find the relevant IMG activities in Customizing for SCM Basis, under *Routing Guide*.

**Effects on Data Transfer**

The data conversion is provided by XPRAs.

**Effects on Customizing**

You must execute IMG activity *Define Transportation Zone Hierarchy*. For more information, see the Implementation Guide (IMG) for SCM Basis, under *Routing Guide* -> *Define Transportation Zone Hierarchy*.

**See also**

*For more information about route determination, see SAP Library under SAP Supply Chain Management (SAP SCM) -> SAP Extended Warehouse Management (SAP EWM) -> Shipping and Receiving -> Route Determination.*

### 1.5 SCM-EM Event Management

#### 1.5.1 Event Handler Hierarchy (New)

**Use**

As of SAP Event Management (SAP EM) 5.1, SAP EM can create the hierarchical relation between event handlers and can display it in the user interface.

The existing interface /SAPTRX/BAPI_EH_ADDEVTMSG_02 for sending event messages has been enhanced to transfer the hierarchical relation for an event handler to SAP EM. SAP EM creates this hierarchical relation using the information that is sent in event messages.

**Note**
If you want to display the event handler hierarchy, you have to use the Web interface that uses Web Dynpro ABAP.

**Effects on Customizing**

- To create the hierarchical relation between event handlers you have executed the following:
  - You have defined a multitask activity that uses the following activities:
    - activity `ADD_EHS_TO_PROCESS` to find the lower-level event handlers
    - activity `EH_GUID_SET` to store the higher-level event handler GUIDs that are currently being processed
    - activity `EH_HIERARCHY_UPDATE` to add an entry to the event handler hierarchy table for the lower-level event handlers
  - You have defined a rule set that uses the multitask activity.
  - You have sent event messages for the event handlers. Based on these event messages, SAP EM processes the appropriate rule set.
  
For more information, see the activity method documentation and the documentation for BAPI /SAPTRX/BAPI_EH_ADDEVENTMSG_02 Post event message(s) to the Event Management (in the Parameters section under TRACKREFERENCES).

- To display the hierarchical relation between event handlers you have defined an event handler hierarchy profile (Define User Profiles)

**See also**

For more information, see the SAP Library under *SAP Event Management -> SAP Event Management Infrastructure*.

### 1.5.2 Queries in SAP Event Management (Enhanced)

**Use**

As of SAP Event Management (SAP EM) 5.1, you can use the following enhancements to search for information in SAP EM:

- Search for an event handler by the following attributes:
  - Complete event message header
  - Event message document reference
  - Event message header extension table
- Search for the hierarchical relation of an event handler
- Use an event message document reference table
SAP EM uses the document reference that is sent with an event message to determine the related document to which the event message belongs, for example, a purchase order that belongs to a certain ID.

Effects on Customizing

To use the enhancements to search for information in SAP EM, you must make the following settings in Customizing for SAP EM:

- To search for an event handler by special attributes, see the section Effects on Customizing in the release note for the event message header extension table.
- To search for the hierarchical relation of an event handler, see the section Effects on Customizing in the release note for the event handler hierarchy.
- To use the document reference table, you must define internal and external document types with their mapping.

See also

For more information, see the SAP Library under SAP Event Management -> SAP Event Management Infrastructure.

1.5.3 Structure Changes in IMG for SAP EM

Use

As of SAP Event Management (SAP EM) 5.1, the structure of the Implementation Guide (IMG) for SAP EM has changed. To copy these changes to the project IMGs, you must regenerate the project IMGs.

New IMG Structure Nodes

- Under Event Management ->
  - Settings for Specific Visibility Processes
  - Settings for SAP Object Event Repository (SAP OER)
- Under Event Management -> Settings for SAP Object Event Repository (SAP OER)
  - SAP Business Information Warehouse Interface
- Under Event Management -> Event Messages, Status Queries, and Web Interface ->
  - Duet for Microsoft Office and SAP EM
  - Event Message Parameters

New IMG Activities

- Under Event Management -> Settings for SAP Object Event Repository (SAP OER)
- Make Settings for Document Tracking
- Define Functions for Document Tracking
- BAdI: Pre- or Postprocess EventCaptureNotification Messages
- BAdI: Pre- or Postprocess EventQuery Messages
- Define Connection to External ID Mapping

Under Event Management -> Settings for SAP Object Event Repository (SAP OER) -> SAP Business Information Warehouse Interface
- Make Settings for BI Data Collection Groups
- BAdI: Process Customer-Specific Data Collection Groups
- BAdI: Change Event Message Processing

Under Event Management -> General Settings in SAP Event Management -> Business Add-Ins for SAP Event Management ->
- BAdI: Change Event Messages

Under Event Management -> Event Messages, Status Queries, and Web Interface -> Web Interface ->
- Assign Link to Configured Field

Under Event Management -> Event Messages, Status Queries, and Web Interface -> Duet for Microsoft Office and SAP EM ->
- Define User Profiles
- Assign Attributes and User Profiles to Duet Subscription
- Create Duet Subscription

Under Event Management -> Event Messages, Status Queries, and Web Interface -> Event Message Parameters
- Define Extension Table for Event Message Header
- Define Event Message Parameters
- Define Parameter Mapping for Event Messages

Under Event Management -> Event Messages, Status Queries, and Web Interface ->
- Define internal and external document types with their mapping

Renamed IMG Activities
- In the Settings for Specific Visibility Processes section the IMG activity Activate Seasonal Procurement Process is now called Activate Seasonal Procurement Visibility Process.

Reassigned IMG Activities
- General Settings in SAP Event Management section
- You can now find the IMG activity Activate Seasonal Procurement Visibility Process under the new IMG node Settings for Specific Visibility Processes.
1.5.4 Structure Changes in IMG for SAP EM 5.1, SP3

Use

As of SAP Event Management (SAP EM) 5.1, Support Package 3, the structure of the Implementation Guide (IMG) for SAP EM has changed. To copy these changes to the project IMGs, you must regenerate the project IMGs.

New IMG Structure Nodes
- Under Event Management -> Business Add-Ins (BAdIs) for SAP Event Management ->
  - BAdIs for Enterprise Services

New IMG Activities
- Under Event Management -> Business Add-Ins (BAdIs) for SAP Event Management -> BAdIs for Enterprise Services ->
  - Notes on Implementation
  - BAdI: Create, Update, or Change Event Handler
  - BAdI: Query Event Handler
  - BAdI: Retrieve Event Handler
  - BAdI: Event Message Sending

Renamed IMG Activities
- The IMG node Business Add-Ins for SAP Event Management is now called Business Add-Ins (BAdIs) for SAP Event Management.

Reassigned IMG Activities
- General Settings in SAP Event Management section
  - You can now find the IMG node Business Add-Ins (BAdIs) for SAP Event Management with its IMG activities as a separate node directly under the IMG node Event Management as an own IMG node.
1.5.5 SAP Object Event Repository (SAP OER)

Use

As of SAP Event Management 5.1 and SAP Auto-ID Infrastructure 5.1, you can implement SAP Object Event Repository (SAP OER). SAP OER is a configurable enterprise-level platform that enables data capture and data discovery across disparate applications. Data about unique IDs and the events associated with them is stored and can be accessed using services that allow you to capture, query, and exchange this information. By enabling disparate applications to exchange information about one uniquely identified object, SAP OER provides visibility and traceability of a unique ID throughout its lifecycle.

We deliver the preconfigured process *Product Tracking and Authentication* (PTA) that you can run on SAP OER. You can use PTA to track delivery documents and EPCs and to authenticate EPCs.

SAP OER offers the following features:

- **Search UI**
  You can use this configurable user interface to search for and access details about objects that you want to track. You can access this user interface on the *SAP Easy Access* screen.

- **Common services**
  Services such as central number range administration and ID mapping allow you to manage your distributed system landscape from SAP OER.

- **Data capture**
  Events are captured by an external system, for example a local instance of SAP AII or middleware, and are sent via extensible interfaces in SAP NetWeaver usage type Exchange Infrastructure (XI) to SAP OER.

- **Data query**
  - **Authentication**
    You can use this feature if you suspect an object to be counterfeit.
  - **Query poll**
    You can use XML messages to query and receive information about the object that you want to track, for example to determine the progression of a delivery or IDs associated with a delivery.

- **Analytics**
  You can use reports in SAP NetWeaver usage type Business Intelligence (BI), for example to analyze transportation duration or the dwell time of an object between two events in a business location.
1.5.6 SCM-EM-MGR  Event Manager

1.5.6.1 Visibility Processes (New)

Use

As of SAP Event Management (SAP EM) 5.1, you can use the following new visibility processes:
- Transportation Management:
  - Order taking visibility process
  - Transportation execution visibility process
  - Resource visibility process
  - Tendering visibility process
- SAP Supply Network Collaboration:
  - SNC purchase order visibility process
  - SNC inbound message visibility process
  - SNC replenishment order visibility process
- SAP Auto-ID Infrastructure:
  - Product tracking and authentication visibility process

Effects on Customizing

For more information, see SAP Service Marketplace at service.sap.com -> Education, Consulting, Solutions Areas and more -> Solution Details -> Business Solutions and Details -> mySAP Business Suite -> mySAP Supply Chain Management -> Supply Chain Event Management -> Visibility Processes. Here you can find the configuration guides and the scenario descriptions for the individual visibility processes.

See also

For more information, see the release notes for SAP Transportation Management, SAP Supply Network Collaboration, and SAP Auto-ID Infrastructure.

1.5.6.2 Web Interface (Enhanced)

Use
As of SAP Event Management (SAP EM) 5.1 Support Package 2, several enhancements are available in the Web interface (Web Dynpro ABAP).

- **Enhancements to event message sending**
  - You can send an expected event, an unexpected event, or all expected events at once from the event handler detail screen.
  - You can select one or multiple event handlers from the search list and send a specific event message to those event handlers.

- **Fast entry option**
  You can use a fast entry option to send an event message directly from the Web interface (Web Dynpro ABAP) to one or more event handlers without navigating to the respective event handlers. To use this option you have to enter one or more tracking IDs in addition to the information that you enter in the event message sending dialog box. This means that one event message profile can have more than one action, that is, an event code that can be selected.

- **Furthermore, you can do the following:**
  - **Group parameters**
    You can group the parameters that logically belong together, for example, material number, description, quantity, and unit of measure.
  - **Suppress the display of empty fields**

**Effects on Customizing**

- If you want to use the enhancements to event message sending, you must do the following in Customizing for SAP EM:
  - Define a User Profile with an event message sending profile
  - Assign User Profiles and Web Interface Transactions to Users
- If you want to use the fast entry option, you must do the following in Customizing for SAP EM:
  - Define a User Profile with an event message sending profile, which specifies the fast entry items
  - Assign User Profiles and Web Interface Transactions to Users
- Using the new functions in the Web interface (Web Dynpro ABAP)
  - If you want to group parameters that logically belong together, you must define a group ID for configured fields and assign configured fields to the group ID in Customizing for SAP EM under Configure Fields for User Profiles.
  - If you want to suppress empty fields, you must set the Suppress Empty Field indicator in Customizing for SAP EM under Configure Fields for User Profiles.

**See also**

For more information, see the Implementation Guide (IMG) for SAP EM under:
1.5.6.3 SCM-EM-MGR-CNF          Configuration

1.5.6.3.1 Define Event Message Header Extension Table (New)

Use

As of SAP Event Management (SAP EM) 5.1, you can define event message header extension tables. By using event message header extensions, you create database tables that allow you to efficiently store your own parameters for event messages. You can use these event message parameters for queries about event message header data that are critical to performance. You can also use the event message parameters as additional information about the actual event message.

After you have defined the event message parameters in SAP EM, you define how the parameter values from the event message are mapped to the parameter values in SAP EM.

Effects on Customizing

To define event message header extension tables, you must make the following settings in Customizing for SAP EM:

- Define Extension Table for Event Message Header
- Define Event Message Parameters
- Define Mapping Profile for Event Messages

See also

For more information, see the Implementation Guide (IMG) for SAP EM under Event Messages, Status Queries, and Web Interface -> Event Message Parameters ->

- Define Extension Table for Event Message Header
- Define Event Message Parameters
- Define Parameter Mapping for Event Messages
1.5.6.3.2 Define Filter Profiles (Enhanced)

Use
As of SAP Event Management (SAP EM) 5.1, you can define functions or a field-value combination to filter single table rows.

You can filter the data that corresponds to an event handler before displaying it to a specific user. If you associate a filter profile to a combination of a user and an event handler type, you ensure that the system displays only specific information that corresponds to an event handler to this user. Up to now, you could define conditions and functions to filter a complete table. Now you can define a function or one or more field-value combinations to filter single table rows.

Effects on Customizing
To use functions to filter a complete table or single table rows, you must define functions for filter profiles.
To filter a complete table or single table row, you must define filter profiles and assign the function to the corresponding table or table row.
To use a field-value combination to filter a single table row, you must define a field-value combination under Define Filter Profiles.

1.5.6.3.3 Define Event Handler Types (Enhanced)

Use
As of SAP Event Management (SAP EM) 5.1, you can disable event handler historical data.
Currently, the expected event historical data, the measurement historical data, and the status attribute historical data is always stored in the database for every event handler. You can display the data in the event handler list. To improve the performance due to fewer database accesses, you can now disable the storage of historical data if you do not require this data in Customizing for the event handler type.

Effects on Customizing
To disable historical data for an event handler, you must set the appropriate indicator in the event handler type definition.

1.5.6.4 SCM-EM-MGR-ADM Administration

1.5.6.4.1 Define Criteria for Event Message Processing (Enhanced)

Use

As of SAP Event Management (SAP EM) 5.1, you can prevent SAP Event Management (SAP EM) from writing all entries that are related to event message sending to the application log.

Currently, you can only disable the application log for all activities that are related to event handlers. You can now prevent SAP Event Management from writing all entries that are related to event message sending to the application log.

Effects on Customizing

To prevent SAP EM from writing all entries that are related to event message sending to the application log, you must set the appropriate indicator under Define Criteria for Event Message Processing.

1.5.6.4.2 Change of Selection Field Sequence (New)

Use

As of SAP Event Management (SAP EM) 5.1, you can change the sequence of certain selection fields before searching to improve the performance using the Business Add-In method (BAdI method) BEFORE_EH_SEARCH in the function module /SAPTRX/EH_RETRIEVE_GUIDS.

Effects on Customizing

If you want to change the sequence of the selection fields before searching for an event handler, you must use BAdI: Update Event Handler Data.

See also
For more information, see the BAdI documentation.

### 1.5.6.4.3 SAP Event Management - Enterprise Services (New)

**Use**

As of SAP Event Management (SAP EM) 5.1, Support Package 3, you can use enterprise services for SAP EM. In particular, this comprises the following operations and Business Add-Ins:

- **Business object** *Tracked Process*
  - Operation *Read Tracked Process*
  - Operation *Find Tracked Process by Elements*
  - Operation *Maintain Tracked Process*
  - Operation *Confirm Tracked Process*
- **Business object** *Tracked Process Event Notification*
  - Operation *Create Tracked Process Event Notification*
  - Operation *Confirm Creation Tracked Process Event Notification*
- **BAdIs**
  For the BAdIs, see the Implementation Guide for SAP EM under *Event Management -> Business Add-Ins for SAP Event Management -> BAdIs for Enterprise Services*.
  - BAdI: Create, Update, or Change Event Handler
  - BAdI: Query Event Handler
  - BAdI: Retrieve Event Handler
  - BAdI: Event Message Sending

### 1.5.6.4.4 Web Interface (Enhanced)

**Use**

As of SAP Event Management (SAP EM) 5.1, you can use a Web interface (Web Dynpro ABAP). It allows you to do the following:

- Search for event handler data or event message data
- Search for and display the hierarchical relation of an event handler.
- Display an event handler list as the result list of a search
- Navigate from the event handler list screen to an event handler detail screen
- Use different functions to drill down:
As of SAP EM 5.1, you can do the following in the Web interface (Classic):

- Define the sequence in which the Web interface is to display the status values.
- Group parameters of indexed fields
  You can group these parameters that logically belong together, for example, material number, description, quantity, and unit of measure.
- Suppress the display of empty fields.
- Change the sequence of the selection fields before searching for an event handler using the Business Add-In method (BAdI method) BEFORE_EH_SEARCH in the function module /SAPTRX/EH_RETRIEVE_GUIDS.
- Use different functions to drill down:
  - to a document in another SAP system
  - to a document via an internal or external link

**Effects on System Administration**

As a prerequisite for the drill-down functions, you have to implement at least the latest available PI_BASIS 2005.1. This enables SAP EM to drill down to a document in an application system outside SAP EM or to an internal or external link from the Web interface. For example, you can assign a link for an event handler to the transaction for the purchase order display (ME23N). In the Web interface, you can click the link on the event handler detail page and SAP EM opens the corresponding SAP Graphical User Interface (SAP GUI) screen.

**Effects on Customizing**

Using the Web interface (Web Dynpro ABAP):

- If you want to use the Web interface (Web Dynpro ABAP), you have to maintain the relevant IMG activities. For more information, see the Implementation Guide (IMG) for SAP EM under Event Messages, Status Queries, and Web Interface -> Web Interface.

Using the drill-down functions:

- If you want to drill down to a document in another SAP system from the Web interface (Classic) or the Web interface (Web Dynpro ABAP), you must do the following in Customizing for SAP EM:
  - Assign a configured field that SAP EM is to show as a link.
  - Define business object types.
  - Define business object methods.
  - Define a link under Configure Fields for User Profiles.
  - If necessary, assign the configured field to a user profile.
- If you want to drill down to a document via an internal or external link from the Web interface (Classic) or the Web interface (Web Dynpro for ABAP) you must do the following in Customizing for SAP EM:
  - Define an internal or external link.
  - Define a link under Configure Fields for User Profiles.
  - If necessary, assign the configured field to a user profile.
- If you want to drill down to another event handler using a Web interface (Web Dynpro ABAP), you must do the following in Customizing for SAP EM:
  - Define the configured field you want to assign
  - Define a user profile that includes a selection profile. This selection profile includes the following:
    - A target configured field
    - A configured field that includes the event handler type of the event handler to which you want to link to
  - Assign a configured field that SAP EM is to display as a link

Using the new functions in the Web interface (Classic):
- If you want to define the status value sequence, you must do so in Customizing for SAP EM under Define Status Attributes.
- If you want to group parameters that logically belong together, you must define a group ID for configured fields and assign configured fields to the group ID in Customizing for SAP EM under Configure Fields for User Profiles.
- If you want to suppress empty fields, you must set the Suppress Empty Field indicator in Customizing for SAP EM under Configure Fields for User Profiles.
- If you want to change the sequence of the selection fields before searching for an event handler, you must use BAdI: Update Event Handler Data.

See also

For more information, see the Implementation Guide (IMG) for SAP EM under:
- Event Messages, Status Queries, and Web Interface -> Web Interface -> Assign Link to Configured Field
- Event Messages, Status Queries, and Web Interface -> Web Interface -> Configure Fields for User Profiles
- Event Messages, Status Queries, and Web Interface -> Web Interface -> Define User Profiles

1.6 SCM-FRE  Forecasting and Replenishment

1.6.1 DIF Related Sales Dependencies (New)
Use

As of SAP SCM 5.1, you can define sales dependencies between products and include these dependencies in the forecast calculation. This includes both cannibalization (for example, a promotion for one of two competing brands of soft drinks), which reduces sales of the dependent product, and the halo or affinity effect (for example, simultaneous purchases of chips and dip), which increases sales of the dependent product.

A related sales dependency between products is not quantified or signed; it is only present or not present. The real effect is shown by the sales history. It can be valid at different levels: generically for all locations, all stores, or all DCs, or specifically by location or location group. It is only valid for Boolean DIFs and you must set the indicator for related sales dependency in Customizing.

The forecast calculation considers both the original DIF occurrence for the leading products (that is, the regular DIF) and the related sales DIF occurrences (RS DIF) created by the related sales dependencies. Both kinds of DIFs are displayed in the time series screen and in the DIF occurrence list display screen in the Replenishment Workbench. The list of possible RS DIFs is shown in the DIF Workbench as well.

There is a new screen in SAP Forecasting and Replenishment for maintaining and displaying sales related dependencies. Alternatively, you can import related sales dependencies from external systems (such as BI) or any third-party provider. You can display all dependent products for a leading product, or all leading products for a dependent product.

There is no function for automatically detecting related sales effects.

1.6.2 Preallocation (New)

Use

As of SAP SCM 5.1, the replenishment planner can use a new preallocation function to move merchandise deliveries to stores to an earlier timeframe than originally planned. This is useful for promotions or seasonal events that lead to an unusual uplift in customer demand, such as Christmas.

For example, suppose you have scheduled a delivery 40 pieces of a popular toy to each store in week 51. But sales are already very high as of week 48. In this case, you can redistribute a portion of the planned deliveries so that stores get an additional 20 pieces in week 49 and another 10 pieces in week 50 and the remaining 10 pieces remain as scheduled for week 51. This is in addition to the original quantity allocated for those weeks. A simple profile screen allows you to enter the source week, target week, and percentage to be preallocated to the target week. You can then assign the profile to location product combinations using the mass maintenance transaction.

The requirements calculation uses this information when determining forecasted quantities for a given product within each store. This quantity of goods is not available for consumption, however.
The replenishment planner must determine the preallocation quantities manually. There is no automatic determination based on sales volume.

1.6.3 Extensions to product substitution (new)

Use

As of Supply Chain Management (SAP SCM) 5.1, in SAP Forecasting and Replenishment (SAP F&R) you can import data for product substitution, evaluate this data in the context of replenishment planning in SAP F&R and consider it in several areas (for example, the Planning Workbench).

Substitution control

The replacement of a substitute product (follow-up or replacement product) is based on the following controls which (in the logistics system, for example, SAP ECC) automatically trigger a switchover on fulfillment of certain conditions:

- Event-controlled replacement of an original product with a follow-up product
  (permanent switchover if insufficient goods available in the distribution center)
- Time-controlled replacement of an original product with a follow-up product
  (permanent switchover as of a predefined date)
- Event-controlled replacement of an original product with a replacement product
  (temporary switchover if insufficient goods available in the distribution center; switch back to original product at end of switchover period at the latest)

Data import from master data and logistics system

You can import the following data on follow-up and replacement products (for example, from the SAP-ECC System):

- Master data with follow-up and replacement product assortments to an original product.
  You can store this data in SAP F&R time-dependent on a global or location level.
- Switch information (on switchovers and switch backs).

Replenishment planning based on switch information

Using the switch information, you can plan the "correct" product and bring about switchovers yourself in SAP F&R (for follow-up products):

- After a switch from the original to the follow-up product, you can plan the follow-up product in place of the original product and generate order proposals for the follow-up product.
After a switch from the original to the replacement product, you can continue to plan the original product and generate order proposals for the original product. If the replacement product is contained in the assortment, you can plan the original and the replacement products in SAP F&R (as long as the replenishment type enables replenishment planning in F&R).

**Processing of data for automatic planning**

You can merge consumption data, stocks, and order proposals of substitute and original products with each other for the forecast and requirements calculations:

- Following a switch from the original to the follow-up product, you can merge the data of the original product with that of the follow-up product in order to plan the follow-up product.
- Following a switch from the original to the replacement product, you can merge the data of the original product with that of the replacement product in order to plan the original product. Here you must determine if the replacement product is contained in the assortment. If it is, you can plan the original and the replacement products with the merged data.
- Following a switch to the replacement product, you can define if the system is to create a DIF occurrence for the replacement product and/or the original product.

**Visualization of the data**

In the planning workbench the system visualizes the switchover information when processing order proposal items.

**Integrated scenario or point solution**

You can use the new functions for product substitution either together with an SAP ECC System or you can implement SAP F&R only with a connection to your own systems, from which you transfer master data and switch information. SAP F&R provides appropriate interfaces for both configurations.

**Effects on Customizing**

- Settings for the substitution merge profile
  See SAP Implementation Guide (IMG) under *Forecasting and Replenishment -> Substitution Products -> Substitution Merge Profiles*
- BAdI to override the substitution merge profile (Stock and consumption data).
  See IMG under *Forecasting and Replenishment -> Substitute Products -> Substitution Merge Profiles -> Extensions Using Business Add-Ins -> BAdI: FRP - Merge Stock and Consumption (/FRE/FU_FRP_BADI008)*

**See also**

Release Note (SAP-ECC): *Extensions for Article Substitution (changed)*

For more information, see the SAP Library of the SAP Supply Chain Management under SAP Forecasting and Replenishment (SAP F&R) under F&R Processor -> Product Substitution in Forecast and Requirements Calculation.
1.6.4 SCM-FRE-MD  Master Data

1.6.4.1 F&R master data (extended)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1 you can use extended functions in the master data of component SAP Forecasting and Replenishment (SCM-FRE).

Master data management

- Time-dependent transportation lane data:
  You define time-dependent attribute values in the function Mass maintenance transportation lanes for product display or using the interface transportation lanes for products.
- Reorganization:
  When their validity has expired, you can physically delete transportation lanes for products with the reorganization report Delete location products.
- Display:
  You can display the time-dependent attribute values in the function Display master data object attributes on the subscreen Data for transportation lanes for products.

Supply source determination

- Listing check
  With the listing check of a product in the target location, you can check the listing of a product in the source location.
  A supply source is only used if the product is listed in the source location on the planning date. The system does not consider the data from a locked transportation lane of the products.
- Time-dependent transportation lane data
  From the transportation lanes of a source location, a target location, and a product, the supply source determination determines the most appropriate transportation lane on the planning date.

As of SAP F&R 5.1 the supply source determination considers:

- The procurement priority of the transportation lane that is valid on the planning date.
- The active indicator of the transportation lane that is valid on the planning date.

Replenishment planning

Scheduled determination of planning parameters

You can define various attributes of location products (minimum stock, maximum stock, target stock, minimum target range of coverage, and maximum target range of coverage) as time-dependent. The system determines the values of these attributes for a key date.

In Customizing you can choose for each attribute one of the following key dates:

- Planning date
- Order date
- Delivery date
- Availability date

**Scheduling**

Time-dependent transportation lane data

For the procurement cycle and the planned delivery time, you can also define time-dependent values for the transportation lanes for products. The system uses these time-dependent values with highest priority in scheduling.

**See also**

For more information, see the SAP Library under SAP Forecasting and Replenishment --> Master Data.

**1.6.4.2 F&R master data (new)**

**Use**

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use the new function Import Purchasing Organizations and Their Assignments to Locations from SAP ERP in the master data of component SAP Forecasting and Replenishment (SCM-FRE).

**Effects on Existing Data**

**Delete location products**

Using the new reorganization report Delete Location Products, you can delete location products that you no longer use in SAP F&R.

The report processes only products that are flagged for deletion. You can import the deletion flag by way of the inbound interface for location products.

The report physically deletes the location products and all data in which the location appears from the database. You can not archive the deleted data.

**Effects on Data Transfer**

- Extension of the inbound interface for locations
  In the inbound interface for Locations of location type distribution center and store, you can check the existence of an F&R administrator entry. If this entry does not exist, the system creates an exception and creates the location without the entry.

- Time-dependent transportation lane data
  Using the inbound interface Transportation lanes for products, you can import time-dependent attribute values.

- Purchasing organization
  Using the new interfaces Purchasing organization data and Purchasing organization assignments,
you can transport purchasing organizations and their assignments to locations.
- *SAP ERP* Inbound and outbound interface
- *SAP F&R* Inbound interface

**See also**
For more information, see the SAP Library under *SAP Forecasting and Replenishment* --> Master Data.

### 1.6.4.3 F&R Master Data User Interface (Enhanced)

**Use**

As of *SAP SCM 5.1*, the following enhancements have been made to the master data user interface:
- You can display F&R fields that are not maintainable in various mass maintenances. These fields cannot be maintained, only displayed.
- There are additional product-related fields for selection criteria in location product mass maintenance.
- A new button in the grid toolbar allows you to clear the grid of all mass maintenance transactions.
- You can delete jobs in error recovery list of mass maintenance transactions once they are corrected and no longer contain any more errors. There is a new parameter that allows you to specify the number of days you want to keep the successful jobs in the error recovery list.
- An error message now appears in all mass maintenance transactions when a save is not successful.
- The *To Date* field is displayed in time-dependent data screens of mass maintenance location product transactions.
- Field descriptions instead of technical names are displayed time-dependent data display screens.
- There is a time-dependent notion in the mass maintenance for transportation lanes for product. New screen is added, similar to the already existing time dependant screen in mass maintenance for location product.
- There is a *Display/Change* toggle button for all mass maintenance transactions as well as in the location group maintenance screen.
- An authorization check is available for all mass maintenance transactions.
- There is a new button in the tree section of the all mass maintenance transactions, which allows you to select all records from the tree.
- Scrollbars in all mass maintenance transactions are not accessible when the list of entries fits in the screen.
- Fields in the mass maintenance screens are no initialized after a save if the save is performed online.
- There is a new a sorting function in mass maintenance of location product data that takes into account the relation of the location group and its assigned locations.
- There is a new button to display reference modules in the product master data display screen.
- There is a new button and a new screen to display multiple purchasing organizations in the location mass maintenance transaction.
- There are now Warning icons in the location product and the transportation lanes mass maintenance transactions. Warning are displayed in the error recovery screen but the data is saved regardless.

1.6.5 SCM-FRE-REF References

1.6.5.1 References (extended)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use the following extended functions in the references of component SAP Forecasting and Replenishment (SCM-FRE):

- References are bundled in a reference module. You can assign the reference modules in SAP ERP to an article-based combination and import them to SAP F&R. Within SAP F&R you can create and edit the reference modules. In the function Edit Location Products, you can assign the reference modules to the new location products.
- The system combines the data of a reference module, aggregated in an artificial history. The forecast in SAP F&R uses the artificial history as a time series.

See also

For more information, see the SAP Library under SAP Forecasting and Replenishment --> Master Data --> Reference Module.
1.6.5.2 References (new)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use new functions in the references of component SAP Forecasting and Replenishment (SCM-FRE).

- Property-based determination of references for articles without history. This function enables you to automatically assign references to location products on the basis of article attributes.
- You can assign the references manually.

See also

For more information, see the SAP Library under SAP Forecasting and Replenishment --> Master Data --> Reference Module.

1.6.6 SCM-FRE-CPF Collaborative Planning, Forecasting and Replenishment

1.6.6.1 CPFR Order Forecast (New)

Use

As of SAP SCM 5.1, Collaborative Planning Forecasting and Replenishment has been enhanced as follows:

- A new tactical order forecast on a weekly basis is available for CPFR exchange. This forecast calculates projected or future order proposal line items for a location product, based on such data as the forecasted consumption, current stock on hand, open receipts and goods issues, scheduling, and rounding information. It also considers the fully optimized quantity of the currently planned order proposal as an open receipt.
- CPFR output simulation now includes tactical order forecast information, both detailed and cumulative.
- There are two new fields on the CPFR parameters transaction /FRE/CPFR_PARAM: Tactical Order Forecast Horizon and Tactical Order Forecast Detail Level (the level can be detailed, cumulative, or both).
- The Product Workbench now displays whether CPFR parameters exist for a source location and product; if so, a dialog box displays those parameters.
A BAdI is available to enhance the granularity of the standard tactical order forecast. By default, the order forecast is provided for weekly periods. This BAdI allows you to provide a tactical order forecast for an individual goods issue date per product for directly supplied locations.

An active forecast is available for either the operational or tactical forecast. Previously, the tactical forecast was the consumption mean forecast calculated by FRP. In SAP SCM 5.1, the tactical forecast provided for CPFR is the active forecast that is used by replenishment. The active forecast may include planning data, aggregated order forecast, and calculated consumption forecast. A BAdI is available if you want to provide the consumption mean forecast as in SAP SCM 5.0 instead of the active forecast in SAP SCM 5.1.

In SAP SCM 5.1, the consumption provided for CPFR is the merged consumption that is used by replenishment. The merged consumption may include consumption of replacement products. A BAdI is available if you want to provide the pure consumption as in SAP SCM 5.0 instead of the merged consumption in SAP SCM 5.1.

1.6.7 SCM-FRE-IF Interfaces

1.6.7.1 F&R interfaces (new)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use new interfaces in the component SAP Forecasting and Replenishment (SCM-FRE).

You can import the following data:

- Purchasing organization data
- Time-dependent data on transportation lane
- Contracts

Effects on Existing Data

The following new interfaces are available as of SAP F&R 5.1:

- Inbound interface purchasing organizations
  Import or purchasing organizations and their assignment to locations
- Inbound interface time-dependent data for transportation lanes for products
  Import of time-dependent attributes:
- Procurement cycle
- Planned delivery time
- Procurement priority
- Indicator Source of supply active

- Inbound interface contracts
  Import of contracts as purchasing documents. The assignment of contracts to order proposal items can be imported by way of the order inbound interface and exported by way of the order outbound interface.
  When order proposals are being created, contract determination is carried out on the basis of the imported contracts.

See also
For more information, see the SAP Library under SAP Forecasting and Replenishment --> Interfaces.

1.6.7.2 F&R Interfaces (changed)

Use
As of SAP Supply Chain Management (SAP SCM) 5.1, the processing for certain interfaces has changed. You can now make use of improved selection options by means of the source location, the target location, and products.

The extensions are integrated in the following functions:
- Interface Workbench
- Interface processing
- Program Maintain Interface Tables

Für delivery network data of the transportation lanes for products and the external procurement data, the connection to SAP F&R is made by way of the structure BIF: External Procurement. SAP ERP no longer supplies the interface BIF: Transportation Lane for Products since all required attributes are contained in the structure BIF: External Procurement.

See also
For more information, see the SAP Library under SAP Forecasting and Replenishment --> Interfaces.
1.6.8 SCM-FRE-TSM Time Series Management

1.6.8.1 Time Series Management (New)

Use

As of SAP SCM 5.1, Forecasting and Replenishment includes several new time series:

- **ORD_FC (Order Forecast):** This time series is supplied by the FRP process, depending on the Customizing settings. It contains weekly forecasted order information for each product, and can be calculated for stores or distribution centers (DC). This data is the basis for later aggregation to a supplying location level.

- **CURR_AGG_ORD_FC (Current Aggregated Order Forecast):** This time series is an aggregate of the Order Forecast time series: the sum of all possible order amounts for all receiving location products per goods receipt date and supplying location. The quantity is stored on the supplying location product level for the goods issue date.

- **AGG_ORD_FC_MEAN (Mean Aggregated Order Forecast):** This time series is created and stored during the FRP run. It consists of the Current Aggregated Order Forecast, along with a special setting (order proposal horizon) in the requirements calculation profile, which allows the first few days of the time series to be overwritten by current store orders supplied by the current DC. In addition, the true aggregate, not the orders of the order proposal horizon, is enriched by correctional DIFs effects.

- **AGG_ORD_FC_MAX (Maximum Aggregated Order Forecast):** This time series is the same as the Mean Aggregated Order Forecast, but it is enriched by a safety amount that can be defined in the requirements calculation profile.

- **AGG_ORD_FC_DIF (Aggregated Order Forecast as DIF):** This time series is aggregated in a separate step outside FRP, and can only be used as a DIF time series for FRP run. It includes the Current Aggregated Order Forecast without any DIF influences or additional safety amounts, but can include order proposals based on the configured order proposal horizon in the requirement calculation profile.

- **FC_MAX (Maximum Forecast):** This time series, which can be displayed in the Replenishment Workbench (RWB), is provided by FRP and consists of the calculated forecast including estimated safety amounts based on forecast errors and service level. The calculation horizon is set on the location product level and is the same as for the Forecast Mean (FC_MEAN).

- **PLN_DATA_MEAN (Mean Planning Data):** This time series is provided by RWB and includes manual planning values without any safety amounts. In F&R Time Series Management (TSM), only active planning data is returned by the specific data source.

- **PLN_DATA_MAX (Maximum Planning Data):** This time series is provided by RWB and includes manual planning values with safety amounts. It impacts the replenishment run because it replaces the calculated forecast. In F&R TSM, only active maximum planning data is returned by the specific data source.
- **ACTIVE_FC_MEAN** *(Mean Active Forecast)*: This new key figure indicates the real forecast used during replenishment and optimization. Normally it consists of the Mean Forecast, but if the Aggregated Order Forecast is used as a forecast replacement time series, the Mean Aggregated Order Forecast will overwrite the calculated Mean Forecast in a concurrent horizon. Depending on whether an order proposal horizon is used by FRP, it can overwrite the above mentioned time series. If planning data has been maintained for concurrent horizons, the Mean Planning Data can overwrite all of the above mentioned time series and that part of the Active Forecast that contains Mean Planning Data. This time series is always built up from its sources on request and is therefore always up to date. It is used by RWB, F&R Analytics, and Collaborative Planning Forecasting and Replenishment (CPFR) as well as the stock projection service.

- **ACTIVE_FC_MAX** *(Maximum Active Forecast)*: This new key figure is similar to ACTIVE_FC_MEAN above, but uses maximum planning data rather than mean planning data. It is used by RWB.

- **M_CONS_DATA** *(Merged Consumptions)*: This mixed time series consists of consumption data from different locations products, which can be follow-on or replacement products, depending on the system settings. This time series is provided either by FRP or by a report. It holds data only for periods when one product is substituted by another.

- **EST_FCST_ERR** *(Estimated Forecast Error)*: This time series is provided by FRP on a weekly basis and contains estimated forecast errors for each weekly forecast bucket.

In the previous release, all data was stored in TSDM. In SAP SCM 5.1, there are two additional places for storing data:

- Database table /FRE/TS_OFCST. This table stores all time series data for the order forecast, except for the Aggregated Order Forecast as DIF, which is stored in TSDM as in the previous release.

- Compressed Data Management (CDM), which is a BLOB for storing binary long objects.

**Effects on Existing Data**

No effect on existing data

**Effects on Customizing**

No effect on Customizing

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**1.6.9 SCM-FRE-FRP**

**FRP Functions**

**1.6.9.1 Forecasting and Replenishment Processor (new)**

Use
As of SAP Supply Chain Management (SAP SCM) 5.1, you can use the following new functions in the Forecasting and Replenishment Processor (FRP) of the component SAP Forecasting and Replenishment (SCM-FRE).

**Planning data**

The FRP can consider manually entered planning data. This planning data replaces, for the time period entered, the forecast as a basis for the requirements calculation.

You can enter the planning data manually (for example, in cause determination) and save actively or inactively. The FRP considers only active planning data.

**Order forecast**

The order forecast calculates the expected order quantities based on a delivery schedule. Starting with the regular forecast, which is based on sales days, the order forecast calculates the requirements for future periods. Here, the order forecast considers the current stock and the open orders in addition to the delivery schedule (order days, delivery days, availability days). The calculation also considers rounding.

**Multi-level requirements calculation**

The basis of the multi-level requirements calculation is the order forecast of the corresponding target locations. In a source location, you can implement the multi-level requirements calculation as an alternative to the regular forecast or as a demand-influencing factor (DIF) for the regular forecast.

For the source location, the system aggregates the order forecast of the corresponding target locations (according to the current delivery schedule).

**Order balancing**

You can carry out order balancing as an additional step in the requirement quantity optimization. Order balancing automatically spreads the requirements for a week for a location product. In order to avoid logistical delivery shortages especially on weekends, both in the source and target locations, you can distribute the requirements of a week over the individual delivery days of the week for the target location. You cannot assign requirements to future periods.

**See also**

For more information, see the SAP Library under SAP Forecasting and Replenishment --> F&R Processor.

### 1.6.9.2 Forecasting and Replenishment Processor (extended)

**Use**

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use the following extended functions in the Forecasting and Replenishment Processor (FRP) of component SAP Forecasting and Replenishment
Forecast
- The forecast can consider the current weekly consumption.
- You can carry out an outlier correction for consumption troughs.
- You can save the forecast including the safety amount as a time series.

Calculation of the safety amount
You can combine periods with expected similar sales patterns (for example, featuring promotions) in a schema. A separate calculation of the safety amount is carried out for these schemas, derived from the history. You can assign a separate service level to each ABC indicator of a schema.

In addition, you can assign a separate service level for an automatically determined schema of strong seasonal periods. The schema of strong seasonal periods is determined automatically in the FRP.

Requirement quantity optimization
- Order restriction
  In the order restriction you can use the restriction type volume.
- Capital lockup optimization
  In capital lockup optimization, the ordering costs and capital lockup costs are offset against each other. The result, based on this, is an optimal (cost-efficient) order quantity that can cover the requirements of several demand periods. As of SAP F&R 5.1, you can also include separate storage costs (per space area and calendar day) in the capital lockup costs (in percent per base unit of measure and year).

See also
For more information, see the SAP Library under SAP Forecasting and Replenishment --> F&R Processor.

1.6.10 SCM-FRE-DIF Demand Influencing Factor

1.6.10.1 DIF Schema (New)

Use
As of SAP SCM 5.1, you can now calculate the estimated forecast error separately for regular periods and periods with special events. You define these special events using the existing DIF functionality. You can also specify for which of the existing DIFs the system is to calculate the estimated forecast error and thereby the safety amount separately. All periods with occurrences of these DIF are then treated separately from the regular periods. It is also possible to group multiple DIFs so that one common estimated forecast...
error and safety amount are calculated across all occurrences of the group DIF.

In the previous release, you were not able to exclude special periods from the estimated forecast error calculation. It was only possible to exclude the sales/consumption values with the highest variance.

**Effects on Customizing**

There is a new Customizing activity: Define DIF Schemas. This is similar to the existing Customizing activity for defining DIF groups.

The existing Define Demand Influencing Factors Customizing activity has a new *DIF Schema* field where you assign the schema to a DIF.

The existing Maintain Service Level Profiles Customizing activity has been enhanced to allow additional service levels for each defined DIF schema. The service level is the primary differentiating factor between the various schemas.

**1.6.10.2 F&R DIF Enhancements (New)**

**Use**

As of *SAP SCM 5.1*, the following enhancements have been made to the handling of Demand Influencing Factors in Forecasting and Replenishment:

- **Ability to distribute forecasts across multiple weeks**
  The sales pattern over the time span of an event such as a promotion often differs significantly from the regular weekly sales pattern. Such special event sales patterns should be reflected as well by the daily and weekly forecast.
  In the previous release, weighting profiles were always converted to weekly profiles. However, it is not sufficient to have special weekly weighting profiles that are only able to distribute forecast within a week. In SAP SCM 5.1, it is possible to distribute the forecast caused by a DIF occurrence (the DIF effect) across the dividing line between weeks by using event profiles.
  In the previous release, regular DIF data supplied on a daily basis was considered on a weekly basis by the forecast calculation via weekly weighting profiles. The following logic is used:
    - Boolean DIF and Ignore DIF: The DIF occurrence is valid for a complete week if the occurrence is at least valid for one day of the week.
    - Metric, Value, Sales Price and Time Series DIF: The smallest value is taken for the complete week if there are different values within one week.
  In SAP SCM 5.1, the supplied data is considered on a daily basis as supplied via weighting profiles, following the logic described below:
    - Boolean DIF: The DIF occurrence is considered only for the days for which it is valid.
- Metric, Value, Sales Price and Time Series  DIF: The real value is considered for each day of the week.

- **DIF assignment at the location type level**
  You can now assign DIF occurrences at the location level to *all stores* or *all distribution centers*. This provides another generic level besides the generic assignment to *all locations* and assignment at the *location group level*, available in previous releases. This means that you can specify DIF occurrences assigned to stores that are different from those assigned to distribution centers.
  The DIF Workbench displays the two new node types representing the assignment at location type level:
  - All stores node
  - All DCs node

- **Occurrence length check**
  Very long DIF occurrences can cause performance problems, in addition to being unnecessary in many cases. For example, when dealing with a weighting profiles and DIFs on a daily base, the period where the DIF is valid becomes crucial. Some checks were performed in the previous release, but more have been added in SAP SCM 5.1.
  In the previous release, the following checks were performed:
  - Assignment of weighting profile to DIF occurrence was only possible if DIF occurrence was less than or equal to one year.
  - Recurring DIF occurrences could not be longer than 1 year.
  With SAP SCM 5.1, the following checks are performed:
  - Boolean DIF occurrences should be less than or equal to 1 year.
  - Variable Season DIF occurrences should be less than or equal to 1 year.
  - Absolute and additive correction value DIF occurrences should less than or equal to 1 year.
  Other DIF types do not require a check.
  If a DIF occurrence exceeds the one year limit, the system generates a warning (not an error) in the maintenance screen, and a warning exception in the inbound interface. The message/exception warns that occurrences of the given length are not reasonable and can cause performance problems in the forecast calculation. Users should check their entries for correctness and react accordingly.
1.6.11 SCM-FRE-ANA Analyses

1.6.11.1 F&R Analytics (Enhanced)

Use

As of SAP SCM 5.1, Forecasting and Replenishment Analytics now has the following new features:

- History of manually changed order proposals: this now tracks changes to order proposals that have already been converted to purchase orders
- Planning data information displayed in relevant reports (for example, stock exception reports and forecast quality) and an indicator showing which information was used in replenishment
- Determination of cross selling effects
- Performance enhancements due to use of ODS objects in master data

1.6.12 SCM-FRE-RWB Planning Workbench

1.6.12.1 Product Workbench (new)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use the new Product Workbench (PWB) in component SAP Forecasting and Replenishment (SCM-FRE).

If location products are not contained in any order proposals, then you cannot process them in the Replenishment Workbench. For this reason, the new Product Workbench is available. There you can use almost all functions of the Replenishment Workbench. The processing focus is not on the order proposals here, but rather on the location products.

For selection of the location products, the criteria available are similar to those in the Replenishment Workbench.

The following subscreens are available in the Product Workbench:

- Location products
  Here you see information on the selected location products. You can create one or more order proposals for the location products or you can include a location product in an order proposal.
- Order proposals for the location product
  Here you see existing order proposals for a location product selected on the Location Products subscreen.
- Restrictions
  Same functions as in the Replenishment Workbench.
- Exceptions
  Same functions as in the Replenishment Workbench.
- Time series
  Same functions as in the Replenishment Workbench.
- F&R application log
  Same functions as in the Replenishment Workbench.

You can select the following functions:
- Replenishment Workbench
- Cause Determination
- Display of master data
- Display of demand influencing factors (DIF) and related sales dependencies
- Display of Collaborative Planning, Forecasting and Replenishment Information (CPFR)
- Display of contract information
- Profile displays (for example, rounding profile, restriction profile)
- Display of substitution information (follow-up product or replacement product relationships)
- Display of calculation detail from the last FRP run
- Display of critical criteria for a location product
- Display of information for quantity optimization
- Display of rounding information

**Effects on Existing Data**

The functions are subject to an authorization check.

**Effects on System Administration**

You assign the authorizations in SAP F&R.

**See also**

For more information, see the SAP Library under SAP Forecasting and Replenishment --> Product Workbench.
1.6.12.2 Replenishment Workbench (extended)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use the following extended functions in the Replenishment Workbench of component SAP Forecasting and Replenishment (SCM-FRE).

Master data

In SAP F&R you can no longer change the master data.

RWB

Order proposals
- Lock order proposal
- Transfer and release order proposal
- You can create new order proposals for a specific target location, source location, or a vendor subrange.
  System support has been extended. When creating new order proposals, you can refer to a product. If the system finds multiple suitable source locations, it proposes the standard source location. If you do not refer to a product, the system creates the order proposal without order proposal items.

The filter criteria for the function Display All Orderable Products have been extended:
- Planning date in a specific time frame
- Assignment to a replenishment planner
- By purchasing organization or purchasing group
- By product hierarchy

The subscreen Calculation details provides further information on calculations of the F&R processor. The information comes from the last FRP run.

The system displays the following information:
- Requirements calculation
  - Stock quantity
  - Safety stock
  - Key data of previous demand periods
- Replenishment parameters
  - Maximum, minimum, and target stock
  - Target range of coverage
- Profile information
- Demand period
  You can display important dates and planning data here, which the Forecasting and Replenishment Processor (FRP) uses in calculations.
- Consumption statistics
By displaying these characteristics, the replenishment planner can analyze the consumption of a location product.

Authorization checks take place (at order proposal level) within the RWB.

Effects on Existing Data

You can send the order proposals to follow-on systems using the following functions:

- Replenishment Workbench (RWB)
- Interface processing with selected option output by message type
- Mass release to the ordering system with selected option Transfer Released OPs

Effects on System Administration

In SAP F&R you must assign the authorizations again. There is no transfer of already assigned authorizations from SAP F&R 5.0 to SAP F&R 5.1.

See also

For more information, see the SAP Library under SAP Forecasting and Replenishment -- Replenishment Workbench.

1.6.12.3 Replenishment Workbench (new)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use Planning Data in the Replenishment Workbench of component SAP Forecasting and Replenishment (SCM-FRE).

Planning data

Planning data can be used as substitute forecast data. If for a location product, no forecast data is available, or it has not been determined reliably, then you can use planning data for a location product. This is the case with a newly introduced product, for example.

If you enter planning data for a location product, you can use historical data from the same period of the previous year or forecast data of similar products. You can also change the planning data as required. Planning data represents the expected consumption data for a location product.

Effects on System Administration

In SAP F&R you must reassign the authorizations. There is no transfer of authorizations that are already assigned from SAP F&R 5.0 to SAP F&R 5.1.
See also
For more information, see the SAP Library under SAP Forecasting and Replenishment --> Replenishment Workbench.

1.6.13 SCM-FRE-SUI Replenishment Workbench for Stores

1.6.13.1 Replenishment Workbench for Stores (Enhanced)

Use
As of SAP SCM 5.1, the Replenishment Workbench for Stores (RWBS) has been enhanced to include the following features:

- Store managers can choose to display either planned order proposals or orders that have been released or transferred. The same is true for replenishment specialists, but only at the item level within an order proposal.

- There is a new user type: Support User. This is intended for internal customer support representatives who are troubleshooting user problems. It allows them to simulate the user's actions; that is, carry out the same tasks that a user has performed, but without the ability to save the changes or update the database.

You define support users in the backend via transaction /FRE/RWBS_SUPPUSER. A support user cannot also be another type of user; that is, a support user cannot also be a store manager or replenishment specialist. Therefore, support users do not appear in the Responsibility User list.

- The order proposal selection criteria have been expanded:
  - In addition to existing the Date From field, there is a new Date To field that allows you to restrict the order proposal list to a finite date range.
  - There are two new search fields: Planned Date and Delivery Date.

- The following fields have been added to the Product List View:
  - A Help button is available on the Replenishment Workbench screen. You can configure this link to go either to the SAP documentation or to your user-defined help information.
  - A SendTo email button allows you to send product information to other users. By default the SendTo field is set to the vendor email address (if it is defined in the backend) for the currently selected product in the product list.
  - A Rounding button allows you to toggle rounding on or off. If it is on, then when you enter quantities and choose Save, the system updates all fields that contain a product quantity according to optimum rounding quantity specified in the product master data; for example, a quantity of 9 pieces may be rounded up to 10. In some cases, the system may round to the next higher unit of measure; for example, 9 bottles may be rounded to 1 case (containing 12 bottles).
  - There is a new Add Product screen that displays a table where you can select multiple products and add them to the Product List View all at once. The screen is configurable in the backend.
- There is a new Rounding Log tab page on the Product List View. This shows all products where the quantities were rounded, with both the original, unrounded quantity that was manually entered and the rounded quantity that was calculated by the system.

- In the Exception Detailed View and Store Exceptions View, the columns for the exceptions list are now configurable in the backend (not by the individual user). You can restrict the list by entering From/To dates and/or Status. You can also display low level exceptions.

- You can now store customer-specific exception messages in Customizing. These replace the standard exception messages delivered with the system.

- There is a new "display only" user.

1.6.14 SCM-FRE-EXC Exception Handling

1.6.14.1 Exceptions (extended)

Use

As of SAP Supply Chain Management (SAP SCM) 5.1, you can use extended functions in Exception Management of the component SAP Forecasting and Replenishment (SCM-FRE).

The selection screen in the Exceptions Workbench has been extended. You can optionally restrict the selection using the message number and message class.

For Customizing of exceptions in the category low-level exceptions, a simplified and additional IMG activity has been developed. Here you can only change the priority for these exceptions.

See also

For more information, see the SAP Library under SAP Forecasting and Replenishment --> Exception Management.
1.7 SCM-ICH  Supply Network Collaboration

1.7.1 Change of Application Name from SAP ICH to SAP SNC

Use

As of Release 5.1, SAP Inventory Collaboration Hub (SAP ICH) is called "SAP Supply Network Collaboration" (SAP SNC).

1.7.2 Deployment Options for SAP SNC (Enhanced)

Use

The two applications SAP Inventory Collaboration Hub (SAP ICH) and SCM Basis were previously an integral part of SAP Supply Chain Management (SAP SCM). As of Release 5.1, SAP Supply Network Collaboration (SAP SNC) 5.1 and SCM Basis are de-coupled from SAP SCM, so it is now possible to use SAP SNC together with SCM Basis outside of an SCM server installation. (Technically, SAP SNC and SCM Basis as of Release 5.1 are add-ons to SAP NetWeaver.) SCM Basis now includes all master data and functions that are cross-application-relevant for several SCM applications. The master data includes, for example, locations and products; the functions include SAP Core Interface (CIF) for master data integration or the Transport Load Builder.

As of SAP SNC 5.1, message processing is also independent of an SCM server installation. Inbound and outbound message processing is now part of the SAP SNC add-on. In SAP NetWeaver 2004s, XI Content for SAP SNC is available in the new software component SNC 5.1. In addition, relevant new proxies and Business Add-Ins (BAdIs) are delivered for enhancing inbound and outbound message processing.

Functions Still Requiring SAP SCM

Note that in the future, you can still only use the following SAP SNC functions in an SCM server installation:

- Demand planning
  - Connection of planning areas
- Complex shipping units
- Cannibalization
- Replenishment planning
  - Enhanced safety stock planning using the methods AT, AS, BT, BS
- Product allocation
- Deployment

These applications require SAP Advanced Planning and Optimization (SAP APO).

Effects on Existing Data

Customizing for Open Order Quantity of Replenishment Orders

Up to SAP ICH 5.0, in the Responsive Replenishment business scenario, you could determine open quantities of replenishment orders by using the IMG activity Maintain IDoc Settings for Stock In Transit. This IMG activity was part of Customizing for Advanced Planning and Optimization, under Supply Chain Planning -> Supply Network Planning (SNP) -> Vendor Managed Inventory. As of SAP SNC 5.1, you maintain these settings in the new IMG activity Update Quantities and Status of Replenishment Orders and ASNs in Customizing for Supply Network Collaboration under Exceptions -> Data Import Controller. In the case of an upgrade to SAP SNC 5.1, the XPRA /SCA/PANOPEN_CONV automatically converts the old Customizing settings.

Customizing for Product Determination

As of SAP SNC 5.1, there is a new condition technique available for product determination. This product determination and the new condition technique can also be used by SAP SNC outside of an SAP SCM server installation. If you want to continue to use your Customizing settings for the old condition technique in SAP APO, you require an SAP SCM server installation. In addition, you must make settings in Customizing so that you use the old condition technique.

Effects on Data Transfer

Message Interfaces, Business Add-Ins, and Proxies for Inbound and Outbound Message Processing

As of SAP SNC 5.1, there are new message interfaces, new proxies, and new Business Add-Ins (BAdIs) for inbound and outbound message processing available that use SAP SNC in the standard system. However, if you have enhanced SAP ICH 5.0 message interfaces with your own fields or have implemented SAP ICH 5.0 BAdIs, you can continue to use the old message interfaces, proxies or BAdIs from SAP ICH 5.0 in SAP SNC 5.1. To do this, in Customizing for Supply Network Collaboration, set up the SAP ICH 5.0 compatibility mode by choosing Basic Settings -> Processing Inbound and Outbound Messages -> SAP ICH 5.0 Compatibility Mode.

Effects on Customizing

- Create model 000 and planning version 000
  In the Implementation Guide for Supply Network Collaboration, the IMG activity Create Planning Version was renamed to Create Model 000 and Planning Version 000. The /SAPAPO/VERCREATE transaction, which was previously called by this IMG activity, was replaced by the SAPAPO/ACTVERCREATE transaction.

- Connection of planning areas
  This function requires the Demand Planning (DP) from SAP APO and thus an SAP SCM server installation. The associated IMG activities were therefore removed from the Implementation Guide for Supply Network Collaboration and included in the Implementation Guide for Advanced Planning and Optimization under Demand Planning.<

- Inbound and outbound message processing
If you want to change or enhance inbound or outbound data from XML messages, implement the BAdIs in Customizing for Supply Network Collaboration, by choosing Business Add-Ins (BAdIs) for SAP SNC -> Basic Settings -> Process Inbound and Inbound Messages.

See also
- Release Note Deployment (New)
- Release Note Determination of Open Replenishment Order Quantity (Enhanced)
- Release Note Product Determination (Enhanced)
- Release Note Inbound and Outbound Message Processing (Enhanced)
- Upgrade guide for SAP SCM 5.1

1.7.3 Technical Basis for the Web UI (Changed)

Use

In SAP Supply Network Collaboration (SAP SNC) 5.1, the Web user interface (Web UI) was converted to Web Dynpro technology. The screens for the new applications (such as for invoice collaboration or for work order collaboration) and for several applications already available in SAP Inventory Collaboration (SAP ICH) 5.0 (for example, SMI Monitor) were developed with Web Dynpro technology. The remaining UIs already available previously in SAP ICH 5.0, which are based on Business Server Page technology, were converted. Web Dynpro offers you new personalization options. In addition, the operation of UI functions has slightly changed (for example, row selection).

Personalization of UIs

The following new personalization functions are available:

- **Queries**
  Several new applications use the personal object worklist (for example, the work order overview or the purchase order worklist) for Web screens for object lists. Here you use queries to select the objects to be displayed. A query is a predefined, application-specific group of selection criteria. You can use the selection to call the data in an application that is of interest to you, without having to enter the selection criteria every time. On the Web UI, data that corresponds to the selection criteria of a query is available on a separate tab page (work order) or through a link (purchase order worklist). You can configure this in the query definition. You can also define multiple queries. On the application screen there is then a corresponding tab page or link for every query.
  The system administrator can regularly update the query data for selected users, using the POWL_WLOAD report (for example, on a daily basis prior to the start of work). On the overview screen, there is also an Update function available with which the user can update the data at any time as required during a session.
  On other Web screens, you use the selections from selection management. Here only the data for one selection is available at a given point in time. If you want to display other data, you have to change the selection criteria accordingly or make a different selection and choose Start. In so doing, you load the data according to the changed selection criteria. To update the data for a selection, such as after a change, you must always choose Start. A selection differs from a query in the personal object worklist as follows: In the personal object worklist, the data is automatically updated with a report,
using the **Update** function, or by the application.

- Display of tables with SAP List Viewer
  In SAP SNC 5.1, tables are displayed in the SAP List Viewer (ALV). ALV offers you diverse possibilities for personalizing the table display. For example, you can make settings for the rows to be displayed, the row sequence, sort criteria, and filter conditions. To call the settings dialog, on the application screen, click **Settings**. In this way, for example, you can display columns that are not displayed in the table in the standard system. (In the standard system, many tables only display the columns that are used the most.)
  You can save your settings in different views. In this way, you can always call up a table in the desired display format (view).
  Whether personalization is available for a table or not depends on the application. Depending on the application, there are also generic ALV functions available (for example, the downloading or printing of tables).

**Selection of Rows**

You can still select a row in a table or in the value help for a selection criterion, by clicking a pushbutton at the beginning of the row. (Nonselectable rows do not have a pushbutton). To select several rows, proceed as follows:

- Select several nonsequential rows
  Hold down the CTRL key and click on the desired rows.

- Select several sequential rows
  Click on the first or last row of the row block you want to select. Hold down the SHIFT key and click on the last or first row of the block.

To deselect a row, hold down the CTRL key and click on the row.

Note: Row selection is only available on a Web screen if there are functions on the Web screen that the user can execute on a row object (for example, selection of an object in the value help, display details).

**Transactions for Calling the Accessible Version of the Web UI**

The following transactions are no longer required for calling the accessible version of the Web UI for SAP SNC:

- ICH (accessible), transaction /SCA/ICH_ACC
- ICH - Supplier View (accessible), transaction /SCA/ICH_ACC_S
- ICH - Customer View (accessible), transaction /SCA/ICH_ACC_C
- ICH - Goods Recipient View (accessible), transaction /SCA/ICH_ACC_G
- Returns Processing - Customer View (accessible), transaction /SCA/ICH_ACC_RET
- Returns Processing - Supplier View (accessible), transaction /SCA/ICH_ACC_RETV
- Returns Processing - Goods Recipient View (accessible), transaction /SCA/ICH_ACC_RETG
- Responsive Replenishment (accessible), transaction /SCA/ICH_RR_A

**Make Current Screen the Entry Screen**

When you display a screen on the Web user interface of SAP SNC, you can use a new pushbutton to make your current screen the default entry screen. This enables you to start SAP SNC your your preferred screen instead of with the Alert Monitor.
See also

*SAP List Viewer for Web Dynpro* in SAP Library for SAP NetWeaver.

### 1.7.4 Settings for the Web UI (Enhanced)

**Use**

As of Supply Network Collaboration (SAP SNC) 5.1, you can make settings so that the header of a Web screen shows the following data:

- Name of the user
- Name of the business partner to whom the user belongs

In the standard system, this data is displayed.

**Effects on Customizing**

You make the settings in Customizing for *Supply Network Collaboration* under *Basic Settings* -> *User Interfaces* -> *Make General Settings for User Interfaces.*

### 1.7.5 Structure of Menus and Implementation Guide (Changed)

**Use**

In SAP Supply Network Collaboration (SAP SNC) 5.1, we have changed the structures of the Web application menu, the *SAP Easy Access* screen, and the Implementation Guide. These now mirror the functional areas of SAP SNC. In particular, there are no longer substructures for *Customer Collaboration* and *Supplier Collaboration*. We have removed ITS transactions from the Web application menu. They are now available on the *SAP Easy Access* screen under *Supply Network Collaboration.*
1.7.6 Data Matrix Configuration (New)

Use

A data matrix contains the key figures for an application as well as the different aggregation levels upon which these key figures exist. The following Web applications of SAP Supply Network Collaboration (SAP SNC) are based on a data matrix:

- Overview and detail screens for sales forecast collaboration
- Overview and detail screens in the order forecast monitor
- Overview and detail screens in the SMI Monitor
- Overview and detail screens in the Min/Max Replenishment Monitor
- Overview and detail screens in the Responsive Replenishment Monitor
- Overview and detail screens in the SNI Monitor
- Detail screens in the TPOP forecast
- Audit trail for time series data
- History comparison for time series data

As of SAP SNC 5.1, there is a Customizing is available that you can use to do the following:

- Display the data matrices delivered by us
- Add your own key figures to a data matrix
- Change the computation of key figures
- Change the sequence and descriptions of key figures on a Web screen (data matrix view)

Effects on Customizing

You make the settings in Customizing for Supply Network Collaboration under Basic Settings -> Data Matrix.
1.7.7 Settings in Order Document Management (Changed)

Use

In SAP Supply Network Collaboration (SAP SNC) 5.1, you have to make settings in order document management for the following order documents:

- Advanced shipping notification
- Return delivery instruction
- Returns ASN
- Scheduling agreement release
- Purchase order and replenishment order
- Supplier confirmation
- Kanban object
- Work order
- Invoice
- TLB shipment
- Planned replenishment order

For more information, see SAP Note 1019289.

Effects on Customizing

You make the settings in Customizing for SCM Basis under Order Document Management.

1.7.8 Publication of XML Messages (Changed)

Use

Previously, the system used the Post Processing Framework (PPF) in supplier collaboration to send the corresponding XML message to a back-end system after publication of a work order in SAP Inventory Collaboration Hub (SAP ICH). To do this, special actions are available in the PPF (application /SCA/ICH).

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the system no longer uses PPF to send XML messages in the standard system, but rather directly in the background. You now control the direct transmission as follows, using special validation checks that are active in the standard system:
- If a validation check for direct transmission is active, SAP SNC sends the XML message directly (without PPF).

- If a validation check for direct transmission is not active, SAP SNC sends the XML message using PPF. (For replenishment orders in Responsive Replenishment, there is alternately a report available).

The PPF actions for sending XML messages are active in the standard system. However, they are not effective if - as in the standard system - the relevant validation check for direct transmission is active.

Validation checks for direct transmission exist for the following documents:

- Replenishment order
- Purchase order
- Purchase order schedule line
- Scheduling agreement confirmation
- Work order
- Advanced shipping notification (ASN)
- Returns ASN
- Invoice

If direct transmission of an XML message fails, you can manually correct the associated order document on the Web UI for the relevant application, if required, and republish it. In doing so, you trigger the direct transmission again. For some applications, there is now also a special report available that you can use to resend XML messages after a failed transmission. Note: You are only allowed to use these reports for XML messages that the system could not successfully send directly.

**Replenishment Order**

- Validation check: RO_DIRECT_SEND
- PPF actions (action profile /SCA/BOL_ORDER_VGOR):
  - /SCA/BOL_VGOR_PUBLISH_CUST (send order to customer back-end system)
  - /SCA/BOL_VGOR_PUBLISH_SUPP (send order to supplier back-end system)
- Report: /SCA/ORDER_PUBLISH

**Purchase Order and Purchase Order Schedule Line**

- Validation check: RO_PUBLISH_DIRECT
- PPF actions (action profile /SCA/BOL_ORDER):
  - /SCA/BOL_ORD_CHANGE_PUBLISH (send changed purchase order to customer back-end system)
  - /SCA/BOL_ORD_CONF_PUBLISH (send purchase order schedule line to customer back-end system)
- Report: /SCA/ORDER_PUBLISH

**Scheduling Agreement Confirmation**

- Validation check: SCONF_PUBLISH_DIRECT
- PPF action (action profile /SCA/BOL_RELEASE_CONFIMATION):
  /SCA/BOL_RELEASE_CONF_SEND (send scheduling agreement confirmation to SAP APO)
- Report:
  There is no report available here. Correct the faulty document manually on the Web UI and repeat the transmission there.

**Work Order**

The system sends *ManufacturingWorkOrderInformations* and *ManufacturingWorkOrderRequests* directly. However, there are no validation checks. Note: You cannot use PPF for work orders.

You correct faulty documents on the Web UI and then publish them.

**Advanced Shipping Notification (ASN)**

- Validation check: ASN_PUBLISH_DIRECT
- PPF actions (action profile /SCA/BOL_DELIVERY):
  - /SCA/BOL_DLV_XML (send ASNs published manually by supplier in SAP SNC to customer back-end system)
  - SCA/BOL_DLV_XML_ROUTING (send ASNs created by supplier in his or her back-end system and sent to SAP SNC, to customer back-end system)
- Report: /SCA/DLV_PUBLISH

**Returns ASN (Action Profile /SCA/BOL_RETASN)**

- Validation check: RET_PUBLISH_DIRECT
- PPF action (action profile /SCA/BOL_RETASN):
  /SCA/BOL_RET_XML (publication of returns ASN)
- Report:
  /SCA/RETASN_PUBLISH

**Invoice**

- Validation check: INV_PUBLISH_DIRECT
- PPF actions (action profile /SCA/BOL_INVOICE):
  - /SCA/BOL_INVOICE_XML (create and publish invoice on Web UI)
  - /SCA/BOL_INVOICE_XML_ROUTING (forward InvoiceRequest from supplier system to customer system)
Effects on Customizing

Check the standard settings for the validation, in Customizing for Supply Network Collaboration under Validation. Activate or deactivate the desired validation checks.

1.7.9 Scheduling (Changed)

Use

SAP Supply Network Collaboration (SAP SNC) already uses configurable process scheduling for the scheduling. SAP SNC 5.1 uses the PLANNING process alias (PLANNING scheduling schema) delivered in the standard system. For the Responsive Replenishment business scenario, you have to configure the VMIPLANNING process alias (VMIPLANNING scheduling schema). You can configure which process alias the system uses, on the SAP Easy Access screen under Master Data -> User-Specific Master Data -> Scheduling -> Assign Process Aliases, depending on the following characteristics:

- Customer
- Supplier
- Ship-from location
- Customer location
- Product

1.7.10 Visibility Processes (New)

Use

You can use SAP Event Management (SAP EM) to monitor processes. This is based on events that are
expected by a specific date/time at the latest in a process. Delays in the actual events lead to alerts. As of Supply Network Collaboration (SAP SNC) 5.1 and SAP EM 5.1, the following new visibility processes are available for SAP SNC:

- **SNC Visibility Process for Inbound Message**
  In this visibility process, you can monitor any type of XML message that you are expecting in SAP SNC. Here, the expected event is that an XML message arrives in SAP SNC by a particular point in time and for a specific combination of the following characteristics:
  - XML message sender
  - XML message recipient
  - Product
  - Customer location

- **SNC Visibility Process for Purchase Order**
  In this visibility process, you can monitor the process steps in purchase order collaboration. This includes the following events that must occur within customer-defined deadlines after the customer has sent a new or confirmation-relevant changed purchase order to SAP SNC:
  - The supplier publishes the purchase order schedule line for the purchase order in SAP SNC.
  - SAP SNC sends the purchase order schedule line to the customer back-end system.

- **SNC Visibility Process for Replenishment Order**
  In this visibility process, you can monitor the following processes in replenishment order collaboration:
  - Responsive Replenishment with ATP
  - Purchase order number assignment in the customer back-end system

  You must therefore have activated the corresponding validation checks for publishing replenishment orders. (The validation check-controlled process in which SAP SNC immediately sends the replenishment order upon publication to the supplier back-end system and customer back-end system simultaneously is not supported. Also not supported is the publication of replenishment orders with the /SCA/ICH_ORDER_SEND report, which is relevant for *Responsive Replenishment*.)

  For this visibility process, the following events have to occur within certain supplier-defined deadlines after the supplier has published a replenishment order in SAP SNC:
  - SAP SNC sends the replenishment order to the supplier back-end system.
    In the supplier back-end system, a sales order is created based on the replenishment order.
  - The supplier back-end system sends the sales order confirmation to SAP SNC.
    This event is relevant for *Responsive Replenishment with ATP*, for example.
  - SAP SNC sends the replenishment order to the customer back-end system.
    In the customer back-end system, a purchase order is created based on the replenishment order.
  - The customer back-end system sends a *VendorGeneratedOrderConfirmation* to SAP SNC.
    This event is relevant if the purchase order number assignment takes place in the customer back-end system.

**Alerts**
In SAP EM, you execute the report for determining overdue events. The system transmits this data to SAP SNC. SAP SNC creates the following new alert types for overdue events:

- **SNC Visibility Process for Inbound Message**
  Overdue Inbound Message (alert type 7135)

- **SNC Visibility Process for Purchase Order**
  Overdue Purchase Order Schedule Line of Supplier (alert type 7129)

- **SNC Visibility Process for Replenishment Order**
  - Overdue Replenishment Order Confirmation of Supplier (alert type 7127)
  - Overdue Replenishment Order Confirmation of Customer (alert type 7128)

The users responsible for the processes can use the Alert Monitor in SAP SNC to monitor the alerts. SAP SNC uses alert notifications to automatically inform users about new alerts. You only use SAP EM for administrative tasks, such as configuring visibility processes and for problem analysis.

*Scheduling*

SAP SNC sends an event message together with the date/time for the expected event to SAP EM. For scheduling, SAP SNC uses the SNC_RESPONSE scheduling schema of the configurable process scheduling. In the standard system, SAP SNC places an expected event at the end of the day, based on the time zone of the customer location. If you want to use your own scheduling logic, you can enhance the scheduling schema. In particular, you can use the condition technique from configurable process scheduling to configure the scheduling dependent upon certain characteristics (for example, depending on the customer or on the customer location).

*Effects on Customizing*

**SAP EM Connection**

You connect SAP EM to SAP SNC in Customizing for SAP SNC, by choosing Integration with SAP Components -> Event Management Interface.

**Transmit Data to SAP EM**

SAP SNC has to create the event messages relevant for a visibility process and send them to SAP EM. Based on an event message, SAP EM creates or updates an event handler. This event handler contains the data for the expected events. To create event messages, you have to create an active implementation for the EVENT_CREATION method of the process-relevant BAdI. We deliver example implementations. You can use these to create active implementations. For more information, see the application help for SAP Supply Network Collaboration under Settings for Visibility Processes.

**Scheduling**

You make settings for scheduling in Customizing for SCM Basis, by choosing Configurable Process Scheduling.

**Further Settings**

In addition, you have to make the settings in Customizing for connecting SAP EM to SAP SNC.
See also

Release Note Responsive Replenishment with ATP Check

1.7.11 Replenishment with SMI and RR (Enhanced)

Use

SAP Inventory Collaboration Hub (SAP ICH) already supported replenishment scenarios in which a supplier can plan the replenishment for his or her customers at the customer locations. The customer sends the requirements and stock data for a customer location product to SAP ICH. In SAP ICH, the supplier executes the planning for the customer location product. The supplier is responsible for covering the requirements of the customer on time.

Overview of Screens and Functions in SAP ICH 5.0

Depending on the scenario, the supplier uses different Web screens and functions in SAP ICH, as follows:

- **Supplier Managed Inventory (SMI)**
  In SMI, the customer runs SAP ICH together with an ERP system for materials management. The customer provides the typically smaller supplier with the SMI Monitor on the Web user interface (Web UI). In the SMI Monitor, the supplier sees the requirements/stock situation of the customer location product, and plans the replenishment in the SMI Monitor. In the SMI scenario, the supplier has the task of delivering to the customer such that the projected stock of the customer location product does not fall below the minimum stock level requested by the customer or exceed the maximum stock level requested by the customer. The projected stock informs the supplier when deliveries are required, and in the SMI Monitor, the supplier can manually enter the quantities he or she wants to deliver (planned receipts). In addition, the supplier can use the Propose Planned Receipts function, which is also available in the SMI Monitor. This function calculates planned receipts using a reorder point method. If the projected stock in a certain period falls above or below the reorder point specified by the customer, the function creates a planned receipt that fills the projected stock back up to the maximum stock level. In addition, a simulation function is available in the SMI Monitor that calculates the effects the manual changes to the planned receipts have on the projected stock. The planned receipts are saved as time series data in SAP ICH. When the planning is complete, the supplier can proceed as follows, depending on the business scenario:

  - In the **Supplier Managed Inventory** business scenario, the supplier creates ASNs for the planned receipts, to inform the customer about pending deliveries. SAP ICH sends the ASNs to the customer back-end system.

  - In the **Supplier Managed Inventory with Replenishment Orders** business scenario (previously called Supplier Managed Inventory with Purchase Orders), the supplier manually creates replenishment orders for the planned receipts (orders of the order document type VGOR, previously called “purchase orders” in this scenario). SAP ICH sends the replenishment orders to the customer back-end system and optionally to the supplier back-end system. These systems then create firm orders, which the customer and the supplier can consider in their ERP processes (a purchase order in the customer back-end system, a sales order in the supplier back-end system). The supplier creates ASNs in SAP ICH for the replenishment orders, which SAP ICH sends to the customer back-end system.
Responsive Replenishment (RR)

In RR, the supplier runs SAP ICH together with an ERP system for sales order processing. The typically large supplier works for customers who have contracted the replenishment planning out to the supplier. In the RR scenario, the supplier has the task of delivering to the customers in the most timely and accurate manner possible (under consideration of the safety stock). The supplier runs replenishment planning in SAP ICH using a replenishment planning service, in the background in a Planning Service Manager run (PSM run). The replenishment planning service creates the required planned receipts for a customer location product. The supplier can display the results of the replenishment planning run on the Web UI of SAP ICH in the Replenishment Overview. If required, the supplier can also start the replenishment planning service on the replenishment Web UI.

The planned receipts are saved in SAP ICH as planned replenishment orders (orders of the order document type DRPV, previously called "replenishment orders"). The supplier can use the TLB service to be able to load means of transport according to certain criteria. From the planned replenishment orders, the TLB service creates TLB shipments (orders of the order document type TLBO), which are assigned corresponding replenishment orders (orders of the order document type VGOR, previously called "vendor-generated order" in this scenario). SAP ICH sends the replenishment orders to the customer back-end system and to the supplier back-end system, which in turn create purchase orders and sales orders, respectively.

Up until now, ASNs were not supported in this scenario.

Overview of Screens and Functions in SAP SNC 5.1

The RR and SMI replenishment processes have a similar concept. In SAP Supply Network Collaboration (SAP SNC) 5.1, the functions and screens for these scenarios were unified with respect to the following aspects:

- **Monitors**
  In addition to the SMI Monitor, there are now new monitors available for monitoring that are set up similarly to the SMI Monitor:

  - **Responsive Replenishment Monitor (RR Monitor)**
    This monitor supports replenishment planning in the Responsive Replenishment business scenario.

  - **Min/Max Replenishment Monitor**
    This monitor supports scenarios in which you want to control replenishment planning with a minimum stock level, a maximum stock level, and a reorder point (such as the Supplier Managed Inventory with Replenishment Orders business scenario). You can also use this monitor in Responsive Replenishment. Unlike the SMI Monitor, you can create replenishment orders for planned receipts in this monitor.

    The monitors were developed with Web Dynpro and now offer new UI functions and personalization options. The SMI Monitor was converted to Web Dynpro.

- **Planning Functions**

  All planning functions are now available in RR and in SMI as planning services. You can execute planning services on the Web UI online or by using the Planning Service Manager (PSM) in the background. In particular, the creation of planned replenishment orders was unified. In addition, a new planning service is available that allows you to create replenishment orders without using the TLB service.

- **Configuration**

  You use the same customizing tables to configure the different replenishment variants. This pertains,
for example, to the definition of the projected stock or the determination of the planning service profiles that are used on the Web UI and in the PSM to create planned receipts or replenishment orders.

- **Replenishment Orders**
  The handling of replenishment orders is the same in all replenishment variants. This pertains, for example, to the creation options (manually or by using a planning service), display, publication, and the key figures derived from the replenishment orders.

- **Terminology**
  An order of the order document type VGOR is now called "replenishment order", while an order of the order document type DRPV is now called "planned replenishment order". The functions and key figures that are used in RR as well as SMI have the same name in RR and SMI.

- **Technical Consolidation**
  The internal creation of stock data and time series data was unified.

**SMI Monitor**
As of SAP SNC 5.1, you only use the SMI Monitor if you want to control replenishment planning with a minimum stock level, a maximum stock level, and reorder point but are only using ASNs and not replenishment orders (for example, in the **Supplier Managed Inventory** business scenario). The functions for creating replenishment orders are therefore no longer available in the SMI Monitor.

Accordingly, the details no longer display the **Firm Receipts** key figure, which represents the quantities from replenishment orders.

The SMI overview now also displays the duration of the horizon in which no exceptions (such as shortfall in minimum stock level) occur.

**Min/Max Replenishment Monitor**
As of SAP SNC 5.1, there is a further monitor similar to the SMI Monitor available in which you can control replenishment planning with a minimum stock level, a maximum stock level, and reorder point, but unlike in the SMI Monitor, you can also create replenishment orders here. You use the Min/Max Replenishment Monitor, for example, in the **Supplier Managed Inventory with Replenishment Orders** business scenario, but you can also use it in an RR scenario.

The following key figures inform you about different quantities from replenishment orders:

- **Firm Receipts (Open)**
  This is the total open quantity from unpublished and published replenishment orders in a period.

- **Firm Receipts (Published - Due)**
  This is the total open quantity from published replenishment orders. Here, the supplier must still send deliveries and ASNs to the customer.

Besides the inventory status, the overview also displays information about the replenishment status. This includes total quantities from replenishment orders (aggregated across different horizons). The in-transit quantity aggregated from ASNs displays the total quantity that is in transit to the customer. Periods of critical situations in projected stock are highlighted in color in the SMI Monitor.

**RR Monitor**
The new RR Monitor replaces the previous replenishment screens on the Web UI for SAP ICH. The RR Monitor contains the key figures and planning services that are relevant for RR. The VMI analyst can use the RR Monitor to gain an overview of the replenishment situation and stock situation. He or she can display the results of a replenishment planning run and, if required, manually change the quantities of...
planned replenishment orders or manually create planned replenishment orders. In addition, he or she can call different planning services directly (for example, the replenishment planning service and then the new deployment service). The RR Monitor contains the following screens:

- The **RR Overview** displays the inventory status and the replenishment status. Periods of exception situations in projected stock are highlighted in color, just like in the SMI Monitor and in the Min/Max Replenishment Monitor. In addition, you receive detailed information about the replenishment status (as in the Min/Max Replenishment Monitor) (see above).

- The **RR Details** display the key figures of a customer location product, for example, requirements, projected stock, and planned receipts. Here, the supplier can manually create or change planned receipts or execute planning services.

- You use the **RR Details - Product View** view to display key figures for multiple customer location products. On this screen, you can compare data for a small number of location products. We recommend that you do not call this screen for a large number of location products.

As with the SMI Monitor and Min/Max Replenishment Monitor, the RR Monitor has a **supplier view** and a **customer view**. The supplier uses the supplier view to run replenishment planning. The customer uses the customer view to monitor the replenishment situation.

**Key Figures in the RR Details**

The details views contain the following changes as compared to the **Replenishment Overview** Web screen available previously in RR:

- The **Replenishment Order Quantity** key figure available previously is now called Planned Receipts (see above).

- The **Stock Outs** key figure is no longer available.

- The **TLB Shipment Quantity** key figure was replaced by the following key figures for replenishment orders:
  - **Firm Receipts (Open)**
    This is the total open quantity from unpublished and published replenishment orders in a period. The key figure corresponds to the **TLB Shipment Quantity** key figure.

  - **Firm Receipts (Due)**
    This is the total due quantity from unpublished and published replenishment orders. Here, the supplier must still send deliveries and ASNs to the customer.

- The following key figures are also new for RR:
  - **In-Transit Quantity**
    This key figure is the quantity that is in transit to the customer. The system determines this quantity from the ASNs. The key figure is only relevant if you use ASNs in RR.

  - **Minimum Stock Level**
    This key figure is the safety stock.

  - **Minimum Proposal**
    This key figure is the planned receipt quantity (quantity from planned replenishment orders) that the supplier has to deliver to the customer to increase the projected stock up to the safety stock.

  - **Planned Receipts Before Deployment**
    This key figure is relevant if you are using the new deployment service, which is available as of
SAP SNC 5.1 for RR. If you are using deployment, this key figure contains the quantity from planned replenishment orders that the replenishment planning run has created. For the quantity from planned replenishment orders that were created by the subsequent deployment run, see the Planned Receipts key figure.

Planning Services

The planning functions are now also available as planning services that can be executed on the Web UI in the respective monitor or in the background in the PSM run. Depending on the monitor and the replenishment variant, you can use the following planning services:

- **Propose Planned Receipts** (REPL_SERVICE)
  This service is relevant for the SMI Monitor, the Min/Max Replenishment Monitor, and the RR Monitor. You use this service to create planned receipts. You control the replenishment planning service by using the service profile for the replenishment planning service. In the replenishment service profile, you make settings for the replenishment method as follows:
  - For SMI, the reorder point method that was used previously in SAP ICH (now called Min/Max Replenishment)
  - For RR, the procedure that was used previously in SAP ICH that covers the demands of the customer exactly under consideration of safety stock (now called Net-Demand-Based Replenishment).

For replenishment planning for baseline demand and for promotion demand, you use a two different profiles for the projected stock. You control the replenishment planning run as before by using a replenishment planning service profile. For the planning, you use the Net-Demand-Based Replenishment planning method.

- **Simulate Projected Stock**
  This service is relevant for the SMI Monitor, the Min/Max Replenishment Monitor, and the RR Monitor. You use the Simulate Projected Stock function in the Monitor after you have manually changed the planned receipts. This function recalculates the projected stock.

- **Propose Firm Receipts** (REPL_FRPROP_SERVICE)
  This service is relevant for the Min/Max Replenishment Monitor and the RR Monitor. It converts the planned receipts into replenishment orders. You define the planning horizon for this service in the TLB service profile.

- **Propose and Publish Firm Receipts** (REPL_FRPROPPB_SERVICE)
  This service is relevant for the Min/Max Replenishment Monitor and the RR Monitor. It converts planned receipts into replenishment orders and publishes the replenishment orders. You define the planning horizon in the TLB service profile. SAP SNC sends the replenishment orders to the customer back-end system and supplier back-end system, according to the configured sending options. For more information, see the Release Note Publication of Replenishment Orders (Changed).

- **Execute TLB** (TLB_SERVICE)
  This service, previously available in RR, is relevant for the RR Monitor. It uses TLB logic to create replenishment orders from the planned replenishment orders.

- **Execute TLB and Publish Replenishment Orders** (TLBPB_SERVICE)
  This service is relevant for the RR Monitor. It uses TLB logic to create replenishment orders from planned replenishment orders, and then publishes the replenishment orders. SAP SNC sends the replenishment orders to the customer back-end system and supplier back-end system, according to the configured sending options. For more information, see the Release Note Publication of
Replenishment Orders (Changed).
- **Deployment** (**DEPLOYMENT_SERVICE**)
  This service is relevant for the RR Monitor. You can use this planning service to create planned replenishment orders that consider the availability situation in the ship-from locations. You execute deployment following a replenishment planning run and prior to a TLB run.

**New Time Series Types**
Previously, SMI used the time series types SMI02 and SMI03 to store time series data. RR replenishment planning used the time series type DRPV. As of SAP SNC 5.1, the time series type INVM1 is used in SMI, in RR replenishment planning, and in SNI. VMIP1 is still used in RR Forecasting, but DRPV, SMI02, and SMI03 are no longer used.

**Storage of Planned Receipts**
As of SAP SNC 5.1, you can determine whether the replenishment planning service saves planned receipts as time series or as planned replenishment orders. In the **Supplier Managed Inventory** business scenario, for example, you use time series; in the **Responsive Replenishment** business scenario, you use planned replenishment orders. Thus, depending on your settings, the Planned Receipts key figure represents time series data or planned replenishment orders.

**Configuration**
The configuration of replenishment variants was unified in SAP SNC 5.1. This involves the following settings:
- The Customizing tables for defining profiles for projected stock were combined. For more information, see the Release Note **Projected Stock (Changed)**.
- You can make settings as to which service profile is used to execute a planning service on the Web UI and in the PSM.
- You can make the settings dependent on the following characteristics:
  - Supplier
  - Customer location
  - Product

**Effects on Data Transfer**
Following an upgrade to SAP SNC 5.1, you have to run the following conversion reports:
- **Report /SCA/DM_TS_CONV**
  You can use this report to convert the old time series types into the new time series types.
- **Report /SCA/INV_MOVE**
  You can use this report to bring your stock data from the old database tables to the new database tables. For more information, see the Release Note **Projected Stock (Changed)**.

For more information, see SAP Note 1019288.

**Effects on Customizing**
Maintain the following settings:

- **Define profiles**
  In Customizing for *Supply Network Collaboration*, under *Replenishment*, define the following profiles:
  - You define service profiles for the replenishment planning service, by choosing *Planning Services* -> *Define Replenishment Service Profiles*.
  - Here, you make settings for the replenishment method (Min/Max Replenishment or Net-Demand-Based Replenishment). The standard system comes configured with the replenishment method that is used for SMI (*Min/Max Replenishment*). For RR, you have to configure the *Net-Demand-Based Replenishment* method.
  - In addition, you define whether the replenishment planning service saves planned receipts as time series data (relevant for SMI) or as planned replenishment orders (relevant for RR).
  - You define deployment service profiles by choosing *Deployment* -> *Define Deployment Service Profiles*.
  - You define the TLB service profiles by choosing *Transport Load Builder* -> *Define TLB Service Profiles*.
    In a TLB service profile, you make the settings for the TLB service or for the *Propose Firm Receipts* planning service. For the *Propose Firm Receipts* planning service, only the planning horizon and - for the combination of planned receipts into one replenishment order - the key date are relevant.

- **Assign Settings**
  In Customizing for *Supply Network Collaboration*, under *Replenishment* -> *Replenishment Order Planning* -> *Assign Settings* -> *Assign Settings for Replenishment Planning and SNI*, you define the following profiles, which the system is to use for a particular combination of supplier, customer location, and product:
  - Profile for the projected stock for replenishment planning for non-promotion demands
  - Profile for the projected stock for replenishment planning for promotions
  - Replenishment service profile
  - TLB service profile
  - Deployment service profile
  In this IMG activity, you also define for which horizon the replenishment planning service calculates planned receipts, and whether the replenishment planning service deletes already-existing planned receipts before it creates new planned receipts.

**See also**

- Release Note *Technical Basis for the Web UI (Changed)*
- Release Note *Inventory Management (Changed)*
- Release Note *Projected Stock (Changed)*
- Release Note Naming of Replenishment Orders (Changed)
- Release Note Creation of Replenishment Orders (Enhanced)
- Release Note Publication of Replenishment Orders (Changed)
- Release Note Deployment (New)
- Release Note ASNs (Enhanced)
- Release Note Inventory Alerts for Replenishment Planning (Enhanced)
- Release Note Replenishment Planning (Enhanced)
- SAP Note 1019288

1.7.12 Integration to cFolders (Enhanced)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can call a cFolders collaboration between supplier and customer pairs for the product. You can call cFolders by choosing the cFolders Product button on the details screens of the following SAP SNC order documents:

- Scheduling agreement release
- Purchase order
- Replenishment order
- Work order
- Kanban
- Supplier confirmation
- Advanced shipping notification
- Invoice

You can read, write, store, and delete information, for example technical descriptions for a product, in commonly-accessible folders.

Effects on Customizing

You can activate a cFolders collaboration in Customizing for Supply Network Collaboration, by choosing Basic Settings -> cFolders -> Activate cFolders and RFC Destination.

You can set up an RFC destination to the cFolders system in Customizing for Supply Network Collaboration, by choosing Basic Settings -> cFolders -> Set Up RFC Destination.

You can change the cFolders target URL in Customizing for Supply Network Collaboration, by choosing Business Add-Ins (BAdIs) for SAP SNC -> Basic Settings -> cFolders -> BAdI:
Redefine cFolders URL.

You can change the collaboration name used in the cFolders collaboration in Customizing for Supply Network Collaboration, by choosing Business Add-Ins (BAdIs) for SAP SNC -> Basic Settings -> cFolders -> BAdI: Definition of Prefix and Separator for cFolders Used for SAP SNC.

1.7.13 Document Flow (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the document flow is available for the following document types:
- Purchase order (PO)
- Replenishment order (RO)
- Work order (WO)
- Advanced shipping notification (ASN)
- Invoice

You can navigate to the document flow from the details screens of the Web UIs of above-mentioned document types by choosing the Document Flow button. The document flow details screen displays the direct predecessor and successor documents of the chosen document. You can navigate from the document flow details screen to the predecessor and successor documents. For example, you can display the ASN or invoice connected to a specific purchase order.

Effects on Customizing


1.7.14 Structure Changes in the IMG of SAP SNC

Use

As of SAP Supply Network Collaboration 5.1 (SAP SNC 5.1), the structure of the Implementation Guide (IMG) of SAP SNC has changed. You must regenerate the project IMGs to transfer these changes.

Reassigned IMG activities
- Overall structure of the SNC IMG
  Until now, the structure was organized according to Supplier Collaboration and Customer Collaboration. Now the structure is organized according to functional areas.

- IMG for Master Data
  All IMG activities related to general SCM Basis master data have been removed from the SNC IMG. You find them now in the IMG for SCM Basis only. A new organizational IMG activity in the SNC IMG called Set Up Master Data refers to the various IMG activities in SCM Basis. In the SNC IMG, under Master Data, you find IMG activities that are specific to SAP SNC only.

- IMG for Business Addins (BAdIs) for SAP SNC
  Business Add-Ins were assigned to the relevant application IMG node until SAP SNC 5.0. Now all Business Add-Ins (BAdIs) are collected under one node.

- IMG for Connection of Planning Areas
  This function is relevant for an SCM server installation only with Demand Planning of SAP Advanced Planning (SAP APO) being available in the system. The related SNC IMG activities have therefore been moved to the IMG for Advanced Planning and Optimization under Demand Planning (DP). In the IMG for Supply Network Collaboration, you can find the new organizational IMG activity Connect Planning Areas that refers to the IMG node in the APO IMG.

Deleted IMG activities

- Map External Time Series to a TSDM-Compatible Time Series Type
  Note: As of SAP SNC 5.1, this IMG activity has been replaced by the BAdl BAdl: External Time Series Mapping, which you can find under Business Add-Ins (BAdIs) for SAP SNC -> Exceptions -> Data Import Controller.

- Determine Calculation Profile for Projected Stock (/SCA/PROJSTCALC)
  Note: As of SAP SNC 5.1, you use the IMG activity Define Profiles for the Projected Stock to set up projected stock calculation. This IMG activity was specific to supplier collaboration before but has now been enhanced to cover customer collaboration requirements as well.

- Activate Change Documents for Partner-Dependent Categories

- New IMG activities
  
  **Basic Settings**

  The following IMG activities were created under Data Matrix:

- Check Data Matrix Configuration
- Configure Data Matrix
- Configure Data Matrix Views

The following IMG activity was created under Projected Stock:
- Display Standard Projected Stock Profiles

The following IMG activities were created under Processing Inbound and Outbound Messages:
- Assign Default Process Types to Outbound XML Messages
- Assign Sender-Dependent Process Types (Outbound)
- Maintain Customer Event Status
- Maintain Event Types
- Maintain Settings for Master Data Completion
- Forward ProductActivityNotification to Supplier
- Use SAP ICH 5.0 Business Add-Ins for Conversion
- Use SAP ICH 5.0 Business Add-Ins for XML Interfaces
- Use SAP ICH 5.0 Proxies

The following IMG activities were created under Product Determination:
- Define APN Type for Product Determination
- Maintain Field Catalog
- Maintain Condition Tables
- Maintain Access Sequences
- Maintain Condition Types
- Maintain Determination Procedure
- Create Condition Maintenance Group
- Assign Determination Procedure to Business Partner

The IMG substructure Consensus Finding was inserted, which includes all new IMG activities for the new consensus finding function.

The following IMG activity was created under Document Flow:
- Activate Document Flow

The following IMG activities were created under cFolders:
- Set Up RFC Destination
- Activate cFolders and RFC Destination

The following IMG activity was created under Printing:
- Maintain Form Names for Printing

Exceptions

The IMG activity Configure Open Order Quantity Determination was created under Data Import Controller.
Demand
The following IMG activities were created under Demand:
- Define Demand Service Profiles
- Define Order Forecast Service Profiles

The following IMG activities were created under Promotions:
- Maintain Event Type Codes
- Maintain Offset Profiles
- Maintain Promotion Patterns
- Maintain Cannibalization Groups
- Maintain Cannibalization Profile
- Mass Parameter Assignment

The following IMG activities were created under Collaborative Sales Forecasting:
- Create Profiles for Collaborative Sales Forecasting
- Assign Profiles for Collaborative Sales Forecasting
- Define Service Profiles for Collaborative Sales Forecasting

The following IMG activity was created under Order Forecast Monitor:
- Define Service Profiles for Order Forecast Monitor

The following IMG activity was created under Demand Release:
- Define Service Profiles for Demand Release

Replenishment
The following IMG activity was created under Kanban:
- Set Kanban Card Print Forms

The following IMG activity was created under Replenishment Planning and Planning Service Manager:
- Define Deletion Service Profiles for Replenishment Planning

The following IMG activity was created under Deployment:
- Define Deployment Service Profiles

The following IMG activity was created under Approval Process:
- Set Up Approval Process

Work Order
A new IMG node was included for the new application Work Order which contains the work order IMG activities.

Invoice
The IMG substructure Invoice was inserted, which includes all new IMG activities for the new invoice
collaboration function.

**Business Add-Ins (BAdIs) for SAP SNC**

The following IMG activities were created under Basic Settings -> Processing Inbound and Outbound Messages:

- BAdI: Master Data Completion
- IMG activities under BAdIs for Message Interfaces (Inbound XML Messages)
- IMG activities under BAdIs for Message Interfaces (Outbound XML Messages)
- IMG activities under BAdIs for Mapping Master Data in XML Message

Note that these IMG activities replace the IMG activities that have been moved under BAdIs for Working in SAP ICH 5.0 Compatibility Mode. For more information, see the IMG documentation.

The following IMG activity was created under Basic Settings in the Condition Technique for Product Determination node:

- BAdI: Product Substitution Extension

The following IMG activities were created under Basic Settings in the cFolders node:

- BAdI: Redefine cFolders URL
- BAdI: Definition of Prefix and Separator for cFolders Used for SAP SNC

The following IMG activity was created under Basic Settings in the Connection to Event Management node:

- BAdI: Report for Expected Event Creation

The IMG activity BAdI: External Time Series Mapping was created under Exceptions -> Data Import Controller.

The IMG substructure Invoice was inserted, which includes all newBAdIs for the new invoice collaboration function.

The IMG substructure Work Order was inserted, which includes all newBAdIs for the new invoice collaboration function.

**Renamed IMG activities**

**Basic Settings**

The following IMG activities under Process Types for Inbound Messages have been renamed:

- The IMG activity Determine Default Process Types for Inbound XML Messages is now called Assign Default Process Types to Inbound XML Messages.
- The IMG activity Define Sender- and Recipient-Dependent Process Types (Inbound) is now called Assign Sender- and Recipient-Dependent Process Types (Inbound).
- The structure node Selection is now called Visibility.

The following IMG activities under Changeability of Purchase and Replenishment Order Items have been renamed.
The IMG activity Create Change Profiles for Purchase Order Items is now called Create Change Profiles for Purchase and Replenishment Order Items.

The IMG activity Assign Change Profiles for Purchase Order Items is now called Assign Change Profiles for Purchase and Replenishment Order Items.

**Master Data**

- The IMG activity Activate Change Documents for Order Guideline is now called Activate Change Documents for Transportation Guidelines.

**Projected Stock**

- The IMG activity Assign Profiles for the Projected Stock is now called Assign Settings for Replenishment Planning and SNI.

**Exceptions**

- The IMG activity Define Product Activity Check Service Profile is now called Define Product Activity Check Service Profiles.

**Replenishment**

- The IMG activity Define Service Profile is now called Define Replenishment Service Profiles.
- The IMG activity Define Service Profile is now called Define TLB Service Profile.
- The IMG activity Define Number Ranges for Vendor-Generated Orders is now called Define Number Ranges for Replenishment Orders.
- The IMG activity Determine Number Ranges for Replenishment Orders is now called Define Number Ranges for Planned Replenishment Orders.

**Demand**

- The IMG activity PSM: Determine Forecast Service Profile is now called Define Demand Service Profiles.

**Delivery**

- The IMG activity Determine Due Schedule Lines is now called Determine Due Schedule Line Quantities.

**Business Add-Ins (BAdIs) for SAP SNC**

- The IMG activity BAdI: Extract Forecast Data is now called BAdI: Extract Data from Replenishment Orders and TLB Transports.
- The IMG activity BAdI: Processing of Purchase Orders is now called BAdI: Processing of Purchase and Replenishment Orders.
- The IMG activity BAdI: Scheduling in Supplier Collaboration is now called BAdI: Scheduling.

**Renamed and Changed IMG activities**

- IMG for **Master Data**
  The IMG activity Create Planning Version is now called Create Modell 000 and Planning Version 000. The transaction /SAPAPO/VERCREATE that was called before by this IMG activity was replaced by the transaction SAPAPO/ACTVERCREATE.
Changed IMG activities

- The IMG activity *Define Time Stamp Format of Outbound Messages* has been enhanced.
- The IMG activity *Create Selection Modes* has been enhanced.
- The IMG activity *BADI: Modification of the Kanban Object* has been enhanced.

1.7.15 Location Product Settings (Enhanced)

Use

In Inventory Collaboration Hub Release 5.0, you could maintain location product settings on a business partner, location, and product level. For example, you could determine the planning parameters used in the SNI Monitor, and the SMI Monitor. You could make these settings on the Web UIs for *Location Product Settings* and *SNI Location Product Settings*.

As of SAP Supply Network Collaboration 5.1, you can maintain location product settings for Responsive Replenishment and location product settings for Supply Network Inventory (SNI) in the same transaction on the *SAP Easy Access* screen, by choosing *Supply Network Collaboration -> Master Data -> Product -> Maintain Location Product Settings*.

1.7.16 Notes (Enhanced)

Use

In SAP Inventory Collaboration Hub 5.0, you could attach a note to a specific object, such as a purchase order, to add information about that object either for yourself or for other users.

As of SAP Supply Network Collaboration 5.1, you can maintain and view multiple notes relating to specific objects in the *Notes Overview* screen. By selecting an existing note, you can see the note history and add a new note.
The Notes Overview screen is available on the following Web UIs for SAP SNC:

- All screens that have the embedded data matrix component.
- The following Work Order screens:
  - Work Order Overview
  - Work Order Detail
  - Work Order History
- The TLB Shipments screen.

See also

Release note for Data Matrix Configuration (Enhanced)

1.7.17 Printing (Enhanced)

Use

In SAP Inventory Collaboration Hub 5.0, you could print documents using the Smart Forms layout.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can print documents using both the Smart Forms layout and PDF-based print form. PDF-based print forms are the default print type for SAP SNC. For Smart Form print types, you can use existing layouts from the previous release or create new layouts.

You can use predefined PDF-based print form names for the following document types:

- Invoice
- Invoice aggregation
- Self-billing invoice
- Self-billing invoice aggregation
- Subsequent debit/credit
- Delivery note
- Handling unit
- Purchase order
- Work order
- Replenishment order
- Scheduling agreement release

Multiple printing is **only** possible for invoice related documents and scheduling agreement releases.

**Effects on Customizing**

You define the print type for the following document types in Customizing for *Supply Network Collaboration* by choosing *Basic Settings -> Printing -> Determine Print Forms for Documents*:

- Invoice
- Invoice aggregation
- Self-billing invoice
- Self-billing invoice aggregation
- Subsequent credit/debit
- Delivery note
- Purchase order
- Work order
- Replenishment order
- Scheduling agreement release

You define the print type for handling units in Customizing for *Supply Network Collaboration* by choosing *Basic Settings -> Printing -> Determine Print Forms for Labels*.

If you want to specify your own logic when printing form names, you can implement the **BAdI: Specification of Print Form**. For more information about specifying print forms, see the IMG documentation for *Supply Network Collaboration*, by choosing *Business Add-Ins (BAdIs) for SAP SNC -> Basic Settings -> Printing*.

**1.7.18 SCM-ICH-MD Master Data**

**1.7.18.1 Partner-Dependent Master Data (Enhanced)**

**Use**

Previously, you could maintain partner-dependent master data on the Web UI for SAP Inventory Collaboration Hub (SAP ICH).

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can maintain partner-dependent master
data for your business partners on the new *SAP Easy Access* screens. Alternatively external partners (that is, suppliers or customers) can maintain their own partner-dependent master data in the SAP SNC Web UI.

**Changes on the SAP Easy Access Screen**

The following screens for maintaining partner-dependent master data are now available on the *SAP Easy Access* screen, under *Supply Network Collaboration -> Master Data -> Partner-Dependent Data* ->:

- Partner-Dependent Location Data -> Maintain Partner-Dependent Location Data
- Partner-Dependent Product Data -> Maintain Partner-Dependent Product Data
- Partner-Dependent Product Data -> Assign Customer's Purchasing Groups to Partners

**Changes on the SAP SNC Web UI**

A business partner can now only maintain his or her own master data numbers and descriptions.

The following web screens for maintaining partner-dependent master data have been renamed and are on the SAP SNC Web UI, under *Master Data -> Partner-Dependent Data* ->:

- Partner-Dependent Location Data
- Partner-Dependent Product Data
- Assignment of Customer's Purchasing Groups to Partner

**Partner-Dependent Partner Data**

The following screens for maintaining partner-dependent master data are new on both the SAP SNC Web UI and on the *SAP Easy Access* screen:

- Maintain Partner-Dependent Partner Data (*SAP Easy Access* screen)
- Partner-Dependent Partner Data (SAP SNC Web UI)

You can use these screens to maintain partner-dependent data for your business partners.

**Partner-Dependent Master Data in Responsive Replenishment**

Maintaining partner-dependent master data by external partners (that is, customers) is not relevant for Responsive Replenishment, therefore the following screens are not available on the *Responsive Replenishment* view for the SAP SNC Web UI:

- Partner-Dependent Location Data
- Partner-Dependent Product Data
- Assignment of Customer's Purchasing Groups to Partners
- Partner-Dependent Partner Data

As of SAP SNC 5.1, the web screen *Partner Product Category* is obsolete and has been removed.

**Application-Specific Master Data**

The following application-specific master data is new and available on the *SAP Easy Access* screen, under *Supply Network Collaboration -> Master Data -> Application-Specific Master Data* -> *Invoice* ->:

- Maintain Partner-Dependent Purchasing Document Data
Assign Payment Terms to Partners

Alternatively a business partner can maintain his or her master data on the SAP SNC Web UI, under Master Data -> Partner-Dependent Data ->:

- Maintenance of Partner-Dependent Purchasing Document Data
- Assignment of Payment Terms to Partners

You can use the above screens to maintain purchasing document data for specific suppliers and customers and to assign payment terms to specific business partners.

1.7.18.2 Product Determination (Enhanced)

Use

As of SAP Inventory Collaboration Hub (SAP ICH) 4.1, you have been able to use product determination to determine supplier back-end products from a product. As of Supply Network Collaboration (SAP SNC) 5.1, you can use the following enhanced functions for product determination:

- You can now use time-dependent product determination. Time-dependent product determination allows you to determine a supplier back-end product for every bucket in the planning horizon. Product determination without time-dependent functionality (as used in SAP SCM 5.0) has been renamed static product determination.
  Note: You can switch on time-dependent product determination for use in replenishment. Replenishment determines a supplier back-end product using the starting time stamp of planning horizon, and uses it throughout the planning horizon for scheduling and other purposes. After the scheduling run the system automatically uses the shipping time stamp determined during scheduling and uses it to determine the supplier back-end product once more. The new supplier back-end product is stored in a planned replenishment order (order document type DRPV), and used in subsequent processes. Scheduling is not carried out again. This feature is only relevant if you use a planned replenishment order instead of a time series for planned receipt, which is relevant for the Responsive Replenishment scenario.

- SAP SNC 5.1 uses the new condition technique by default. The new condition technique allows you to use product determination for SAP SNC independently of whether a customer uses SAP APO.
You can use the APN (Alternative Product Number) and APN type as a link between the product and the supplier back-end product to determine a product from a supplier back-end product. For APN based product determination you must define an APN type in the IMG activity Define APN Type for Product Determination in Customizing for SAP Supply Network Collaboration. To link the product to the supplier back-end product, you enter an APN and the specified APN type in the product master of both the given supplier back-end product and the product. If no product is determined during APN based product determination, the system attempts to determine a product using the existing method for determining products from supplier back-end products from Release 5.0, combining the EAN/UPC number and a UoM.

Effects on Existing Data

If you are a customer who uses SAP APO, and want to upgrade from Release 4.1 or 5.0 but keep using the old condition technique for product determination, you can use the IMG activity Switch to Old Condition Technique. In Customizing for Advanced Planning and Optimization, choose Advanced Planning and Optimization -> Product Determination.

The switch is only supported for upgrade customers using SAP APO 4.1 or 5.0.

Effects on Customizing

In the standard system product determination is delivered with standard settings. You only need to customize if you want to override the standard settings.

As of SAP SNC 5.1, you can use the following new IMG activities to configure product determination:

- Maintain Field Catalog
- Maintain Condition Tables
- Maintain Access Sequences
- Maintain Condition Types
- Maintain Determination Procedure
- Create Condition Maintenance Group
- Assign Determination Procedure to Business Partner
- BAdI: Product Substitution Extension

You define APN types in Customizing for SAP Supply Network Collaboration, by choosing Basic Settings -> Product Determination -> Define APN Type for Product Determination.

1.7.18.3 Where-Used Framework (Enhanced)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can use the where-used list to search for
objects that use a particular product. This is of particular importance when you are considering deleting a product from the master data. The objects can be documents or master data related to SAP SNC.

You can search in the following subobjects:
- SNC alerts
- Partner-dependent location product
- Partner-dependent product
- cFolders for SCM collaborations
- SNC content in condition technique
- SNC inventory management (LIME)
- SNC order documents
  - Replenishment order
  - Purchase order
  - Work order
  - Kanban
  - Return delivery instruction
  - Invoice
  - Release
  - Advanced shipping notification
  - Supplier confirmation
  - Promotion
  - Planned replenishment orders
- SNC settings (Web GUI and SAP GUI)
- SNC time series types

Note: The where-used framework only considers the time-series types that are considered in Release 5.1. Forward navigation is only possible to the SAP GUI screens, not to the SAP SNC Web screens.
1.7.19 SCM-ICH-REL  Scheduling Agreement Release

1.7.19.1 Scheduling Agreement Releases (Enhanced)

Use

In SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist for scheduling agreement releases:

- SAP SNC supports scheduling agreement releases with several scheduling agreement items.
- In the release overview of scheduling agreement release items for the current scheduling agreement release, you can now choose several scheduling releases for downloading in table format or for printing in SmartForms or PDF format. In particular, you can now choose all scheduling agreement release items or cancel the selection of all scheduling agreement release items.
- The downloaded scheduling agreement release also contains information about the scheduling agreement schedule lines.
- The following new selection criteria are available for selecting scheduling agreement:
  - **Kanban**  
    You can use this to specifically select Kanban scheduling agreement releases.
  - **Confirmation**  
    You can use this to specifically select scheduling agreement releases according to whether a confirmation via scheduling agreement confirmation is required.

The overview of scheduling agreement releases contains the corresponding columns.

See also

Release Note *Technical Basis for the Web UI (Enhanced)*

1.7.19.2 Due Quantity (Enhanced)

Use

Previously, SAP Inventory Collaboration Hub calculated the due quantity for schedule lines of the following order documents:
- Replenishment orders in the `Supplier Managed Inventory with Replenishment Orders` business scenario (previously called `Supplier Managed Inventory with Purchase Orders`)
- Purchase orders
- Scheduling agreement releases

The due quantity of a schedule line is the schedule line quantity that is not covered by ASNs.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:

- For purchase order schedule lines, the system now also calculates an additional due quantity based on purchase order schedule lines. This is the quantity that is not covered by confirmations. The due quantity calculated on the basis of purchase order schedule lines is called "confirmation-based due quantity".
  
  To determine the confirmation-due quantity for the requested schedule lines of a purchase order item, the system adds up the confirmed quantities from the confirmation schedule lines of the purchase order to obtain a total confirmation quantity. The system then assigns the required requested quantity from the total confirmation quantity to the request schedule lines, until the total confirmation quantity is used up. To do this, the system processes the PO schedule lines chronologically, starting with the earliest PO schedule line. You can define whether the system processes the schedule lines in the order of their shipping dates/times or their delivery dates/times. When the supplier creates a confirmation schedule line for a purchase order item on the Web UI for SAP SNC, SAP SNC proposes the confirmation-based quantity as confirmed quantity.

- The due quantity calculated on the basis of ASNs is called "ASN-based due quantity".

ASNs are now also available in the `Responsive Replenishment` business scenario, thus the ASN-based due quantity is now also relevant for replenishment orders in the `Responsive Replenishment` business scenario.

**Effects on Existing Data**

The confirmation-based due quantity and the ASN-based due quantity are prerequisites for other functions (for example, for purchase orders in the purchase order worklist. As of SAP SNC 5.1, the confirmation-based due quantity is also available for purchase orders, while the ASN-based due quantity is also relevant for replenishment orders in the `Responsive Replenishment` business scenario. For these quantities to be calculated, you have to execute the `/SCA/ORDER_CONSOLIDATION` conversion report after the upgrade. In the case of replenishment order items for which ASNs do not yet exist, SAP SNC uses the requested quantity as the ASN-based due quantity. The report also copies the delivery date/time to the initial availability date/time. For more information, see SAP Note 1019288.

**Effects on Data Transfer**

Determine whether the system is to process the schedule lines for a purchase order item in the sequence of their shipping dates/times or their delivery dates/times when it calculates the confirmation-based due quantities, in Customizing for `Supply Network Collaboration`, by choosing `Delivery -> Calculation of Due Quantity -> Determine Due Schedule Line Quantities`. The date/time determined here is also relevant for the purchase orders in the purchase order worklist that are to be confirmed. The supplier confirms this date/time.

**See also**
1.7.20 SCM-ICH-PO  

Purchase Order and Replenishment Order

1.7.20.1 History Comparison for Documents (New)

Use

Previously, you were able to display a history for advanced shipping notifications (ASNs), supplier confirmations, and purchase orders. As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can compare the histories of two documents. The history comparison displays a table overview of fields and values in which the two documents differ from each other. You can use the history comparison to more easily identify changes that were made to a document. You can use the history comparison for the following documents:

- ASNs
- Purchase orders
- Replenishment orders
- Supplier confirmations

1.7.20.2 Display of Document Unit of Measure (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can display the base unit of measure as well as the document unit of measure for a product. You can display the document unit of measure on the following Web screens of SAP SNC:

- Detail screen for purchase orders
- Detail screen for replenishment orders
- Detail screen for invoices
- Detail screen for advanced shipping notifications (ASNs)
- Query To Be Confirmed for the purchase order worklist
The new function primarily supports suppliers who want to display the base unit of measure while they work with purchase orders, for example, or with follow-on documents such as ASNs or invoices. In many cases, the supplier does not know the base unit of measure in SAP SNC, and he or she wants to display the unit that he or she is using to create the documents.

1.7.20.3 Invoice Collaboration (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you and your supplier can create, process, and monitor invoices.

Creation and monitoring of invoices

Suppliers can create invoices of the following invoice types:
- Invoices
- Subsequent credit
- Subsequent debit

SAP SNC supports the creation of invoices for the following documents:
- Purchase orders
- ASNs
- Replenishment orders (only for supplier collaboration)

On the Web user interface, your supplier can create invoices, and you and your supplier can monitor the status of the invoices and identify documents for which no invoices have yet been created. You and your supplier can print invoice and invoice summaries, and your supplier can create notes on the invoice at header and item level.

Integration with an SAP ERP System

SAP SNC can transmit the information contained in an invoice to an SAP ERP system. You can use an SAP ERP system to process the invoice and for the payment run, and to send the updated status of the invoice to SAP SNC. If you have agreed to use evaluated receipt settlement (ERS procedure) and you therefore create self-billing invoices for the supplier in the SAP ERP system, you can send this information to SAP SNC. A supplier can display the self-billing invoices in SAP SNC. In addition, you can send revaluations from self-billing invoices from SAP ERP to SAP SNC.

For this message exchange between a standard SAP ERP system and SAP SNC, we deliver the InvoiceRequest and PaymentAdviceNotification message types. We deliver mappings for the
integration with a customer SAP ERP system. You have to create mappings for the integration with a supplier back-end system within the framework of a project solution.

For more information about the prerequisites and required releases of the SAP ERP system, see SAP Library for SAP SNC under Invoice.

**Invoice Data on Web User Interfaces for ASNs, Purchase Orders, and Replenishment Orders**

You can navigate from the header and item data of an ASN to the associated invoices.

You can navigate from the header and item data of a purchase order and of a replenishment order to the associated invoices. In addition, you can display invoice data on the detail screen for the purchase order and for the replenishment order. To do this, choose the Price and Invoice Data tab pages.

**Master Data Integration**

Suppliers can save their standard values for a purchasing document in SAP SNC, for example, standard values for net price, price unit, or Incoterms. In addition, suppliers can save their standard values for payment conditions in SAP SNC. SAP SNC can copy these standard values during invoice creation.

**Effects on Data Transfer**

You can use SAP Core Interface (CIF) to send master data in SAP ERP that is relevant for the invoice, from SAP ERP to SAP SNC. For more information, see the Release Note Integration of Master Data (Enhanced).

**Effects on System Administration**

You can use the /SCA/INVOICE_DELETE report to delete obsolete invoices.

**Effects on Customizing**

To be able to use invoice collaboration in SAP SNC, you have to make the following settings in the Implementation Guide (IMG):

- Determine the tax code that you want to use to create the invoice. To do this, you use the IMG activity Maintain Tax Code for Invoices, in Customizing for Supply Network Collaboration, by choosing Invoice.

- Consider whether you want to make any changes to the invoice data during inbound or outbound message processing. To do this, you implement the Business Add-Ins (BAdIs), in Customizing for Supply Network Collaboration, by choosing Business Add-Ins (BAdIs) for SAP SNC -> Invoice.

- Check the standard settings for validation checks, in Customizing for Supply Network Collaboration, by choosing Basic Settings -> Validation -> SAP Standard Settings. If required, create your own settings for the invoice, by choosing Basic Settings -> Validation -> Own Settings. For more information, see the IMG for Validation. For more information about which validation checks and profiles are relevant for the invoice, see SAP Library for SAP SNC under Invoice.

- Activate the settings for the invoice in order document management. To do this, use the IMG activity Activate Settings in Order Document Management, in Customizing for SCM Basis, by choosing Order Document Management. For more information, see SAP Note 1019289.
1.7.20.4 Purchase Order Worklist (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the purchase order worklist is available on the Web user interface. The purchase order worklist allows you to process confirmations more quickly. The supplier sees purchase order schedule lines with unconfirmed quantities immediately in the purchase order worklist, and can create and publish confirmations. The purchase order worklist includes the following lists (queries), in which purchase order data is grouped according to different criteria:

- **To Be Confirmed**
  This list displays request schedule lines whose requested quantity is not yet completely covered by confirmation schedule lines. The quantity that is still to be confirmed by the supplier is displayed in the **Confirmation-Based Due Quantity** field. In this list, the supplier can create confirmation schedule lines for several request schedule lines simultaneously. If the supplier wants to confirm a deviating quantity, he or she enters the confirmed quantity directly in the request schedule line row. If the supplier wants to confirm the request quantity, he or she sets the **Confirm Complete Quantity** indicator.
  If required, he or she also changes the delivery date/time date or shipment date/time directly in the row. The supplier then chooses **Confirm**. For the request schedule lines, the system creates confirmation schedule lines in which the supplier has entered a quantity or has set the **Confirm Complete Quantity** indicator. You can determine whether the supplier can change the delivery date/time or shipping date/time, in Customizing for Supply Network Collaboration, by choosing Shipment -> Calculation of Due Quantity -> Determine Due Schedule Line Quantities.

- **To Be Published**
  This list displays purchase orders with purchase order items for which the supplier has created new confirmation schedule lines. The supplier has not yet published the purchase orders. The supplier can select one or more purchase orders and publish them by choosing **Publish**.

- **Canceled/Blocked Items**
  This list displays purchase order items that the customer has blocked or canceled.

In the customer view of the purchase order worklist, the customer sees a list of purchase order items that the supplier has rejected.

The lists are based on SAP-defined queries. If required, you can also create your own queries and thus your own lists based on the purchase order data, such as a list containing items that are partially delivered or completely delivered.
See also

Release Note *Due Quantity (Enhanced)*

### 1.7.20.5 Alerts and Status for Purchase Order Items (Enhanced)

#### Use

When the customer sends a purchase order (*ReplenishmentOrderNotification*) with a new or changed item to SAP Supply Network Collaboration (SAP SNC), the system sends an alert (alert type 7051 for a new purchase order item, or alert type 7052 for a changed purchase order item). Up to now, the system created an alert for a changed purchase order item regardless of the nature of the changes to the item. The alert text (New *Purchase Order Item* or Changed *Purchase Order Item*) did not contain any information about the nature of the change.

As of SAP SNC 5.1, only certain changes trigger an alert of alert type 7052. A specific alert text informs you about what has changed. In addition, the new status *Change Status* displays at item level whether the item is new or has been changed. There is a change status at header level as well that refers to new or changed items. If a purchase order contains new as well as changed items, the status has the value *Changed*.

**Changes That Are Relevant for the Status and Which Trigger an Alert**

The system regards an item as changed only in the following instances:

- The following data has changed
  - Goods recipient
  - Customer location
  - Ship-to location
  - Product
  - Requested quantity
  - Requested delivery date
  - Incoterm
  - Price
- The customer has canceled or blocked the item.
- The customer has added a new component to a subcontract order.

For every individual relevant change (see above), the system creates an alert of alert type 7052 (for example, an alert for a quantity change and an alert for a price change). The alert text displays what has changed (for example, the quantity or the price).
**Effects on Customizing**

If you want the system to create alerts of alert type 7051 or 7052 for a new or changed item, or determine the change status, the PO_NEW_CHG_ALERT_CTRL validation check must be active. The validation check is active in the standard system.

Note: The system creates an alert of type 7052 for every individual change listed above. You cannot configure the system to create an alert for certain relevant changes (for example, alerts for a quantity change) but not for others (for example, alerts for a price change).

**1.7.20.6 Confirmations for Changed Purchase Order Items (Enhanced)**

**Use**

Previously, when a customer increased the purchase order quantity of an item in such a way that the confirmed quantity of the item lay below the underdelivery tolerance, SAP Inventory Collaboration Hub (SAP ICH) set the confirmation status for the item to *Partially Confirmed*. For other changes (for example, to the product or the requested delivery date/time), there were no status changes.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:

- **Set Item to Not Confirmed**
  In SAP SNC 5.1, the confirmation status of an item is likewise set to *Partially Confirmed* if the quantity increase violates the underdelivery tolerance. However, you can now also make settings so that the system sets the confirmation status of an item to *Not Confirmed* if the customer has changed the following item data:
  - Goods recipient
  - Ship-to location
  - Product
  - Requested delivery date/time
  - Incoterm
  - Price

If you want to use this function, the PO_CONF_RELEVANCE_CTRL validation check must be active. The validation check is active in the standard system.

- **Delete Confirmation Schedule Lines**
  In addition, as of SAP SNC 5.1, you can make settings so that SAP SNC deletes the confirmation schedule lines for the item in the case of confirmation-relevant changes to the item (for example, a quantity increase that is too large, or a new requested delivery date/time). SAP SNC deletes the confirmation schedule lines upon receipt of the changed purchase order. The supplier must therefore create new confirmation schedule lines and confirm the confirmation-relevant changes. If you want to use this function, the PO_CONFIRMATION_DELETE validation check must be active. The validation check is not active in the standard system.

  **Note:** An SAP ERP back-end system cannot delete confirmation schedule lines, it can only replace them. To avoid temporary inconsistencies between the SAP back-end system and SAP SNC, we
recommend the following: After SAP SNC has deleted the confirmation schedule lines for an item, the supplier has to create new confirmation schedule lines for the item. Only then can the supplier publish the purchase order.

Example of an inconsistency: The customer has made confirmation-relevant changes in the customer back-end system to two purchase order items having three confirmation schedule lines each, and has sent the purchase order to SAP SNC. SAP SNC has deleted the confirmation schedule lines for the two items. The supplier creates a confirmation schedule line for one of the items but not for the other item. The supplier then publishes the purchase order, and SAP SNC sends the purchase order to the customer back-end system. There, the three confirmation schedule lines for the one item are automatically replaced by the single new confirmation schedule line. The other item retains the original three confirmation schedule lines.

Effects on Customizing

Check the standard settings for the validation, in Customizing for Supply Network Collaboration, by choosing Validation. Activate or deactivate the desired validation checks.

1.7.20.7 Delivery Tolerances in Purchase Orders (Enhanced)

Use

The underdelivery tolerance and overdelivery tolerance were already available previously for purchase order items within purchase order collaboration. SAP Inventory Collaboration Hub (SAP ICH) up to now considers delivery tolerances as follows:

- If the supplier confirms quantities that are too small or too large and thus violate delivery tolerances, SAP ICH can create alerts (alert type 7039 or alert type 7038, respectively). To do this, SAP ICH uses special validation checks.

- Based on the open quantity and the underdelivery tolerance, SAP ICH sets the item status to Partially Delivered or Delivery Completed.

SAP ICH uses the delivery tolerances from the purchase order for a purchase order item. If the purchase order does not contain any delivery tolerances, SAP SNC uses the delivery tolerances from the contract or from the purchasing info record to which the item is assigned. (You can use Core Interface (CIF) in the external procurement relationship to transmit the contract and purchasing info record from the customer back-end system to SAP ICH.) The assignment of delivery tolerances from a contract or from a purchasing info record is done as was the case previously by the validation PO_TOLERANCE_ASSIGN, which is active in the standard system.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the system also considers the indicator for unlimited overdelivery. If unlimited overdelivery is allowed, this has the following consequences:
- SAP SNC does not create an overdelivery alert (alert type 7038).
- You are allowed to create ASNs for the purchase order item with any quantity amount desired.

The customer can transmit the overdelivery indicator to the purchase order at item and header level. If the customer is using an SAP ERP system as back-end system, he or she can also use CIF to transmit the overdelivery indicator with the contract or purchasing info record.

Integration with a Back-End System

- The ReplenishmentOrderNotification was enhanced. It can now transmit the indicator for unlimited overdelivery at item level and header level.
- If the customer is using an SAP ERP system as back-end system, he or she can transmit the overdelivery indicator using the IDoc PORDCR1.PORDCR102 (as of SAP ERP 6.0). The IDoc can contain the overdelivery indicator at header and item level. (A standard mapping of the IDoc PORDCR1.PORDCR102 to the ReplenishmentOrderNotification was already available previously).

1.7.20.8 Fields in the Purchase Order (Enhanced)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the Web screens for displaying and processing purchase orders contain fields for the following data:

- Purchase order group at schedule line level
  The purchase order group is a grouping criterion for purchase orders. In the following case, the field contains the purchase requisition number from the customer back-end system: The customer uses an SAP ERP back-end system and transmits purchase orders using the IDoc PORDCR.PORDCR102.

- Batch number at component level

- Availability date/time at the customer location at schedule line level (delivery date/time + goods receipt processing time)

- Indicator for unlimited overdelivery at item level

As of SAP SNC 5.1, the new Invoice component is also available, which you can use to create an invoice for a purchase order, for example. For invoice data, see the Invoice Data tab page.

The Supplier Confirmation Status, which was already available in SAP Inventory Collaboration Hub 5.0, was renamed to Confirmation Status. This status displays whether confirmations are expected for a purchase order, and whether confirmations already exist. The change is relevant for the following Web screens:
Effects on Existing Data

The /SCA/ORDER_CONSOLIDATION report, which you have to execute after an upgrade, copies the delivery date/time to the initial availability date/time in the customer location. For more information, see SAP Note 1019288.

See also

- Release Note Purchase Order Worklist (New)
- Release Note Scheduling (Changed)
- Release Note Delivery Tolerances in Purchase Orders (Enhanced)
- Release Note Invoice Collaboration (New)
- SAP Note 1019288

1.7.20.9 Approval Process in Purchase Order Collaboration (Enhanced)

Use

In SAP Inventory Collaboration Hub (SAP ICH), you as customer could already use the approval process in purchase order collaboration. You can use the approval process to approve or reject supplier confirmation data that deviates from the requested data. When you publish the purchase order with the confirmation schedule lines in SAP ICH, SAP ICH copies the accepted confirmation data as requested data to the purchase order. SAP ICH uses a ReplenishmentOrderNotification to send the purchase order containing the updated requested data to the customer back-end system, to update the purchase order there as well.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:

- The PO_COPY_CONF_TO_REQ validation check now controls the copying of confirmation schedule lines to the request schedule lines. The validation check is active in the standard system. If required, you can deactivate the validation check in Customizing for Supply Network Collaboration, by choosing Validation. (In SAP ICH 5.0, you were not able to activate or deactivate the copying. SAP ICH copied accepted confirmation schedule lines automatically to the request schedule lines).
You can use the deviation analysis from consensus finding for the approval process. This makes it possible to consider quantity tolerances and date/time tolerances. SAP SNC approves confirmation data if it corresponds to the requested data within the given tolerances. The previous approval process (which cannot consider tolerances) is still available.

Note in the case of an upgrade from SAP ICH 5.0 to SAP SNC 5.1: If you have configured the approval process in SAP ICH 5.0, the settings are retained in the upgrade. In SAP SNC 5.1, however, you can change to the approval process based on consensus finding at any time, if required. If settings exist for the new approval process based on consensus finding and for the approval process without tolerances, the system uses the approval process based on consensus finding.

Effects on Customizing

In the standard system, consensus finding for the approval process is delivered with all necessary settings in Customizing. To use consensus finding, you only have to create condition records. To do so, on the SAP Easy Access screen, choose Supply Network Collaboration -> Master Data -> Condition Technique -> Maintain Condition Records for Consensus Finding.

In addition, you have to check whether you have to adjust the consensus rules for date/time deviations delivered in the standard system to your needs. Only change the Customizing for consensus finding if you want to override the standard settings. For more information, see the Implementation Guide (IMG) for Supply Network Collaboration under Basic Settings -> Consensus Finding.

See also

Release Note Consensus Finding (New)

1.7.20.10 Consensus Finding (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can use consensus finding. Consensus finding is a process in which several business partners, for example, try to agree on quantities, dates/times, and prices. You can use consensus finding to compare data from different sources and accept deviations within fixed tolerance limits (deviation analysis), or you can use the data from different business partners to determine new data within fixed tolerance limits that is acceptable for all business partners involved (consensus determination).

A preconfigured consensus finding is available for the following applications:

- Collaborative Sales Forecasting and Order Forecast Monitor
  You use consensus finding to calculate whether forecasts of the customer and supplier are the same. If you use collaborative sales forecasting, you can also calculate possible cost proposals for the forecasting.

- Work Order Processing
  You use consensus finding to compare the following:
- Requested data from the customer with confirmation data from the supplier
- Current data with planned data
- Projected data with planned data
- Purchase Order Processing and Replenishment Order Processing
  You use consensus finding to control whether the system automatically approves deviations in quantity and date/time that are within fixed tolerances.

### Effects on Customizing

If you want to use consensus finding for an SAP SNC application, first check if settings are required for this in Customizing. For some applications, consensus finding is already preconfigured with standard settings, so that you only have to create or change Customizing settings if you want to override the standard settings. For more information about necessary settings, see SAP Library for SAP SNC, under Consensus Finding.

If you want to set up consensus finding for an SAP SNC application for the first time, or override existing standard settings, use the IMG activities under Supply Network Collaboration -> Basic Settings -> Consensus Finding.

### See also

- Release Note Work Order (New)
- Release Note Approval Process in Purchase Order Collaboration (Enhanced)
- Release Note Responsive Replenishment with ATP Check (New)

### 1.7.20.11 Determination of Open Replenishment Order Quantity (Enhanced)

#### Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can configure how the system closes replenishment orders and advanced shipping notifications (ASNs) automatically after the receipt of a ProductActivityNotification message. You can choose between the following options:

- No Update of Replenishment Orders or ASNs
- Update Replenishment Orders and ASNs Older Than Message
  The system closes all the replenishment orders and ASNs that have an availability time stamp earlier than the ProductActivityNotification reference time stamp. This allows the system to recalculate the open order quantities.
- Update Replenishment Orders and ASNs Based on Open Quantity
  The system calculates the open order quantity in SAP SNC using the open order quantities that the customer sends in the OnOrderTimeSeries element in the ProductActivityNotification message. The system closes ASNs that are not assigned to a replenishment order, by using time stamps (see
the option #Update Replenishment Orders and ASNs older than Message#).

- Update Replenishment Orders Older Than Message
  The system closes all replenishment orders that have an availability time stamp earlier than the
  ProductActivityNotification reference time stamp.

- Update Replenishment Orders Based on Open Quantity
  The system calculates the open order quantity in SAP SNC using the open order quantities that the
  customer sends in the OnOrderTimeSeries element in the ProductActivityNotification message.

Note that in the Supplier Managed Inventory scenario, there is a separate mechanism of closing ASNs, using the ASN reference numbers transmitted by ProductActivityNotification messages. This was already available in the previous release and remains unchanged.

Effects on Existing Data

In earlier releases, Customizing of open quantity determination was possible by using the EDI Qual. field
in the IMG activity Maintain lDoc Settings for Stock in Transit under Advanced Planning and
Optimization -> Supply Chain Planning - Supply Network Planning (SNP) -> Vendor-Managed
Inventory. This IMG activity has been replaced by the new Customizing table /SCA/PANOPEN in the
new IMG activity Configure Open Order Quantity Determination under Supply Network
Collaboration -> Exceptions -> Data Import Controller.

To adopt Customizing settings from SAP Inventory Collaboration Hub (SAP ICH) 5.0, SAP provides the
XPRA /SCA/PANOPEN_CONV. The XPRA converts the SAP ICH 5.0 Customizing table entries to
SAP SNC 5.1 Customizing table entries with the following rules:

<table>
<thead>
<tr>
<th>Customizing entry for SAP ICH 5.0 (EDI Qual. field)</th>
<th>Customizing entry for SAP SNC 5.1 (RO/ASN Updates field)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock/Sales Through EDI/XML Message</td>
<td>Update Replenishment Orders and ASNs Older Than Message</td>
</tr>
<tr>
<td>Purchase Order Quantity Through EDI/XML Open Quantity</td>
<td>Update Replenishment Orders and ASNs Based on Open Quantity</td>
</tr>
<tr>
<td>Delivery Confirmation EDI/XML</td>
<td>No Update of Replenishment Orders or ASNs</td>
</tr>
<tr>
<td>Stock in Transit Quantity Through EDI/XML</td>
<td>No Update of Replenishment Orders or ASNs</td>
</tr>
</tbody>
</table>

Effects on Customizing

If you want to change your Customizing settings, use the IMG activity Update the Quantities and
Statuses of ROs and ASNs.

See also

Release note In-Transit Quantity (Enhanced)

1.7.20.12 Naming of Replenishment Planning Orders (Changed)

Use
In SAP Supply Network Collaboration (SAP SNC) 5.1, orders for replenishment planning and replenishment planning collaboration have been renamed.

**Previous Names**

- **Business Scenario: Responsive Replenishment**
  In the *Responsive Replenishment* business scenario, the replenishment planning service creates orders of the order document type DRPV. On the TLB screen, you can create orders of the order document type DRPV manually as well. An order of the order document type DRPV was previously called *replenishment order* in the *Responsive Replenishment* business scenario. The TLB planning service merges orders of the order document type DRPV into TLB shipments according to various criteria. In so doing, the TLB planning service creates the following objects:
  - A TLB shipment (order document type TLBO)
  - One or - in the case of splitting - several orders of the order document type VGOR that are assigned to the TLB shipment
  An order of the order document type VGOR was previously called *vendor-generated order* in the *Responsive Replenishment* business scenario.
  After releasing the TLB shipment, you can send the orders of the order document type VGOR to the customer back-end system and to the supplier back-end system, where the customer and supplier create a purchase order or sales order, respectively.

- **Business Scenario: SMI with Purchase Orders**
  In the *SMI with Purchase Orders* business scenario, the supplier can manually create an order of the order document type VGOR for a planned receipt. An order of the order document type VGOR was previously called *purchase order* in the *SMI with Purchase Orders* business scenario. When the supplier published the order, SAP SNC immediately published the order automatically as purchase order to the customer back-end system and as sales order to the supplier back-end system.

**New Names**

As of SAP SNC 5.1, orders of the order document type DRPV and VGOR are called the following:

- Order of the order document type DRPV: Planned replenishment order
- Order of the order document type VGOR: Replenishment order

On the user interface, the terminology was adjusted accordingly.

**See also**

Release Note *Display of Replenishment Orders (Enhanced)*

**1.7.20.13 Display of Replenishment Orders (Enhanced)**

**Use**
Previously, replenishment orders (orders of the order document type VGOR) were displayed, depending on the business scenario, on the Web user interface of SAP Inventory Collaboration Hub (SAP ICH) as follows:

- **Business Scenario: SMI with Purchase Orders**
  Orders of the order document type VGOR (previously called "purchase orders" in this scenario) were created and displayed by suppliers under *Purchase Orders (SMI)*. The *Overview* displays a list of the selected replenishment orders. The *Details* display the detail data of a selected replenishment order. Under *Create Purchase Order*, you were able to create an order of the order document type VGOR. You were not able to select orders of the order document type VGOR by using the replenishment order number, you could only use the sales order number that the system assigned when the replenishment order was saved.

- **Business Scenario: Responsive Replenishment**
  The system automatically created orders of the order document type VGOR when you created a TLB shipment. The TLB screen displayed selected data of a replenishment order. In the *Responsive Replenishment* view of the Web application menu, no special screens comparable to the screens for *SMI with Purchase Orders* were available for creating or displaying orders of the order document type VGOR.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:

- The Web screens for creating, displaying, and processing orders of the order document type VGOR were renamed to *Create Replenishment Order*, *Replenishment Order Overview*, and *Replenishment Order Details*.

- The Web screens are now also available in the *Responsive Replenishment* view for displaying and processing replenishment orders that you created with the TLB, for example. You can manually create replenishment orders without TLB reference, under *Create Replenishment Order*.

- You can use the replenishment order number to select replenishment orders. When you save the replenishment order, the system assigns the replenishment order number using the number assignment for replenishment orders.

- In the case of a replenishment order created with the TLB, you can navigate from the TLB screen to the detail screen for replenishment orders, and the other way around.

### 1.7.20.14 Fields in the Replenishment Order (Enhanced)

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, there are new fields available in the screens for displaying and processing replenishment orders (orders of the order document type VGOR). These
screens support the new functions and processes in replenishment planning collaboration. The screens are now also available in the *Responsive Replenishment* view. They also contain new fields that are relevant for *Responsive Replenishment*. These include, for example, fields that are relevant for replenishment orders assigned to TLB shipments.

- **General Fields**
  - Customer Send Status
    Displays whether the replenishment order was already sent to the customer back-end system.
  - Supplier Send Status
    Displays whether the replenishment order was already sent to the supplier back-end system.
  - Change Status
  - Displays whether an item is new or changed.
  - Confirmation Status
    Displays whether the supplier has already confirmed the item.
  - Approval Status
    Displays whether the approval process has accepted or rejected a replenishment order item or a replenishment order schedule line.
  - Point in time at which the print function was last called
  - Point in time at which the replenishment order was last published
  - Supplier Back-End Product
    Product number in the supplier back-end system. Relevant for product determination.
  - Availability Date/Time at Customer Location
    Delivery time + goods receipt processing time

- **Fields for Responsive Replenishment**
  - Order Processing Date/Time
    Latest date/time at which the replenishment order must be sent to the supplier back-end system so that the follow-on process can be carried out on time. The order processing date/time was previously only available on the TLB screen.
  - Transportation Planning Date/Time
    Latest date/time by which the supplier must organize the transportation so that the product arrives at the customer on time.
  - Availability Date/Time at Ship-from Location
    Date/time at which the product at the ship-from location must be available for picking (corresponds to the material availability date/time in the sales order item).
  - Loading Date/Time
    Date/time at which the product must be ready for loading and shipping at the ship-from location.
  - Pickup Date/Time
    Date/time at which the product must be loaded at the ship-from location.
  - Promotion ID
    Is only displayed when a replenishment order has at least one item that refers to a promotion.
- Fields for Replenishment Orders with TLB Shipment Assignment
  - TLB Shipment Number
  - Shipping Scenario
  - Transportation Guideline
  - Delivery Method
  - Transshipment Location
  The fields were already available on the TLB screen previously. On the detail screen for a replenishment order, the fields are only displayed if a replenishment order is assigned to a TLB shipment.

- Delivery Tolerances
  In the Supplier Managed Inventory with Replenishment Orders business scenario, the Item Delivery Terms tab page displays the following data for replenishment orders:
  - Overdelivery tolerance
  - Underdelivery tolerance
  - Indicator for unlimited overdelivery
  The ReplenishmentOrderNotification was enhanced. It can now transmit the indicator for unlimited overdelivery at item level.

- Price Data
  Price data (for example, price and currency) is only available for the Supplier Managed Inventory with Replenishment Orders business scenario. Price data is displayed at item level on the Price tab page.
  When you create, check or publish a replenishment order, the RO_PRICE_ASSIGN validation check active in the standard system assigns the price data to the item. SAP SNC does not assign a price to consignment items. The price data comes from the contract assigned to the replenishment order item. (The assignment of the contract is done by the PO_CONTRACT_ASSIGN validation check, which was previously available and is active in the standard system.) The customer can use Core Interface (CIF) in the external procurement relationship to transmit the contract to SAP SNC. The VendorGeneratedOrderNotification can transmit price data to the customer back-end system.
  Since an SAP-ERP back-end system performs its own price determination, the standard mapping delivered by us does not copy the price data from the VendorGeneratedOrderNotification to the purchase IDoc.

- Fields for Invoices
  In the Supplier Managed Inventory with Replenishment Orders business scenario, you can create invoices for replenishment orders. Invoice data is displayed on the Item Data and Invoice Data tab pages.
  When you create, check or publish a replenishment order, the RO_INVOICE_DATA_ASSIGN validation check active in the standard system assigns invoice-relevant fields to the item. The invoice master data comes from the contract assigned to the replenishment order item. (The assignment of the contract or purchasing info record is done by the PO_CONTRACT_ASSIGN validation check, which was already available previously and is active in the standard system.) The customer can use CIF in the external procurement relationship to transmit the contract or purchasing info record to SAP SNC.

Effects on Existing Data
The ASN-based due quantity is a prerequisite for other functions. For this quantity to be calculated, you have to execute the /SCA/ORDER_CONsolidation conversion report after the upgrade. In the case of replenishment order items for which ASNs do not yet exist, SAP SNC uses the requested quantity as the ASN-based due quantity. The report also copies the delivery date/time to the initial availability date/time in the customer location. For more information, see SAP Note 1019288.

See also
- Release Note Scheduling (Changed)
- Release Note Due Quantity (Enhanced)
- Release Note Invoice Collaboration (New)
- Release Note Delivery Tolerances for SMI Replenishment Orders (New)
- SAP Note 1019288

1.7.20.15 Creation of Replenishment Orders (Enhanced)

Use

A replenishment order (order of the order document type VGOR) represents a firm receipt in the customer location in replenishment planning. When the supplier publishes a replenishment order, the supplier back-end system automatically creates a sales order and the customer back-end system automatically creates a purchase order. These orders are the firm basis for executing the replenishment process.

Previously, the supplier created replenishment orders (orders of the order document type VGOR) as follows:

- In the SMI with Purchase Orders business scenario, the supplier created replenishment orders manually on the Web UI under Create Purchase Order.
- In the Responsive Replenishment business scenario, the Transport Load Builder (TLB) created replenishment orders (TLB_SERVICE planning service). The supplier could also create replenishment orders manually on the TLB screen.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can also create replenishment orders in the following manner:

- To create replenishment orders according to TLB logic, you can use the new TLBPB_SERVICE planning service. Like the previous TLB_SERVICE planning service, this service creates replenishment orders but then also publishes them automatically. In the Responsive Replenishment Monitor, you can call the TLB services by choosing Run TLB (TLB_SERVICE) and by choosing Run and Publish TLB (TLBPB_SERVICE).
In the Responsive Replenishment Monitor and in the Min/Max Replenishment Monitor, the new planning services REPL_FRPROP_SERVICE and REPL_FRPROPPB_SERVICE are available, under Propose Firm Receipts and Propose and Publish Firm Receipts. The planning services convert planned receipts (which are represented as time series or as replenishment orders, depending on your settings) into replenishment orders, as follows:

- The planning services create a planned replenishment order using the time-series-based planned receipts from a certain period.
- The planning services group into one replenishment order those replenishment orders that have the same key date. Depending on your settings, the key date is either the order processing date, the delivery date, or the shipping date.

The Propose and Publish Firm Receipts planning service also publishes the replenishment orders. In the TLB service profile, you make the following settings for the planning services:

- In which horizon the planned receipts are converted into replenishment orders
- Whether the order processing date, the delivery date, or the shipping date are relevant

The supplier can now also create replenishment orders manually without TLB shipment assignment, in the Responsive Replenishment view by choosing Replenishment -> Replenishment Order -> Create Replenishment Order. You can manually assign an unpublished replenishment order on the TLB screen to a TLB shipment.

- The supplier can create a sales order in his or her back-end system and send the sales order to SAP SNC.

**Effects on Customizing**

You define the settings for the TLB planning services, the Propose Firm Receipts planning service, and the Propose and Publish Firm Receipts planning service (REPL_FRPROP_SERVICE and REPL_FRPROPPB_SERVICE) in Customizing for Supply Network Collaboration, by choosing Replenishment -> Transport Load Builder -> Define TLB Service Profiles.

**See also**

- Release Note New and Changed Sales Order Items (Enhanced)
- Release Note Display of Replenishment Orders (Enhanced)
- Release Note Publication of Replenishment Orders (Changed)

**1.7.20.16 Number Assignment for Replenishment Orders (Enhanced)**

**Use**

When you save a replenishment order on the Web screen for replenishment orders (previously called "purchase orders (SMI)"), or publish it on the TLB screen, the system assigns the previously existing
numbers to it, as follows:

- Replenishment order number (at the level of the replenishment order header)
  For replenishment orders in the Responsive Replenishment business scenario, you could
  previously define number ranges in Customizing for Inventory Collaboration Hub.

- Replenishment order item number
  You cannot define number ranges for the item number. The increment for the item number is fixed
  (number of the first item = 1, increment = 1).

- Sales order number (at the level of the replenishment order header) and sales order item number (at
  the level of the replenishment order item)

- Purchase order number and purchase order item number (at the level of the replenishment order item)
You define number ranges for sales orders and purchase orders on the Web UI. The increment for
purchase order item numbers and sales order item numbers, however, was previously fixed (increment = 1).

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist for number
assignments:

- You can also define number ranges for replenishment orders in the business scenario SMI with
  Replenishment Orders.

- You now define number ranges for replenishment orders independently of the business scenario, in
  Customizing for Supply Network Collaboration, by choosing Replenishment -> Replenishment
  Order -> Number Ranges for Replenishment Orders.

- On the Number Range Attributes Web screen, you can define an increment for purchase order and
  sales order item numbers.

1.7.20.17 Splitting Replenishment Orders (Enhanced)

Use

Previously, the splitting function was only available in the Responsive Replenishment business
scenario. With this function, the Transport Load Builder (TLB) created replenishment orders in such a
way that a replenishment order and the resulting purchase order in the customer back-end system met
specific criteria. You were able to use the splitting function so that a replenishment order and thus the
purchase order only contained items with the same customer location, the same purchasing group, or with
only one request schedule line.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the splitting function is also available for
replenishment orders in the SMI with Replenishment Orders business scenario. SAP SNC performs the
splitting upon creation of a replenishment order, for example when you manually create and save the replenishment order in the replenishment order details. You can, for example, manually create a replenishment order with items that have multiple request schedule lines, in the replenishment order details. If you have set up the splitting function so that only those items with one request schedule line are valid, then SAP SNC splits the replenishment order when you save the replenishment order. On the TLB screen, SAP SNC splits replenishment orders during publication.

1.7.20.18 Publication of Replenishment Orders (Changed)

Use

A replenishment order is an object that only exists in SAP Supply Network Collaboration (SAP SNC). To support the processes in the customer back-end system (purchase order processing, goods receipt) and in the supplier back-end system (sales order processing, goods issue), you have to send a replenishment order that you have created in SAP SNC to the customer back-end system and to the supplier back-end system. Here, you send a VendorGeneratedOrderNotification to the customer back-end system and a ReplenishmentOrderNotification to the supplier back-end system. Based on these XML messages, the customer back-end system creates a purchase order and the supplier back-end system creates a sales order.

Previously, the sending of XML messages was carried out as follows:

- In the Responsive Replenishment business scenario, you used the /SCA/ICH_ORDER_SEND report to send XML messages for replenishment orders for the TLB shipment to the customer back-end system and supplier back-end system following release of the TLB shipment.

- In the Supplier Managed Inventory with Replenishment Orders business scenario, SAP Inventory Collaboration Hub (SAP ICH) sent the VendorGeneratedOrderNotification automatically to the customer back-end system when the supplier published the replenishment order (called "purchase order" up to SAP ICH 5.0) on the Web UI. To do this, the /SCA/BOL_VGOR_PUBLISH_CUST Post Processing Framework action (PPF action) was available (/SCA/ICH application, /SCA/BOL_ORDER_VGOR PPF action profile). This PPF action was active in the standard system. To send ReplenishmentOrderNotifications to the supplier back-end system, the /SCA/BOL_VGOR_PUBLISH_SUPP PPF action, which was not active in the standard system, was available.

Sending Options

As of SAP SNC 5.1, you have the following sending options:

- Automatic sending
  Here, SAP SNC sends the XML messages when you call the Publish function on the Web user interface for a replenishment order. The standard setting is the immediate and automatic sending of both XML messages.
For the **Responsive Replenishment** business scenario, further options are available that allow you, as supplier, to control under what conditions and in which sequence SAP SNC sends the XML messages, as follows:

- **Send purchase order only after ATP confirmation**
  You use this option if you only want to create a purchase order in the customer back-end system once you can deliver the products ordered. When you call the *Publish* function on the Web user interface for a replenishment order, SAP SNC immediately sends a *ReplenishmentOrderNotification* to the supplier back-end system. The supplier back-end system performs an ATP check. When the results of the ATP check come back from the supplier back-end system and the confirmation data does not deviate within the tolerances from the requested data, SAP SNC can transmit the confirmation data as requested data to the replenishment order. Only then does SAP SNC send the *VendorGeneratedOrderNotification* to the customer back-end system.

- **Send sales order only after assignment of purchase order numbers in customer back-end system**
  You use this option when you want the customer back-end system and not SAP SNC to assign the purchase order numbers. When you call the *Publish* function on the Web user interface for a replenishment order, SAP SNC immediately sends a *VendorGeneratedOrderNotification* to the customer back-end system. When the purchase order number with the *VendorGeneratedOrderConfirmation* comes back from the customer back-end system, SAP SNC copies the purchase order number to the replenishment order and sends the *ReplenishmentOrderNotification* to the supplier back-end system.

- **Sending with a report**
  When you call the *Publish* function on the Web user interface for a replenishment order, SAP SNC only sets the customer send status and supplier send status for the replenishment order to *Released for Sending*. To actually send the replenishment order, you use the `/SCA/ICH_ORDER_SEND` report. Note: You can only use the report in customer collaboration (for example, in the **Responsive Replenishment** business scenario), not in supplier collaboration (for example, in the SMI business scenario).

**Publication Function in TLB**

Previously, a release function was available on the TLB screen. You used this function to set the status of the replenishment orders for a TLB shipment to *Released for Sending*. You could then use the `/SCA/ICH_ORDER_SEND` report to send the XML messages for the replenishment orders.

In SAP SNC 5.1, the *Release* function was renamed to *Publish*. You can now use this function to send replenishment orders for the TLB shipment according to the configured option (see above). The status *Released for Shipping* was renamed to *Published, But Not Sent*. Note that you can only publish a replenishment order with TLB reference on the TLB screen. It is not possible to publish on the replenishment order screens. The RO_NO_TLB_PUBLICATION validation check for the POS2 validation profile prevents publication on the replenishment order screens.

As of SAP SNC 5.1, the TLB service can also publish the newly-created replenishment orders. You can make the settings for this in the TLB service profile using a new indicator. The sending of XML message also occurs according to the configured sending option.
Effects on Customizing

Automatic Sending with or Without PPF

The RO_PUBLISH_DIRECT validation check controls whether or not the system sends the XML messages using the Post Processing Framework (PPF), as follows:

- If the validation check is active, the system does not use the Post Processing Framework for automatic sending. The system sends the XML messages directly in the background to the supplier back-end system and to the customer back-end system. The validation check is active in the standard system.

- If the validation check is not active, the system uses the following PPF actions of the /SCA/BOL_ORDER_VGOR action profile (application /SCA/ICH), which were already available previously in supplier collaboration, for automatic sending of XML messages:
  - To send VendorGeneratedOrderNotifications to the customer back-end system: /SCA/BOL_VGOR_PUBLISH_CUST
  - To send ReplenishmentOrderNotifications to the supplier back-end system: /SCA/BOL_VGOR_PUBLISH_SUPP

The PPF actions are active in the standard system (new for /SCA/BOL_VGOR_PUBLISH_SUPP in supplier collaboration). However, they are not effective if as in the standard system the RO_PUBLISH_DIRECT validation check is active.


You make the settings for validation in Customizing for Supply Network Collaboration by choosing Validation. Activate or deactivate the desired validation checks.

Selection of Desired Sending Option

Regardless of the business scenario, choose your desired sending option:

- Send both XML messages immediately
  Validation check RO_PUBLISH_IMMEDIATE
  This validation check is active in the standard system.

- Send purchase order only after ATP confirmation
  Validation check RO_PUBLICATION_ATPRESULT

- Send sales order only after assignment of purchase order numbers in customer back-end system
  Validation check RO_PUBLICATION_KEYCOMPLETE

Sending with a Report

If you want to send with a report for the Responsive Replenishment business scenario, activate the RO_PUBLISH_REPORT validation check and deactivate the following validation checks:

- Validation check RO_PUBLISH_DIRECT for sending directly
- Validation check for the automatic send option
  In the standard system, this is the RO_PUBLISH_IMMEDIATE validation check.

See also

- Release Note Responsive Replenishment with ATP (New)
- Release Note *Publication of XML Messages (Changed)*

### 1.7.20.19 New and Changed Sales Order Items (Enhanced)

#### Use

Previously, the supplier could change or add items to a sales order in the supplier back-end system, and send the changed sales order to SAP Inventory Collaboration Hub using an XML message of the *ReplenishmentOrderConfirmation* type.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:

- **Alerts for New and Changed Sales Order Items**
  The following new alerts in SAP SNC refer to new and changed items in the sales order:
  - New Replenishment Order Item (alert type 7120)
  - Changed Replenishment Order Item (alert type 7121)

- **Replenishment Order for a New Sales Order**
  A supplier can create a new sales order in his or her back-end system and send the sales order to SAP SNC using a *ReplenishmentOrderConfirmation*. You can use the new RO_CREATE_VIA_REPLORDCONF validation check to configure whether SAP SNC creates a replenishment order upon receipt of the *ReplenishmentOrderConfirmation*. When you activate the check, SAP SNC creates the replenishment order. In the case of an inactive check, SAP SNC does not create a replenishment order. The validation check is not active in the standard system. The validation check is relevant for rush purchase orders, for example. In the *Responsive Replenishment* business scenario or *SMI with Replenishment Orders* business scenario, the supplier creates purchase orders in the customer system. To do this, the supplier executes replenishment planning in SAP SNC, creates replenishment orders, and sends them to the customer back-end system. Based on the replenishment order, the customer back-end system automatically creates a purchase order and the supplier back-end system automatically creates a sales order. To cover unplanned demands, a customer can also create a purchase order directly in the customer back-end system and send it to the supplier back-end system. There, a sales order is automatically created for the purchase order. If the supplier wants SAP SNC to consider the rush purchase order, he or she sends a confirmation for the sales order (*ReplenishmentOrderConfirmation*) to SAP SNC. If the RO_CREATE_VIA_REPLORDCONF validation check is active, SAP SNC creates a replenishment order for the *ReplenishmentOrderConfirmation*. SAP SNC can consider this replenishment order during replenishment planning. SAP SNC also creates alerts (alert type 7120, see above) for the new replenishment order items.

#### Integration with an SAP ERP Back-End System

If the supplier is using an SAP system as ERP back-end system, he or she is already using the ORDRSP.ORDERS05 IDoc to transfer a replenishment order with a changed or new item or to transfer a new sales order. A corresponding mapping is available. Note the following IDoc characteristics:

- The IDoc can only transmit a requested delivery date at header level.
- The IDoc does not contain a segment for request schedule lines. It transmits the aggregated requested quantity at item level.
The IDoc therefore cannot display a sales order item with several request schedule lines and different requested delivery date. If a sales order item contains more than a single request schedule line, you are not allowed to make changes in the supplier back-end system to the requested quantities and requested delivery dates in the sales order.

See also
- Release Note Alerts in Replenishment Order Collaboration (New)
- Release Note Alerts and Status for Replenishment Order Items (New)

1.7.20.20 Fixing Replenishment Order Schedule Lines (Enhanced)

Use

Previously, you could manually fix schedule lines for planned replenishment orders on the TLB screen. You could not manually fix schedule lines for unpublished replenishment orders.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can manually fix the schedule lines for unpublished replenishment orders, provided that these replenishment orders are not assigned to a TLB shipment. To do this, the Fixed indicator is now available in the replenishment order details and on the TLB screen. If you set the indicator for a schedule line, a replenishment planning run or a TLB run is not allowed to change the schedule line. On the TLB screen, you can fix schedule lines for planned replenishment orders and replenishment orders. On the Replenishment Order Details screen, you can fix schedule lines for a replenishment order.

1.7.20.21 Validation in Replenishment Order Collaboration (Enhanced)

Use

Previously, the following processes and standard validation profiles were available in the Responsive Replenishment business scenario:
Upon receipt of a *ReplenishmentOrderConfirmation* from the supplier back-end system (REPLORDER_CONFIRMATION process), SAP Inventory Collaboration Hub (SAP ICH) uses the VMI2 validation profile in the standard system.

Upon receipt of a *VendorGeneratedOrderConfirmation* from the customer back-end system (VENDORORDER_CONFIRMATION process), SAP ICH uses the VMI3 validation profile in the standard system.

Previously, following processes and validation checks were available in the *SMI with Replenishment Orders* business scenario (previously called *SMI with Purchase Orders*):

- When the supplier saves the replenishment order on the Web user interface (ORDER_SAVE process), SAP ICH uses the POS1 validation profile.
- When the supplier publishes the replenishment order on the Web user interface (ORDER_PUBLISH process), SAP ICH uses the POS2 validation profile.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist for validation in replenishment order collaboration:

- The following new processes and standard validation profiles are available:
  - When you manually change or save a replenishment order on the TLB screen (ORDER_TLB_SAVE process), SAP SNC uses the TLB1 validation profile.
  - When you publish a replenishment order on the TLB screen (ORDER_TLB_PUBLISH process), SAP SNC uses the TLB2 validation profile.
  - When a planning service (for example the Transport Load Builder or the *Propose Firm Receipts* planning service) creates and saves a replenishment order (ORDER_SERVICE_SAVE process), SAP SNC uses the TLB5 validation profile.
  - When a planning service publishes a replenishment order (ORDER_SERVICE_PUBLISH process), SAP SNC uses the TLB6 validation profile.
  - When you use the publication report to send a replenishment order to the customer back-end system or to the supplier back-end system (ORDER_ORDERSEND_SAVE process), SAP SNC uses the TLB3 validation profile.
  - When a *ProductActivityNotification* arrives from the customer back-end system and SAP SNC updates the open quantity in the replenishment order (ORDER_PROACT_SAVE process), SAP SNC uses the TLB4 validation profile. In the *ProductActivityNotification*, the customer can transmit the open quantity from his or her point of view. In the ORDER_PROACT_SAVE process, SAP SNC therefore compares the open quantity from the *ProductActivityNotification* with the quantity from all published replenishment orders. If the open quantity reported by the customer is larger, SAP SNC creates a replenishment order for the difference quantity. For the validation of this replenishment order, SAP SNC uses the TLB4 validation profile here as well.

- To support the existing as well as the new functions and processes, there are new validation checks. These were included in the standard validation profiles. You continue to use the VMI2 validation profiles in customer collaboration and in supplier collaboration for receipt of *ReplenishmentOrderConfirmations*. The POS1 and POS2 validation checks are still available in supplier collaboration.
Effects on Customizing

Check the standard settings for the validation, in Customizing for *Supply Network Collaboration*, by choosing *Validation*. Activate or deactivate the desired validation checks.

See also

- Release Note *Alerts in Replenishment Order Collaboration (New)*
- Release Note *Responsive Replenishment with ATP Check (New)*
- Release Note *Publication of Replenishment Orders (Enhanced)*

1.7.20.22 Alerts and Status for Replenishment Order Items (New)

Use

When the supplier sends a sales order confirmation (*ReplenishmentOrderConfirmation*) from his or her back-end system to Supply Network Collaboration (SAP SNC), SAP SNC updates the replenishment order items based on this confirmation. Previously, there was no alert for new or changed items.

As of SAP SNC 5.1, the system generates the following alerts upon receipt of a *ReplenishmentOrderConfirmation*:

- Alert type 7120 for a new replenishment order item
- Alert type 7121 for a changed replenishment order item

The system regards an item as changed only in the following instances:

- The following data has changed:
  - Goods recipient
  - Customer location
  - Ship-to location
  - Product
  - Requested quantity
  - Requested delivery date
- The supplier has canceled the item.

For every individual relevant change (see above), the system creates an alert of alert type 7121 (for example, an alert for a quantity change and an alert for a price change). The alert text displays what has changed (for example, the quantity or the price).

As of SAP SNC 5.1, the **change status** at item level displays whether the item is new or has been changed. There is a change status at header level as well that refers to new or changed items. If a replenishment order contains new as well as changed items, the status has the value ***Changed***.
Effects on Customizing

The RO_NEW_CHG_ALERT_CTRL validation check must be active if you want the system to create alerts for a new or changed item or determine the change status. The validation check is active in the standard system. Note: The system creates an alert of type 7121 for every individual change. You cannot configure the system to create an alert for certain relevant changes (for example, alerts for a quantity change) but not for others (for example, alerts for a price change).

1.7.20.23 Alerts in Replenishment Order Collaboration (New)

Use

Previously, there were no alerts for replenishment orders. As of SAP Supply Network Collaboration (SAP SNC) 5.1, replenishment order collaboration includes the following alert types, which are also displayed in the Alert Monitor on the new Replenishment Order Alerts tab page:

- New Replenishment Order Item (alert type 7120)
  The supplier has done the following:
  - The supplier has created a new item in the supplier back-end system in a sales order for a replenishment order already existing in SAP SNC, and has sent this item from the supplier back-end system to SAP SNC using a ReplenishmentOrderConfirmation.
  - The supplier has created a new sales order in the supplier back-end system and has sent the sales order to SAP SNC using a ReplenishmentOrderConfirmation. (Prerequisite for creating the replenishment order in SAP SNC: You have activated the RO_CREATE_VIA_REPLORDCONF validation check.)
  If the system is to create this alert, the RO_NEW_CHG_ALERT_CTRL validation check must be active. The validation check is active in the standard system. The validation check creates the alert upon receipt of the ReplenishmentOrderConfirmation from the supplier back-end system.

- Changed Replenishment Order Item (alert type 7121)
  The supplier has changed a sales order item in the supplier back-end system and has sent the changed sales order item from the supplier back-end system to SAP SNC using a ReplenishmentOrderConfirmation. If the system is to create this alert, the RO_NEW_CHG_ALERT_CTRL validation check must be active. The validation check is active in the standard system. The validation check creates the alert upon receipt of the ReplenishmentOrderConfirmation from the supplier back-end system.

- Exception During Validation in Replenishment Order Collaboration (alert type 7122)
  SAP SNC has determined an exception during validation of the following objects in replenishment order collaboration:
  - ReplenishmentOrderConfirmation from the supplier back-end system or VendorGeneratedOrderConfirmation from the customer back-end system.
SAP SNC performs the validation upon receipt of the XML message

- Replenishment order that was created in the background by a planning service (such as the TLB service) in SAP SNC

- Replenishment Order Confirmation Rejected (alert type 7126)
The supplier has sent a sales order confirmation (ReplenishmentOrderConfirmation) from the supplier back-end system to SAP SNC. SAP SNC has compared the confirmation schedule line with the request schedule line in the replenishment order using deviation analysis from consensus finding, and has determined a deviation that is too large. For this reason, SAP SNC has rejected the confirmation schedule line.
If the system is to create this alert, the corresponding PPF action has to be active (application /SCA/ICH, action profile /SCA/BOL_ORDER_VGOR, action definition /SCA/BOL_VGO_APPROVALREJ_ALERT). The PPF action is active in the standard system. The PPF action creates the alert upon receipt of the ReplenishmentOrderConfirmation from the supplier back-end system.

- Quantity- and Date/Time Violations (determined with deviation analysis)
Upon receipt of a confirmation (ReplenishmentOrderConfirmation) from the supplier back-end system, SAP SNC can use deviation analysis from consensus finding to compare the confirmation data to the requested data. In the case of deviations outside of the quantity and date/time tolerances defined in deviation analysis, SAP SNC creates the following alert types:
- Confirmed Item Quantity Violates Underdelivery Tolerance (alert type 7123)
- Confirmed Delivery Date/Time Violates Delay Tolerance (alert type 7140)
If the system is to create this alert type, the RO_CREATE_CONF_ALERT_DA validation check must be active. The validation check is active in the standard system.

- Quantity- and Date/Time Violations
Upon receipt of a confirmation (ReplenishmentOrderConfirmation) from the supplier back-end system, SAP SNC creates the following alerts, which refer to a deviation between the confirmation data and the requested data:
- Partially-Confirmed Replenishment Order Item (alert type 7124)
The total confirmed quantity of the replenishment order item is less than the total requested quantity of the replenishment order item minus the underdelivery tolerance. The entire confirmed quantity of the item is the sum of the confirmed quantities from the confirmation schedule lines of the schedule line type Confirmed. The total request quantity of the item is the sum of the request quantities from the request schedule lines.
- Late Confirmation of Replenishment Order Item (alert type 7125)
The confirmation date of at least one confirmation schedule line is after the date requested by the customer.
If the system is to create this alert type, you have to activate the corresponding PPF action (application /SCA/ICH, action profile /SCA/BOL_ORDER_VGOR, action definition /SCA/BOL_VGO_INCOMPLCONF_ALERT).

The following alert types are relevant if you are using SAP Event Management 5.1 to monitor processes in replenishment order collaboration (visibility process SNC Visibility Process for Replenishment Order):
- Supplier's Replenishment Order Confirmation Overdue (alert type 7127)
SAP SNC has sent the replenishment order (ReplenishmentOrderNotification) to the supplier back-end system and is waiting for the confirmation (ReplenishmentOrderConfirmation) from the...
supplier back-end system. The wait time has exceeded a predefined deadline (publication with the RO_PUBLICATION_ATPRESULT validation check).

- Customer's Replenishment Order Confirmation Overdue (alert type 7128)
  SAP SNC has sent the replenishment order (ReplenishmentOrderNotification) to the customer back-end system and is waiting for the confirmation with the purchase order number (VendorGeneratedOrderConfirmation) from the customer back-end system. The wait time has exceeded a predefined deadline. This alert is relevant if the customer back-end system, and not SAP SNC, is to assign a purchase order number to a replenishment order (publication with the RO_PUBLICATION_KEYCOMPLETE validation check).

Effects on Customizing

- Check the standard settings for the validation, in Customizing for Supply Network Collaboration, by choosing Validation. Activate or deactivate the desired validation checks.

See also
- Release Note Consensus Finding (New)
- Release Note Responsive Replenishment with ATP Check
- Release Note New and Changed Replenishment Order Items (Enhanced)
- Release Note Visibility Processes (New)

1.7.20.24 Close and Deletion of Replenishment Orders (Enhanced)

Use

Previously in purchase order collaboration and in the SMI with Replenishment Orders business scenario (previously called SMI with Purchase Orders), you used the following reports to close or delete purchase orders or replenishment orders:

- Close Purchase Orders and Replenishment Orders (/SCA/PO_SET_CLOSED)
  If you no longer expect changes to an item, you can use this report to close the item. The report closes items in which the delivery date for all request schedule lines is before the delivery date that you have entered in the report settings. Closed items receive the item status Closed.

- Delete Purchase Orders and Replenishment Orders (Report /SCA/PO_DELETE)
  You use this report to delete purchase orders and replenishment orders that have the status Closed or Delivered Complete.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:
- You also use these reports in the Responsive Replenishment business scenario to close replenishment orders and to delete replenishment orders that have the status Delivered Complete or Closed. (The open quantity of replenishment order items that have the status Canceled, Delivered Complete or Closed is zero, so replenishment planning does not consider these replenishment order items.)

- After deleting replenishment orders, the /SCA/PO_DELETE report can also delete the TLB shipments to which the replenishment orders were assigned and which were empty following deletion of the replenishment orders. If you want to use this function, in the report settings, set the Delete Associated TLB Shipments indicator.

To improve performance, we recommend that you run these reports regularly.

For online processing, call the reports on the SAP Easy Access screen, by choosing Replenishment -> Replenishment Planning -> Processing of Replenishment Orders.

### 1.7.20.25 Responsive Replenishment with ATP Check

#### Use

Previously in SAP Inventory Collaboration Hub (SAP ICH) in the Responsive Replenishment (RR) business scenario, the supplier executed replenishment planning with a subsequent Transport Load Builder run (TLB run) for the customer. The results of the TLB run are TLB shipments and replenishment orders that are assigned to the TLB shipments. SAP SNC sends these replenishment orders to the supplier back-end system using a ReplenishmentOrderNotification, and to the customer back-end system using a VendorGeneratedOrderNotification. These systems then create a sales order and a purchase order, respectively, for a replenishment order. In the supplier back-end system, the supplier carries out the sales processing and goods issue; in the customer back-end system, the customer carries out the purchase order processing and goods receipt. To check whether the products to be delivered are available, the supplier can perform an ATP check in the supplier back-end system for the sales order. Previously, the results of an ATP check could be sent to SAP ICH. However, SAP ICH could not consider these results.

In SAP Supply Network Collaboration (SAP SNC) 5.1, replenishment order collaboration was enhanced so that SAP SNC can now consider the results of the ATP check performed in the supplier back-end system in the Responsive Replenishment business scenario. SAP SNC only sends a replenishment order to the customer system if the ATP check in the supplier back-end system has confirmed the requested quantities and requested dates/times of the replenishment order. The customer system therefore, only creates a purchase order if the supplier can actually fulfill the purchase order.

Note: An ATP check that creates subitems for items is not supported.

#### Process Enhancements
The following enhancements to the replenishment collaboration make the new process possible:

- When the supplier publishes the replenishment order, SAP SNC can immediately and automatically send the replenishment order to the supplier back-end system using an XML message of the type `ReplenishmentOrderNotification` type. You control the transmission using the following validation checks:
  
  - **RO_PUBLISH_DIRECT**
    With this validation check, SAP SNC sends XML messages for replenishment orders directly (in other words, without Post Processing Framework). The validation check is active in the standard system.
  
  - **RO_PUBLICATION_ATPRESULT**
    The validation check is not active in the standard system. You have to activate the validation check for RR using ATP.

  (Previously in Responsive Replenishment, you could send replenishment orders using the /SCA/ICH_ORDER_SEND report only.

- In the supplier back-end system, the system performs an ATP check for the sales order. After the ATP check, the supplier back-end system uses a `ReplenishmentOrderConfirmation` to send the sales order confirmation to SAP SNC.

- SAP SNC copies the confirmation schedule lines to the replenishment order item and compares the confirmation schedule lines with the request schedule lines of the item. Depending on the results, SAP SNC approves or rejects the confirmation schedule lines. For the approval process, SAP SNC uses the deviation analysis from consensus finding, which is available as of SAP SNC 5.1.

- If the confirmation schedule lines deviate from the request schedule lines more than allowed by the configurable quantity tolerances and time tolerances, the confirmation schedule lines and the item receive the status `Rejected`. Confirmation schedule lines that correspond to the request schedules lines within the tolerances receive the status `Approved`.

- The supplier can process rejected items (items with the status `Rejected`) in SAP SNC on the Replenishment Order Details screen or on the TLB screen. As of SAP SNC 5.1, the `Replenishment Order Details` screen is also available in the Responsive Replenishment view. To send a replenishment order with processed items to the supplier back-end system, the supplier has to republish the replenishment order on the TLB screen.

- In the case of an accepted item, SAP SNC can copy the confirmation schedule lines as request schedule lines. The replenishment order is thus updated based on the ATP check. You can use the following validation checks to control the copying of confirmation schedule lines to the request schedule lines:
  
  - You use the **RO_COPY_ONLY_1CONF_TO_REQ** validation check if the supplier back-end system is an SAP ERP system. This validation check only copies the schedule lines if the item has only one confirmation line and thus only one request schedule line is created by the copying. For more information, see the "Integration with an SAP ERP System" section.
  
  - You use the **RO_COPY_CONF_TO_REQ** validation check if several request schedule lines can be processed during the integration with the supplier back-end system. This validation check creates a request schedule line from every confirmation schedule line.
- If all items of the replenishment order have the status **Accepted**, SAP SNC uses an XML message of the `VendorGeneratedOrderNotification` type to send the replenishment order that was updated with the confirmation data to the customer back-end system, which automatically creates a purchase order. The new `RO_PUBLICATION_ATPRESULT` validation check, which is not active in the standard system, likewise controls the transmission of the XML message.

- To update the sales order in the supplier back-end system as well, SAP SNC sends the updated replenishment order to the supplier back-end system. The new `RO_PUBLICATION_ATPRESULT` validation check likewise controls the transmission of the XML message. There an ATP check is performed again. The request schedule line following the approval process represents the availability situation, therefore the ATP check creates a confirmation schedule line for the request schedule line that corresponds to the request schedule line. The supplier back-end system then sends the sales order back to SAP SNC. The approval process determines a match here as well. This time, however, the validation check does not copy the confirmation schedule line, since the requested quantity and the requested date have not changed.

- The following new alerts can refer to exception situations in this process:
  - **Confirmed Item Quantity Violates Underdelivery Tolerance** (alert type 7123)
  - **Confirmed Delivery Date/Time Violates Delay Tolerance** (alert type 7140)
  - **Partially-Confirmed Replenishment Order Item** (alert type 7124)
  - **Late Confirmation of Replenishment Order Item** (alert type 7125)
  - **Replenishment Order Confirmation Rejected** (alert type 7126)

You control the creation of alerts by using PPF actions and validation checks. For more information, see Release Note **Alerts in Replenishment Order Collaboration (New)**.

### Integration with an SAP ERP Back-End System

If the supplier uses an SAP system as ERP back-end system, replenishment orders are transmitted using IDocs. Corresponding mappings are available as follows:

- **Send replenishment order to supplier back-end system**
  A mapping was already available previously for sending a replenishment order to an SAP ERP system; this mapping maps the `ReplenishmentOrderNotification` to the `ORDERS.ORDERS05` IDoc (*).

- **Send sales order with confirmation schedule lines to SAP SNC**
  A mapping was already available previously for transmitting a changed sales order from an SAP ERP system to SAP SNC; this mapping maps the `ORDRSP.ORDERS05` IDoc to the `ReplenishmentOrderConfirmation`. The `ORDRSP.ORDERS05` IDoc does not contain a segment for request schedule lines. The IDoc transmits the requested delivery date at header level. The IDoc transmits an aggregated requested quantity at item level. The requested data is displayed in the replenishment order on a request schedule line. Note the following restrictions that result for replenishment order collaboration with ATP:
    - During the approval process, you are only allowed to create one request schedule line for an item. You are only allowed to copy confirmation schedule lines if there is only one confirmation schedule line for an item. Therefore, you have to use the `RO_COPY_ONLY_1CONF_TO_REQ` validation check.
    - In this process, you can only create replenishment order items with one schedule line. Therefore, use the corresponding splitting function to create replenishment orders in SAP SNC.
- **Send replenishment order after approval to supplier back-end system**
  Once the approval process has copied the confirmation schedule line as request schedule line, SAP SNC sends the replenishment order to the supplier back-end system. For this transmission, a new mapping is available that maps the *ReplenishmentOrderNotification* XML message to the ORDCHG.ORDERS05 IDoc (*).

- **Send replenishment order after new ATP check back to SAP SNC**
  A mapping was already available previously for transmitting a changed sales order from an SAP ERP system to SAP SNC; this mapping maps the ORDRSP.ORDERS05 IDoc to the *ReplenishmentOrderConfirmation*.

(*) The selection of the IDoc for the sales order in the supplier back-end system is based on the *ActionCode* in the header of the *ReplenishmentOrderNotification*. When you publish a new replenishment order in SAP SNC, the *ActionCode* is set to *Create* (01). When you publish a changed replenishment order after the approval process, the *ActionCode* is set to *Change* (02). In the Exchange Infrastructure (XI), you have to define a contents-based routing that selects the following IDocs:

- *Create ActionCode (01) -> IDoc ORDERS.ORDERS05*
- *Change ActionCode (02) -> IDoc ORDERS.ORDERS05*

### Effects on Customizing

- **Validation Checks**
  Check the standard settings for the validation, in Customizing for *Supply Network Collaboration*, by choosing *Validation*. Activate or deactivate the desired validation checks.

- **Consensus Finding**
  We deliver consensus finding with all necessary settings in Customizing. To use consensus finding, you only have to create condition records: To do this, on the *SAP Easy Access* screen, choose *Supply Network Collaboration -> Master Data -> Condition Technique -> Maintain Condition Records for Consensus Finding*.
  In addition, you have to check whether you have to adjust the consensus rules delivered in the standard system to your needs. Only change the Customizing for consensus finding if you want to override the standard settings. For more information, see the Implementation Guide (IMG) for *Supply Network Collaboration* under *Basic Settings -> Consensus Finding*.

### See also

- Release Note *Publication of Replenishment Orders (Changed)*
- Release Note *Publication of XML Messages (Changed)*
- Release Note *Alerts in Replenishment Order Collaboration (New)*
- Release Note *New and Changed Sales Order Items (Enhanced)*
1.7.20.26 Delivery Tolerances in SMI Replenishment Orders (New)

Use

As of Supply Network Collaboration (SAP SNC) 5.1, in the SMI with Replenishment Orders business scenario (previously called SMI with Purchase Orders), the system can consider delivery tolerances for a replenishment order. This includes the following data:

- Underdelivery tolerance
- Overdelivery tolerance
- Indicator for unlimited overdelivery

SAP SNC considers the delivery tolerances as follows:

- Determination of the Item Status Partially Delivered and Delivery Complete
  If the open quantity of the replenishment order item is smaller than the absolute underdelivery tolerance, SAP SNC sets the Partially Delivered status for the item, otherwise it sets the Delivery Complete status. (The absolute underdelivery tolerance is the percentage of the underdelivery tolerance applied to the request quantity).

- ASN Quantity
  Overdelivery is only possible within the overdelivery tolerance. In the case of unlimited overdelivery, there is no restriction on the ASN quantity. (The ASN quantity is monitored by the PO_OVERDELIVERY and PO_OVERDELIVERY_OPEN_QTY ASN validation checks, which were already available previously and are active in the standard system.

SAP SNC uses the delivery tolerances from the contract or purchasing info record to which the item is assigned. The customer can use Core Interface (CIF) in the external procurement relationship to transmit the contract or purchasing info record to SAP SNC. The new validation check RO_TOLERANCE_ASSIGN, which is active in the standard system, assigns the delivery tolerances to the item.

If no contract or purchasing info record exists, SAP SNC uses the data from the location product master of the customer location. SAP SNC determines the delivery tolerances when you create, check, or publish the replenishment order.

Integration with a Back-End System

- The ReplenishmentOrderNotification was enhanced. It can now transmit the indicator for unlimited overdelivery at item level.
- You have to use the customer exit CIFMAT01 in the back-end system so that CIF transmits the overdelivery indicator from the material record to the product master.

Effects on Customizing

Check the standard settings for the validation, in Customizing for Supply Network Collaboration, by choosing Validation. Activate or deactivate the desired validation checks.
1.7.20.27 Inventory Management (Changed)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, inventory management has been unified for the Responsive Replenishment (RR), Supplier Managed Inventory (SMI), and Supply Network Inventory (SNI) scenarios. All inventory data is now stored in the same database tables in the Logistics Inventory Management Engine (LIME).

In addition, you can use new and enhanced reports for managing inventory data. These reports allow system administrators to delete inventory data that is no longer needed, or to query or reset inventory data to zero for test and simulation purposes. The enhancements for the reports are as follows:

- The inventory query and creation report /SCA/DM_INV_CREATION has been enhanced to include new fields for supplier, promotion ID, and data-providing partner. The enhanced report can now be used for all scenarios. The reports /SCA/DM_CREATEINV_SNI for SNI and /SCA/SJKTST02 are obsolete.

- The inventory reset report /SCA/DM_RESETINV has been enhanced to include new fields for supplier, promotion ID, and data-providing partner. The enhanced report can now be used for all scenarios. The reports /SCA/DM_RESETINV_SMI for SMI and /SCA/DM_RESETINV_SNI for SNI are obsolete.

- You can use the new report /SCA/DM_DELETE_INV for inventory deletion.

Effects on Existing Data

You must migrate the RR and SMI inventory data from the old to the new database tables in LIME using the inventory data conversion report /SCA/INV_MOVE.

See also

SAP Note 1019288

1.7.20.28 Due Quantity (Enhanced)

Use

Previously, SAP Inventory Collaboration Hub calculated the due quantity for schedule lines of the following order documents:

- Replenishment orders in the Supplier Managed Inventory with Replenishment Orders business scenario (previously called Supplier Managed Inventory with Purchase Orders)
- Purchase orders
- Scheduling agreement releases

The due quantity of a schedule line is the schedule line quantity that is not covered by ASNs.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:

- For purchase order schedule lines, the system now also calculates an additional due quantity based on purchase order schedule lines. This is the quantity that is not covered by confirmations. The due quantity calculated on the basis of purchase order schedule lines is called "confirmation-based due quantity".

To determine the confirmation-due quantity for the requested schedule lines of a purchase order item, the system adds up the confirmed quantities from the confirmation schedule lines of the purchase order to obtain a total confirmation quantity. The system then assigns the required requested quantity from the total confirmation quantity to the request schedule lines, until the total confirmation quantity is used up. To do this, the system processes the PO schedule lines chronologically, starting with the earliest PO schedule line. You can define whether the system processes the schedule lines in the order of their shipping dates/times or their delivery dates/times. When the supplier creates a confirmation schedule line for a purchase order item on the Web UI for SAP SNC, SAP SNC proposes the confirmation-based quantity as confirmed quantity.

- The due quantity calculated on the basis of ASNs is called "ASN-based due quantity".

ASNs are now also available in the Responsive Replenishment business scenario, thus the ASN-based due quantity is now also relevant for replenishment orders in the Responsive Replenishment business scenario.

Effects on Existing Data

The confirmation-based due quantity and the ASN-based due quantity are prerequisites for other functions (for example, for purchase orders in the purchase order worklist. As of SAP SNC 5.1, the confirmation-based due quantity is also available for purchase orders, while the ASN-based due quantity is also relevant for replenishment orders in the Responsive Replenishment business scenario. For these quantities to be calculated, you have to execute the /SCA/ORDER_CONSOLIDATION conversion report after the upgrade. In the case of replenishment order items for which ASNs do not yet exist, SAP SNC uses the requested quantity as the ASN-based due quantity. The report also copies the delivery date/time to the initial availability date/time. For more information, see SAP Note 1019288.

Effects on Data Transfer

Determine whether the system is to process the schedule lines for a purchase order item in the sequence of their shipping dates/times or their delivery dates/times when it calculates the confirmation-based due quantities, in Customizing for Supply Network Collaboration, by choosing Delivery -> Calculation of Due Quantity -> Determine Due Schedule Line Quantities. The date/time determined here is also relevant for the purchase orders in the purchase order worklist that are to be confirmed. The supplier confirms this date/time.

See also

- Release Note ASNs (Enhanced)
1.7.21 SCM-ICH-ASN  Advanced Shipping Notification

1.7.21.1 Advanced Shipping Notifications (Enhanced)

Use

A supplier can use advanced shipping notifications (ASNs) to inform the customer about a pending delivery. Previously, ASNs were available in SAP Inventory Collaboration Hub (SAP ICH) as follows:

- **Supplier Collaboration**
  
  In supplier collaboration, the supplier can manually create an ASN for a purchasing document on the Web UI for SAP ICH. When the supplier publishes an ASN, SAP ICH sends the ASN to the customer back-end system. Based on the ASN, the customer back-end system creates an inbound delivery that serves as the basis for goods receipt processing. During goods receipt, the customer can use a *ProductActivityNotification* or a *ReceivedDeliveryNotification* to send goods receipt information to SAP ICH. Based on the goods receipt message, SAP ICH updates the goods receipt quantity in the ASN item and sets the ASN item status to *Partial Goods Receipt* or *Complete Goods Receipt*.

  In the standard system, it was previously not possible for the supplier to create an ASN in the supplier back-end system and send it to the customer back-end system using SAP ICH.

  In the **SMI with Replenishment Orders** business scenario, the supplier creates ASNs for a replenishment order item. Here, SAP ICH creates confirmation schedule lines of the **ASN-Confirmed** type for the replenishment order items. You can use the following validation checks to determine which data SAP ICH uses to update the open quantity of request schedule lines and the status for a replenishment order item.

  - **PO_OPENQUAN_FROM_ASNQUAN**
    SAP ICH reduces the open quantity of the request schedule lines when the supplier creates an ASN for the item:

  - **PO_OPENQUAN_FROM_ASNGRQUAN**
    SAP ICH reduces the open quantity of the request schedule lines by the goods receipt quantity from the ASN-confirmed confirmation schedule line. The goods receipt quantity of the confirmation schedule line is updated when the customer sends a *ReceivedDeliveryNotification* to SAP ICH.

- **Business Scenario: Responsive Replenishment**
  
  In replenishment order collaboration in the **Responsive Replenishment** business scenario, the supplier was not able to manually create ASNs in SAP ICH for replenishment orders or send ASNs from the supplier back-end system to SAP ICH. Previously, SAP ICH could only update the open quantity of replenishment order items based on *ProductActivityNotifications* that the customer had sent from his or her back-end system to SAP ICH.

**Creation of Outbound Deliveries in the Supplier Back-End System**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, it is possible in all scenarios for the supplier to create an outbound delivery in his or her back-end system and then send it to SAP SNC using a *DespatchedDeliveryNotification*. Upon receipt of the ASN, SAP SNC creates confirmation schedule...
lines of the ASN-Confirmed type for the replenishment order item. SAP SNC validates the ASN. After a successful validation, SAP SNC assigns the status Published to the ASN. If the validation was not successful, SAP SNC assigns the status Received to the ASN header. You can change the assignment of the status Published and Received with the ASN_SET_STATUS_RC validation check in such a way that SAP SNC only assigns the status Published to successfully-validated ASNs that were forwarded to the customer system.

Enhancements for Replenishment Order Collaboration in the Responsive Replenishment Business Scenario

As of SAP SNC 5.1, the supplier can create an outbound delivery in his or her back-end system for a sales order in the Responsive Replenishment business scenario (typically during goods issue) and then use a DespatchedDeliveryNotification to send it to SAP SNC (see above). Upon receipt of the ASN, SAP SNC creates confirmation schedule lines of the ASN-Confirmed type for the replenishment order item.

There is no integration with a supplier back-end system, therefore we recommend that the supplier does not manually create or change ASNs in SAP SNC for a replenishment order. (Published ASNs are not changeable in the standard system anyway).

You can execute the rest of the process in a similar fashion to replenishment order collaboration in the SMI with Replenishment Orders business scenario (see above): During goods receipt, the customer can send the goods receipt information to SAP SNC using a ReceivedDeliveryInformation. Based on the goods receipt message, SAP SNC updates the ASN. SAP SNC can use the new validation checks RO_OPENQUAN_FROM_ASNQUAN and RO_OPENQUAN_FROM_ASNGRQUAN to update the status of the replenishment order items and the open quantity of the request schedule lines.

Further Enhancements for Replenishment Order Collaboration

The following ASN enhancements are available for replenishment order collaboration:

- **New Fields for the ASN Item**
  The following new fields exist at ASN item level:
  - **Promotion ID**
    The field is only displayed when an item in the ASN refers to a replenishment order item for a promotion.
  - **Sales Order Reference and Purchase Order Reference**
    These fields display the data from the replenishment order item upon which the ASN item is based.

- **Availability Date/Time**
  SAP SNC uses scheduling to determine the availability date/time as follows:
  Availability date/time = Delivery date/time + Goods receipt processing time
  Scheduling uses the goods receipt processing time from the product master for the customer location product.

- **Product Determination Upon Receipt of an ASN**
  Upon receipt of an ASN (DespatchedDeliveryNotification) from the supplier back-end system, SAP SNC can execute product determination to determine the products that are relevant for replenishment planning from the supplier back-end product.

Integration with an SAP ERP System

For suppliers with an SAP system as back-end system, we deliver a standard mapping that maps the DESADV.DELVRY03 outbound delivery IDoc to a DespatchedDeliveryNotification.
The ASN item contains the purchase order number and the purchase order item number. In the following order documents, the purchase order item number is a five-digit figure:

- Purchase order in an SAP ERP system
- Purchase order in SAP SNC
- ASN in SAP SNC

The inbound delivery in an SAP ERP back-end system, however, saves the purchase order item number as a six-digit figure. When a goods receipt message is received for the ASN (ReceivedDeliveryNotification) from the customer back-end system, SAP SNC has to shorten the purchase order item number from the ReceivedDeliveryNotification from six digits to five digits. In the inbound message, there is an example implementation available for the /SCA/IF_EX_BIF_I_DESDLVRY-BEFORE_CONVERSION method of the /SCA/BIF_I_DESDLVRY BAdI; this example implementation creates a purchase order item number that is five digits long, by removing the leading zero.

Further General Enhancements for ASNs

- To support new processes and functions, new validation checks are available.
- In the standard system, the system no longer sends ASNs using the Post Processing Framework, but directly in the background. For more information, see Release Note Publication of XML Messages (Changed).
- You can use the following enhanced and new functions:
  - On the detail screen for ASN processing, you can navigate to the associated purchase orders and scheduling agreement releases.
  - On the detail screen, you can set and undo the Complete Goods Receipt status at item level.
  - On the overview screen, on which you could previously only set the Complete Goods Receipt status, you can now also undo this status.

Effects on Data Transfer

If you have previously used ASNs in purchase order collaboration, in scheduling agreement release collaboration, or in Supplier Managed Inventory, you have to execute the following conversion reports following an upgrade, if you want to update the ASNs:

- Availability date/time
  Report /SCA/DLV_FILLAVAILABLE_TST
- Supplier back-end product
  Report /SCA/DLV_FILL_BE_PRODUCT

For more information, see SAP Note 1019288.

Effects on Customizing

Forwarding of ASNs from the Supplier Back-End System

If you want to use the Post Processing Framework (PFF) and not the ASN_PUBLISH_DIRECT_ROUTING validation check to forward ASNs from the supplier back-end
system to the customer back-end system, you must deactivate the ASN_PUBLISH_DIRECT_ROUTING validation check. SAP SNC then uses the /SCA/BOL_DLV_XML_ROUTING PPF action (application /SCA/ICH, action profile /SCA/BOL_DELIVERY).

**Update of the Open Quantity and of the Status of a Replenishment Order item**

If you want to update the open quantity and the status of replenishment order items based on ASNs or ReceivedDeliveryInformation, proceed as follows:

- Activate the corresponding validation check (RO_OPENQUAN_FROM ASNQUAN or RO_OPENQUAN_FROM ASNGRQUAN).
- In Customizing for Supply Network Collaboration, choose the No Update of Replenishment Orders or ASNs option for the relevant combination of customer, product and location, by choosing Exceptions -> Data Import Controller -> Update Quantities and Status of Replenishment Orders and ASNs.
- Note: Alternative options for updating ASNs and replenishment orders are still available in this IMG activity. SAP SNC uses these options to update the replenishment order items and ASNs based on data (inventory status time stamp, open purchase order quantity) in the **ProductActivityNotifications** that the customer sends from his or her back-end system to SAP SNC.

**See also**

- Release Note **Scheduling (Changed)**
- Release Note **Product Determination (Changed)**
- Release Note **Due Quantity (Enhanced)**
- Release Note **Publication of XML Messages**
- Release Note **Determination of Open Quantity of Replenishment Orders (Enhanced)**
- Upgrade guide for SAP SCM 5.1

**1.7.21.2 History Comparison for Documents (New)**

**Use**

Previously, you were able to display a history for advanced shipping notifications (ASNs), supplier confirmations, and purchase orders. As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can compare the histories of two documents. The history comparison displays a table overview of fields and values in which the two documents differ from each other. You can use the history comparison to more easily identify changes that were made to a document. You can use the history comparison for the following documents:

- ASNs
- Purchase orders
- Replenishment orders
- Supplier confirmations
1.7.21.3 Display of Document Unit of Measure (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can display the base unit of measure as well as the document unit of measure for a product. You can display the document unit of measure on the following Web screens of SAP SNC:

- Detail screen for purchase orders
- Detail screen for replenishment orders
- Detail screen for invoices
- Detail screen for advanced shipping notifications (ASNs)
- Query To Be Confirmed for the purchase order worklist

The new function primarily supports suppliers who want to display the base unit of measure while they work with purchase orders, for example, or with follow-on documents such as ASNs or invoices. In many cases, the supplier does not know the base unit of measure in SAP SNC, and he or she wants to display the unit that he or she is using to create the documents.

1.7.21.4 Invoice Collaboration (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you and your supplier can create, process, and monitor invoices.

Creation and monitoring of invoices

Suppliers can create invoices of the following invoice types:
- Invoices
- Subsequent credit
- Subsequent debit

SAP SNC supports the creation of invoices for the following documents:
- Purchase orders
- ASNs
- Replenishment orders (only for supplier collaboration)

On the Web user interface, your supplier can create invoices, and you and your supplier can monitor the status of the invoices and identify documents for which no invoices have yet been created. You and your supplier can print invoice and invoice summaries, and your supplier can create notes on the invoice at header and item level.

Integration with an SAP ERP System

SAP SNC can transmit the information contained in an invoice to an SAP ERP system. You can use an SAP ERP system to process the invoice and for the payment run, and to send the updated status of the invoice to SAP SNC. If you have agreed to use evaluated receipt settlement (ERS procedure) and you therefore create self-billing invoices for the supplier in the SAP ERP system, you can send this information to SAP SNC. A supplier can display the self-billing invoices in SAP SNC. In addition, you can send revaluations from self-billing invoices from SAP ERP to SAP SNC.

For this message exchange between a standard SAP ERP system and SAP SNC, we deliver the InvoiceRequest and PaymentAdviceNotification message types. We deliver mappings for the integration with a customer SAP ERP system. You have to create mappings for the integration with a supplier back-end system within the framework of a project solution.

For more information about the prerequisites and required releases of the SAP ERP system, see SAP Library for SAP SNC under Invoice.

Invoice Data on Web User Interfaces for ASNs, Purchase Orders, and Replenishment Orders

You can navigate from the header and item data of an ASN to the associated invoices.

You can navigate from the header and item data of a purchase order and of a replenishment order to the associated invoices. In addition, you can display invoice data on the detail screen for the purchase order and for the replenishment order. To do this, choose the Price and Invoice Data tab pages.

Master Data Integration

Suppliers can save their standard values for a purchasing document in SAP SNC, for example, standard values for net price, price unit, or Incoterms. In addition, suppliers can save their standard values for payment conditions in SAP SNC. SAP SNC can copy these standard values during invoice creation.

Effects on Data Transfer

You can use SAP Core Interface (CIF) to send master data in SAP ERP that is relevant for the invoice, from SAP ERP to SAP SNC. For more information, see the Release Note Integration of Master Data (Enhanced).

Effects on System Administration
You can use the /SCA/INVOICE_DELETE report to delete obsolete invoices.

**Effects on Customizing**

To be able to use invoice collaboration in SAP SNC, you have to make the following settings in the Implementation Guide (IMG):

- Determine the tax code that you want to use to create the invoice. To do this, you use the IMG activity *Maintain Tax Code for Invoices*, in Customizing for *Supply Network Collaboration*, by choosing *Invoice*.

- Consider whether you want to make any changes to the invoice data during inbound or outbound message processing. To do this, you implement the Business Add-Ins (BAdIs), in Customizing for *Supply Network Collaboration*, by choosing *Business Add-Ins (BAdIs) for SAP SNC -> Invoice*.

- Check the standard settings for validation checks, in Customizing for *Supply Network Collaboration*, by choosing *Basic Settings -> Validation -> SAP Standard Settings*. If required, create your own settings for the invoice, by choosing *Basic Settings -> Validation -> Own Settings*. For more information, see the IMG for *Validation*. For more information about which validation checks and profiles are relevant for the invoice, see SAP Library for SAP SNC under *Invoice*.

- Activate the settings for the invoice in order document management. To do this, use the IMG activity *Activate Settings in Order Document Management*, in Customizing for *SCM Basis*, by choosing *Order Document Management*. For more information, see SAP Note 1019289.

**See also**

- Release Note *Integration of Master Data (Enhanced)*
- Release Note *Conversion of Invoice Numbers and Invoice Item Numbers (New)*
- Release Note *Print (Enhanced)*

### 1.7.21.5 Due Quantity (Enhanced)

**Use**

Previously, SAP Inventory Collaboration Hub calculated the due quantity for schedule lines of the following order documents:

- Replenishment orders in the *Supplier Managed Inventory with Replenishment Orders* business scenario (previously called *Supplier Managed Inventory with Purchase Orders*)
- Purchase orders
- Scheduling agreement releases

The due quantity of a schedule line is the schedule line quantity that is not covered by ASNs.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements exist:
- For purchase order schedule lines, the system now also calculates an additional due quantity based on purchase order schedule lines. This is the quantity that is not covered by confirmations. The due quantity calculated on the basis of purchase order schedule lines is called "confirmation-based due quantity".

To determine the confirmation-due quantity for the requested schedule lines of a purchase order item, the system adds up the confirmed quantities from the confirmation schedule lines of the purchase order to obtain a total confirmation quantity. The system then assigns the required requested quantity from the total confirmation quantity to the request schedule lines, until the total confirmation quantity is used up. To do this, the system processes the PO schedule lines chronologically, starting with the earliest PO schedule line. You can define whether the system processes the schedule lines in the order of their shipping dates/times or their delivery dates/times. When the supplier creates a confirmation schedule line for a purchase order item on the Web UI for SAP SNC, SAP SNC proposes the confirmation-based quantity as confirmed quantity.

- The due quantity calculated on the basis of ASNs is called "ASN-based due quantity".

ASNs are now also available in the Responsive Replenishment business scenario, thus the ASN-based due quantity is now also relevant for replenishment orders in the Responsive Replenishment business scenario.

Effects on Existing Data

The confirmation-based due quantity and the ASN-based due quantity are prerequisites for other functions (for example, for purchase orders in the purchase order worklist. As of SAP SNC 5.1, the confirmation-based due quantity is also available for purchase orders, while the ASN-based due quantity is also relevant for replenishment orders in the Responsive Replenishment business scenario. For these quantities to be calculated, you have to execute the /SCA/ORDER_CONSOLIDATION conversion report after the upgrade. In the case of replenishment order items for which ASNs do not yet exist, SAP SNC uses the requested quantity as the ASN-based due quantity. The report also copies the delivery date/time to the initial availability date/time. For more information, see SAP Note 1019288.

Effects on Data Transfer

Determine whether the system is to process the schedule lines for a purchase order item in the sequence of their shipping dates/times or their delivery dates/times when it calculates the confirmation-based due quantities, in Customizing for Supply Network Collaboration, by choosing Delivery -> Calculation of Due Quantity -> Determine Due Schedule Line Quantities. The date/time determined here is also relevant for the purchase orders in the purchase order worklist that are to be confirmed. The supplier confirms this date/time.

See also

- Release Note ASNs (Enhanced)
- SAP Note 1019288
1.7.22 SCM-ICH-WO  Work Order

1.7.22.1 Consensus Finding (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can use consensus finding. Consensus finding is a process in which several business partners, for example, try to agree on quantities, dates/times, and prices. You can use consensus finding to compare data from different sources and accept deviations within fixed tolerance limits (deviation analysis), or you can use the data from different business partners to determine new data within fixed tolerance limits that is acceptable for all business partners involved (consensus determination).

A preconfigured consensus finding is available for the following applications:

- Collaborative Sales Forecasting and Order Forecast Monitor
  You use consensus finding to calculate whether forecasts of the customer and supplier are the same. If you use collaborative sales forecasting, you can also calculate possible cost proposals for the forecasting.

- Work Order Processing
  You use consensus finding to compare the following:
  - Requested data from the customer with confirmation data from the supplier
  - Current data with planned data
  - Projected data with planned data

- Purchase Order Processing and Replenishment Order Processing
  You use consensus finding to control whether the system automatically approves deviations in quantity and date/time that are within fixed tolerances.

Effects on Customizing

If you want to use consensus finding for an SAP SNC application, first check if settings are required for this in Customizing. For some applications, consensus finding is already preconfigured with standard settings, so that you only have to create or change Customizing settings if you want to override the standard settings. For more information about necessary settings, see SAP Library for SAP SNC, under Consensus Finding.

If you want to set up consensus finding for an SAP SNC application for the first time, or override existing standard settings, use the IMG activities under Supply Network Collaboration -> Basic Settings -> Consensus Finding.

See also

Release Note Work Order (New)
Release Note Approval Process in Purchase Order Collaboration (Enhanced)
Responsive Replenishment with ATP Check (New)

1.7.22.2 Work Order Collaboration (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the customer can use the new Work Order component to monitor the production progress at a contract manufacturer. The contract manufacturer (hereafter referred to as "supplier") regularly sends data about the production progress during the production process in the work order (component quantities used, WIP, scrap, completed final product quantities). As such, the phase between issuing the purchase order and the goods receipt at the customer location is more transparent for the customer. The customer can quickly react to potential exception situations (for example, if underdelivery quantities or late delivery dates/times are expected to occur). The work order supports collaboration between customer and supplier: In the work order, the business partners can negotiate dates/times, quantities, and the components to be used. The partners can also make documents visible in the work order, for example, that contain production instructions (such as specifications and drawings). Work order collaboration is integrated into purchase order collaboration in SAP SNC.

Work Order

The basis for collaboration between the customer and the supplier in contract manufacturing is the new "work order" order object, which combines the characteristics of a purchase order and a production order. Besides the delivery dates/times and quantities for the ordered final product, the work order contains the bills of material and task list information but only to such detail as required by the customer to monitor the production progress at the supplier. This includes the most important input and output components and the relevant work steps (called "phases"), including quantities, durations, and usage and availability dates/times.

Creation of Work Orders and Master Data

SAP SNC creates the work order based on a purchase order (normal purchase order or subcontract order) that the customer has sent from his or her back-end system to SAP SNC using a ReplenishmentOrderNotification. A work order can be created either automatically upon receipt of the ReplenishmentOrderNotification, or later with a special report that the customer executes in the SAP SNC system. SAP SNC can create several work orders for a purchase order (one for each purchase order item or one for each purchase order schedule line). SAP SNC determines the components and phases from the master data, and uses this data and purchase order data (requested quantities and requested dates, and in the case of subcontract orders, subcontracting components as well) to create the work order. A new SNC-specific master data object, the phase structure, is available for creating work orders. In an SCM server installation, however, you can also use special sources of supply for in-house production from SAP Advanced Planning and Optimization (production data structures and production process models for Supply Network Planning).

Negotiation Phase

After creating the work order, the customer publishes the work order in SAP SNC with his or her requested data. This opens an (optional) negotiation phase, in which the customer and supplier agree on quantities and dates/times with which the supplier is to comply. This includes the quantities and dates/times for deliveries, the consumption quantities of the components, or the phase durations. The
supplier checks the work order, confirms the requested data or proposes other dates/times and quantities, for example in the case of capacity bottlenecks arising from the requested data. The customer checks the supplier confirmations, and approves them or proposes new requested data. The negotiation phase lasts until the customer and supplier have reached an agreement and all work order data has the corresponding status.

SAP SNC supports the negotiation phase with an automatic approval process. This occurs when the supplier publishes confirmation data in SAP SNC. The approval process checks whether the confirmation data of the supplier and the requested data of the customer agree within customer-defined quantity tolerances and date/time tolerances.

**Execution Phase**

If the requested data and confirmation data match, the execution phase begins, in which the supplier produces the ordered products. During the execution phase, the supplier regularly updates the work order with actual phase data (actual input and output quantities, usage and availability dates/times, scrap, WIP). Based on the actual data, SAP SNC calculates the delivery quantities and dates/times expected (projected data) and displays these in the work order.

When entering the actual data, the supplier can classify the produced quantities, for example as yield. If the supplier cannot decide on how to handle a certain batch, he or she can set the batch to On Hold. A special alert informs the customer about this, and the customer can decide whether the supplier should process the batch further, rework the batch, or scrap it.

**Alert-Based and Action-Based Work Order Processing**

In the negotiation phase and in the execution phase, the customer and the supplier are automatically notified by alerts if a reaction is required by the partner when actual data deviates from planning data or when projected data determined through actual data deviates from planning data. SAP SNC can, for example, create an alert if the supplier is to react to a new work order from the customer, or if the projection based on actual data determines a delivery that is too late or insufficient delivery quantity. On the Web UI, SAP SNC displays the actions for which the work order is required, and which business partner is responsible for these actions. The required actions correspond to a large extent to the alerts. In the case of quantity- and date/time deviations, the required actions are even more differentiated. They differentiate between quantities that are too large and too small, and between dates/times that are too early and too late.

**Web User Interface**

On the Web user interface of SAP SNC, the customer and the supplier have a joint, consistent view of the data and status of the work order. On the Web UI, the customer and the supplier display the work order, negotiate it, and update it with actual data. In the work order overview, the partners can select work orders according to various selection criteria, such as according to actions required for the work orders. They can navigate from the work order overview to the work order details. The work order details contain all data and functions required to process the work order. The customer can use these to process the requested data, for example. The supplier can create confirmation data in the negotiation phase and actual data in the execution phase. In the work order details, the customer and the supplier also see which actions are currently required for a work order. The supplier, for example, sees that he or she has to react to a new work order. The customer, for example, sees that he or she has to decide how the supplier is to handle a batch that was put on hold.

**Message Interfaces**

When the customer publishes a work order in SAP SNC, SAP SNC can also send the work order to the back-end system of the supplier. The supplier can send work order confirmations and actual data from the
supplier back-end system to SAP SNC. To do this, the following new XML messages are available:

- SAP SNC uses the **ManufacturingWorkOrderRequest** to send the work order containing the requested data to the supplier back-end system.

- The supplier uses the **ManufacturingWorkOrderConfirmation** during the negotiation phase to send confirmation data to SAP SNC.

- The supplier uses the **ManufacturingWorkOrderWorkInProcessNotification** during the execution phase to send actual production data to SAP SNC.

- SAP SNC can use the **ManufacturingWorkOrderInformation** to send work order information to the customer back-end system.

**Additional Documents and Information**

The customer can use attachments to the work order to provide the supplier with additional information. This information can include, for example, work instructions, design drawings, specifications, test programs, or packing instructions. In addition, both partners can use eFolders to jointly use documentation for a product. If you are using phase structures to create work orders, you can also define parameters and parameter values that the supplier is to consider for the work order.

**Consensus Finding with Deviation Analysis**

In the negotiation phase, SAP SNC can automatically approve the supplier confirmations, if they match the customer's requested data within the customer-defined tolerances for dates/times and quantities. To do this, SAP SNC uses deviation analysis from consensus finding. Deviation analysis is used in the execution phase as well. Here, SAP SNC determines critical deviations between the planning data and the actual data, or between the planning data and the projected data, and creates actions and alerts based on the results.

**Update of the Purchase Order**

A special indicator in the purchase order overview and in the purchase order details informs whether a work order has already been created for a purchase order.

When the customer and supplier have reached an agreement for a work order and the work order is published, SAP SNC also updates the purchase order for which the work order was created. In doing so, SAP SNC copies the confirmation data to the request schedule lines for the purchase order item. The purchase order now contains identical request schedule lines and confirmation schedule lines with the status Accepted. SAP SNC then uses a ReplenishmentOrderNotification to send the purchase order confirmation to the customer back-end system, so that the purchase order is updated in the customer back-end system as well. (Note: In work order collaboration, the supplier only uses work order confirmations, no purchase order confirmations).

SAP SNC updates the purchase order during confirmation of current data as well: When the supplier confirms the actual consumed quantity of the subcontracting components during the close of a phase, the quantities of the subcontracting components are updated in the confirmation schedule lines as well.

**Update of the Purchase Order**

The customer can at any time change a purchase order for which a work order already exists, in his or her back-end system. He or she can, for example, create new schedule lines. When the back-end system sends the purchase order to SAP SNC, the work order is automatically adjusted there, and a new negotiation phase begins for the changed data.

**Enhancements in the Purchase Order**
The following fields were added to the purchase order screens on the Web UI and in the message interfaces for purchase orders:

- At schedule line level: the purchase order group
  The purchase order group is a grouping criterion for purchase orders. For more information, see the Release Note *Fields in the Purchase Order (Enhanced)*.

- At component level: the batch number
  The batch number is relevant for subcontract orders. An SAP ERP back-end system cannot transmit the batch number.

**Effects on Customizing**

- You make settings for special topics in Customizing for *Supply Network Collaboration*, by choosing *Work Order*.

- For the processes in work order collaboration, there are special validation profiles and validation checks available. Check the standard settings in Customizing for *Supply Network Collaboration*, by choosing *Basic Settings* -> *Validation* -> *SAP Standard Settings*. If required, define your own settings, by choosing *Basic Settings* -> *Validation* -> *Own Settings*. For more information about validation checks and validation profiles for work order collaboration, see SAP Library documentation for SAP SNC.

**See also**

- Release Note *Consensus Finding (New)*
- Release Note *cFolders (New)*

### 1.7.22.3 Archiving Work Orders and Supplier Confirmations (New)

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can archive supplier confirmations and work orders.

You use the archiving object ICH_SCON to archive supplier confirmations and ICH_WO to archive work orders.

You can find the archiving functions on the *SAP Easy Access* screen under *Tools* -> *Administration* -> *Administration* -> *Data Archiving* (transaction SARA). Here, you can access the archiving functions for preprocessing, writing, and deleting archiving objects.

Archived data is available for viewing from SAP SNC on the *Work Order History* and *Supplier Confirmation History* screens.

We provide the following infostructures:
1.7.23 SCM-ICH-IV  

**Invoice**

1.7.23.1 Display of Document Unit of Measure (New)

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can display the base unit of measure as well as the document unit of measure for a product. You can display the document unit of measure on the following Web screens of SAP SNC:

- Detail screen for purchase orders
- Detail screen for replenishment orders
- Detail screen for invoices
- Detail screen for advanced shipping notifications (ASNs)
- Query *To Be Confirmed* for the purchase order worklist

The new function primarily supports suppliers who want to display the base unit of measure while they work with purchase orders, for example, or with follow-on documents such as ASNs or invoices. In many cases, the supplier does not know the base unit of measure in SAP SNC, and he or she wants to display the unit that he or she is using to create the documents.
1.7.23.2 Invoice Collaboration (New)

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you and your supplier can create, process, and monitor invoices.

Creation and monitoring of invoices

Suppliers can create invoices of the following invoice types:
- Invoices
- Subsequent credit
- Subsequent debit

SAP SNC supports the creation of invoices for the following documents:
- Purchase orders
- ASNs
- Replenishment orders (only for supplier collaboration)

On the Web user interface, your supplier can create invoices, and you and your supplier can monitor the status of the invoices and identify documents for which no invoices have yet been created. You and your supplier can print invoice and invoice summaries, and your supplier can create notes on the invoice at header and item level.

**Integration with an SAP ERP System**

SAP SNC can transmit the information contained in an invoice to an SAP ERP system. You can use an SAP ERP system to process the invoice and for the payment run, and to send the updated status of the invoice to SAP SNC. If you have agreed to use evaluated receipt settlement (ERS procedure) and you therefore create self-billing invoices for the supplier in the SAP ERP system, you can send this information to SAP SNC. A supplier can display the self-billing invoices in SAP SNC. In addition, you can send revaluations from self-billing invoices from SAP ERP to SAP SNC.

For this message exchange between a standard SAP ERP system and SAP SNC, we deliver the `InvoiceRequest` and `PaymentAdviceNotification` message types. We deliver mappings for the integration with a customer SAP ERP system. You have to create mappings for the integration with a supplier back-end system within the framework of a project solution.

For more information about the prerequisites and required releases of the SAP ERP system, see SAP Library for SAP SNC under Invoice.

**Invoice Data on Web User Interfaces for ASNs, Purchase Orders, and Replenishment Orders**

You can navigate from the header and item data of an ASN to the associated invoices.

You can navigate from the header and item data of a purchase order and of a replenishment order to the associated invoices. In addition, you can display invoice data on the detail screen for the purchase order and for the replenishment order. To do this, choose the Price and Invoice Data tab pages.

**Master Data Integration**

Suppliers can save their standard values for a purchasing document in SAP SNC, for example, standard
values for net price, price unit, or Incoterms. In addition, suppliers can save their standard values for payment conditions in SAP SNC. SAP SNC can copy these standard values during invoice creation.

**Effects on Data Transfer**

You can use SAP Core Interface (CIF) to send master data in SAP ERP that is relevant for the invoice, from SAP ERP to SAP SNC. For more information, see the Release Note *Integration of Master Data (Enhanced)*.

**Effects on System Administration**

You can use the /SCA/INVOICE_DELETE report to delete obsolete invoices.

**Effects on Customizing**

To be able to use invoice collaboration in SAP SNC, you have to make the following settings in the Implementation Guide (IMG):

- Determine the tax code that you want to use to create the invoice. To do this, you use the IMG activity *Maintain Tax Code for Invoices*, in Customizing for *Supply Network Collaboration*, by choosing *Invoice*.

- Consider whether you want to make any changes to the invoice data during inbound or outbound message processing. To do this, you implement the Business Add-Ins (BAdIs), in Customizing for *Supply Network Collaboration*, by choosing *Business Add-Ins (BAdIs) for SAP SNC -> Invoice*.

- Check the standard settings for validation checks, in Customizing for *Supply Network Collaboration*, by choosing *Basic Settings -> Validation -> SAP Standard Settings*. If required, create your own settings for the invoice, by choosing *Basic Settings -> Validation -> Own Settings*. For more information, see the IMG for *Validation*. For more information about which validation checks and profiles are relevant for the invoice, see SAP Library for SAP SNC under *Invoice*.

- Activate the settings for the invoice in order document management. To do this, use the IMG activity *Activate Settings in Order Document Management*, in Customizing for *SCM Basis*, by choosing *Order Document Management*. For more information, see SAP Note 1019289.

**See also**

- Release Note *Integration of Master Data (Enhanced)*
- Release Note *Conversion of Invoice Numbers and Invoice Item Numbers (New)*
- Release Note *Print (Enhanced)*

**1.7.24 SCM-ICH-IMO Inventory Monitor**

**1.7.24.1 Replenishment with SMI and RR (Enhanced)**

Use
SAP Inventory Collaboration Hub (SAP ICH) already supported replenishment scenarios in which a supplier can plan the replenishment for his or her customers at the customer locations. The customer sends the requirements and stock data for a customer location product to SAP ICH. In SAP ICH, the supplier executes the planning for the customer location product. The supplier is responsible for covering the requirements of the customer on time.

**Overview of Screens and Functions in SAP ICH 5.0**

Depending on the scenario, the supplier uses different Web screens and functions in SAP ICH, as follows:

- **Supplier Managed Inventory (SMI)**
  In SMI, the customer runs SAP ICH together with an ERP system for materials management. The customer provides the typically smaller supplier with the SMI Monitor on the Web user interface (Web UI). In the SMI Monitor, the supplier sees the requirements/stock situation of the customer location product, and plans the replenishment in the SMI Monitor. In the SMI scenario, the supplier has the task of delivering to the customer such that the projected stock of the customer location product does not fall below the minimum stock level requested by the customer or exceed the maximum stock level requested by the customer. The projected stock informs the supplier when deliveries are required, and in the SMI Monitor, the supplier can manually enter the quantities he or she wants to deliver (planned receipts). In addition, the supplier can use the Propose Planned Receipts function, which is also available in the SMI Monitor. This function calculates planned receipts using a reorder point method. If the projected stock in a certain period falls above or below the reorder point specified by the customer, the function creates a planned receipt that fills the projected stock back up to the maximum stock level. In addition, a simulation function is available in the SMI Monitor that calculates the effects the manual changes to the planned receipts have on the projected stock. The planned receipts are saved as time series data in SAP ICH.

  When the planning is complete, the supplier can proceed as follows, depending on the business scenario:

  - In the **Supplier Managed Inventory** business scenario, the supplier creates ASNs for the planned receipts, to inform the customer about pending deliveries. SAP ICH sends the ASNs to the customer back-end system.

  - In the **Supplier Managed Inventory with Replenishment Orders** business scenario (previously called **Supplier Managed Inventory with Purchase Orders**), the supplier manually creates replenishment orders for the planned receipts (orders of the order document type VGOR, previously called "purchase orders" in this scenario). SAP ICH sends the replenishment orders to the customer back-end system and optionally to the supplier back-end system. These systems then create firm orders, which the customer and the supplier can consider in their ERP processes (a purchase order in the customer back-end system, a sales order in the supplier back-end system). The supplier creates ASNs in SAP ICH for the replenishment orders, which SAP ICH sends to the customer back-end system.

- **Responsive Replenishment (RR)**
  In RR, the supplier runs SAP ICH together with an ERP system for sales order processing. The typically large supplier works for customers who have contracted the replenishment planning out to the supplier. In the RR scenario, the supplier has the task of delivering to the customers in the most timely and accurate manner possible (under consideration of the safety stock). The supplier runs replenishment planning in SAP ICH using a replenishment planning service, in the background in a Planning Service Manager run (PSM run). The replenishment planning service creates the required planned receipts for a customer location product. The supplier can display the results of the replenishment planning run on the Web UI of SAP ICH in the Replenishment Overview. If
required, the supplier can also start the replenishment planning service on the replenishment Web UI.

The planned receipts are saved in SAP ICH as planned replenishment orders (orders of the order document type DRLPV, previously called "replenishment orders"). The supplier can use the TLB service to be able to load means of transport according to certain criteria. From the planned replenishment orders, the TLB service creates TLB shipments (orders of the order document type TLBO), which are assigned corresponding replenishment orders (orders of the order document type VGOR, previously called "vendor-generated order" in this scenario). SAP ICH sends the replenishment orders to the customer back-end system and to the supplier back-end system, which in turn create purchase orders and sales orders, respectively.

Up until now, ASNs were not supported in this scenario.

Overview of Screens and Functions in SAP SNC 5.1

The RR and SMI replenishment processes have a similar concept. In SAP Supply Network Collaboration (SAP SNC) 5.1, the functions and screens for these scenarios were unified with respect to the following aspects:

- Monitors
  In addition to the SMI Monitor, there are now new monitors available for monitoring that are set up similarly to the SMI Monitor:
  - Responsive Replenishment Monitor (RR Monitor)
    This monitor supports replenishment planning in the Responsive Replenishment business scenario.
  - Min/Max Replenishment Monitor
    This monitor supports scenarios in which you want to control replenishment planning with a minimum stock level, a maximum stock level, and a reorder point (such as the Supplier Managed Inventory with Replenishment Orders business scenario). You can also use this monitor in Responsive Replenishment. Unlike the SMI Monitor, you can create replenishment orders for planned receipts in this monitor.

  The monitors were developed with Web Dynpro and now offer new UI functions and personalization options. The SMI Monitor was converted to Web Dynpro.

- Planning Functions
  All planning functions are now available in RR and in SMI as planning services. You can execute planning services on the Web UI online or by using the Planning Service Manager (PSM) in the background. In particular, the creation of planned replenishment orders was unified. In addition, a new planning service is available that allows you to create replenishment orders without using the TLB service.

- Configuration
  You use the same customizing tables to configure the different replenishment variants. This pertains, for example, to the definition of the projected stock or the determination of the planning service profiles that are used on the Web UI and in the PSM to create planned receipts or replenishment orders.

- Replenishment Orders
  The handling of replenishment orders is the same in all replenishment variants. This pertains, for example, to the creation options (manually or by using a planning service), display, publication, and the key figures derived from the replenishment orders.

- Terminology
An order of the order document type VGOR is now called "replenishment order", while an order of the order document type DRPV is now called "planned replenishment order". The functions and key figures that are used in RR as well as SMI have the same name in RR and SMI.

- **Technical Consolidation**
  The internal creation of stock data and time series data was unified.

**SMI Monitor**

As of SAP SNC 5.1, you only use the SMI Monitor if you want to control replenishment planning with a minimum stock level, a maximum stock level, and reorder point but are only using ASNs and not replenishment orders (for example, in the Supplier Managed Inventory business scenario). The functions for creating replenishment orders are therefore no longer available in the SMI Monitor. Accordingly, the details no longer display the Firm Receipts key figure, which represents the quantities from replenishment orders.

The SMI overview now also displays the duration of the horizon in which no exceptions (such as shortfall in minimum stock level) occur.

**Min/Max Replenishment Monitor**

As of SAP SNC 5.1, there is a further monitor similar to the SMI Monitor available in which you can control replenishment planning with a minimum stock level, a maximum stock level, and reorder point, but unlike in the SMI Monitor, you can also create replenishment orders here. You use the Min/Max Replenishment Monitor, for example, in the Supplier Managed Inventory with Replenishment Orders business scenario, but you can also use it in an RR scenario.

The following key figures inform you about different quantities from replenishment orders:

- **Firm Receipts (Open)**
  This is the total open quantity from unpublished and published replenishment orders in a period.

- **Firm Receipts (Published - Due)**
  This is the total open quantity from published replenishment orders. Here, the supplier must still send deliveries and ASNs to the customer.

Besides the inventory status, the overview also displays information about the replenishment status. This includes total quantities from replenishment orders (aggregated across different horizons). The in-transit quantity aggregated from ASNs displays the total quantity that is in transit to the customer. Periods of critical situations in projected stock are highlighted in color in the SMI Monitor.

**RR Monitor**

The new RR Monitor replaces the previous replenishment screens on the Web UI for SAP ICH. The RR Monitor contains the key figures and planning services that are relevant for RR. The VMI analyst can use the RR Monitor to gain an overview of the replenishment situation and stock situation. He or she can display the results of a replenishment planning run and, if required, manually change the quantities of planned replenishment orders or manually create planned replenishment orders. In addition, he or she can call different planning services directly (for example, the replenishment planning service and then the new deployment service). The RR Monitor contains the following screens:

- **The RR Overview** displays the inventory status and the replenishment status. Periods of exception situations in projected stock are highlighted in color, just like in the SMI Monitor and in the Min/Max Replenishment Monitor. In addition, you receive detailed information about the replenishment status (as in the Min/Max Replenishment Monitor) (see above).
- The **RR Details** display the key figures of a customer location product, for example, requirements, projected stock, and planned receipts. Here, the supplier can manually create or change planned receipts or execute planning services.

- You use the **RR Details - Product View** view to display key figures for multiple customer location products. On this screen, you can compare data for a small number of location products. We recommend that you do not call this screen for a large number of location products.

As with the SMI Monitor and Min/Max Replenishment Monitor, the RR Monitor has a **supplier view** and a **customer view**. The supplier uses the supplier view to run replenishment planning. The customer uses the customer view to monitor the replenishment situation.

**Key Figures in the RR Details**

The details views contain the following changes as compared to the **Replenishment Overview Web** screen available previously in RR:

- The **Replenishment Order Quantity** key figure available previously is now called Planned Receipts (see above).

- The **Stock Outs** key figure is no longer available.

- The **TLB Shipment Quantity** key figure was replaced by the following key figures for replenishment orders:
  - **Firm Receipts (Open)**
    This is the total open quantity from unpublished and published replenishment orders in a period. The key figure corresponds to the **TLB Shipment Quantity** key figure.
  - **Firm Receipts (Due)**
    This is the total due quantity from unpublished and published replenishment orders. Here, the supplier must still send deliveries and ASNs to the customer.

- The following key figures are also new for RR:
  - **In-Transit Quantity**
    This key figure is the quantity that is in transit to the customer. The system determines this quantity from the ASNs. The key figure is only relevant if you use ASNs in RR.
  - **Minimum Stock Level**
    This key figure is the safety stock.
  - **Minimum Proposal**
    This key figure is the planned receipt quantity (quantity from planned replenishment orders) that the supplier has to deliver to the customer to increase the projected stock up to the safety stock.
  - **Planned Receipts Before Deployment**
    This key figure is relevant if you are using the new deployment service, which is available as of SAP SNC 5.1 for RR. If you are using deployment, this key figure contains the quantity from planned replenishment orders that the replenishment planning run has created. For the quantity from planned replenishment orders that were created by the subsequent deployment run, see the **Planned Receipts** key figure.

**Planning Services**

The planning functions are now also available as planning services that can be executed on the Web UI in
the respective monitor or in the background in the PSM run. Depending on the monitor and the replenishment variant, you can use the following planning services:

- **Propose Planned Receipts** (REPL_SERVICE)
  This service is relevant for the SMI Monitor, the Min/Max Replenishment Monitor, and the RR Monitor. You use this service to create planned receipts. You control the replenishment planning service by using the service profile for the replenishment planning service. In the replenishment service profile, you make settings for the replenishment method as follows:

  - For SMI, the reorder point method that was used previously in SAP ICH (now called *Min/Max Replenishment*).
  - For RR, the procedure that was used previously in SAP ICH that covers the demands of the customer exactly under consideration of safety stock (now called *Net-Demand-Based Replenishment*).

  For replenishment planning for baseline demand and for promotion demand, you use a two different profiles for the projected stock. You control the replenishment planning run as before by using a replenishment planning service profile. For the planning, you use the *Net-Demand-Based Replenishment* planning method.

- **Simulate Projected Stock**
  This service is relevant for the SMI Monitor, the Min/Max Replenishment Monitor, and the RR Monitor. You use the *Simulate Projected Stock* function in the Monitor after you have manually changed the planned receipts. This function recalculates the projected stock.

- **Propose Firm Receipts** (REPL_FRPROP_SERVICE)
  This service is relevant for the Min/Max Replenishment Monitor and the RR Monitor. It converts the planned receipts into replenishment orders. You define the planning horizon for this service in the TLB service profile.

- **Propose and Publish Firm Receipts** (REPL_FRPROPPB_SERVICE)
  This service is relevant for the Min/Max Replenishment Monitor and the RR Monitor. It converts planned receipts into replenishment orders, and then publishes the replenishment orders. You define the planning horizon in the TLB service profile. SAP SNC sends the replenishment orders to the customer back-end system and supplier back-end system, according to the configured sending options. For more information, see the Release Note *Publication of Replenishment Orders (Changed)*.

- **Execute TLB** (TLB_SERVICE)
  This service, previously available in RR, is relevant for the RR Monitor. It uses TLB logic to create replenishment orders from the planned replenishment orders.

- **Execute TLB and Publish Replenishment Orders** (TLBPB_SERVICE)
  This service is relevant for the RR Monitor. It uses TLB logic to create replenishment orders from planned replenishment orders, and then publishes the replenishment orders. SAP SNC sends the replenishment orders to the customer back-end system and supplier back-end system, according to the configured sending options. For more information, see the Release Note *Publication of Replenishment Orders (Changed)*.

- **Deployment** (DEPLOYMENT_SERVICE)
  This service is relevant for the RR Monitor. You can use this planning service to create planned replenishment orders that consider the availability situation in the ship-from locations. You execute deployment following a replenishment planning run and prior to a TLB run.

**New Time Series Types**
Previously, SMI used the time series types SMI02 and SMI03 to store time series data. RR replenishment planning used the time series type DRPV. As of SAP SNC 5.1, the time series type INVM1 is used in SMI, in RR replenishment planning, and in SNI. VMIP1 is still used in RR Forecasting, but DRPV, SMI02, and SMI03 are no longer used.

Storage of Planned Receipts

As of SAP SNC 5.1, you can determine whether the replenishment planning service saves planned receipts as time series or as planned replenishment orders. In the Supplier Managed Inventory business scenario, for example, you use time series; in the Responsive Replenishment business scenario, you use planned replenishment orders. Thus, depending on your settings, the Planned Receipts key figure represents time series data or planned replenishment orders.

Configuration

The configuration of replenishment variants was unified in SAP SNC 5.1. This involves the following settings:

- The Customizing tables for defining profiles for projected stock were combined. For more information, see the Release Note Projected Stock (Changed).
- You can make settings as to which service profile is used to execute a planning service on the Web UI and in the PSM.
- You can make the settings dependent on the following characteristics:
  - Supplier
  - Customer location
  - Product

Effects on Data Transfer

Following an upgrade to SAP SNC 5.1, you have to run the following conversion reports:

- Report /SCA/DM_TS_CONV
  You can use this report to convert the old time series types into the new time series types.
- Report /SCA/INV_MOVE
  You can use this report to bring your stock data from the old database tables to the new database tables. For more information, see the Release Note Projected Stock (Changed).

For more information, see SAP Note 1019288.

Effects on Customizing

Maintain the following settings:

- **Define profiles**
  In Customizing for Supply Network Collaboration, under Replenishment, define the following profiles:
  - You define profiles for the projected stock by choosing Projected Stock -> Define Profiles for the Projected Stock. Under Display Standard Profiles for Projected Stock, you can
display the standard profiles delivered by us.

- You define service profiles for the replenishment planning service, by choosing **Planning Services -> Define Replenishment Service Profiles**.

- Here, you make settings for the replenishment method (Min/Max Replenishment or Net-Demand-Based Replenishment). The standard system comes configured with the replenishment method that is used for SMI (**Min/Max Replenishment**). For RR, you have to configure the **Net-Demand-Based Replenishment** method.

- In addition, you define whether the replenishment planning service saves planned receipts as time series data (relevant for SMI) or as planned replenishment orders (relevant for RR).

- You define deployment service profiles by choosing **Deployment -> Define Deployment Service Profiles**.

- You define the TLB service profiles by choosing **Transport Load Builder -> Define TLB Service Profiles**.

  In a TLB service profile, you make the settings for the TLB service or for the **Propose Firm Receipts** planning service. For the **Propose Firm Receipts** planning service, only the planning horizon and - for the combination of planned receipts into one replenishment order - the key date are relevant.

- **Assign Settings**

  In Customizing for **Supply Network Collaboration**, under **Replenishment -> Replenishment Order Planning -> Assign Settings -> Assign Settings for Replenishment Planning and SNI**, you define the following profiles, which the system is to use for a particular combination of supplier, customer location, and product:

  - Profile for the projected stock for replenishment planning for non-promotion demands
  - Profile for the projected stock for replenishment planning for promotions
  - Replenishment service profile
  - TLB service profile
  - Deployment service profile

  In this IMG activity, you also define for which horizon the replenishment planning service calculates planned receipts, and whether the replenishment planning service deletes already-existing planned receipts before it creates new planned receipts.

**See also**

- Release Note **Technical Basis for the Web UI (Changed)**
- Release Note **Inventory Management (Changed)**
- Release Note **Projected Stock (Changed)**
- Release Note **Naming of Replenishment Orders (Changed)**
- Release Note **Creation of Replenishment Orders (Enhanced)**
- Release Note **Publication of Replenishment Orders (Changed)**
- Release Note **Deployment (New)**
- Release Note **ASNs (Enhanced)**
1.7.24.2 Sending ProductActivityNotifications in the SMI Scenario (New)

Use

In the Supplier Managed Inventory (SMI) scenario, the customer uses an XML message of the ProductActivityNotification type to send information concerning demands and stock from the customer back-end system to SAP Supply Network Collaboration (SAP SNC). Based on this data, the supplier can perform replenishment planning in the SMI monitor for the customer location.

As of SAP SNC 5.1, the system can enhance the data for a ProductActivityNotification and send it to the supplier back-end system. The sending of ProductActivityNotifications is only relevant, for example, for suppliers who do not want to use the SMI Monitor for replenishment planning, but want to execute replenishment planning in the back-end system. In this case, a supplier needs in his or her back-end system not only the demand/stock data from the customer system, but also the location product parameters from SAP SNC (such as the minimum stock level and maximum stock level) and the time series data determined by SAP SNC from the demand data and stock data. This includes the following time series data:

- Published ASNs
- Planned receipts
- Projected stock

The ProductActivityNotification was enhanced accordingly and can transmit the required location product parameters and time series data.

The following options are available for sending the data:

- **Automatic Sending**
  For this option, SAP SNC enhances the ProductActivityNotification data immediately upon receipt and sends the enhanced ProductActivityNotification immediately to the supplier back-end system. If you want to use this option, you need to have set the Send ProductActivityNotification (SMI) indicator in Customizing for Supply Network Collaboration, by choosing Replenishment -> Replenishment Planning -> Assign Settings -> Assign Settings for Replenishment Planning and SNI. You can make the setting dependent on customer, customer location, and product.

- **Manual Sending**
  Customer and supplier can manually call up the send function as follows:

  - Customer: in the SAP SNC system, on the SAP Easy Access screen, by choosing Tools -> Send XML Messages for Time Series -> Send ProductActivityNotifications for SMI
  - Customer and supplier: in the SMI monitor, with Send ProductActivityNotification

The time period for which the system sends data in the ProductActivityNotification is configurable (in the SMI monitor in the time buckets profile).
1.7.24.3 Inventory Management (Changed)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, inventory management has been unified for the *Responsive Replenishment* (RR), *Supplier Managed Inventory* (SMI), and *Supply Network Inventory* (SNI) scenarios. All inventory data is now stored in the same database tables in the Logistics Inventory Management Engine (LIME).

In addition, you can use new and enhanced reports for managing inventory data. These reports allow system administrators to delete inventory data that is no longer needed, or to query or reset inventory data to zero for test and simulation purposes. The enhancements for the reports are as follows:

- The inventory query and creation report /SCA/DM_INV_CREATION has been enhanced to include new fields for supplier, promotion ID, and data-providing partner. The enhanced report can now be used for all scenarios. The reports /SCA/DM_CREATEINV_SNI for SNI and /SCA/SJKTST02 are obsolete.

- The inventory reset report /SCA/DM_RESETINV has been enhanced to include new fields for supplier, promotion ID, and data-providing partner. The enhanced report can now be used for all scenarios. The reports /SCA/DM_RESETINV_SMI for SMI and /SCA/DM_RESETINV_SNI for SNI are obsolete.

- You can use the new report /SCA/DM_DELETE_INV for inventory deletion.

Effects on Existing Data

You must migrate the RR and SMI inventory data from the old to the new database tables in LIME using the inventory data conversion report /SCA/INV_MOVE.

See also

SAP Note 1019288
1.7.24.4 Calculating Average Demand (Enhanced)

Use

In the SMI Monitor for SAP Inventory Collaboration Hub (SAP ICH) 5.0, you could only use one calculation method, based on moving averages, to calculate average demands for projected stock.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, a second method is available. This method calculates the average demands for projected stock by using an arithmetic mean calculation.

Furthermore, SAP SNC 5.1 delivers the BAdI *Average Demand Calculation* (/SCA/SMI_AVG_DEMAND). You can use this BAdI to implement your own average demand calculation. The BAdI is not active in the standard system. If you activate the BAdI, it overrides the standard method.

Effects on Customizing

You can maintain the method in Customizing for *Supply Network Collaboration* under *Assign Profiles for the Projected Stock*. The default method for calculating average demands is the *Moving Average Calculation Method*.

You can also activate the BAdI in Customizing for *Supply Network Collaboration* under *BAdI: Average Demand Calculation*.

1.7.25 SCM-ICH-KNB  Kanban

1.7.25.1 Kanban (Enhanced)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following enhancements are available for Kanban processing:

- You can use one-time Kanban to send a Kanban replenishment request on demand from a customer when there is no fixed control cycle for a specific kanban container.
- If you select a specific control cycle in the overview area you can do the following:
  - You can add notes to a kanban control cycle by choosing the *Notes* button.
  - You can see details of the control cycle by choosing the *Details* button.
  - If the control cycle is based on a scheduling agreement release you can navigate to the release via the *Go to Release* button. If the control cycle is based on another order document you can not select this button.
- In Release 5.0, you could print kanban cards using PDF-based print forms and Smart Form print forms. As of SAP SNC 5.1, you can print and configure the kanban card print form per control cycle. This means you can choose which print form to print with for each specific control cycle.

- In the ASN Work Area-Create Draft ASN screen the following enhancements have been made:
  - You can change the proposed quantity of the kanban in the Quantity field manually. This field is no longer display only.
  - A new Available in Cust. Loc field has been created to display the availability date in the customer location. The system creates the availability date during the validation check that is performed when you create a new ASN.
  - You can now perform validation checks before creating an ASN by choosing Check.
  - If packaging has been set up for the product, you can choose Auto. Pack to perform automatic packing for that product.
  - If packaging has not been set up for the product you can choose Packing to perform manual packing for that product. This button takes you to the ASN Packing Web UI.

**Effects on Customizing**

You can print kanban cards using PDF-Based print forms, or Smart Form print forms in Customizing for Supply Network Collaboration, by choosing Basic Settings -> Printing -> Determine Print Forms for Kanban Cards.

**1.7.26 SCM-ICH-SNI**

**Supply Network Inventory**

**1.7.26.1 Supply Network Inventory (Enhanced)**

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can use new and enhanced functions to collaborate on inventories. These functions support outsourced manufacturing, and they allow better collaboration across multiple supply chain partners and tiers. In particular, the new and enhanced functions support the involvement of third-party business partners such as the supplier's suppliers or third-party logistics providers. Furthermore, you can now more easily monitor consignment material and products distributed across different locations and multiple tiers of business partners, as is typical of outsourced manufacturing scenarios. The new and enhanced functions include:

*Visibility Across a Broader Range of Partner Locations*

With the new visibility concept for Supply Network Inventory (SNI), you can grant access to relevant inventory and time series data to users at additional business partners. These business partners may not be
part of the supply chain network of customers, direct suppliers, and goods recipients, but they are the supplier's suppliers (second tier suppliers) or third-party logistics providers, for example.

The new visibility concept allows you to define visibility profiles and to assign them to users or business partners. You can restrict the visibility to specific master data, or you can restrict the visibility of data by using parameters. For example, you can use the Inventory Owner parameter to display inventory data only for those location products for which the inventory owner is specified in the profile.

System administrators can use the new transaction Maintain and Assign Visibility Control Profiles (/SCF/VISCTRLPROFASSN) to maintain and assign visibility profiles centrally. They can also check which data is visible for each user and application in SAP SNC.

Support of Multiple Data-Providing Partners for a Product at a Single Location

Subcontracting in SAP Inventory Collaboration Hub (SAP ICH) 5.0 supported data transfer from the ERP system to SAP ICH for a given location product from a single business partner only. However, all business partners can have data about location products in their systems as follows:

- Customer-owned location products, with inventory data in the customer or supplier systems
- Supplier-owned location products, with inventory data in the customer or supplier systems
- Location products stored at a third-party site, such as a third-party logistics provider or a warehouse, with inventory data in the customer, supplier, or third-party logistics provider systems

SAP SNC 5.1 now enables inventory data and key figures for a location product to be provided by different business partners. All business partners that transfer data from their ERP systems to SAP SNC can now contribute to the data for a location product in SAP SNC. This is made possible by providing the following:

- New reports for extracting inventory data and key figures for SNI from SAP ERP systems
- New data storage design for inventory data and key figures
- New detailed display of inventory data and key figures in the SNI Monitor

Business partners without SAP ERP can upload their data using a standard B2B message interface.

New Reports for Extracting Inventory Data and Key Figures for SNI from SAP ERP Systems

As of SAP SNC 5.1 and SAP ERP 2005 Enhancement Package 2, customers and suppliers can use the following new reports to transfer inventory data and key figures from the ERP system to SAP SNC as follows:

- ROEMPROACT2: Customers and suppliers can extract data for products located at their own location.
- RCMPROACT2: Customers can extract data for products located at their supplier's location. Suppliers can extract data for products located at their supplier's location. Hence a first-tier supplier can provide data about a second-tier supplier, a second-tier supplier can provide data about a third-tier supplier, and so on.
- RPRTPROACT: Customers and suppliers can extract data relating to further business partners, such as third-party logistics providers, who are represented as plants in the ERP systems of the customer and supplier.

The new reports generate XML messages of the type ProductActivityNotification that are sent from the ERP system to SAP SNC. As compared with the SAP ICH 5.0 reports ROEMPROACT and RCMPROACT, all the new reports provide the following enhancements:
- They support the extraction of consignment inventory.
- They transfer the new key figure *In Transit*, and the existing key figure *Demand* has been split into the key figures *Planned Demand*, *Firm Demand*, and *Forecast*.
- You can also extract and send the supplier IDs for key figure data.

**New storage Design and Display of Inventory Data and Key Figures in the SNI Monitor**

SAP SNC 5.1 can store data that is divided up according to:
- Data-providing partner
- Owner (for inventory only)
- Supplier
- Ship-from location

Furthermore, in the detail view of the SNI Monitor, you can display information about the contribution of each data-providing partner, owner, or supplier, such as:
- Aggregated view of quantities across all locations, with drill-down to locations
- Display view of the contribution of suppliers, ship-from locations, and data-providing partners for the same location product
- Display view of multiple inventory owners for the same location product
- Edit view where users can change key figure data that comes from incoming *ProductActivityNotification* messages

**New Key Figures and Key Figure Calculation**

The SNI Monitor can now display the following new key figures:
- Forecast
- Firm demands
- Planned demands
- In-transit quantity

You can also define a profile for calculating the *Demand* key figure in the SNI Monitor. Demand is a sum of firm demands (for example, from sales orders or production orders), planned demands (for example, from planned orders), and forecast requirements. You can configure this sum for the SNI Monitor. You can also configure different formulas for different time horizons.

**User-Defined Alert Criteria**

A new alert type, *SNI Alert*, is available. As a material planner, you can define rules and conditions that specify when the system creates an SNI alert. You can use the following to specify alert conditions:
- Stock
- Time period
- Demand
- Days supply
- Product
You use alert rules to create alerts if an exceptional situation arises. One rule can consist of one or more conditions that can be assigned to a range of product/location combinations or to a single product/location combination. Note that you can apply one alert rule to multiple product/location combinations and multiple product/location combinations can be applied to more than one rule.

For example, you can specify SNI alert rules and conditions to monitor your own stock level at supplier sites and you can be alerted by the system when a critical situation arises. When the system creates an alert, it also notifies the business partners concerned, for example suppliers, third party logistics providers, and so on, depending on the setup of alert notification profiles.

**New History Comparison and Enhanced Audit Trail**

A new history comparison function replaces the snapshot function from the previous release. The history comparison screen compares the inventory and key figure information for a location product at two different time stamps. You can also navigate to the history comparison from the audit trail screen. The audit trail screens design and usability have been improved.

**Effects on Existing Data**

**Time Series Data for SNI**

Previously, SNI used the SNI01 and SNI02 time series types to store time series data. These time series types have now been replaced by the INVM1 time series type. After the upgrade, you must run the report /SCA/DM_TS_CONV to convert the time series data for SNI. For more information, see SAP Note 1019288.

**Inventory Data for SNI**

After the upgrade, you must run the report /SCA/INV_MOVE to migrate inventory data to new database tables. For more information, see Release Note *Inventory Management (Changed)* and SAP Note 1019288.

**Customizing Settings for Selection Modes**

New standard settings exist for SNI that use the new visibility concept and corresponding selection modes. For more information, see the IMG documentation under *Supply Network Collaboration -> Basic Settings -> Visibility -> Create Selection Modes.*

**Effects on Data Transfer**

You can continue to use the existing reports ROEMPROACT and RCMPROACT to transfer data from SAP ERP to SAP SNC. However, if you want to use the new enhancements of the ERP reports or if you want to transfer third-party logistics provider data, you must use the new reports ROEMPROACT2, RCMPROACT2, and RPRTPROACT. Note that the new reports support the generation of ProductActivityNotification messages instead of generating IDocs.

We recommend that you use the new reports ROEMPROACT2, RCMPROACT2, and RPRTPROACT.

**Effects on Customizing**

For SNI, you must perform or check the following Customizing: Check the standard settings in the IMG activity *Create Selection Modes.* Check the standard settings that are delivered for the Demand key
figure calculation in the SNI Monitor. You can display the standard settings in the IMG activity Display StandardProjected Stock Profiles. To create a new Demand key figure calculation, use the IMG activity Define Profiles for the Projected Stock.

See also

SNI Monitor in SAP Library for SAP Supply Network Collaboration

Release Note Projected Stock (Enhanced)

Release Note Inventory Management (Changed)

1.7.26.2 Inventory Management (Changed)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, inventory management has been unified for the Responsive Replenishment (RR), Supplier Managed Inventory (SMI), and Supply Network Inventory (SNI) scenarios. All inventory data is now stored in the same database tables in the Logistics Inventory Management Engine (LIME).

In addition, you can use new and enhanced reports for managing inventory data. These reports allow system administrators to delete inventory data that is no longer needed, or to query or reset inventory data to zero for test and simulation purposes. The enhancements for the reports are as follows:

- The inventory query and creation report /SCA/DM_INV_CREATION has been enhanced to include new fields for supplier, promotion ID, and data-providing partner. The enhanced report can now be used for all scenarios. The reports /SCA/DM_CREATEINV_SNI for SNI and /SCA/SJKTST02 are obsolete.

- The inventory reset report /SCA/DM_RESETINV has been enhanced to include new fields for supplier, promotion ID, and data-providing partner. The enhanced report can now be used for all scenarios. The reports /SCA/DM_RESETINV_SMI for SMI and /SCA/DM_RESETINV_SNI for SNI are obsolete.

- You can use the new report /SCA/DM_DELETE_INV for inventory deletion.

Effects on Existing Data

You must migrate the RR and SMI inventory data from the old to the new database tables in LIME using the inventory data conversion report /SCA/INV_MOVE.

See also

SAP Note 1019288
1.7.27 SCM-ICH-SCO Supplier Confirmations

1.7.27.1 History Comparison for Documents (New)

Use

Previously, you were able to display a history for advanced shipping notifications (ASNs), supplier confirmations, and purchase orders. As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can compare the histories of two documents. The history comparison displays a table overview of fields and values in which the two documents differ from each other. You can use the history comparison to more easily identify changes that were made to a document. You can use the history comparison for the following documents:
- ASNs
- Purchase orders
- Replenishment orders
- Supplier confirmations

1.7.27.2 Archiving Work Orders and Supplier Confirmations (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can archive supplier confirmations and work orders.

You use the archiving object ICH_SCON to archive supplier confirmations and ICH_WO to archive work orders.

You can find the archiving functions on the SAP Easy Access screen under Tools -> Administration -> Administration -> Data Archiving (transaction SARA). Here, you can access the archiving functions for preprocessing, writing, and deleting archiving objects.

Archived data is available for viewing from SAP SNC on the Work Order History and Supplier Confirmation History screens.

We provide the following infostructures:
- SAP_ICH_SCON for supplier confirmations
- SAP_ICH_WO for work orders
1.7.28 SCM-ICH-FCS  
Forecast

1.7.28.1 Collaboration Sales Forecast (New)

Use

As of Supply Network Collaboration (SAP SNC) 5.1, suppliers and customers can collaborate on sales forecast data via the new Collaborative Sales Forecasting (CSF) Web UI. Suppliers and customers can use consensus finding to compare forecast data and find a common agreement on the level of replenishment needed for a particular product in a specific bucket.

Suppliers and customers can compare promotion and baseline sales forecast data taken from statistical forecasting, promotion planning, and customer XML messages containing sales forecast data (ProductForecastNotification or ProductForecastRevisionNotification). SAP SNC calculates the absolute and percentage differences between supplier and customer data.

In Customizing for Consensus Finding, you can configure the tolerance values within which differences are accepted. The system can use different colors or alert to indicate differences above or below tolerance values.

You can run a consensus finding for the forecast data. The system calculates the consensus baseline sales forecast, a proposal that serves as a compromise between customer and supplier data. In Customizing for Consensus Finding, you can configure the algorithm for calculating the consensus baseline sales forecast. You can override the system proposal by manually entering your own figures.

You can configure alert and color profiles.

You can release your final consensus forecast data to short-term forecasting where it is then released to replenishment.

The business partner who owns the SAP SNC can send outbound XML messages (ProductForecastNotification or ProductForecastRevisionNotification) using the enhanced report Send ProductForecastNotifications and ProductForecastRevisionNotifications (/SCA/FCST_OUT). This report was previously only available for ProductForecastNotifications. You find the report on the SAP Easy Access screen, under Supply Network Collaboration -> Tools -> Send XML Messages for Time Series. Suppliers and customers can also send outbound XML messages from the Sales Forecast Details - Product View screen by choosing the Publish FCST (ProductForecastNotification) or Publish FCSTREV (ProductForecastRevisionNotifications) buttons. The XML messages can contain the following time series:

- Baseline sales forecast
Using the report *Send ProductForecastNotifications and ProductForecastRevisionNotifications* (/SCA/FCST_OUT), you can choose to send your original forecast data or forecast data received from the consensus calculation.

Using the *Sales Forecast Details - Product View* screen you can only send the forecast data received from the consensus calculation.

- Promotion sales forecast
- Baseline order forecast
- Promotion order forecast

**Effects on Customizing**

You create and assign profiles for collaborative sales forecasting in the following IMG activities in Customizing for *Supply Network Collaboration* by choosing *Demand -> Collaborative Sales Forecasting*:

- Create Profiles for Collaborative Sales Forecasting
- Assign Profiles for Collaborative Sales Forecasting

You can define the granularity of the data storage for the cooperation by defining weekly or daily data storage and bucket size in the respective fields in the IMG activity *Create Profiles for Collaborative Sales Forecasting*, where you can create profiles for CSF. By default the *Data Storage* and *Bucket Size* fields are set to weekly.

Note: In a customer-led forecast scenario, you can change the data storage to daily. This gives you a more detailed view of the consensus data before you release demand data to short-term forecast.

You define service profiles for collaborative sales forecasting in Customizing for *Supply Network Collaboration* by choosing *Demand -> Define Service Profiles for Collaborative Sales Forecasting*.

You determine alert profile and color profiles for collaborative sales forecasting in the following IMG activities in Customizing for *Supply Network Collaboration*, by choosing *Demand*:

- Define Alert Profiles for CSF and OFM
- Define Color Profiles for CSF and OFM

SAP SNC comes delivered with standard settings for consensus finding in collaborative sales forecasting. You can override the standard settings in Customizing for *Supply Network Collaboration* by choosing *Basic Settings -> Consensus Finding*. In particular, you can customize the following:

- Tolerance values

In Customizing for *Supply Network Collaboration*, choose *Basic Settings -> Consensus Finding -> Consensus Profile -> Maintain Consensus Quantity Profiles*.

- Calculation of consensus baseline forecast

In Customizing for *Supply Network Collaboration*, choose *Basic Settings -> Consensus Finding ->
Maintain Consensus Rules.

1.7.28.2 Demand Release (New)

Use

In SAP Inventory Collaboration Hub (SAP ICH) 5.0, you could define in the replenishment service profiles which time series types for baseline and promotion demand is to be considered in replenishment planning.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you must release data, using one of the following possibilities:

- **SAP Easy Access** screen:
  You can use the new **Release Demand** planning service to release demand data (baseline sales forecasts, promotions or both) from one application to another. You can release demands from the following applications:
  - Statistical forecasting to collaborative sales forecasting
  - Collaborative sales forecasting to short-term forecasting
    Note: You can choose not to disaggregate statistical forecast data from weekly to daily buckets for short-term forecasting when you run statistical forecasting. If you choose not to disaggregate forecast data, demand data can be released from collaborative sales forecasting to short-term forecasting rather than from statistical forecasting. This is to avoid overwriting disaggregated forecast data that comes from collaborative sales forecasting, depending on the scenario in use.
    For more information about disaggregating forecast data, see Release Note **Statistical Forecasting and Short-Term Forecasting (Enhanced)**.
    
    - Short-term forecasting to replenishment planning
      You can call up the planning service on the **SAP Easy Access** screen, by choosing **Supply Network Collaboration -> Demand -> Demand Release**.

- **SAP SNC Web UI**:
  You can also release demand, forecast or promotion data on the following SAP SNC Web screens:
  - You can release statistical forecast data to collaborative sales forecasting on the **Forecasting** Web screen, by choosing **Release**.
  - You can release consensus forecast data to short-term forecasting on the **Collaboration Sales Forecasting** Web screen, by choosing **Release**.
  - You can release demand data to replenishment planning on the **Short-Term Forecasting** Web screen, by choosing **Release**.
  - You can release promotion data to replenishment planning on the **Promotion Planning** Web screen, by choosing **Release**.
You can run demand release (planning service VMIFORECAST) in the Planning Service Manager.

Effects on Customizing

You can define a service profile for demand release in Customizing for Supply Network Collaboration. You define the service profile for demand release by choosing Demand -> Demand Release -> Define Service Profiles for Demand Release.

For the demand planning service to release demands automatically, you can use the service profile for demand release in the demand service profile. You define the demand service profile in Customizing for Supply Network Collaboration, by choosing Demand -> Define Demand Service Profiles. To activate the service profile for demand release, you must choose the Release Demand checkbox in the demand service profile. The demand service releases the demand in the way it was defined in the service profile for demand release.

1.7.28.3 Order Forecast Monitor (Changed)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the Demand Monitor is now called Order Forecast Monitor.

The following key figures from the Demand Monitor have been renamed for the Order Forecast Monitor:
- Percentage Deviation on Plan -> Difference Planned Receipts/Planned Requirements (%)
- Absolute Deviation on Plan -> Difference Planned Receipts/Planned Requirements
- Percentage Deviation on Order -> Difference Firm Receipts/Firm Requirements (%)
- Absolute Deviation on Order -> Difference Firm Receipts/Firm Requirements

In SAP Inventory Collaboration Hub (SAP ICH) 5.0, it was not possible to configure tolerance values for the above calculations.

SAP SNC 5.1 now uses the new consensus finding to calculate the differences. In Customizing for Consensus Finding, you can configure the tolerance values within which differences are accepted. The system can use different colors or alerts to indicate differences that are above or below these tolerance values.

You can use the planning service for Order Forecast Monitor to calculate the differences with consensus finding and to create alerts in the background in a PSM run.

The Order Forecast Monitor in SAP SNC 5.1 uses the new time series type DFCO1. If you are an upgrade customer, you must use the /SCA/DM_TS_CONV report to convert the old time series types to the new ones.
Effects on Customizing

You define service profiles for the planning service in Customizing for Supply Network Collaboration, by choosing Demand -> Order Forecast Monitor -> Define Service Profiles for Order Forecast Monitor.

If you want to run the planning service in the background, you must select both the Run Consensus Finding and the Create Alerts checkboxes.

For the alerts created in the background, jobs you can determine alerts in Customizing for Supply Network Collaboration, by choosing Demand -> Determine Alert Profiles for CSF and OFM.

For the alerts displayed in the Order Forecast Monitor, you can determine alert color profiles in Customizing for Supply Network Collaboration, by choosing Demand -> Determine Color Profiles for CSF and OFM.

In Customizing for Supply Network Collaboration you can configure tolerance values, by choosing Basic Settings -> Consensus Finding -> Consensus Profile -> Maintain Consensus Quantity Profiles.

See also

Release Note Consensus Finding (New)

1.7.28.4 Statistical Forecasting and Short-Term Forecasting (Enhanced)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the IMG activity Define Forecast Service Profiles has been renamed Define Demand Service Profiles.

The values of the Status field in the IMG activity Update Forecast Master Data Records have been renamed as follows:

- Forecast Enabled is now called Forecast with Disaggregation to Short-Term FCST
- Not to Be Forecasted is now called No Forecasting

A new value, Forecast without Disaggregation to Short-Term FCST, has been added. This allows you to choose not to transfer disaggregated forecast data from statistical forecasting to short-term forecasting.

Note: You should select Forecast without Disaggregation to Short-Term FCST when running Collaborative Sales Forecasting.

You can set the forecast status in Customizing for Supply Network Collaboration by choosing Demand -> Forecasting -> Update Forecast Master Data Records.
See also

Release Note Collaborative Sales Forecasting (New)

1.7.28.5 Consensus Finding (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can use consensus finding. Consensus finding is a process in which several business partners, for example, try to agree on quantities, dates/times, and prices. You can use consensus finding to compare data from different sources and accept deviations within fixed tolerance limits (deviation analysis), or you can use the data from different business partners to determine new data within fixed tolerance limits that is acceptable for all business partners involved (consensus determination).

A preconfigured consensus finding is available for the following applications:

- Collaborative Sales Forecasting and Order Forecast Monitor
  You use consensus finding to calculate whether forecasts of the customer and supplier are the same. If you use collaborative sales forecasting, you can also calculate possible cost proposals for the forecasting.

- Work Order Processing
  You use consensus finding to compare the following:
  - Requested data from the customer with confirmation data from the supplier
  - Current data with planned data
  - Projected data with planned data

- Purchase Order Processing and Replenishment Order Processing
  You use consensus finding to control whether the system automatically approves deviations in quantity and date/time that are within fixed tolerances.

Effects on Customizing

If you want to use consensus finding for an SAP SNC application, first check if settings are required for this in Customizing. For some applications, consensus finding is already preconfigured with standard settings, so that you only have to create or change Customizing settings if you want to override the standard settings. For more information about necessary settings, see SAP Library for SAP SNC, under
Consensus Finding.

If you want to set up consensus finding for an SAP SNC application for the first time, or override existing standard settings, use the IMG activities under Supply Network Collaboration -> Basic Settings -> Consensus Finding.

See also

- Release Note Work Order (New)
- Release Note Approval Process in Purchase Order Collaboration (Enhanced)
- Release Note Responsive Replenishment with ATP Check (New)

1.7.29 SCM-ICH-NDC Net Requirements Calculation

1.7.29.1 Replenishment with SMI and RR (Enhanced)

Use

SAP Inventory Collaboration Hub (SAP ICH) already supported replenishment scenarios in which a supplier can plan the replenishment for his or her customers at the customer locations. The customer sends the requirements and stock data for a customer location product to SAP ICH. In SAP ICH, the supplier executes the planning for the customer location product. The supplier is responsible for covering the requirements of the customer on time.

Overview of Screens and Functions in SAP ICH 5.0

Depending on the scenario, the supplier uses different Web screens and functions in SAP ICH, as follows:

- **Supplier Managed Inventory (SMI)**
  
  In SMI, the customer runs SAP ICH together with an ERP system for materials management. The customer provides the typically smaller supplier with the SMI Monitor on the Web user interface (Web UI). In the SMI Monitor, the supplier sees the requirements/stock situation of the customer location product, and plans the replenishment in the SMI Monitor. In the SMI scenario, the supplier has the task of delivering to the customer such that the projected stock of the customer location product does not fall below the minimum stock level requested by the customer or exceed the maximum stock level requested by the customer. The projected stock informs the supplier when deliveries are required, and in the SMI Monitor, the supplier can manually enter the quantities he or she wants to deliver (planned receipts). In addition, the supplier can use the Propose Planned Receipts function, which is also available in the SMI Monitor. This function calculates planned receipts using a reorder point method. If the projected stock in a certain period falls above or below the reorder point specified by the customer, the function creates a planned receipt that fills the projected stock back up to the maximum stock level. In addition, a simulation function is available in the SMI Monitor that calculates the effects the manual changes to the planned receipts have on the projected stock. The planned receipts are saved as time series data in SAP ICH.

  When the planning is complete, the supplier can proceed as follows, depending on the business scenario:

  - In the **Supplier Managed Inventory** business scenario, the supplier creates ASNs for the planned receipts, to inform the customer about pending deliveries. SAP ICH sends the ASNs to
the customer back-end system.

- In the Supplier Managed Inventory with Replenishment Orders business scenario (previously called Supplier Managed Inventory with Purchase Orders), the supplier manually creates replenishment orders for the planned receipts (orders of the order document type VGOR, previously called "purchase orders" in this scenario). SAP ICH sends the replenishment orders to the customer back-end system and optionally to the supplier back-end system. These systems then create firm orders, which the customer and the supplier can consider in their ERP processes (a purchase order in the customer back-end system, a sales order in the supplier back-end system). The supplier creates ASNs in SAP ICH for the replenishment orders, which SAP ICH sends to the customer back-end system.

- **Responsive Replenishment (RR)**
  In RR, the supplier runs SAP ICH together with an ERP system for sales order processing. The typically large supplier works for customers who have contracted the replenishment planning out to the supplier. In the RR scenario, the supplier has the task of delivering to the customers in the most timely and accurate manner possible (under consideration of the safety stock). The supplier runs replenishment planning in SAP ICH using a replenishment planning service, in the background in a Planning Service Manager run (PSM run). The replenishment planning service creates the required planned receipts for a customer location product. The supplier can display the results of the replenishment planning run on the Web UI of SAP ICH in the Replenishment Overview. If required, the supplier can also start the replenishment planning service on the replenishment Web UI.
  The planned receipts are saved in SAP ICH as planned replenishment orders (orders of the order document type DRPV, previously called "replenishment orders"). The supplier can use the TLB service to be able to load means of transport according to certain criteria. From the planned replenishment orders, the TLB service creates TLB shipments (orders of the order document type TLBO), which are assigned corresponding replenishment orders (orders of the order document type VGOR, previously called "vendor-generated order" in this scenario). SAP ICH sends the replenishment orders to the customer back-end system and to the supplier back-end system, which in turn create purchase orders and sales orders, respectively. Up until now, ASNs were not supported in this scenario.

**Overview of Screens and Functions in SAP SNC 5.1**

The RR and SMI replenishment processes have a similar concept. In SAP Supply Network Collaboration (SAP SNC) 5.1, the functions and screens for these scenarios were unified with respect to the following aspects:

- **Monitors**
  In addition to the SMI Monitor, there are now new monitors available for monitoring that are set up similarly to the SMI Monitor:

  - **Responsive Replenishment Monitor (RR Monitor)**
    This monitor supports replenishment planning in the Responsive Replenishment business scenario.

  - **Min/Max Replenishment Monitor**
    This monitor supports scenarios in which you want to control replenishment planning with a minimum stock level, a maximum stock level, and a reorder point (such as the Supplier Managed Inventory with Replenishment Orders business scenario). You can also use this monitor in Responsive Replenishment. Unlike the SMI Monitor, you can create replenishment orders for planned receipts in this monitor.
The monitors were developed with Web Dynpro and now offer new UI functions and personalization options. The SMI Monitor was converted to Web Dynpro.

- **Planning Functions**
  
  All planning functions are now available in RR and in SMI as planning services. You can execute planning services on the Web UI online or by using the Planning Service Manager (PSM) in the background. In particular, the creation of planned replenishment orders was unified. In addition, a new planning service is available that allows you to create replenishment orders without using the TLB service.

- **Configuration**
  
  You use the same customizing tables to configure the different replenishment variants. This pertains, for example, to the definition of the projected stock or the determination of the planning service profiles that are used on the Web UI and in the PSM to create planned receipts or replenishment orders.

- **Replenishment Orders**
  
  The handling of replenishment orders is the same in all replenishment variants. This pertains, for example, to the creation options (manually or by using a planning service), display, publication, and the key figures derived from the replenishment orders.

- **Terminology**
  
  An order of the order document type VGOR is now called "replenishment order", while an order of the order document type DRPV is now called "planned replenishment order". The functions and key figures that are used in RR as well as SMI have the same name in RR and SMI.

- **Technical Consolidation**
  
  The internal creation of stock data and time series data was unified.

**SMI Monitor**

As of SAP SNC 5.1, you only use the SMI Monitor if you want to control replenishment planning with a minimum stock level, a maximum stock level, and reorder point but are only using ASNs and not replenishment orders (for example, in the Supplier Managed Inventory business scenario). The functions for creating replenishment orders are therefore no longer available in the SMI Monitor. Accordingly, the details no longer display the Firm Receipts key figure, which represents the quantities from replenishment orders.

The SMI overview now also displays the duration of the horizon in which no exceptions (such as shortfall in minimum stock level) occur.

**Min/Max Replenishment Monitor**

As of SAP SNC 5.1, there is a further monitor similar to the SMI Monitor available in which you can control replenishment planning with a minimum stock level, a maximum stock level, and reorder point, but unlike in the SMI Monitor, you can also create replenishment orders here. You use the Min/Max Replenishment Monitor, for example, in the Supplier Managed Inventory with Replenishment Orders business scenario, but you can also use it in an RR scenario.

The following key figures inform you about different quantities from replenishment orders:

- **Firm Receipts (Open)**
  
  This is the total open quantity from unpublished and published replenishment orders in a period.

- **Firm Receipts (Published - Due)**
  
  This is the total open quantity from published replenishment orders. Here, the supplier must still
send deliveries and ASNs to the customer.

Besides the inventory status, the overview also displays information about the replenishment status. This includes total quantities from replenishment orders (aggregated across different horizons). The in-transit quantity aggregated from ASNs displays the total quantity that is in transit to the customer. Periods of critical situations in projected stock are highlighted in color in the SMI Monitor.

**RR Monitor**

The new RR Monitor replaces the previous replenishment screens on the Web UI for SAP ICH. The RR Monitor contains the key figures and planning services that are relevant for RR. The VMI analyst can use the RR Monitor to gain an overview of the replenishment situation and stock situation. He or she can display the results of a replenishment planning run and, if required, manually change the quantities of planned replenishment orders or manually create planned replenishment orders. In addition, he or she can call different planning services directly (for example, the replenishment planning service and then the new deployment service). The RR Monitor contains the following screens:

- **RR Overview** displays the inventory status and the replenishment status. Periods of exception situations in projected stock are highlighted in color, just like in the SMI Monitor and in the Min/Max Replenishment Monitor. In addition, you receive detailed information about the replenishment status (as in the Min/Max Replenishment Monitor) (see above).

- **RR Details** display the key figures of a customer location product, for example, requirements, projected stock, and planned receipts. Here, the supplier can manually create or change planned receipts or execute planning services.

- You use the **RR Details - Product View** view to display key figures for multiple customer location products. On this screen, you can compare data for a small number of location products. We recommend that you do not call this screen for a large number of location products.

As with the SMI Monitor and Min/Max Replenishment Monitor, the RR Monitor has a **supplier view** and a **customer view**. The supplier uses the supplier view to run replenishment planning. The customer uses the customer view to monitor the replenishment situation.

**Key Figures in the RR Details**

The details views contain the following changes as compared to the Replenishment Overview Web screen available previously in RR:

- The **Replenishment Order Quantity** key figure available previously is now called Planned Receipts (see above).

- The **Stock Outs** key figure is no longer available.

- The **TLB Shipment Quantity** key figure was replaced by the following key figures for replenishment orders:
  - **Firm Receipts (Open)**
    This is the total open quantity from unpublished and published replenishment orders in a period. The key figure corresponds to the **TLB Shipment Quantity** key figure.

  - **Firm Receipts (Due)**
    This is the total due quantity from unpublished and published replenishment orders. Here, the supplier must still send deliveries and ASNs to the customer.

- The following key figures are also new for RR:
  - **In-Transit Quantity**
This key figure is the quantity that is in transit to the customer. The system determines this quantity from the ASNs. The key figure is only relevant if you use ASNs in RR.

- **Minimum Stock Level**
  This key figure is the safety stock.

- **Minimum Proposal**
  This key figure is the planned receipt quantity (quantity from planned replenishment orders) that the supplier has to deliver to the customer to increase the projected stock up to the safety stock.

- **Planned Receipts Before Deployment**
  This key figure is relevant if you are using the new deployment service, which is available as of SAP SNC 5.1 for RR. If you are using deployment, this key figure contains the quantity from planned replenishment orders that the replenishment planning run has created. For the quantity from planned replenishment orders that were created by the subsequent deployment run, see the **Planned Receipts** key figure.

### Planning Services

The planning functions are now also available as planning services that can be executed on the Web UI in the respective monitor or in the background in the PSM run. Depending on the monitor and the replenishment variant, you can use the following planning services:

- **Propose Planned Receipts** *(REPL_SERVICE)*
  This service is relevant for the SMI Monitor, the Min/Max Replenishment Monitor, and the RR Monitor. You use this service to create planned receipts. You control the replenishment planning service by using the service profile for the replenishment planning service. In the replenishment service profile, you make settings for the replenishment method as follows:

  - For SMI, the reorder point method that was used previously in SAP ICH (now called **Min/Max Replenishment**).

  - For RR, the procedure that was used previously in SAP ICH that covers the demands of the customer exactly under consideration of safety stock (now called **Net-Demand-Based Replenishment**).

  For replenishment planning for baseline demand and for promotion demand, you use a two different profiles for the projected stock. You control the replenishment planning run as before by using a replenishment planning service profile. For the planning, you use the **Net-Demand-Based Replenishment** planning method.

- **Propose Firm Receipts** *(REPL_FRPROP_SERVICE)*
  This service is relevant for the Min/Max Replenishment Monitor and the RR Monitor. It converts the planned receipts into replenishment orders. You define the planning horizon for this service in the TLB service profile.

- **Propose and Publish Firm Receipts** *(REPL_FRPROPPB_SERVICE)*
  This service is relevant for the Min/Max Replenishment Monitor and the RR Monitor. It converts planned receipts into replenishment orders and publishes the replenishment orders. You define the planning horizon in the TLB service profile. SAP SNC sends the replenishment orders to the
customer back-end system and supplier back-end system, according to the configured sending options. For more information, see the Release Note Publication of Replenishment Orders (Changed).

- **Execute TLB (TLB_SERVICE)**
  This service, previously available in RR, is relevant for the RR Monitor. It uses TLB logic to create replenishment orders from the planned replenishment orders.

- **Execute TLB and Publish Replenishment Orders (TLBPB_SERVICE)**
  This service is relevant for the RR Monitor. It uses TLB logic to create replenishment orders from planned replenishment orders, and then publishes the replenishment orders. SAP SNC sends the replenishment orders to the customer back-end system and supplier back-end system, according to the configured sending options. For more information, see the Release Note Publication of Replenishment Orders (Changed).

- **Deployment (DEPLOYMENT_SERVICE)**
  This service is relevant for the RR Monitor. You can use this planning service to create planned replenishment orders that consider the availability situation in the ship-from locations. You execute deployment following a replenishment planning run and prior to a TLB run.

**New Time Series Types**

Previously, SMI used the time series types SMI02 and SMI03 to store time series data. RR replenishment planning used the time series type DRPV. As of SAP SNC 5.1, the time series type INVM1 is used in SMI, in RR replenishment planning, and in SNI. VMIP1 is still used in RR Forecasting, but DRPV, SMI02, and SMI03 are no longer used.

**Storage of Planned Receipts**

As of SAP SNC 5.1, you can determine whether the replenishment planning service saves planned receipts as time series or as planned replenishment orders. In the **Supplier Managed Inventory** business scenario, for example, you use time series; in the **Responsive Replenishment** business scenario, you use planned replenishment orders. Thus, depending on your settings, the Planned Receipts key figure represents time series data or planned replenishment orders.

**Configuration**

The configuration of replenishment variants was unified in SAP SNC 5.1. This involves the following settings:

- The Customizing tables for defining profiles for projected stock were combined. For more information, see the Release Note Projected Stock (Changed).

- You can make settings as to which service profile is used to execute a planning service on the Web UI and in the PSM.

- You can make the settings dependent on the following characteristics:
  - Supplier
  - Customer location
  - Product

**Effects on Data Transfer**
Following an upgrade to SAP SNC 5.1, you have to run the following conversion reports:

- Report /SCA/DM_TS_CONV
  You can use this report to convert the old time series types into the new time series types.

- Report /SCA/INV_MOVE
  You can use this report to bring your stock data from the old database tables to the new database tables. For more information, see the Release Note Projected Stock (Changed).

For more information, see SAP Note 1019288.

Effects on Customizing

Maintain the following settings:

- Define profiles
  In Customizing for Supply Network Collaboration, under Replenishment, define the following profiles:
  
  
  - You define service profiles for the replenishment planning service, by choosing Planning Services -> Define Replenishment Service Profiles.
  
  - Here, you make settings for the replenishment method (Min/Max Replenishment or Net-Demand-Based Replenishment). The standard system comes configured with the replenishment method that is used for SMI (Min/Max Replenishment). For RR, you have to configure the Net-Demand-Based Replenishment method.
  
  - In addition, you define whether the replenishment planning service saves planned receipts as time series data (relevant for SMI) or as planned replenishment orders (relevant for RR).
  
  - You define deployment service profiles by choosing Deployment -> Define Deployment Service Profiles.
  
  - You define the TLB service profiles by choosing Transport Load Builder -> Define TLB Service Profiles.
  
  In a TLB service profile, you make the settings for the TLB service or for the Propose Firm Receipts planning service. For the Propose Firm Receipts planning service, only the planning horizon and - for the combination of planned receipts into one replenishment order - the key date are relevant.

- Assign Settings
  In Customizing for Supply Network Collaboration, under Replenishment -> Replenishment Order Planning -> Assign Settings -> Assign Settings for Replenishment Planning and SNI, you define the following profiles, which the system is to use for a particular combination of supplier, customer location, and product:
  
  - Profile for the projected stock for replenishment planning for non-promotion demands
  
  - Profile for the projected stock for replenishment planning for promotions
  
  - Replenishment service profile
- TLB service profile
- Deployment service profile

In this IMG activity, you also define for which horizon the replenishment planning service calculates planned receipts, and whether the replenishment planning service deletes already-existing planned receipts before it creates new planned receipts.

See also
- Release Note *Technical Basis for the Web UI (Changed)*
- Release Note *Inventory Management (Changed)*
- Release Note *Projected Stock (Changed)*
- Release Note *Naming of Replenishment Orders (Changed)*
- Release Note *Creation of Replenishment Orders (Enhanced)*
- Release Note *Publication of Replenishment Orders (Changed)*
- Release Note *Deployment (New)*
- Release Note *ASNs (Enhanced)*
- Release Note *Inventory Alerts for Replenishment Planning (Enhanced)*
- Release Note *Replenishment Planning (Enhanced)*
- SAP Note 1019288

### 1.7.29.2 Deletion Service for Replenishment Planning (Enhanced)

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can now maintain a deletion service profile for replenishment planning. In SAP Inventory Collaboration Hub (SAP ICH) 5.0, the maintenance of the deletion service was part of the IMG activity *Define Service Profile*, which comprised the following activities:

- Maintaining inventory semantic mapping
- Maintain replenishment service profile
- Maintain replenishment deletion service profile

In SAP SNC 5.1, except for *Maintaining Inventory Semantic Mapping* (no longer needed) these activities have been separated into different IMG activities.

In the IMG activity *Deletion Service for Replenishment Planning*, you can set the *Do Not Del. TLBShip* indicator. This way, unreleased TLB shipments are not deleted by the deletion service.
Effects on Customizing


1.7.29.3 Projected Stock (Changed)

Use

Previously, there were two different Customizing tables for defining the profiles for projected stock:

- One Customizing table for replenishment planning in the Responsive Replenishment (RR) business scenario
- One Customizing table for the Supplier Managed Inventory (SMI) and Supply Network Inventory (SNI) business scenarios

In SAP Supply Network Collaboration (SAP SNC) 5.1, the Customizing tables were merged into one: For RR, you likewise use the Customizing table that was previously used for SMI and SNI. This Customizing table was enhanced accordingly.

For replenishment planning, we deliver default settings for RR for calculating the projected stock (one profile for replenishment planning for baseline demand, and one profile for replenishment planning for promotions). The default settings correspond to the new standard profiles ASN and PROMOTION delivered by us. You can define your own profiles and use these as the standard profiles.

As was previously possible in SMI and SNI, you can now also make settings in RR, depending on the following characteristics, as to which profile SAP SNC uses for the projected stock:

- Business partner
  (In SMI and RR, this is the supplier; in SNI, this is the assigned business partner.)
- Customer location
- Product

As of SAP SNC 5.1, new key figures and stock types, such as for promotions or for SNI, allow a more differentiated definition of the projected stock. For Supplier Network Inventory (SNI), you can configure how SAP SNC calculates the Demand key figure. For the Demand key figure, you define a separate profile for the projected stock.

Effects on Existing Data

If you have defined your own profiles for projected stock in the Responsive Replenishment business scenario, you have to execute the /SCA/COPYRPRIJSTKPRFL report after performing the update. The report copies the profiles for the projected stock from the /SCMB/PROJSTCALC table used previously, into the /SCA/PRJSTKPRFL table that is to be used from now on. For more information, see SAP Note 1019288.
Effects on Customizing

- The IMG activity *Determine Calculation Profile for Projected Stock*, which was available in the Implementation Guide for *Inventory Collaboration Hub* under *Customer Collaboration* -> *Responsive Replenishment* -> *Net Demand Calculation*, was deleted.

- You define profiles for projected stock in Customizing for *Supply Network Collaboration*, by choosing *Replenishment* -> *Replenishment Planning* -> *Projected Stock* -> *Define Profiles for Projected Stock*. Here you can make settings as to which profile is to be the standard profile for calculating the projected stock with promotions, and which profile is to be the standard profile for calculating the projected stock without promotions.


- Depending on the characteristics Business Partner, Customer Location, and Product, you can make settings as to which profile SAP SNC is to use, in Customizing for *Supply Network Collaboration*, by choosing *Replenishment* -> *Replenishment Planning* -> *Assign Settings* -> *Assign Settings for Replenishment Planning and SNI*.

- You can also call all activities in Customizing for *Supply Network Collaboration*, by choosing *Supply Network Inventory*.

See also

- Release Note *Supply Network Inventory (Enhanced)*
- SAP Note 1019288

1.7.29.4 Update of Planned Receipts (Changed)

Use

Previously in the *Supplier Managed Inventory* and *Supplier Managed Inventory with Replenishment Orders* (previously called *SMI with Purchase Orders*) business scenarios, when a supplier published an ASN for a planned receipt (*SMI*) or for a replenishment order (*SMI with Replenishment Orders*), SAP Inventory Collaboration Hub (SAP ICH) reduced the *Planned Receipts* key figure automatically by the published ASN quantity (*In Transit* key figure). In particular, in the *SMI with Replenishment Orders* business scenario, the *Planned Receipts* key figure was not reduced by the published replenishment orders (previously called *purchase orders*), which the supplier can create for a planned receipt. (The quantity from published replenishment orders is represented by the *Firm Receipts* key figure.)

As of Supply Network Collaboration (SAP SNC) 5.1, the system reduces the *Planned Receipts* key figure by the quantity from published replenishment orders if the *Firm Receipts* key figure is contained in the formula for the projected stock. In this case, the *Planned Receipts* key figure is not reduced by published ASNs. If the formula for the projected stock only contains the *In Transit* key figure but not the *Firm Receipts* key figure, the system reduces the planned receipts by the in-transit quantity, as was the case previously.
1.7.29.5 Inventory Alerts for Replenishment Planning (Enhanced)

Use

In the Supplier Managed Inventory business scenario, the following alert types previously already referred to special exception situations in the stock on hand or in the projected stock:

- The stock on hand is below the minimum stock level.
- The stock on hand is above the maximum stock level.
- The stock on hand is zero.
- The projected stock is below the minimum stock level.
- The projected stock is above the maximum stock level.
- The projected stock is zero.
- The projected stock is below the minimum stock level within the lead time.
- The projected stock is above the maximum stock level within the lead time.
- The projected stock is zero within the lead time.

To create the alerts, you previously used the /SCA/INVALERTSWRITE report, which was previously called Create Inventory Alerts for SMI, in the Supplier Managed Inventory business scenario. Previously, you could not configure which alert types the report was to create.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following changes were made:

- The report is available for all variants of replenishment planning. For example, you can use the report in the Responsive Replenishment business scenario to create inventory alerts.
- As of SAP SNC 5.1, the report is therefore called Create Inventory Alerts for Replenishment Planning.
- In the report settings, you can select the alert types you want the report to create.

For the Min/Max Replenishment replenishment method, which you use in the Supplier Managed Inventory business scenario, for example, you control the replenishment with a minimum stock level, a maximum stock level, and a reorder point. All alert types are relevant here. For the Net-Demand-Based Replenishment replenishment method, which you use in the Responsive Replenishment business scenario, the maximum stock level and thus the alerts for exceeding the maximum stock level are not relevant.
1.7.29.6 Sending ProductActivityNotifications in the SMI Scenario (New)

Use

In the Supplier Managed Inventory (SMI) scenario, the customer uses an XML message of the ProductActivityNotification type to send information concerning demands and stock from the customer back-end system to SAP Supply Network Collaboration (SAP SNC). Based on this data, the supplier can perform replenishment planning in the SMI monitor for the customer location.

As of SAP SNC 5.1, the system can enhance the data for a ProductActivityNotification and send it to the supplier back-end system. The sending of ProductActivityNotifications is only relevant, for example, for suppliers who do not want to use the SMI Monitor for replenishment planning, but want to execute replenishment planning in the back-end system. In this case, a supplier needs in his or her back-end system not only the demand/stock data from the customer system, but also the location product parameters from SAP SNC (such as the minimum stock level and maximum stock level) and the time series data determined by SAP SNC from the demand data and stock data. This includes the following time series data:

- Published ASNs
- Planned receipts
- Projected stock

The ProductActivityNotification was enhanced accordingly and can transmit the required location product parameters and time series data.

The following options are available for sending the data:

- **Automatic Sending**
  For this option, SAP SNC enhances the ProductActivityNotification data immediately upon receipt and sends the enhanced ProductActivityNotification immediately to the supplier back-end system. If you want to use this option, you need to have set the Send ProductActivityNotification (SMI) indicator in Customizing for Supply Network Collaboration, by choosing Replenishment -> Replenishment Planning -> Assign Settings -> Assign Settings for Replenishment Planning and SNI. You can make the setting dependent on customer, customer location, and product.

- **Manual Sending**
  Customer and supplier can manually call up the send function as follows:

  - Customer: in the SAP SNC system, on the SAP Easy Access screen, by choosing Tools -> Send XML Messages for Time Series -> Send ProductActivityNotifications for SMI
  - Customer and supplier: in the SMI monitor, with Send ProductActivityNotification

The time period for which the system sends data in the ProductActivityNotification is configurable (in the SMI monitor in the time buckets profile).
1.7.29.7 Deployment (New)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can run deployment from Supply Network Planning (SNP) in SAP Advanced Planning and Optimization (SAP APO) in an SCM Server installation. Deployment (DEPLOYMENT_SERVICE) determines which demands can be fulfilled by the existing supply. If there are insufficient quantities available to fulfill demand or the quantities exceed demand, deployment adjusts the created plan via a replenishment run. You can use deployment if you want to take the Available-to-Deploy (ATD) quantity (available quantity of a location product in the ship-from location) into consideration after a replenishment run. For example, you can run deployment between a replenishment run and a Transport Load Builder (TLB) run. The deployment takes the planned replenishment orders and unpublished TLB shipments and creates planned replenishment orders based on the ATD quantities. The TLB service then uses the planned replenishment orders as input for load building.

Note: TLB sizing decisions are not based on any deployment rules.

Deployment can only consider ship-to locations and replenishment orders planned by SAP SNC Customer Collaboration. Only when checking the availability to deploy, SAP APO deployment stock transfers are considered. All available-to-deploy data related to ship-from locations comes from SAP APO liveCache.

The deployment service only supports the fair share rules A, B, C, and D. Fair share rule B uses safety stock as the target stock level. In SAP SNC, the deployment service separates promotion and baseline quantities to ensure higher priority for promotion demands when distributing deployment quantities delivered by the SAP APO deployment service. In SAP SNC, the deployment service can only consider customer locations and replenishment orders planned in SAP SNC.

You can run deployment from the Planning Service Manager or from the Responsive Replenishment Monitor on the Web UI by choosing Run Deployment from the dropdown list with the planning services. A new key figure, Planned Receipts Before Deployment, is also displayed. This key figure contains the quantity of planned replenishment orders created by the replenishment run. The quantity of planned replenishment orders created by the succeeding deployment run is displayed in the key figure Planned Receipts.

Effects on Customizing

You can set the planning horizon and planning offset, in Customizing for Supply Network.
Collaboration, by choosing Replenishment -> Deployment -> Define Deployment Service Profiles.

For the planning book, planning area, and data view, deployment uses the following settings:
- Planning book: 9ASNP02
- Planning area: 9ASNP94
- Data view: SNP94 (1)

1.7.29.8 Replenishment Planning (Enhanced)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, replenishment planning has been enhanced to include the following:

- **Sourcing**
  You can now also use dynamic sourcing for baseline demands. The following options are available to you:
  - The system performs dynamic sourcing for both promotion and baseline demands.
  - The system performs dynamic sourcing for promotion demands only.
  - The system performs dynamic sourcing only, if promotion demands exist in the planning horizon.
  You can make the settings for dynamic sourcing in the replenishment service profile. If you do not use dynamic sourcing, the system uses static sourcing.
  For static sourcing, you can now control whether the system checks the validity of transportation lanes, means of transport, and transportation guidelines only once for the start time of the planning run or for each bucket in the planning horizon.

- **Replenishment methods**
  In the replenishment service profile, you can determine which replenishment method the replenishment service uses to calculate the raw net demand for a customer location product. The following methods are available to you:
  - **Net-demand-based replenishment**
    If the projected stock is lower than the safety stock, the raw net demand is the difference between the projected stock and the safety stock (otherwise zero). The replenishment service must create a planned receipt to bring the projected stock level to the safety stock level. You use this replenishment method for the Responsive Replenishment business scenario (RR).
    As in SAP ICH 5.0, you can define the safety stock using various safety stock methods. For the safety stock method SZ that calculates the safety stock as the sum of demand in the safety days' supply you no longer need to run safety stock planning. The replenishment service automatically performs the calculation.
  - **Min/Max replenishment**
    If the projected stock falls below the reorder point, the raw net demand is the difference between the target stock level and the projected stock level (otherwise zero). The replenishment
service must create a planned receipt to bring the projected stock to the target stock level. You use this replenishment method, for example, for the Supplier Managed Inventory business scenario. In this scenario, the target stock level is the maximum stock level. In the standard system, Min/Max replenishment is the default setting. An RR customer must set the net-demand-based replenishment method.

- **Planned receipts generation**
  - **Scheduling** is now based on the scheduling profile that is assigned to partner/location/product combination.
  - To determine the planned receipt quantity, the replenishment service **rounds** the raw net demand to a multiple of the rounding value. The replenishment service rounds the raw net demand to the nearest rounding value. However, if rounding to the nearest rounding value means that the new projected stock exceeds the target stock level, the planned receipt quantity is rounded down. Similarly, if rounding to the nearest rounding value means that the projected stock will be below the minimum stock, the net requirement is rounded up. You can use rounding strategies different from the rounding strategy in the default implementation by using the BAdI /SCF/ICHDM_SMI_Serv and the method ROUND_PLANSHIP_PROPOSAL.
  - In the replenishment service profile, you can now specify whether the replenishment service stores planned receipts as a **time series** or as a **planned replenishment order** (order document type DRPV).

**Effects on Customizing**

You maintain the replenishment service profile in Customizing for Supply Network Collaboration, under Replenishment -> Replenishment Planning -> Planning Services -> Define Replenishment Services Profiles.

**See also**

- Replenishment in SAP Library for Supply Network Collaboration
- Release Note Source Determination (Enhanced)
- Release Note Scheduling (Changed)

**1.7.29.9 Source Determination (Enhanced)**

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, source determination has been enhanced to include the following:

- You can now use **dynamic sourcing for baseline demands**. The following options are available to you:
  - The system performs dynamic sourcing for both promotion and baseline demands.
The system performs dynamic sourcing for promotion demands only.

For baseline demand, the system performs dynamic sourcing, only if promotion demands exist in the planning horizon. You make the settings in the replenishment service profile.

For **static sourcing**, you can now choose whether the system checks the validity of transportation lanes, means of transport, and transportation guidelines only once at the start of the planning run or once for each bucket in the planning horizon. The replenishment service also checks if the product assignment is valid. For performance reasons, we recommend that you choose the second option (check for each bucket) only if it is really relevant to you. You make the setting in the replenishment service profile.

The determination of the transportation lane, means of transport, and transportation guideline are now combined. The system selects the highest priority transportation lane and means of transport with a valid transportation guideline as the source. If none of the transportation lanes and means of transport have a valid transportation guideline, the system selects the highest priority transportation lane and means of transport.

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**Effects on Customizing**


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**1.7.30 SCM-ICH-PRO Promotion Planning**

### 1.7.30.1 Promotion Collaboration (Enhanced)

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, *Promotion Collaboration* has been enhanced. The following new features are available in the UI:

- Manual promotion edit at the time buckets level
  
  This comprises the following:
  
  - Planning quantities of different sources, such as quantities from inbound *ProductDemandInfluencingEventNotification*, system planned or calculated, and manual input are displayed.
  
  - Manual input for promotion sales forecast and order forecast quantities at the bucket level.
  
  - Manual changes are treated as final quantities and have higher priority than the quantities
calculated by the system.

- When manual changes are made, for example, the automatic promotion calculation of a
dynamic or reactive promotion is disabled.
  This means that the system treats the promotion as a static promotion.

- Manual changes are only possible for future time buckets.

- You can add buckets at the beginning and the end of promotion periods.
  You can add the buckets in the Promotion Planning screen under the Promotion Planning
  section by choosing one of the following buttons:
  
  Add Period Before Start  
  Add Period After End

  If you make changes beyond the planned promotion periods, the planned duration of the
  promotion is automatically extended

- In SAP SNC 5.1, the term Promotion Demand is now used instead of Released Promotion
  Demand.

- The names of the following key figures have been changed:

  - Planned Released Promotion Demand has been changed to Planned Promotion Demand

  - Final Promotion Demand

  - Manually Released Promotion Demand has been changed to Manually Changed Promotion
    Demand

  - Customer Released Promotion Demand has been changed to Customer Promotion Demand

  - Planned Promotion Forecast

  - Final Promotion Forecast

  - Manual Promotion Forecast has been changed to Manually Changed Promotion Forecast

  - Customer Promotion Forecast

- In the Promotion Planning screen, the following key figures have been added:

  - Customer Promotion Forecast
    This is the promotional sales forecast data that has been sent by the customer using a
    ProductDemandInfluencingEventNotification.

  - Planned Promotion Forecast
    This is the promotion sales forecast data that has been calculated by the system based on
    promotion sales pattern.

  - Manually Changed Promotion Forecast
    This is the promotion sales forecast data that has been manually entered in the Promotion
    Planning screen.

  - Customer Promotion Demand
    This is the released promotion demand data that has been sent by the customer using a
    ProductDemandInfluencingEventNotification.

  - Planned Promotion Demand
    This is the released promotion demand data that has been calculated by system based on the
promotion distribution pattern.

- **Manually Changed Promotion Demand**
  This is the released promotion demand that has been manually entered in SAP SNC.

- **Manual changes to promotion patterns, promotion profiles, and event types**
  - You can now make manual changes, such as replacing promotion patterns or using another event type on an existing promotion.
  - Manual changes are only possible for promotions that start in future, not for ones that are currently running or from the past.

- **Releasing the promotion**
  - You can now make the changed promotion data available for replenishment planning by releasing the promotion.
  - You can also use report `/SCA/FCST60_DEMAND_RELEASE` to release demands. To access the report, in the SAP Easy Access menu, choose Demand --> Demand Release --> Release Demand.

- **Sending the promotion to a collaboration partner**
  You can now use report `/SCA/DM_TIMESERIES_OUT_DMDINF` to send DemandInfluencingEventNotification, which sends a promotion to a collaboration partner. You use this function after, for example, you have changed a promotion manually in the Promotion Planning screen.

- **Promotion status**
  There are more promotion statuses available in SAP SNC 5.1 (see below).

- **Draft promotions**
  The XML Draft Promotions screen has been enhanced to include the following:
  - You can delete draft promotions on the XML Draft Promotion screen by choosing Delete Draft.
  - You can now change the location and product.

- **The Promotion Planning screen** has been enhanced to include the following:
  New selection fields have been added that allow you to select the following:
  - Promotions using an APN (Alternate Product Number) to align with other SAP SNC 5.1 screens
  - Promotions using the event type and promotion status
  - The variants of the Released Promotion Demand key figure have been renamed. The word Released has been dropped from the key figure names.

  The following functions have been enhanced:
  - Creating or setting a promotion as inactive. You can now create a promotion with an inactive status or set an active promotion to inactive.
  - The following active statuses are available:
    - **Active**
      The planned promotion reaches its start date and is being executed. In SAP ICH 5.0, this status covered the scope of the Planned status, but in SAP SNC 5.1, the Active status is restricted
the provided definition.

- **Planned**
  The promotion is set to take place and is to be replenished.

- **Completed**
  The promotion was active and has passed its end date.

The following inactive statuses are available:

- **Confirmed by Customer**
  The promotion has been acknowledged by the customer and may not be in a planned or active status.

- **Draft**
  The promotion has been created in an inactive status. It is not visible for other planning processes, such as a forecast, replenishment, and Transport Load Builder (TLB).

- **Expired**
  This promotion was in an inactive status for replenishment. It has passed its start date without being executed (turned into an active status for replenishment).

- **Offered**
  This promotion has been proposed by the customer or the supplier to its business partner.

- **Rejected**
  This promotion proposal has been rejected by the respondent. The promotion must now be modified and proposed again, or it will not take place.

- **Completed**
  The promotion was active and passed its end date.

- **Stop Completely**
  The promotion is canceled.

- **Stop Ordering**
  Promotion demand is not replenished. But promotion planning is still running, for example, to generate promotion demand and to later track and evaluate.

Other features include the following:

- The quantities of an inactive promotion are not displayed in the Promotion key figure on the Short-Term Forecast screen.

- Inactive promotions do not affect cannibalization and post-promotion dip quantities.

- The quantities of an inactive promotion are not released to follow-up planning processes, such as replenishment and TLB.

- Inactive promotions can be set to active manually or through the inbound ProductDemandInfluencingEventNotification.

- Promotion quantities, such as promotion sales forecast and promotion order forecast, can be received through ProductDemandInfluencingEventNotification at the time buckets level (as time series)

- The totals of, for example, the promotion sales forecast and order forecast key figures are equal.
  If these totals are not equal, an alert is issued.

- If only one of the data series is sent in, the promotion total will be calculated based on this data
The other data series is calculated based on promotion patterns in the same way as it is in SAP SCM 5.0.

- Issue alerts when there is no active promotion for sent-in quantities. Promotion quantities, such as sales history and out-of-stock can be sent by the vendor’s customer through ProductActivityNotifications or manually entered on the Data Import Controller screen. If data is sent or entered manually, and there is no active promotion to accept the data, so an alert (in case of ProductActivityNotifications inbound) or a message (if this is a UI operation) is issued. The alert can be viewed on the Alert Monitor screen under the Demand Planning tab page.

- Define the maximum and minimum total values at the item level for a reactive promotion. These values can help avoid an extremely high or low total value to be calculated by reactive promotion. You can make this change in the Promotions Creation screen or the Promotion Planning screen.

- DemandInfluencingEventNotification
  - The TypeCode now supports the customizable external codes. External type code values can be sent in by the vendor’s customer and are accepted by the inbound process. A mapping of external type codes to internal promotion event types is available in the Customizing for Supply Network Collaboration. This mapping is based on the business partner, location, and product. External status values can be sent in by the vendor’s customer and are now accepted by the inbound process. A mapping of external status to internal promotion status is available in the Customizing for Supply Network Collaboration.

- SAPNetWeaver Business Intelligence (SAP NetWeaver BI) Extractor for Promotion
  An SAP NetWeaver BI Extractor is now available to extract the promotion fields, such as Promotion ID, Location, Product, Business Partner, event type, patterns, planned and actual quantities, and so on, for subsequent reporting and analysis.

- BAdI for XML-generated Promotion ID
  If ProductDemandInfluencingEventNotification does not have an external promotion ID, an internal promotion ID is generated in SAP SNC by default based on the message timestamp. A new BAdI is available that allows you to specify the internal promotion ID.

Effects on Customizing
- You can maintain customer event mappings in Customizing for Supply Network Collaboration by choosing Basic Settings --> Processing Inbound and Outbound Messages --> Promotion --> Maintain Customer Event Status.

- You can maintain event type codes in Customizing for Supply Network Collaboration by choosing Basic Settings --> Processing Inbound and Outbound Messages --> Promotion --> Maintain Event Type Codes.

- To access the BAdI for the XML-generated Promotion ID, use the following information:
See also

Release notes on Demand Release (New)

1.7.31 SCM-ICH-TLB Transport Load Builder

1.7.31.1 Transport Load Builder (Enhanced)

Use

As of SAP Supply Network Collaboration 5.1 (SAP SNC), the Transport Load Builder (TLB) has been enhanced.

TLB Shipments Screen Enhancements

- **Selection Area**
  The following fields are now available:
  - **APN**
    This is the alternative product number.
  - **APN Type**
  - **Product group**
  - **Product group type**

- **Replenishment Objects Area**
  The following objects are now displayed in the Replenishment Objects area:
  - **Unit of measure**
  - **Order type**
  - **Planned replenishment orders**
    You can now do the following with planned replenishment orders:
    - Manually create a new order
    - Delete a selected order
    - Copy a selected order to a new order
    - Move a planned replenishment order into a new or existing TLB shipment
    The supplier back-end product and alternate product number (APN) are now displayed.

- **Unassigned replenishment orders**
  An unassigned replenishment order is a replenishment order that is not assigned to a TLB shipment.
  You can now do the following with unassigned, unpublished replenishment orders:
  - Change the order
Delete the order
Assign the order to a TLB shipment
- Planned receipts
You can now create and modify planned receipts.
- Replenishment Order Status with Regards to ATP Check
The quantities and dates changed by the ATP check and taken over into the requested schedule lines of the replenishment order are shown on the TLB UI; here you can assign schedule lines that are no longer assigned to TLB shipment as a result of the ATP check.

- Navigation
The following navigation is now possible:
- From the TLB Shipments screen to the Replenishment Order - Overview screen
- From the TLB Shipments screen to the Overview screen of the Responsive Replenishment Monitor (RR Monitor)
- From the Details screen of the RR Monitor to the Replenishment Objects area of the TLB Shipments screen

- TLB Shipments area
The supplier back-end product, APN, and product group are now displayed in the TLB Shipments area.
- The fields Ship-From Status and Ship-To Status have been renamed. The new names are Supplier Send Status and Customer Send Status.

Functional Enhancements
- Handling unassigned replenishment orders
- Unassigned replenishment orders are used with high priority when building TLB shipments
The TLB Engine can now distinguish between input coming from unassigned replenishment orders, planned receipts, and planned replenishment orders. When selecting the next product to be loaded onto the truck, the quantity from unassigned replenishment orders should be loaded earlier than the quantities from other inputs.
- Unassigned replenishment orders are not used for upsizing
When upsizing, only the quantities from planned replenishment orders are used. Upsizing the quantities from unassigned replenishment orders is not allowed.
- Unassigned replenishment orders are now downsized after planned replenishment orders
During downsizing, quantities from unassigned replenishment orders are downsized after the other quantities.

- Handling TLB shipments
- TLB shipment schedule lines
You can now remove unpublished TLB shipment schedule lines back into planned replenishment orders and planned receipts.
- You can now reassign unpublished TLB shipment items.
You can move schedule lines from one TLB shipment to another TLB shipment; this shipment can be a new or existing shipment.
You can change the quantity of the TLB shipment schedule lines.
Effects on Customizing

You can access the TLB basic settings in Customizing for Supply Network Collaboration by choosing Replenishment --> Transport Load Builder --> Make TLB Basic Settings.

1.7.32 SCM-ICH-DIO Inbound/Outbound Data Processing

1.7.32.1 Inbound and Outbound Message Processing (Enhanced)

Use

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can use the following enhancements in inbound and outbound message processing:

- Master Data Completion
  In inbound message processing, SAP Inventory Collaboration Hub (SAP ICH) previously completed missing master data in inbound XML messages automatically. As of SAP SNC 5.1, you can configure master data completion for locations. In Customizing, you determine how SAP SNC is to determine locations from business partner data. To do this, you can create a master data completion profile for every inbound message interface and every process type, by providing data for the master data completion process. You can also maintain the settings for recipient and sender, on a partner-dependent basis.

- Assignment of XML Messages to Different Process Types (Outbound Message)
  In Customizing, you can assign an outbound XML message to the process type Customer Collaboration, Responsive Replenishment, or Returns Collaboration with Customers. The assignment is relevant for outbound message processing. Depending on the assignment to a process type, SAP SNC fills business partner numbers in other fields of the XML message. The standard system delivers a standard assignment. We recommend that you use the standard assignment.

Effects on Customizing

Master Data Completion

We deliver standard settings for master data completion for those message interfaces for which a standard integration (XI mappings) with an SAP ERP system and SAP APO system is delivered. To check these standard settings and make further settings for additional message interfaces, you use the IMG activity
Maintain Settings for Master Data Completion.

You can use the /SCA/DM_MD_COMP Business Add-In (BAdI) to complete or override the standard settings, for example, to implement more complex algorithms for master data completion. For more information, see the IMG documentation under BAdI: Master Data Completion.

Assignment of XML Messages to Different Process Types (Outbound Message)

Check the standard assignment and, if required, assign an XML message to another process type. To do this, use the IMG activity Assign Outbound XML Messages to Standard Process Types.

If you want to determine a process type for an outbound XML message depending on which system and which business partner sends the XML message, you use the IMG activity Assign Sender-Dependent Process Types (Outbound).

See also

Release Note Deployment Options for SAP SNC (Enhanced)
Release Note Sending ProductActivityNotifications in the SMI Scenario (New)

1.7.32.2 Sending ProductActivityNotifications in the SMI Scenario (New)

Use

In the Supplier Managed Inventory (SMI) scenario, the customer uses an XML message of the ProductActivityNotification type to send information concerning demands and stock from the customer back-end system to SAP Supply Network Collaboration (SAP SNC). Based on this data, the supplier can perform replenishment planning in the SMI monitor for the customer location.

As of SAP SNC 5.1, the system can enhance the data for a ProductActivityNotification and send it to the supplier back-end system. The sending of ProductActivityNotifications is only relevant, for example, for suppliers who do not want to use the SMI Monitor for replenishment planning, but want to execute replenishment planning in the back-end system. In this case, a supplier needs in his or her back-end system not only the demand/stock data from the customer system, but also the location product parameters from SAP SNC (such as the minimum stock level and maximum stock level) and the time series data determined by SAP SNC from the demand data and stock data. This includes the following time series data:

- Published ASNs
- Planned receipts
- Projected stock

The ProductActivityNotification was enhanced accordingly and can transmit the required location product parameters and time series data.

The following options are available for sending the data:

- **Automatic Sending**
  
  For this option, SAP SNC enhances the ProductActivityNotification data immediately upon receipt and sends the enhanced ProductActivityNotification immediately to the supplier back-end system. If you want to use this option, you need to have set the Send ProductActivityNotification (SMI) indicator in Customizing for Supply Network Collaboration, by choosing Replenishment ->
Replenishment Planning -> Assign Settings -> Assign Settings for Replenishment Planning and SNI. You can make the setting dependent on customer, customer location, and product.

- **Manual Sending**
  
  Customer and supplier can manually call up the send function as follows:
  
  - Customer: in the SAP SNC system, on the SAP Easy Access screen, by choosing Tools -> Send XML Messages for Time Series -> Send ProductActivityNotifications for SMI
  
  - Customer and supplier: in the SMI monitor, with Send ProductActivityNotification

  The time period for which the system sends data in the ProductActivityNotification is configurable (in the SMI monitor in the time buckets profile).

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1.7.33 SCM-ICH-AMO  Alert Monitor

1.7.33.1 Alert Monitor (Changed)

**Use**

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can select alerts according to more criteria in the selection area of the Alert Monitor Web UI. The following selection criteria have been added:

- Alert Priority
- Maximum Age in Days
- Minimum Age in Days
- Alert Category
- Product Group
- Product Group Type
- Alternative Product Number (APN)
- APN Type

The Group columns in the statistical view of the Alert Monitor Web UI have been renamed to Grouping Criteria. There are now three grouping criteria columns. The following new criteria have been added to the columns:

- Acknowledgement
- Validity in Days
- Creation Date
A fourth column, *Display Alerts By*, has been added to allow the user to choose how to display the alerts. You can select from the above-mentioned criteria.

Settings made in the statistical view are automatically saved for the next logon. You can reset to the system default view with the new *Reset to Default* button.

The details view is hidden by default. You can access it by selecting alerts in the statistical view. If you select an alert in the details view, you can display notifications sent for that alert by choosing the new button *See Notification*.

When the details view is shown, user action is always displayed below the details table for the selected alert.

### 1.7.33.2 Alert Notification (Enhanced)

**Use**

Previously, a user could create selections on the alert monitor, and for each selection, one alert notification profile on the *Alert Monitor* Web UI. This subscription process allowed a user to choose which alerts he or she wanted to be notified about, and it is still available as a self-service.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, you can also maintain multiple notification profiles on the new *Notification Administration* Web UI under *Exceptions -> Alert Notification Administration*.

On the Notification Administration screen, an administrator can display, change, and delete existing notification profiles as well create new notification profiles for other selections. Administrators can now assign profiles to other users.

You can copy notification profiles to create multiple notifications for a selection. You can also copy the profile and the selection.
You can display the details and log entries of a specific notification by selecting it in the profiles area of the screen.

1.7.33.3 Inventory Alerts for Replenishment Planning (Enhanced)

Use

In the Supplier Managed Inventory business scenario, the following alert types previously already referred to special exception situations in the stock on hand or in the projected stock:

- The stock on hand is below the minimum stock level.
- The stock on hand is above the maximum stock level.
- The stock on hand is zero.
- The projected stock is below the minimum stock level.
- The projected stock is above the maximum stock level.
- The projected stock is zero.
- The projected stock is below the minimum stock level within the lead time.
- The projected stock is above the maximum stock level within the lead time.
- The projected stock is zero within the lead time.

To create the alerts, you previously used the /SCA/INVALERTSWRITE report, which was previously called Create Inventory Alerts for SMI, in the Supplier Managed Inventory business scenario. Previously, you could not configure which alert types the report was to create.

As of SAP Supply Network Collaboration (SAP SNC) 5.1, the following changes were made:

- The report is available for all variants of replenishment planning. For example, you can use the report in the Responsive Replenishment business scenario to create inventory alerts.
- As of SAP SNC 5.1, the report is therefore called Create Inventory Alerts for Replenishment Planning.
- In the report settings, you can select the alert types you want the report to create.

For the Min/Max Replenishment replenishment method, which you use in the Supplier Managed Inventory business scenario, for example, you control the replenishment with a minimum stock level, a maximum stock level, and a reorder point. All alert types are relevant here. For the Net-Demand-Based Replenishment replenishment method, which you use in the Responsive Replenishment business scenario, the maximum stock level and thus the alerts for exceeding the maximum stock level are not
1.7.34 SCM-ICH-EM  

**Event Management for SAP SNC**

1.7.34.1 Visibility Processes (New)

**Use**

You can use SAP Event Management (SAP EM) to monitor processes. This is based on events that are expected by a specific date/time at the latest in a process. Delays in the actual events lead to alerts. As of Supply Network Collaboration (SAP SNC) 5.1 and SAP EM 5.1, the following new visibility processes are available for SAP SNC:

- **SNC Visibility Process for Inbound Message**
  
  In this visibility process, you can monitor any type of XML message that you are expecting in SAP SNC. Here, the expected event is that an XML message arrives in SAP SNC by a particular point in time and for a specific combination of the following characteristics:

  - XML message sender
  - XML message recipient
  - Product
  - Customer location

- **SNC Visibility Process for Purchase Order**
  
  In this visibility process, you can monitor the process steps in purchase order collaboration. This includes the following events that must occur within customer-defined deadlines after the customer has sent a new or confirmation-relevant changed purchase order to SAP SNC:

  - The supplier publishes the purchase order schedule line for the purchase order in SAP SNC.
  - SAP SNC sends the purchase order schedule line to the customer back-end system.

- **SNC Visibility Process for Replenishment Order**
  
  In this visibility process, you can monitor the following processes in replenishment order collaboration:

  - Responsive Replenishment with ATP
  - Purchase order number assignment in the customer back-end system

You must therefore have activated the corresponding validation checks for publishing replenishment orders. (The validation check-controlled process in which SAP SNC immediately sends the
replenishment order upon publication to the supplier back-end system and customer back-end system simultaneously is not supported. Also not supported is the publication of replenishment orders with the \SCA/ICH_ORDER_SEND report, which is relevant for Responsive Replenishment.

For this visibility process, the following events have to occur within certain supplier-defined deadlines after the supplier has published a replenishment order in SAP SNC:

- SAP SNC sends the replenishment order to the supplier back-end system.
  In the supplier back-end system, a sales order is created based on the replenishment order.
- The supplier back-end system sends the sales order confirmation to SAP SNC.
  This event is relevant for Responsive Replenishment with ATP, for example.
- SAP SNC sends the replenishment order to the customer back-end system.
  In the customer back-end system, a purchase order is created based on the replenishment order.
- The customer back-end system sends a VendorGeneratedOrderConfirmation to SAP SNC.
  This event is relevant if the purchase order number assignment takes place in the customer back-end system.

Alerts

In SAP EM, you execute the report for determining overdue events. The system transmits this data to SAP SNC. SAP SNC creates the following new alert types for overdue events:

- SNC Visibility Process for Inbound Message
  Overdue Inbound Message (alert type 7135)
- SNC Visibility Process for Purchase Order
  Overdue Purchase Order Schedule Line of Supplier (alert type 7129)
- SNC Visibility Process for Replenishment Order
  - Overdue Replenishment Order Confirmation of Supplier (alert type 7127)
  - Overdue Replenishment Order Confirmation of Customer (alert type 7128)

The users responsible for the processes can use the Alert Monitor in SAP SNC to monitor the alerts. SAP SNC uses alert notifications to automatically inform users about new alerts. You only use SAP EM for administrative tasks, such as configuring visibility processes and for problem analysis.

Scheduling

SAP SNC sends an event message together with the date/time for the expected event to SAP EM. For scheduling, SAP SNC uses the SNC_RESPONSE scheduling schema of the configurable process scheduling. In the standard system, SAP SNC places an expected event at the end of the day, based on the time zone of the customer location. If you want to use your own scheduling logic, you can enhance the scheduling schema. In particular, you can use the condition technique from configurable process scheduling to configure the scheduling dependent upon certain characteristics (for example, depending on the customer or on the customer location).

Effects on Customizing
**SAP EM Connection**

You connect SAP EM to SAP SNC in Customizing for SAP SNC, by choosing *Integration with SAP Components* -> *Event Management Interface*.

**Transmit Data to SAP EM**

SAP SNC has to create the event messages relevant for a visibility process and send them to SAP EM. Based on an event message, SAP EM creates or updates an event handler. This event handler contains the data for the expected events. To create event messages, you have to create an active implementation for the EVENT_CREATION method of the process-relevant BAdI. We deliver example implementations. You can use these to create active implementations. For more information, see the application help for SAP Supply Network Collaboration under *Settings for Visibility Processes*.

**Scheduling**

You make settings for scheduling in Customizing for *SCM Basis*, by choosing *Configurable Process Scheduling*.

**Further Settings**

In addition, you have to make the settings in Customizing for connecting SAP EM to SAP SNC.

**See also**

Release Note *Responsive Replenishment with ATP Check*