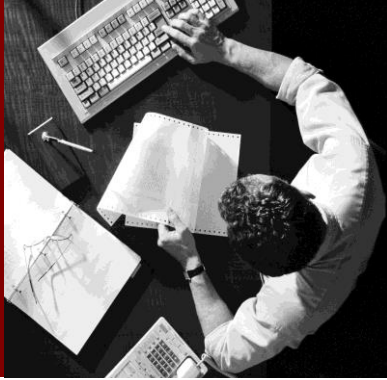




SSCE Reporting Guide

SAP® Manufacturing **Execution 15.1**

Target Audience

- System administrators
- Technology consultants

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Documentation in the SAP Service Marketplace

You can find this document at the following address: <http://service.sap.com/instguides>

Typographic Conventions

Type Style	Represents
<i>Example Text</i>	Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, titles of graphics and tables
EXAMPLE TEXT	Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE.
Example text	Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, source code as well as names of installation, upgrade and database tools.
Example text	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.
EXAMPLE TEXT	Keys on the keyboard, for example, function keys (such as F2) or the ENTER key.

History of Changes

The following table provides an overview of the most important changes that were made in the latest versions.

Guide Version	Important Changes
1.0 (January 29, 2016)	First version

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1 Getting Started

1.1 About this Document

This guide contains an overview of how to create adhoc dashboards and reports in SAP MII Self Service Composition Environment (SAP MI SSCE) and view them in SAP ME.

1.2 Related Information

1.2.1 Useful Links

The following table lists further useful links:

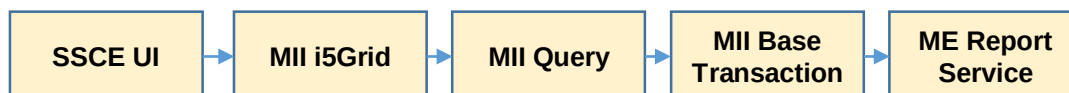
Content	Where Fo Find
SAP ME 15.1 Guides	http://service.sap.com/instguides → SAP Business Suite Applications → SAP Manufacturing → SAP Manufacturing Execution 15.1
SAP ME 15.1 Release Notes	http://help.sap.com → Enterprise Management → Manufacturing → SAP Manufacturing Execution → SAP Manufacturing Execution 15.1
SAP ME 15.1 Application Help	http://help.sap.com → Enterprise Management → Manufacturing → SAP Manufacturing Execution → SAP Manufacturing Execution 15.1
SAP ME 15.1 Javadoc	http://service.sap.com/instguides → SAP Business Suite Applications → SAP Manufacturing → SAP Manufacturing Execution 15.1

2 How SAP ME Reporting Uses SSCE

Self Service Composition Environment (SSCE) is a tool that allows you to quickly produce dashboards and reports. You can use either ME report services or MII queries to produce dashboards and reports that will display SAP ME data.

Using ME Report Services

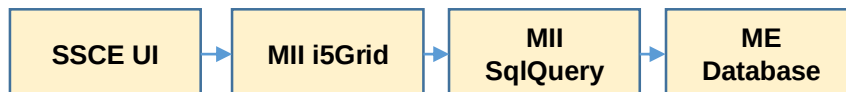
If you use ME report services, the logic of the report is defined as ME Report Service:



In this case, the MII Query plays the role of mapping the parameters from MII i5Grid to the MII Base Transaction that is created out-of-the-box for all ME report services.

Using MII Queries

If you use MII queries, the logic of the report (for example, the SQL query) is defined within SAP MII:



3 SSCE Overview

Self Service Composition Environment (SSCE) is a robust and lean standard-based platform that allows you to create, design, configure, and display dashboards based on your needs. SSCE is a powerful drag-and-drop environment in SAP Manufacturing Integration and Intelligence (SAP MII) for creating dashboards.

For more information, see *SAP MII Self Service Composition Environment* help topic available at SAP Service Marketplace at <http://help.sap.com/mii> → Application Help → *Content Development*.

4 SAP ME Report Services

You can create new report services. The report service contains a single database query that can be executed by SAP ME. The query results can be processed later by other strategy services, for example, for localization.

To view, create, and edit the services, you can use a new administration activity that has been added to manufacturing-admin.

Note that only saved report services are displayed here. The report services that are part of SAP ME core are loaded through configuration files and are not stored in the database.

4.1 Adding New Services

To add a new report service, choose *Create new Report Service*.

The logic of the report services is defined using JavaScript and the main goal is to define the SQL. The JavaScript is evaluated when the ME Report Service method is called. As a result, the SQL is set to ME Report Service and it is executed against SAP ME database using JDBC driver configured in SAP NetWeaver Administrator.

The SQL supports replaceable parameters that are defined by \$param pattern and the values are set during actual execution of ME Report Service. The replaceable parameters must be passed as an argument during the call of ME Report Service.

4.2 Editing Services

To edit existing report services, choose *Details*.

4.3 Report Services Syntax

For more information about the report-related classes, see `com.sap.me.reporting` package in SAP ME Javadoc.

There are several sections of JavaScript that need to be set for the report services to work:

1. Definition of columns:

```
report.defineColumn (<name>, <localization key>, <value handling strategy>);
```

In this section, we recommend to define the columns that will be returned by the report service.

2. Adding parameters:

```
report.addParameter ("parameter", "value");
```

While most of the parameters are mapped from the request that comes from MII, there might be cases when it is more convenient to add parameters. For example, if a site needs to be used by the query, it is easier to use the current site from the session (`report.getSite()`) than passing it through MII.

3. Setting the query to the report:

```
report.setQuery();
```

The query can be defined using JavaScript syntax and statements, such as "if", "for".

4.4 Value Handling Strategies

In many cases, we recommend using post processing value handling rather than creating complex join conditions. In the *Adding New Services* section, the values of NC_CODE can be obtained by parsing the NC_CODE handle in NC_DATA.NC_CODE_BO or joining NC_CODE table. In certain production scenarios, the NC_DATA table becomes very large and adding even few joins to other tables can cause a major performance issue. In such cases, we recommend adding post processing using value handling strategies. Note that you cannot add custom strategies.

Available Strategies

Strategy	Description
<code>com.sap.me.reporting\$ResolveSfcFromHandleStrategy</code>	Resolves SFC out of SFC_BO handles
<code>com.sap.me.reporting\$ResolveNcCodeFromHandleStrategy</code>	Resolves NC Code out of NC_CODE_BO handles
<code>com.sap.me.reporting\$ResolveUserFromHandleStrategy</code>	Resolves User out of USER_BO handles
<code>com.sap.me.reporting\$FormatDateToShortStrategy</code>	Formats the Date value to short representation

Strategy	Description
<code>com.sap.me.reporting\$FormatNcCategoryStrategy</code>	Returns the localized text for NC_CATEGORY value, for example, Defect for DEFECT
<code>com.sap.me.reporting\$FormatNcStateStrategy</code>	Returns the localized text for NC_STATE value, for example, Open for O

Note that all strategies implement `com.visiprise.frame.service.StrategyInterface`.

5 Sample Reports

5.1 NC by SFC Report

This report displays a list of SFCs with all NC codes logged for the SFC or SFCs of a given shop order and information such as who logged the NC code, who closed it.

The required search field is *Site*. The optional search fields are: *State*, *SFC*, and *Shop Order*.

Result Columns

- SFC
- NC Code
- Category (Failure, Defect, or Repair)
- Date/Time Logged
- Logged By
- Date/Time Closed
- Closed By

WIP Tables

- NC_DATA
- SFC

NC By SFC							
Shop Order:		SFC: FG-TBCT2		NC State: All		Search	
SFC	NC_CODE	NC_CATEGORY	INCIDENT_DATE_TIME	LOGGED_USER	CLOSED_DATE_TIME	CLOSED_USER	
FG-TBCT2	RET-TO-PREV	Defect	09/09/2015	SITE_ADMIN	CLOSED_DATE_TIME		
FG-TBCT2	RET-TO-PREV	Defect	09/09/2015	SITE_ADMIN			
FG-TBCT2	RET-TO-PREV	Defect	09/09/2015	SITE_ADMIN			

5.2 Carrier Report

This report displays SFC, position, material, carrier type information of a carrier.

The required search field is *Site*. The optional search fields are: *Carrier*, *SFC*, and *Shop Order*.

Result Columns

- Carrier ID
- SFC
- Shop Order
- Row Position
- Column Positon
- Carrier Type
- Material
- Revision
- Capacity of Carrier
- SFC Count in Carrier
- Row Size of the Carrier
- Column Size of the Carrier

WIP Tables

- PROCESS_LOT
- PROCESS_LOT_MEMBER
- SFC
- CARRIER_TYPE
- ITEM
- SHOP_ORDER_SFC
- SHOP_ORDER

Carrier Report

Site: SH01

Carrier: CR%
SFC: Input SFC
Shop Order: Input Order

Search

Clear

Last Update: Jan 7, 2016 10:39:20 AM

Carrier	SFC	Shop Order	Row	Column	Type	Material	Ver	Capacity	Occupy	Row Size	Column Size
CR01	IPIZZAL-0046	SOIPIZZL01	1	1	BIGCARRIER	IPIZZAL	A	3	2	2	2
CR01	IPIZZAL-0092	20150811-8	2	1	BIGCARRIER	IPIZZAL	A	3	2	2	2

5.3 Resource Downtime Report

This report displays a list of downtime periods for a resource.

The required search fields are: *Site*, *Resource*, and *Resource Status*. The optional search fields are: *Reason Code* and *Date Range*.

The report provides information about resource, start downtime, end downtime, duration, resource status, reason code, and comment that are displayed as columns in the *Resource Downtime Report*.

Result Columns

- Resource
- Downtime Start
- Downtime End
- Duration
- Resource Status
- Reason Code
- Comment

WIP Tables

- RESOURCE_TIME_LOG
- RESRCE
- PRODUCTION_COMMENT
- REASON_CODE
- STATUS

Resource Downtime Report

*Site: SH01 *Resource: RES_REPO... Date Range: 2015-01-01 00:00:00 2016-01-01 00:00:00

*Status: Disabled Reason Co.: Planned Idle

Search Clear

Resource	Start	End	Duration (min)	Status	Reason Code	Comment
RES_REPORT	11/17/2015	11/17/2015	12	Disabled	PLANNED_IDLE	abc
RES_REPORT	11/17/2015	11/17/2015	972	Disabled	PLANNED_IDLE	aaaaa

Click to Select

5.4 How to Open the Reports

To open sample reports, proceed as follows:

- In SAP ME *Activity Maintenance*, create an activity with the CLASS_OR_PROGRAM pointing to the html page of the report in SSCE (see *Activity Maintenance* in SAP ME help):
 - For *NC By SFC Report*:
%PROTOCOL%://%SERVER%:%PORT%//XMII/CM/SAPMEReporting/reporting/NcBySfcReport.html?SITE=%SITE%
 - For *Resource Downtime Report*:
%PROTOCOL%://%SERVER%:%PORT%//XMII/CM/SAPMEReporting/reporting/ResrcDowntimeReport.html?SITE=%SITE%
 - For *Carrier Report*:
%PROTOCOL%://%SERVER%:%PORT%//XMII/CM/SAPMEReporting/reporting/CarrierReport.html?SITE=%SITE%

☒ Enabled

☒ Visible in Activity Manager

Class/Program: %PROTOCOL%://%SERVER%:%PORT%//XMII/CM/SAPMEReporting/reporting/

Type: Standalone GUI (.jsp)

- In SAP ME *Activity Maintenance*, add the activity to the appropriate activity group.
- In SAP ME *User Group Maintenance*, add the permission to run the activity to the appropriate user groups (see *User Group Maintenance* in SAP ME help).