

Reporting Guide

SAP® Manufacturing Execution 15.1

Using SAP® BusinessObjects BI 4.1

Target Audience

- System administrators
- Technology consultants

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Typographic Conventions

Type Style	Represents
Example Text	Words or characters that appear on the screen. These include field names, screen titles, buttons 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.

Version	Important Changes
1.0 (October 26, 2015)	First version

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1 Getting Started

SAP Manufacturing Execution BusinessObjects Reports provide the business intelligence solution for SAP ME.

The solution offers universes and reports designed to help you optimize manufacturing and business performance by connecting people, information, and businesses across the manufacturing enterprise.

Based on Web Intelligence, SAPMEBOBJ provides tools for information discovery and delivery; information management; and query, reporting, and analysis. With these solutions, you can establish a manufacturing business intelligence (BI) platform that provides immediate access to trusted manufacturing information.

1.1 About this Document

Purpose

This guide is intended for users who are responsible for analyzing and evaluating progress made in production over a certain period of time and making decisions about performance and productivity.

1.2 Supported Platforms

This section contains information specific to SAP ME versions, supported databases for SAP ME, platforms and configurations for the SAP BusinessObjects BI 4.0 and 4.1 releases.

1.2.1 System Requirements

SAP ME	SAP ME 15.1
Databases	Oracle Database 10g Release 2, Oracle Database 11g Release 2, Microsoft SQL Server 2005 SP3/X86 64 bit, Microsoft SQL Server 2008 SP2/X86 64 bit, or Microsoft SQL Server 2008 R2 SP1/X86 64 bit, HANA DB. For more information, see SAP Product Availability Matrix (PAM) for SAP ME 15.1 at http://service.sap.com/pam. Note that for MS SQL Server database, ODS user should have the similar permissions as WIP user to perform actions with the corresponding views created in WIP database tables.
SAP BusinessObjects	SAP ME BObj Reporting is certified for Apache Tomcat. SAP ME BObj Reporting can be also used in other Java environments supported by SAP BusinessObjects BI 4.0 and 4.1. SAP ME BObj Reporting is **not** certified for Microsoft IIS environments.
Internet Explorer	See PAM for SAP ME 15.1 at http://service.sap.com/pam. A date format is supported if IE and SAPMEBOBJ locale properties have identical settings.

1.3 ODS Setup

To understand the operational data store (ODS) and its use, read the following document:

- *SAP ME 15.1 ODS Reporting Guide*

To set up the ODS, follow instructions from these documents:

- *SAP ME 15.1 Installation Guide* to create database schemas and objects required for ODS Summarization and SAP BusinessObjects Reports processing and to set up Client Environment for ETL scripts execution
- SAP ME 15.1 application help on SAP Help Portal at http://help.sap.com to set up summarization rules in *ODS Rule Maintenance.*

1.4 Importing Universes and Reports

To import universes and reports from an SAP BusinessObjects BI 4.0 or BI 4.1 `.LCMBIAR` file, the Lifecycle Management Console must be used.

1.4.1 Support of Database Vendors

As of version 15.1, SAP ME supports SAP HANA database. For SAP HANA database, SAP ME BOBJ reports support all data that has been migrated from your database used with the previous version of SAP ME to HANA database but they do not show new data (this limitation is related to the unsupported summarization process in SAP ME on SAP HANA database).

BOBJ reports on SAP HANA database are supported only on BOBJ 4.1.

For Microsoft SQL Server/Oracle DB vendor,
use `reports_Oracle_SqlServer.lcmbiar` and for SAP HANA database vendor,
use `reports_HANA.lcmbiar`.

1.4.2 Importing .LCMBIAR Files

LCMBIAR files are imported using the Lifecycle Management Console. The `.LCMBIAR` files contain both universes and the reports built upon them.

Before you can use the Lifecycle Management Console, you need the following information:

- The Lifecycle Management Console server name and port number
- A URL to the Lifecycle Management Console server (typically of the form `http://{servername>:port}/BOE/LCM`
  (where `{servername:port}` represents the network name of the machine on which BusinessObjects Server is installed and the port number on which the BusinessObjects Server listens for http requests).
- Your login and password
  Your authentication that controls the Lifecycle Management Console resources available to you.

Contact your administrator for these details if you do not already know them.

If the BusinessObjects Lifecycle Management Console is used for importing a BI 4.0 or BI 4.1 `.LCMBIAR` file, proceed as follows:

1. Use the URL to run the BusinessObjects Lifecycle Management Console.
2. Select *Import LCMBIAR* in the *Import* drop-down
3. Browse and select the LCMBIAR file and select *OK*

4. Specify where the job is to be saved
5. Specify the CMS to be used. Either use the default CMS or select to use a new CMS. To use a new CMS, login to the new CMS.
6. Select *OK*
7. Select *Promote* to process the objects from the LCMBIAR file. You can select *Test Promote* to first run a test promote to ensure that there are no errors.
8. Close the Lifecycle Management Console.

For more information, see http://help.sap.com → *Analytics →SAP BusinessObjects Business Intelligence → SAP BusinessObjects Business Intelligence Platform →SAP BusinessObjects Business Intelligence Platform 4.1 → System Administration and Installation Management → Lifecycle Management Console User's Guide*.

1.4.3 Setting Universe Parameters

This section applies to `.unx` universes. For .unx universes, the Information Design Tool is used. A connection is a named set of parameters that defines how a BusinessObjects application accesses data in a database file. A connection links Web Intelligence to your middleware. You must have a connection to access data.

An SAP ME universe uses WIP (pointing to WIP DB) and ODS (pointing to ODS DB) connections, which must be set up properly after Import of an LCMBIAR file. The Connection names are *WIP* and *ODS* correspondingly. During an import process, connections are imported along with reports and universes.

When using the Upgrade Management Tool, it is possible to choose whether to overwrite existing connections content or not. Connections included into the LCMBIAR archive do not contain any database information and it is necessary to set them properly to point to the appropriate databases after initial import. We do not recommend to overwrite Connection contents (for example, when importing upgraded reports/universes) after Connections are initially set up; otherwise, existing information will be lost and you will need to set up connections again.

When the Lifecycle Management Console is used with the LCMBIAR file supplied with SAP ME, the *WIP* and *ODS* connections will need to be edited, or removed and new ones added.



To use the Information Design Tool for an Oracle database, the Oracle Client software must be installed on the system where the tool will be run.

To use the Information Design Tool for a SQL Server database, an ODBC System Data Source must exist on the system where the tool will be run.

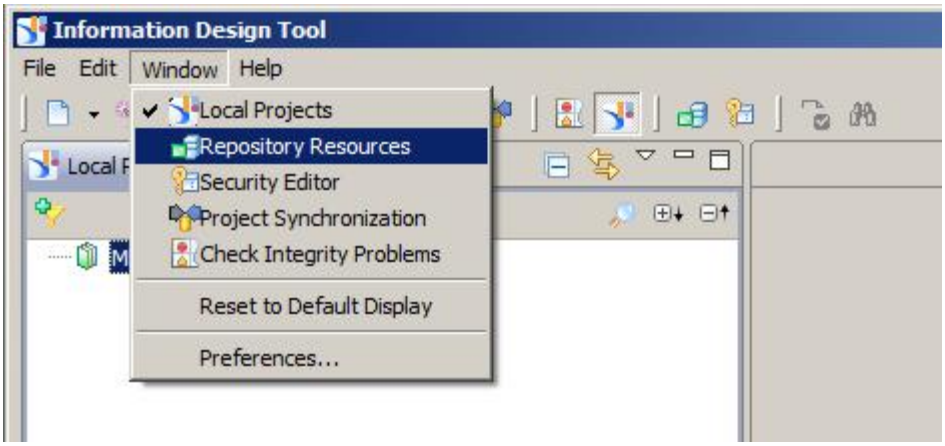
1.4.4 Working with .unx Universes

The Information Design Tool is used to manage the database connections for .unx universes and to publish create, modify and publish .unx universes. It is a BusinessObjects client application and must be run on the system where it is installed. Contact your administrator if you do not already know where it is installed.

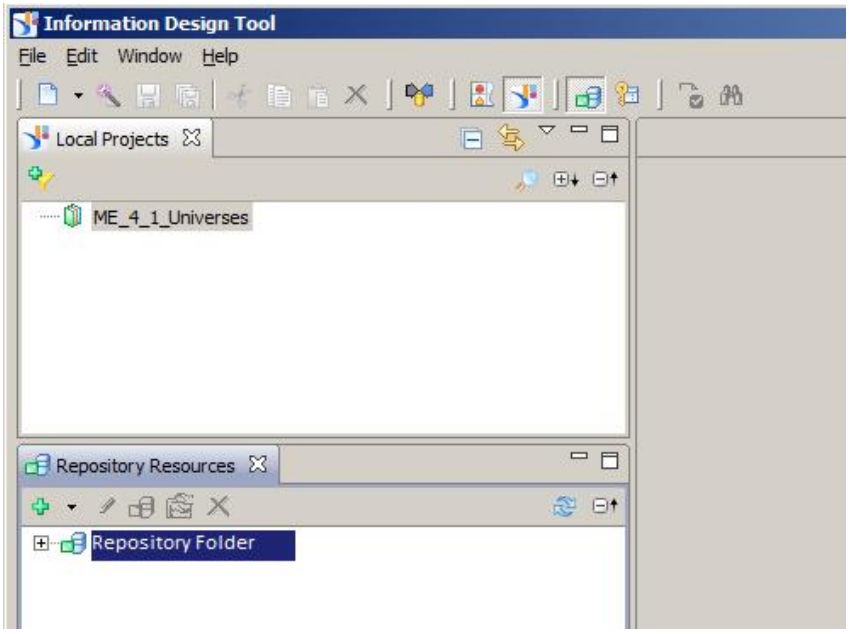
Adding or Editing Connections to SAP ME Database

To add or edit a connection, do as follows:

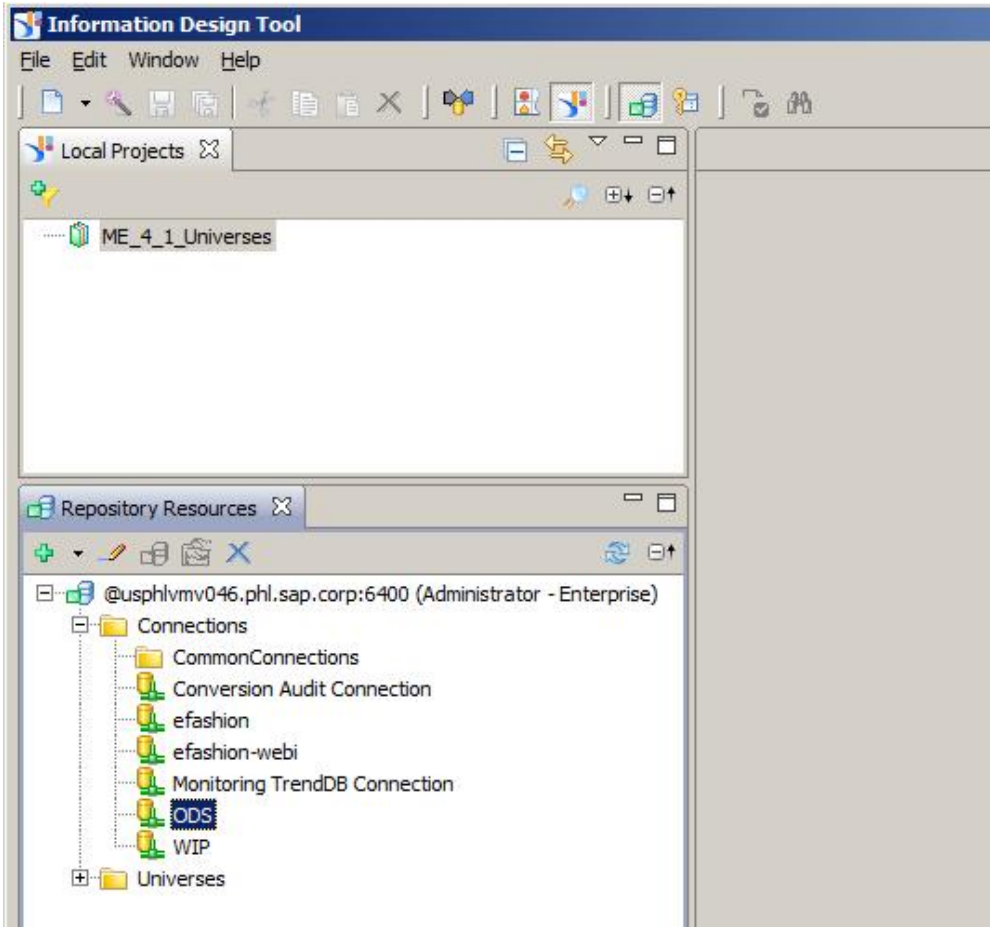
1. Run the Information Design Tool.
2. Enter credentials (*User Name* and *Password*), ensure *Authentication* is set to *Enterprise* and choose *OK*.
3. Select *Window* > *Repository Resources*.



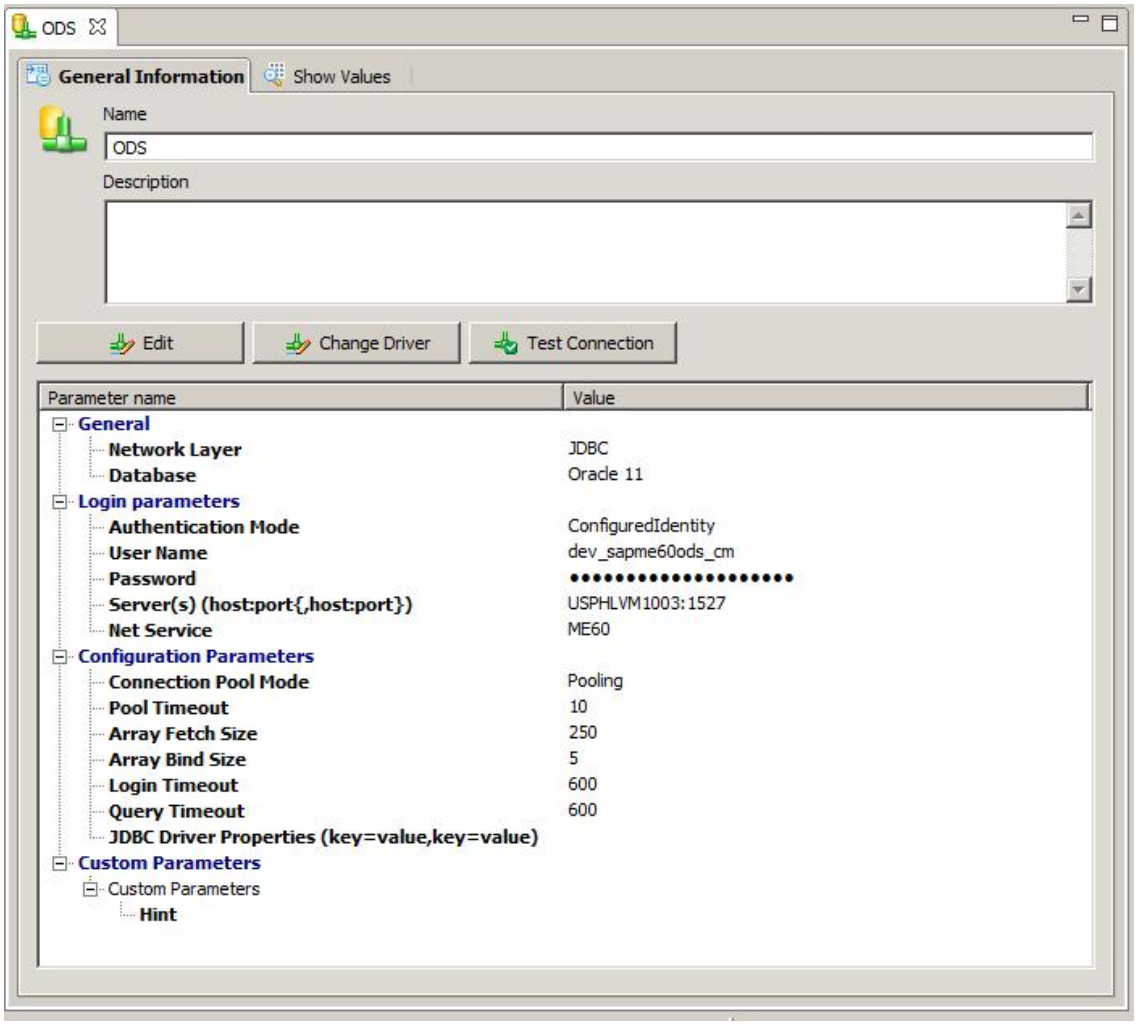
The *Repository Resources* screen appears.



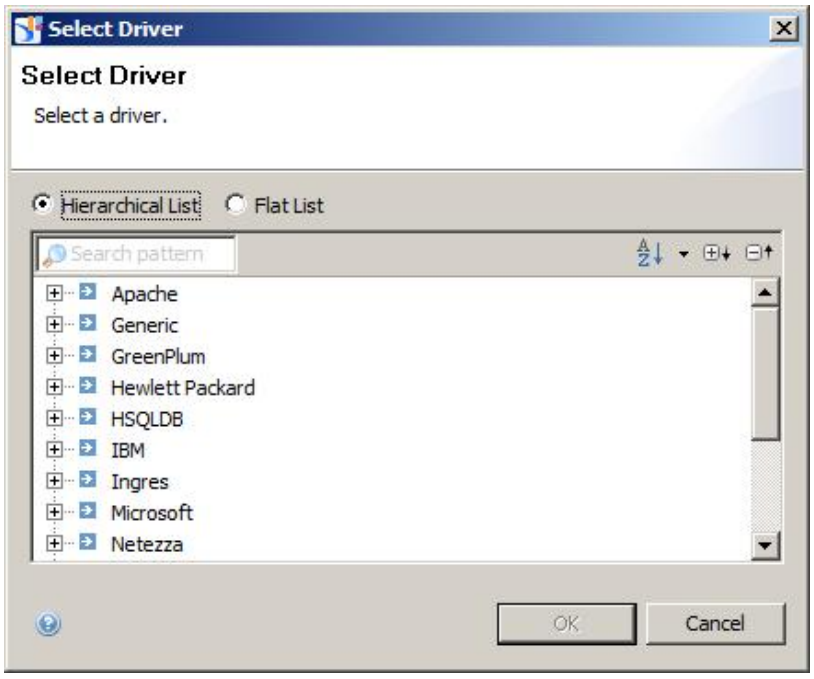
4. Expand the repository folder, expand the Connections folder and double click ODS.


Information Design Tool
File Edit Window Help
Local Projects
ME_4_1_Universes
Repository Resources
@usphlvmv046.phl.sap.corp:6400 (Administrator - Enterprise)
Connections
CommonConnections
Conversion Audit Connection
efashion
efashion-webi
Monitoring TrendDB Connection
ODS
WIP
Universes

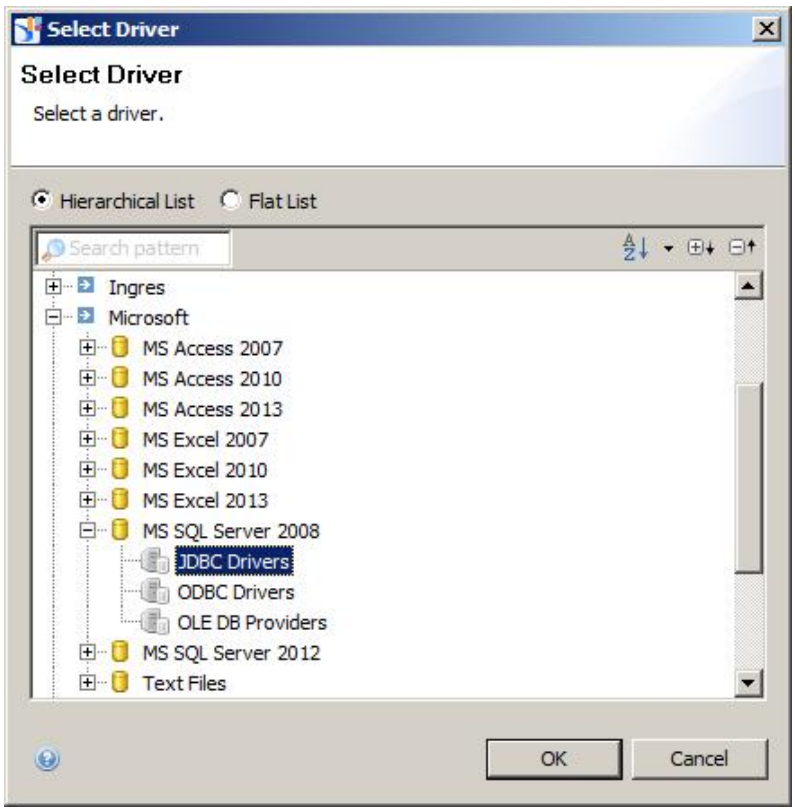
The ODS panel appears.



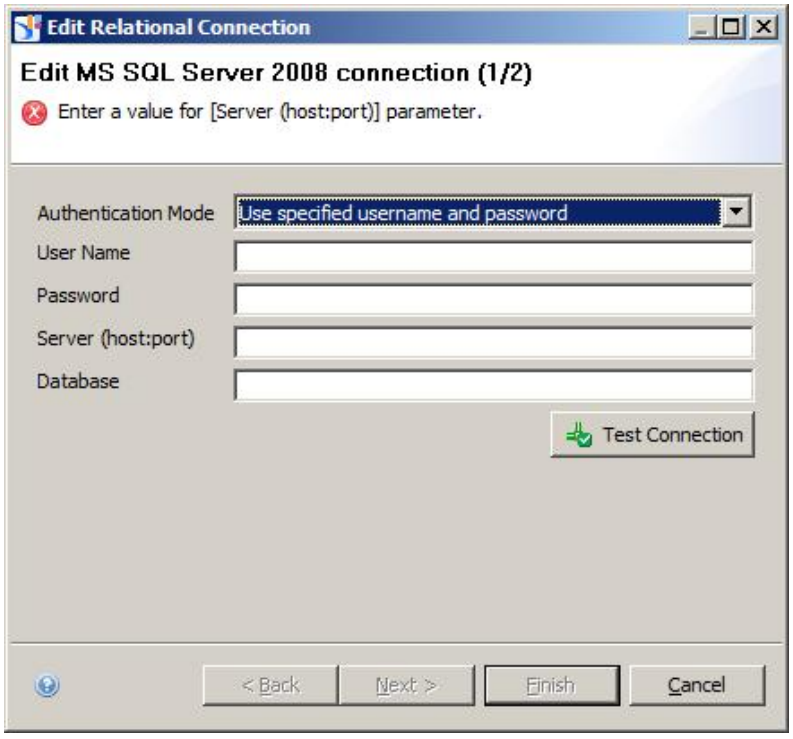
5. If the Database and/or Network Layer are not what you need, choose Change Driver.



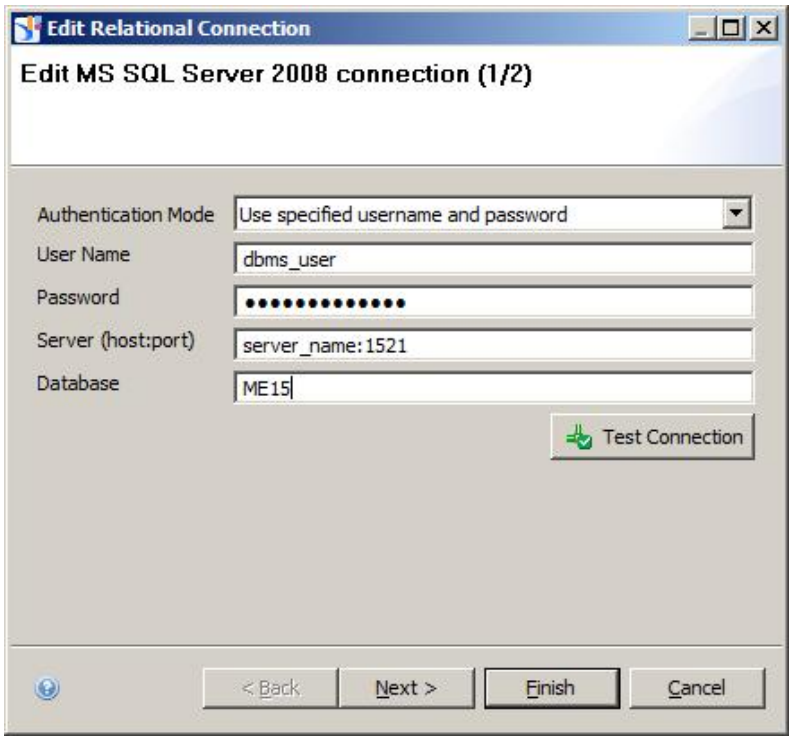
6. Expand the entry for the type of database you are using(Oracle, SQL Server, or HANA database), select the type of driver that will be used and choose OK.



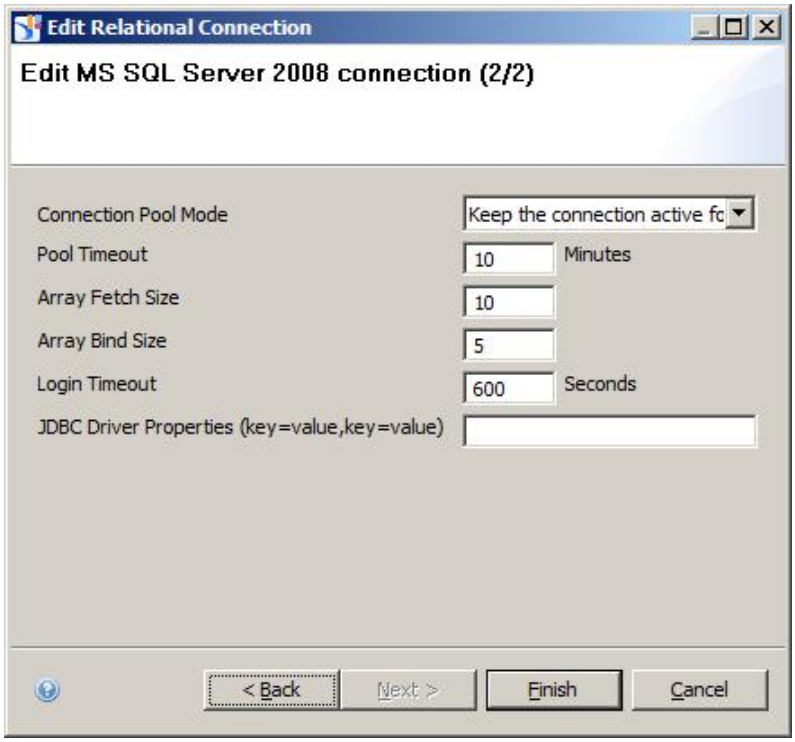
If a connection does not already exist for this database type, the *Edit Relational Connection* dialog appears.



7. Enter the database user name and password, server name: port and database name.



8. Choose *Next* (Note: the *Test Connection* button can be used to check if the connection works).



9. Modify the connection parameters as needed and choose *Finish*.

1.5 Managing Reports

The operational data store (ODS) is the reporting database containing summarized production data. The ODS is designed to provide reporting capability supporting operational-related decisions.

Using the SAPMEBOBJ functionality, you can generate reports against the ODS to drive decisions that pertain directly to the needs of your business. This document explains how to view and run SAPMEBOBJ reports using SAP BusinessObjects BI 4.1 BI Launch Pad (previously known as InfoView) and Web Intelligence. This document, also, describes the purpose of each report, search criteria fields, the report results, and provides example screenshots of the reports for better understanding.

For more information about the ODS, see http://service.sap.com/instguides → *SAP Business Suite Applications* → *SAP Manufacturing SAP Manufacturing Execution* → *SAP ME ODS Reporting Guide*.

1.5.1 Accessing Reports

The primary means of accessing the ODS reports is via a direct login to the BusinessObjects BI Launch Pad.

Logging into BI Launch Pad

Before you can use BI Launch Pad and Web Intelligence, you need the following information:

- The BI Launch Pad server name and port number
- A URL to the BI Launch Pad server (typically of the form http://{servername>:port}/BOE/BI (where {servername:port} represents the network name of the machine on which BusinessObjects Server is installed and the port number on which the BusinessObjects Server listens for http requests).
- Your login and password
  Your authentication that controls the BI Launch Pad resources available to you.

Contact your administrator for these details if you do not already know them.

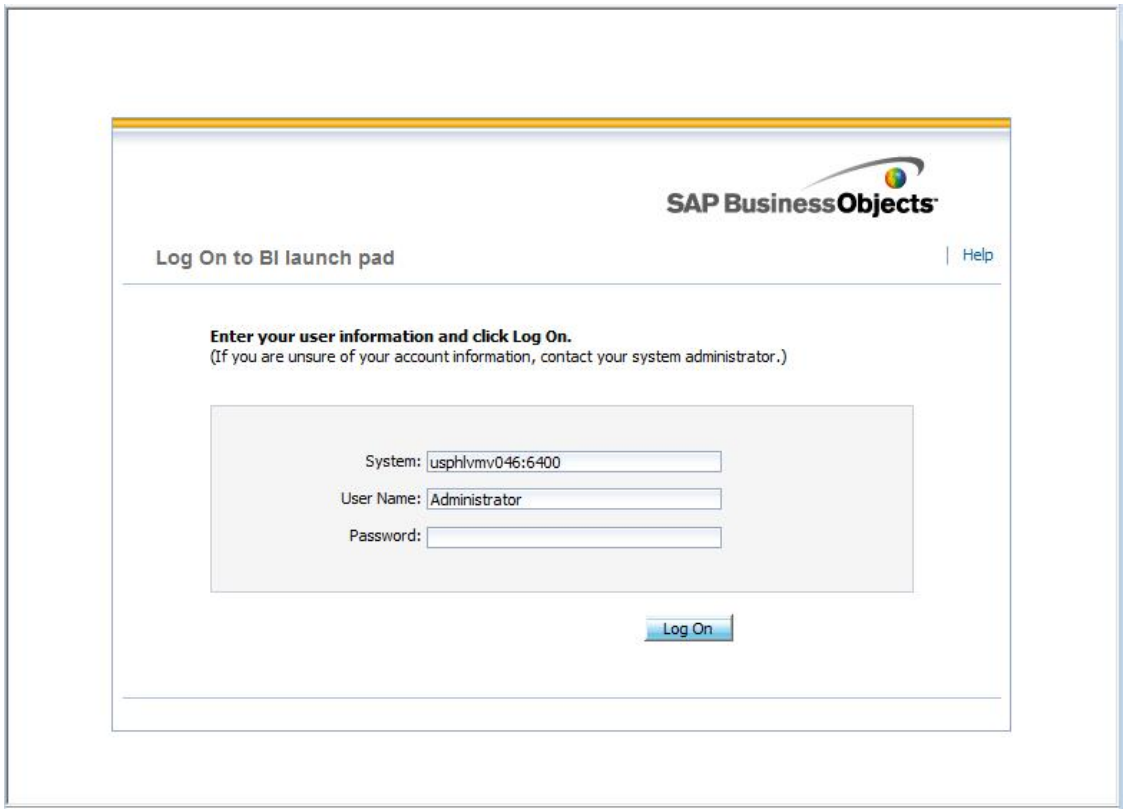
Note that you only must supply the BI Launch Pad server name and authentication method if your administrator has made these options visible.

You access Web Intelligence by using your web browser to log into BI Launch Pad, the corporate business intelligence portal. Once you are in BI Launch Pad, you can analyze and enhance Web Intelligence reports.

1. Launch your web browser.
2. Point your browser to the BI Launch Pad bookmark or URL.

   The BI Launch Pad login page appears.

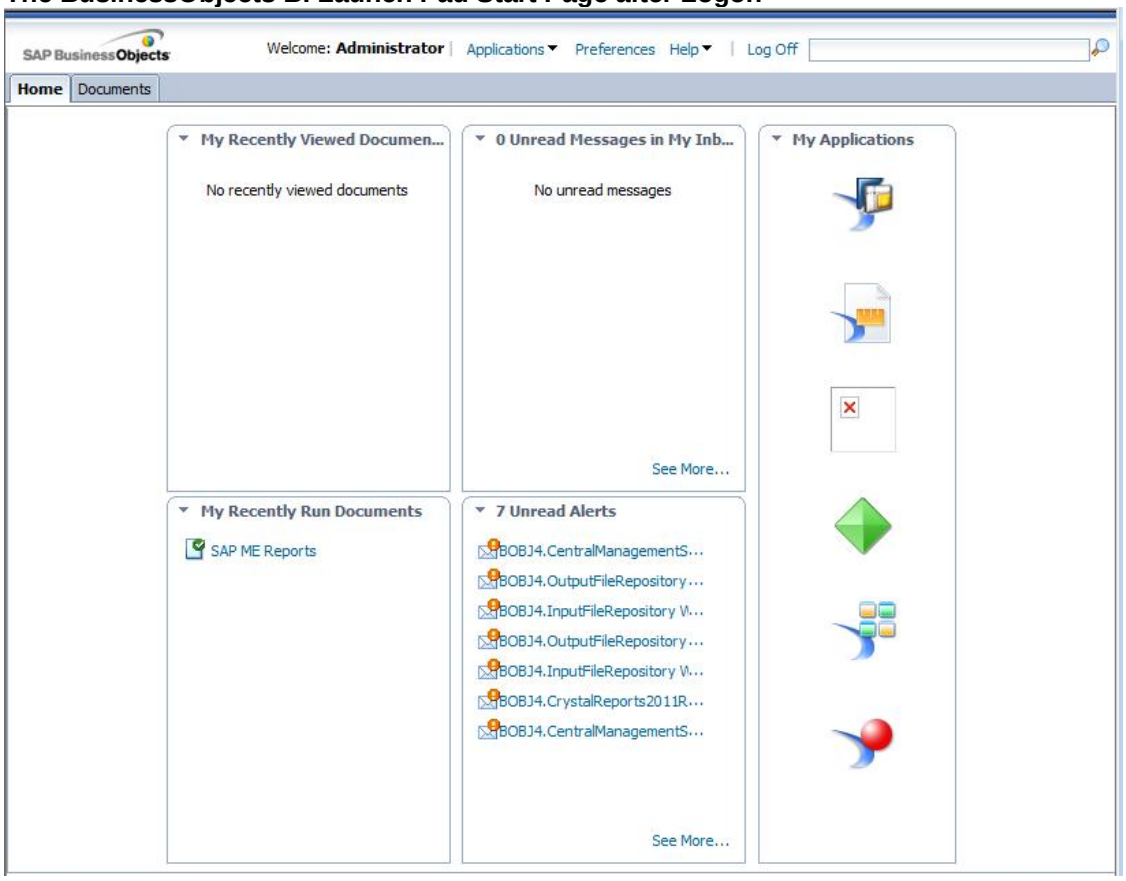
The BusinessObjects BI Launch Pad Logon GUI



3. If the *System* field is blank, enter the name of the BI Launch Pad server followed by a colon (:), and then enter the port number.
4. Enter your user name.
5. Enter your password.
6. In the *Authentication* field, select the authentication provided to you by your administrator.
7. Choose the *Log On* button.

The system opens the BusinessObjects BI Launch Pad reporting application.

The BusinessObjects BI Launch Pad Start Page after Logon



Logging Out of BI Launch Pad

When you finish using BI Launch Pad or Web Intelligence you must log out, instead of simply closing your web browser.

Logging out of BI Launch Pad ensures that any preferences you modified during your BI Launch Pad session are saved. It also lets your administrator track how many users are logged into SAPMEBOBJ at any given time and thus optimize BI Launch Pad and Web Intelligence performance.

To log out of BI Launch Pad, choose the *Log Off* button.

For more information, see http://help.sap.com → *Analytics →SAP BusinessObjects Business Intelligence → SAP BusinessObjects Business Intelligence Platform →SAP BusinessObjects Business Intelligence Platform 4.1 → End User Guides – Application Help → BI Launch Pad User's Guide*.

Session Timeout

If your session expires you can log into the SAP BusinessObjects application using the user name and password required for authentication. See *The BusinessObjects BI Launch Pad Logon GUI* figure.

1.5.2 Business Intelligence over the Web

Web Intelligence provides business users an easy-to-use interactive and flexible user interface for building and analyzing reports on corporate data over the Web, on secured intranets and extranets. The Web Intelligence software is installed by your administrator on a web server on your corporate network.

To use Web Intelligence from your local computer, you log into the BI Launch Pad via your internet browser. Then, depending on your security profile, you can interact with the reports in corporate documents or edit or build your own documents using a Web Intelligence report panel or query panel.

You access Web Intelligence reports and set global Web Intelligence options from BI Launch Pad, the corporate business intelligence portal.

1.5.3 Accessing BI Launch Pad from SAP ME

A link to SAP BusinessObjects BI Launch Pad can be added to the SAP ME Activity Manager following the standard steps for creating new Activities. For more information about creating activities, see SAP ME application help.

In *Activity Maintenance*, create a new activity. Use *Standalone GUI (.jsp)* as the type of activity and a URL of the form:

```
http://<server_name>:<server_port>/BOE/BI
```

in the *Class/Program* field.

Note that permissions to allow access to the activity should be granted using *User Group Maintenance*.

After the activity is created, a link to SAP BusinessObjects BI Launch Pad becomes available in Activity Manager. According to standard security restrictions provided by browsers the hyperlink will not be able to open this link in the same SAP ME window. Select *Open in New Window* or *Open in New Tab* from the context menu (for example, right click on the activity name in Activity Manager) to open the BI Launch Pad login screen.

1.5.2 Report Window

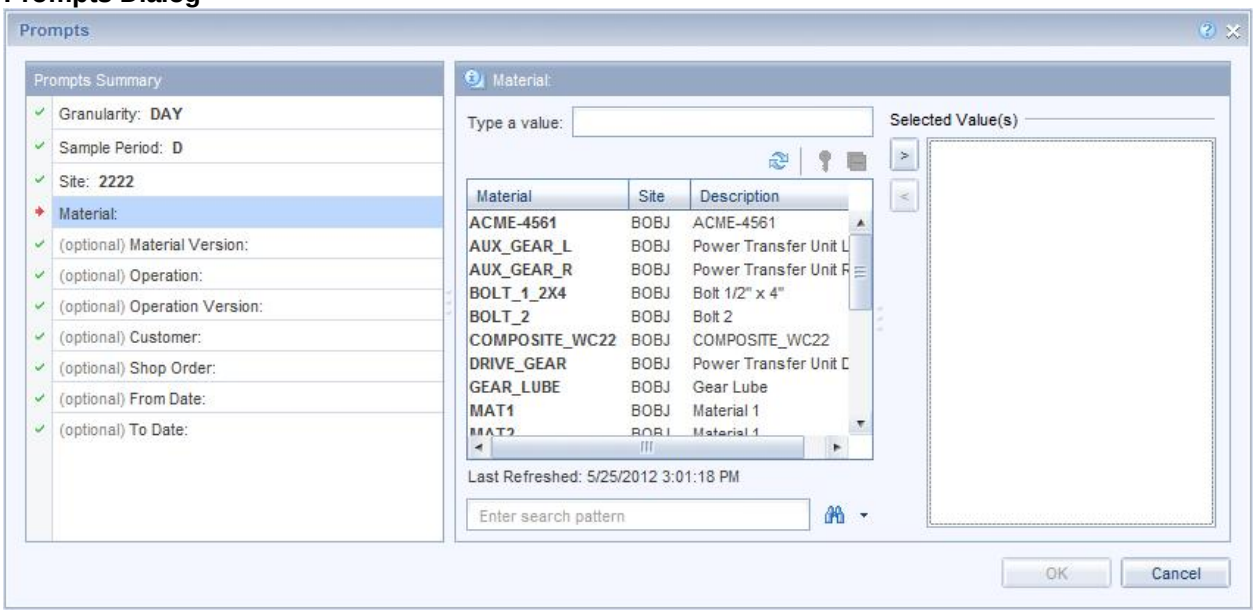
This topic describes the common elements of the *ODS Report* window. The main *ODS Report* window contains the report results that are represented in a tabular or graphical view, or both. In addition, a *Prompts* dialog is displayed when a report is initially opened and when the user requests to refresh the data for the report.

Prompts

The prompts dialog enables users to input values that are used to query the database to access the report results. A blank value in a prompt field means that all values for that field will be displayed in the results.

Wildcards (“*”, “%”, and so on) are not supported in the Prompts dialog.

Prompts Dialog



Refresh Values

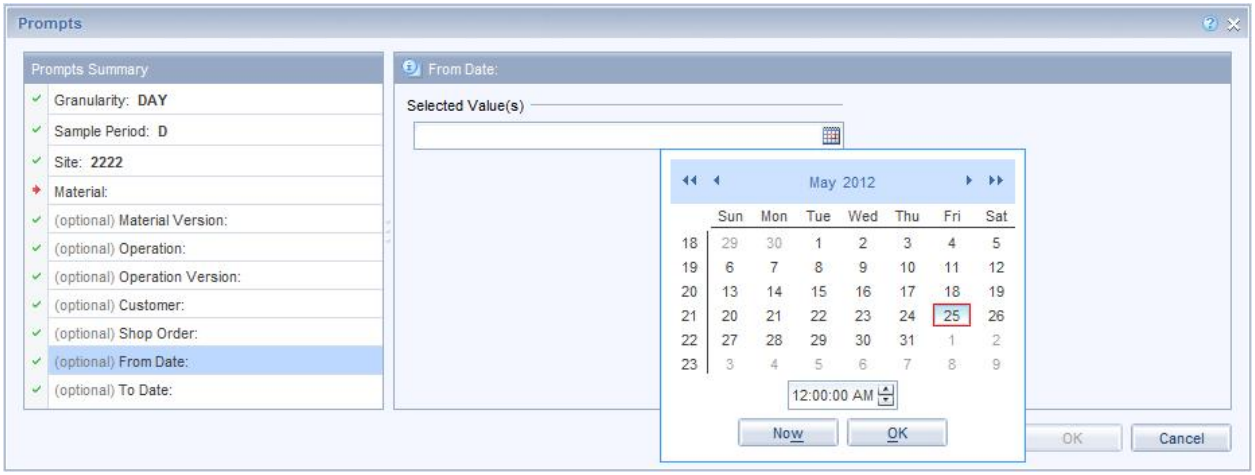
A LOV (List Of Values) is the SAP BusinessObjects equivalent of the Browse functionality found in SAP ME.

When the user chooses the *Refresh Values* icon , a list of the values that exist in the database for that field is displayed. The user can either double-click the row with the value, or choose the row and then choose the > icon, to move the value to the *Selected Values* list.

Date/Time Field Prompts

Most reports have a date/time range that can be used to restrict the data to specific ranges of dates and/or times. A calendar control is available to select dates.

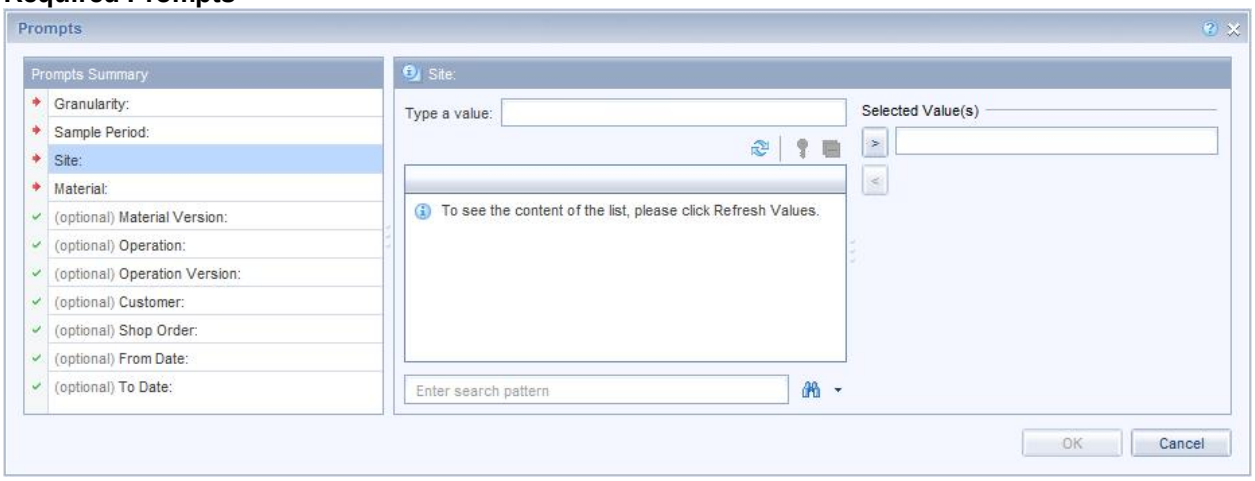
Date/Time Fields



Required and Optional Prompts

If a prompt is required, this means that a value must be specified for this prompt. All required prompts are marked with a red arrow until a value is specified for the field. An optional prompt means that a value for the prompt is not required. Optional prompts, and required prompts with a specified value, are marked with a green checkmark.

Required Prompts



1.5.3 Viewing and Printing Reports

Once logged into the business intelligence portal BI Launch Pad, you can access Web Intelligence documents and reports. Onscreen navigation is made easy with page-to-page navigation buttons and a document map that allows you to jump from section to section or report to report.

The same document can provide information pertinent to the user based on the data the user provides in the prompt fields when running the report.

When printing reports, Web Intelligence automatically generates a copy of reports in Portable Document Format (PDF) format for optimum print quality.

1.5.4 Query Filters

You limit the data returned to the document by applying filters when you define the query. Using query filters enables you to secure the data and limits the size of the documents that are stored on your network. When you run the query on the document data, Web Intelligence returns only the values that meet the query filter definitions. They retrieve a subset of the data from the database and return the corresponding values to the document. You define filters to match business questions.

Query filters allow you to do the following:

- Retrieve only the data you need to answer a specific business question
- Secure the data against unauthorized access when users access the document
- Minimize the quantity of data returned to the document to optimize performance

1.5.5 Tabular and Graphical Views

The report results appear in a new window. Some reports have two report views available:
- Graphical (bar or pie chart)
- Tabular

The user can switch from one view to another using the *Tab* on the bottom of the report.

The tabular view provides:
- Predefined column names
- Drilldown capability through links within the report

1.5.6 Navigation Controls

Users can navigate through the results table or chart by using standard navigation controls. The *Report* window provides a horizontal scroll bar and a vertical scroll bar (as needed) to allow movement between pages. Both tabular and graphical views allow direct interaction with the results, such as scrolling, drilling down, and printing.

1.5.7 Working with Hyperlinks

Linking to Another Document Using a Hyperlink

Some SAPMEBOBJ reports contain hyperlinks to other SAPMEBOBJ reports.

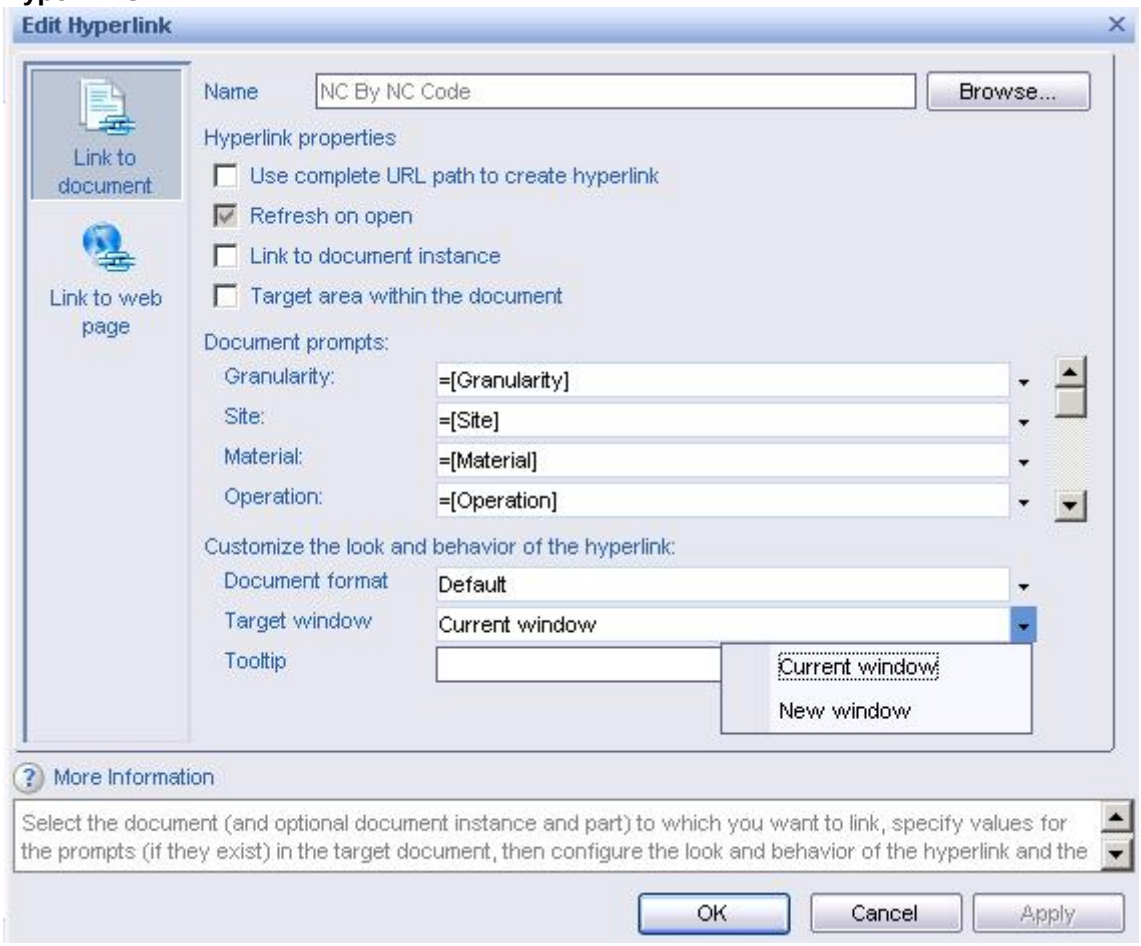
1. Hover your mouse pointer over the cell to display the tooltip if a tooltip is defined.
2. Choose the hyperlink to open the target document.

   Depending on how the hyperlink is configured, the target document opens in a new browser window, or it replaces the current document in the current browser window. All the SAPMEBOBJ reports are configured to open in the current browser window.

Editing Hyperlinks

Hyperlinks between reports can be edited using the *Hyperlink* dialog box.

Hyperlinks



The encoded URL cannot exceed 2083 total characters. In other words, parameters for hyperlink cannot exceed 2083 total characters.

If you used the *Hyperlink* dialog box to define the link and the *Formula Bar* is displayed, the hyperlink syntax generated by Web Intelligence appears in the *Formula Bar*. Do not modify this syntax directly; use the *Hyperlink* dialog box if you need to update it.

1.5.8 Report Access Details

The report access details control access to the report.

Source Report Type	
☒ WEBI Report (ad-hoc capable)	
Report Delivery or Access Method(s)	
☐ Subscribe to Report (via email)	**Distribution List:**
☒ SAP BusinessObjects Enterprise System ☒ View on Demand ☒ View Scheduled Instances ☐ Subscribe via Inbox	**Folder Name:** SAP ME Reports
☐ Network File Location	**File Location:**
☐ Ftp Site	**Ftp Location:**
☐ Direct to Printer	**Printer name**
Scheduling Frequency	
☐ once ☐ daily ☐ Monthly ☐ Weekly ☒ other	
Time:	
Report Output Type	
☒ webi – permits adhoc analysis	
☒ .pdf – Adobe Acrobat	
☒. xls – Microsoft Excel – includes page headers	
☒. xls – Microsoft Excel Data Only	
☒ Character Separated Text File	

1.6 Universes

The SAPMEBOBJ component supplies 14 universes, based on the ODS, providing the data semantic layer that serves as the data sources for the reports. The core SAPMEBOBJ component provides reports authored in Web Intelligence, the supplied universes could be utilized to author reports using any of the other SAP BusinessObjects Enterprise report authoring tools.

The role of universes on the following table is to provide an easy-to-use interface for Web Intelligence users to run queries against a database to create ODS as well as WIP reports and perform data analysis.

These universes contain the following elements:

- Connection parameters for one or more databases
- SQL structures called objects that map to actual SQL structures in the database such as columns, tables, and database functions. Objects are grouped into classes. Objects and classes are both visible to Web Intelligence users.
- A schema of the tables and joins used in the database. Objects are built from the database structures that you include in your schema. It is not visible to Web Intelligence and Web Intelligence Desktop users.

Web Intelligence users connect to a universe, and run queries against a database. They can do data analysis and create reports using the objects in a universe, without seeing, or having to know anything about, the underlying data structures in the database.

The table bellow lists universes available for the ODS and WIP reports.

Package Names	Groups	Universes
ODS	Nonconformance	NC Summary
		NC Detail
		DPMO Summary
	Production	Production Summary
		Production Detail
		Production Cycle Time Summary
		Shop Order Production Summary
		Shop Order Detail
	Resource Utilization	Resource Utilization Summary
	Labor Tracking	Labor Summary By SFC
		Labor Summary By User
	Data Collection	Data Collection ODS
	Genealogy	Genealogy
WIP	Data Collection	Data Collection WIP

1.6.1 Data Collection Universe Choice

SAP ME allows you to choose a destination of Parametric Data storage. For more information, see SAP ME application help. Depending on the storage, different versions of DC universe should be used. If Data Collection (DC) data is stored in WIP, use *Data Collection WIP* universe for reports development. If DC data is stored in ODS *Data Collection ODS* should be used.

1.6.2 Custom Data

Custom Data Fields

Custom Data Fields are defined by the customer in SAP ME *Custom Data Maintenance and Data Type Maintenance*. As these fields are defined by the customer, they are not included in the supplied universes. Customers may choose to utilize the Universe Design Tool to extend the universe to include some of these fields.

To retrieve custom data for an entity (such as material, routing, SFC number), modify the universe as follows:

1. Synonyms for `WIP.CUSTOM_FIELDS` and `WIP.CUSTOM_FIELD_DEF` should be created in ODS schema.

2. Table to find custom data for (ITEM for materials, SFC number – for SFC number) should be joined to CUSTOM_FIELDS and CUSTOM_FIELD_DEF similarly to this query:

```
select
    TABLE_TO_FIND_CUSTOM_DATA_FOR.HANDLE,
    CUSTOM_FIELDS.ATTRIBUTE,
    CUSTOM_FIELDS.VALUE,
    CUSTOM_FIELD_DEF.FIELD_LABEL,
    CUSTOM_FIELD_DEF.REQUIRED,
    CUSTOM_FIELD_DEF.SEQUENCE
from
    TABLE_TO_FIND_CUSTOM_DATA_FOR
      inner join CUSTOM_FIELDS on TABLE_TO_FIND_CUSTOM_DATA_FOR.HANDLE
      = CUSTOM_FIELDS.HANDLE    inner join CUSTOM_FIELD_DEF on
      (CUSTOM_FIELD_DEF.SITE = TABLE_TO_FIND_CUSTOM_DATA_FOR.SITE or
      CUSTOM_FIELD_DEF.SITE='*') and CUSTOM_FIELD_DEF.FIELD_NAME =
      CUSTOM_FIELDS.ATTRIBUTE and TABLE_NAME =
      'TABLE_TO_FIND_CUSTOM_DATA_FOR'
```

For example, if it is necessary to find custom data for material (ITEM table), join will be the following:

```
select
    ITEM.HANDLE,
    CUSTOM_FIELDS.ATTRIBUTE,
    CUSTOM_FIELDS.VALUE,
    CUSTOM_FIELD_DEF.FIELD_LABEL,
    CUSTOM_FIELD_DEF.REQUIRED,
    CUSTOM_FIELD_DEF.SEQUENCE
from
    ITEM
      inner join CUSTOM_FIELDS on ITEM.HANDLE = CUSTOM_FIELDS.HANDLE
      inner join CUSTOM_FIELD_DEF on (CUSTOM_FIELD_DEF.SITE =
      ITEM.SITE or CUSTOM_FIELD_DEF.SITE='*') and
      CUSTOM_FIELD_DEF.FIELD_NAME = CUSTOM_FIELDS.ATTRIBUTE and
      TABLE_NAME = 'ITEM'
```

Columns of the CUSTOM_FIELDS and CUSTOM_FIELD_DEF tables are described below:

CUSTOM_FIELDS

Column	Description
HANDLE	The handle for the Business Object the custom data is associated with
ATTRIBUTE	The attribute name for the custom data.
VALUE	The value of the custom attribute.
MODIFIED_DATE_TIME	The date/time this record was last updated.
CREATED_DATE_TIME	The date/time this record was created.

CUSTOM_FIELD_DEF

Column	Description/Default [Type]
HANDLE	The handle of this field.
TABLE_NAME	The name of the Table/Object this custom field applies to.
SEQUENCE	Controls the order that fields are displayed in the GUIs.
FIELD_NAME	The name of the field.
FIELD_LABEL	The label used for this field in the GUI.
REQUIRED	If true, then this field is required (only enforced at the GUI).
CREATED_DATE_TIME	The date/time this record was created.
MODIFIED_DATE_TIME	The date/time this record was last modified.
SITE	The site the object is defined for.

NC Custom Fields

NC custom fields are being expanded during ODS summarization into separate tables' columns. Affected tables are ODS_NC_DATA and ODS_NC_DATA_SUMMARY. Column name corresponding to NC Custom Field is compiled as follows:

```
'CUSTOM_' + FIELD_NAME
```

For instance, if there is a "WEIGHT"-Field, column name containing its values will be 'CUSTOM_WEIGHT'.

As these columns are created dynamically and models of the universes are static, the only possibility to use these columns in reports is to add new objects in the universe corresponding to the columns. For more information about universes updates, see http://help.sap.com → *Analytics →SAP BusinessObjects Business Intelligence → SAP BusinessObjects Business Intelligence Platform →SAP BusinessObjects Business Intelligence Platform 4.1 → Data Access and Semantic Layer → Universe Design Tool User Guide*.

Assembly Custom Fields

Assembly Custom Fields are handled similarly to NC Custom Fields in ODS. Affected tables are ODS_ASSEMBLY_HISTORY and ODS_COMP_TIME_LOG.

1.6.3 Genealogy Universe Limitations

Genealogy universe can be used for time-based components as well as for discrete components, but only if the *Convert to Discrete* system rule is set to TRUE *in ODS Rule Maintenance*.

For more information about SAP ME ODS rules setup, see *ODS Rule Maintenance* in SAP Library for SAP ME 15.1.

1.6.4 Managing Universes

This section is about ODS and WIP universe management and it describes how to set access restrictions on a universe.

You can apply restrictions to defined users and groups who use a universe.

Universe security is managed at two levels:

Security Level	Description
CMS	From the *Central Management Console*, you can set restrictions that apply to universes stored in a CMS. You can set what universes users can access, and depending on the rights defined for a user group, you can restrict viewing, editing, deleting, and other actions in a universe. To learn more about setting restrictions at the CMS level, see the *BusinessObjects Business Intelligence Administrator's Guide* for information about using the Central Management System.
Universe	You can define restrictions for users allowed to use a universe. A restriction can include object access, row access, query and SQL generation controls, and connection controls. To learn more about setting restrictions at the universe level, see *BusinessObjects Universe Design Tool User Guide* for information about managing universes.

For more information, see http://help.sap.com → *Analytics →SAP BusinessObjects Business Intelligence → SAP BusinessObjects Business Intelligence Platform →SAP BusinessObjects Business Intelligence Platform 4.1 → Data Access and Semantic Layer → Universe Design Tool User Guide*.

For more information, see http://service.sap.com/instguides → *SAP Business Suite Applications → SAP Manufacturing SAP Manufacturing Execution → SAP Manufacturing Execution 15.1 ODS Reporting Guide*.

2 ODS Reports

During real-time data collection, SAP ME stores data in the WIP database tables. These tables are designed and indexed to optimize the real time data collection functions of SAP ME. Production data is periodically transferred to the ODS and transformed into the summary tables. These tables are designed and indexed to optimize their use in creating and executing reports.

The SAPMEBOBJ ODS module contains the SAP BusinessObjects reporting tool for viewing Operational Data Store (ODS) reports. The reports are web-based and can be output in HTML, PDF, TEXT, Excel, Rich Text, and XML formats. The ODS reports are grouped in one category, Local ODS Reports

2.1 Classification of ODS Reports

The following topics describe the classification of standard ODS reports available with SAPMEBOBJ according to the information they provide.

2.1.1 NC (Nonconformance) Reports

Nonconformance reports provide information about the nonconformance logged in SAP ME. These reports allow you to view the number and type of nonconformance for a specific site and date range. DPMO reports provide a summary of the defects detected at inspection and test.

Reports	Use This Report to View a Summary Sorted By
DPMO By Category	Category, of the DPMO information gathered at a specific site
DPMO By Time	Date, Week, or Month of the DPMO information gathered at a specific site
NC By Material Group	Material group, of the number and type of nonconformance recorded at a specific site over a specified date range
NC By Material	Material of the number and type of nonconformance recorded at a specific site over a specified date range
NC By NC Code	NC code of the number and type of nonconformance recorded at a specific site over a specified date range
NC By Failure ID	Failure ID of the number and type of nonconformance recorded at a specific site over a specified date range
NC By Component	Component of the number and type of nonconformance recorded at a specific site over a specified date range
NC By Reference Designator	Reference Designator of the number and type of nonconformance recorded at a specific site over a specified date range
NC By Vendor	Vendor of the number and type of nonconformance recorded at a specific site over a specified date range
NC Log	Date of nonconformance codes logged against a specific SFC number over a specified date range. This report allows you to access the NC Detail report.
NC Detail	Site of specific information about a nonconformed SFC number, including the date and time the nonconformance was logged and closed

Reports	Use This Report to View a Summary Sorted By
	You can access this report from the NC Log report.

2.1.2 Production Reports

Production reports include a wide selection of daily summary reports to help keep you informed and meeting your production schedules.

Reports	Use This Report to View a Daily Summary Sorted By
Production By Material	Date, Week, or Month of the number of materials done at a specific site over a specified date range
Operation Yield	Date, Week or Month, of the number of materials that passed the first and second test, as well as the number of materials tested more than twice and passing those test This report is useful for determining, during a specific time period and for a given operation, what materials have the highest failures on either the first, second, and/or more tests.
Yield By Material	Date, Week or Month, of the number of materials passed the first and second test, as well as the number of materials tested more than twice and passed those test This report is useful for determining, during a specific time period and for a given material, what materials have the highest failures on either the first, second, and/or more tests.
Operation Queue Time	Date, Week or Month, of the actual and average length of time a material was in queue for specified operation
Operation Process Time	Date, Week or Month, of the actual and average length of time it took a material to go through the production process from start to finish
Production Detail Report	Date, of specific information about the production process of an SFC number, including the date the production occurred You can drill down to this report from the Operation Yield, Production By Material and Yield By Material reports.

2.1.3 Resource Reports

Resource reports allow you to view the percentage of time a resource spends in a particular state.

Reports	Use This Report to View a Daily Summary Sorted By
Resource Utilization	Date, Week, or Month of the daily utilization percentage for a specified resource over a specified date range
Resource Usage	Resource, of the percentage of time a resource is utilized at each resource status state over a specified date range The resource status states are: ▪ Unknown

Reports	Use This Report to View a Daily Summary Sorted By
	▪ Productive ▪ Standby ▪ Engineering ▪ Disabled ▪ Enabled ▪ Hold ▪ Scheduled Down ▪ Unscheduled Down ▪ Not Scheduled

2.1.4 Shop Order Reports

Shop Order reports provide a comparison of the shop order's actual performance versus its planned performance.

Reports	Use This Report to View a Summary Of
Order Exception	Shop orders that were early, on time, or late for a specified date range. The shop order completed on time if a 0 is recorded in the Days Late column. A negative number indicates the number of days the shop order was early. A positive number indicates the number of days the shop order was late.
Order Completion Distribution	Actual shop order performance against planned complete time over a specified date range The shop order was on time if a 0 is recorded in the Days Late column. A negative integer indicates the number of days the shop order was early. A positive integer indicates the number of days the shop order was late
Order Lead Time by Operation	The total and average shop order lead and processing time at a particular operation

2.1.5 Labor Reports

Labor reports help to track time spent by shop floor operators in producing or reworking products.

Reports	Use This Report to View a Summary Of
Employee Time Summary	Users' direct (actually performing value added effort) and indirect (such as idle, lunch, meetings) labor time for each day across a given date range, as well as helps to track hours spent in reworking products.
LCC Usage By Shop Order	LCC usage by SFC number and Operation across a given date range
User Attendance	Each clock-in and clock-out interval for a given user over a period of time

2.2 NC Reports

This section includes the following reports:

- DPMO By Category
- DPMO By Time
- NC By Component
- NC By Failure ID
- NC By Material
- NC By Material Group
- NC By NC Code
- NC By Reference Designator
- NC By Vendor
- NC Log

2.2.1 DPMO By Category

This report provides the DPMO information gathered at a specific site. The report information is sorted by category. The main task for DPMO is to record the defects detected at inspection and test to the appropriate root cause operation.

Search Criteria Fields

The following table shows the search criteria fields available for the DPMO By Category report along with their type values. For more information about each field type, see the “Managing Reports” section.

For more information about each search criteria field, see the “Glossary” section.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Material Group	Optional/Browse
Operation	Optional/Browse
DPMO Category	Optional/Browse
Customer	Optional
Shop Order	Optional/Browse
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

DPMO Summary - DPMO Summary Universe created to service DPMO Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the DPMO By Category report prompts, SAPMEBOBJ displays report search results in a new window.

DPMO By Category Report

DPMO by Category

Site: NCTEST
Material:
Material Group:
Operation:
DPMO Category:
Customer:
Shop Order:

Time Granularity: DAY
From Date:
To Date:

DPMO Category	Operation	Pieces Processed	Defect Opportunities	Defect Count	DPMO	Defect Rate	Est Yield
<<ALL>>	<<ALL>>	20	1.000	6	6.000	30,00%	74,08%
	Category Totals:	**20**	**1.000**	**6**	**6.000**	**30,00%**	**74,08%**
PLACEMENT	OPER1	25	600	0	0	0,00%	100,00%
	Category Totals:	**25**	**600**	**0**	**0**	**0,00%**	**100,00%**
	Report Totals:	**45**	**1.600**	**6**	**6.000**	**13,33%**	**87,52%**

Note that report columns that contain no description can be found in the “Glossary” section since they are common for all reports.

DPMO By Category Report Results	
Column/Field	**Description**
Category	Indicates whether the defect is an assembly, component, placement, or termination defect.
Operation	The operation at which operators can log a defect NC code with the DPMO category for this material.
Pieces Processed	The quantity of the SFC number that is defected at a specific operation within a specific DPMO category.
Defect Opportunities	The total number of components or connections that had the possibility of being defective at a specific operation within a specific DPMO category.
Defect Count	The total number of defects logged against the material at a specific operation within a specific DPMO category.
DPMO	The total number of defects divided by the total number of opportunities for a defect multiplied by 1,000,000.
Defect Rate	The number of defects divided by the number of pieces processed and multiplied by 100.
Est Yield	The expected percentage of assemblies with no defects for a particular process step or a combination of process steps (routing steps), based on historical defect rates.
Category Totals	Indicates each column subtotal by each category.
Report Totals	Indicates each column total for entire report.

2.2.2 DPMO By Time

This report provides the DPMO information gathered at a specific site. The report information is sorted by day, week, or month. The main task for DPMO is to record the defects detected at inspection and test to the appropriate root cause operation.

Search Criteria Fields

The following table shows the search criteria fields available for the DPMO By Time report along with their type values. For more information about each field type, see the Managing Reports section.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Operation	Optional/Browse
DPMO Category	Optional/Browse
Customer	Optional
Shop Order	Optional/Browse
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

DPMO Summary - DPMO Summary Universe created to service DPMO Summary reports.

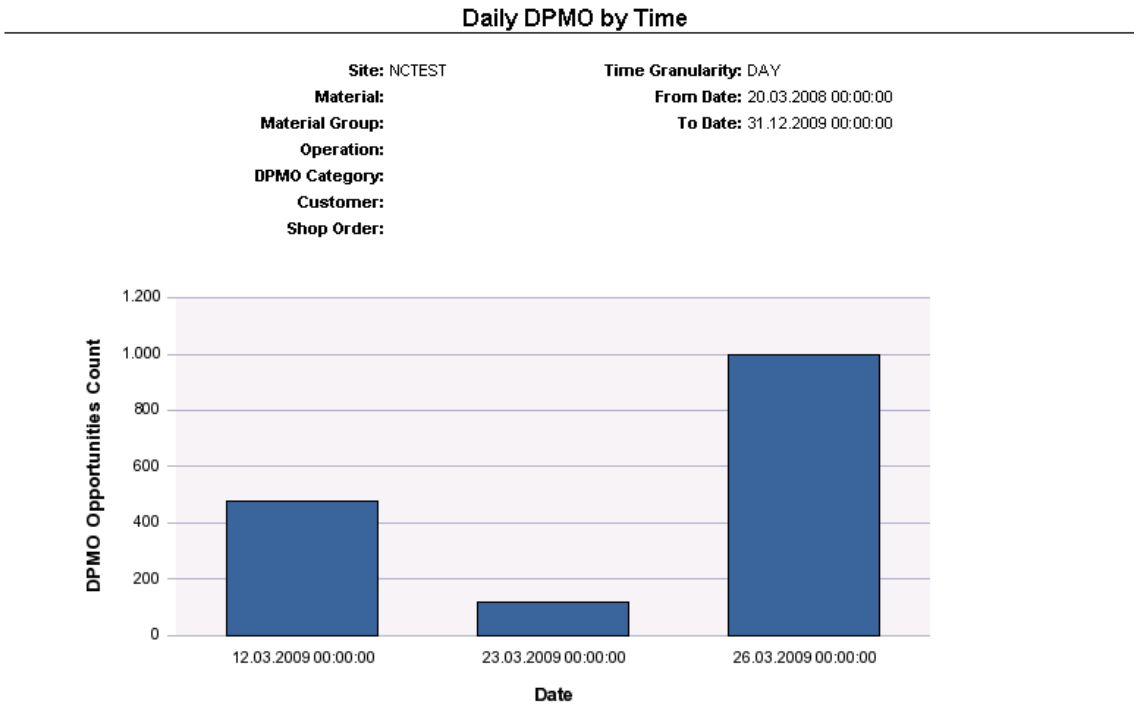
Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the DPMO By Time report prompts, SAPMEBOBJ displays report search results in a new window.



By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

DPMO By Time Report (Graphical View)



DPMO By Time Report Graphical Results	
Chart Field	**Description**
X-Axis	The date and time the DPMO information was gathered. Note that the time period depends on the value selected from the *Sample Period* drop-down list. The value can be *Daily*, *Weekly*, or *Monthly*.
Y-Axis	The percentage of defects detected for each date.
Blue Bar	The DPMO

Selecting the *Tabular* option from the *Report Type* drop-down list provides the DPMO By Time report data in a tabular form. For more information about graphical and tabular views for report results, see the corresponding topic in the “Managing Reports” section.

DPMO By Time Report (Tabular View)

Daily DPMO by Time

Site: NCTEST
Material:
Material Group:
Operation:
DPMO Category:
Customer:
Shop Order:

Time Granularity: DAY
From Date: 20.03.2008 00:00:00
To Date: 31.12.2009 00:00:00

Day of	DPMO Category	Operation	Pieces Processed	Defect Opportunities	Defect Count	DPMO	Defect Rate	Est Yield
12.03.2009 00:00:00	<<ALL>>	<<ALL>>	0	0	6	0	100,00%	36,79%
		Category Totals:	**0**	**0**	**6**	**0**	**100,00%**	**36,79%**
	PLACEMENT	OPER1	20	480	0	0	0,00%	100,00%
		Category Totals:	**20**	**480**	**0**	**0**	**0,00%**	**100,00%**
		Date Totals:	**20**	**480**	**6**	**0**	**30,00%**	**74,08%**
23.03.2009 00:00:00	PLACEMENT	OPER1	5	120	0	0	0,00%	100,00%
		Category Totals:	**5**	**120**	**0**	**0**	**0,00%**	**100,00%**
		Date Totals:	**5**	**120**	**0**	**0**	**0,00%**	**100,00%**
26.03.2009 00:00:00	<<ALL>>	<<ALL>>	20	1.000	0	0	0,00%	100,00%
		Category Totals:	**20**	**1.000**	**0**	**0**	**0,00%**	**100,00%**
		Date Totals:	**20**	**1.000**	**0**	**0**	**0,00%**	**100,00%**
		Report Totals:	**45**	**1.600**	**6**	**0**	**13,33%**	**87,52%**

DPMO By Category Report Results	
Column/Field	**Description**
Date	The time period at which the DPMO information was gathered at a specific site. The time period depends on the value selected from the *Sample Period* drop-down list. The value can be *Daily*, *Weekly*, or *Monthly*.
Category	
Operation	
Pieces Processed	
Defect Opportunities	
Defect Count	
DPMO	
Defect Rate	
Est Yield	
Category Totals	Indicates each column subtotal by each category.
Date Totals	Indicates each column subtotal by each date.

2.2.3 NC By Component

This report provides a summary report sorted by component, of the number and type of nonconformance recorded at a specific site over a specified date range. The report displays NC quantity by Component for a given time interval.

Search Criteria Fields

The following table shows the search criteria fields available for the NC By Component report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Operation	Optional/Browse
Shop Order	Optional/Browse
NC Code	Optional/Browse
Component	Optional/Browse
Customer	Optional/Browse
Failure ID	Optional
Vendor	Optional
Ref Des	Optional
NC Category	Optional/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

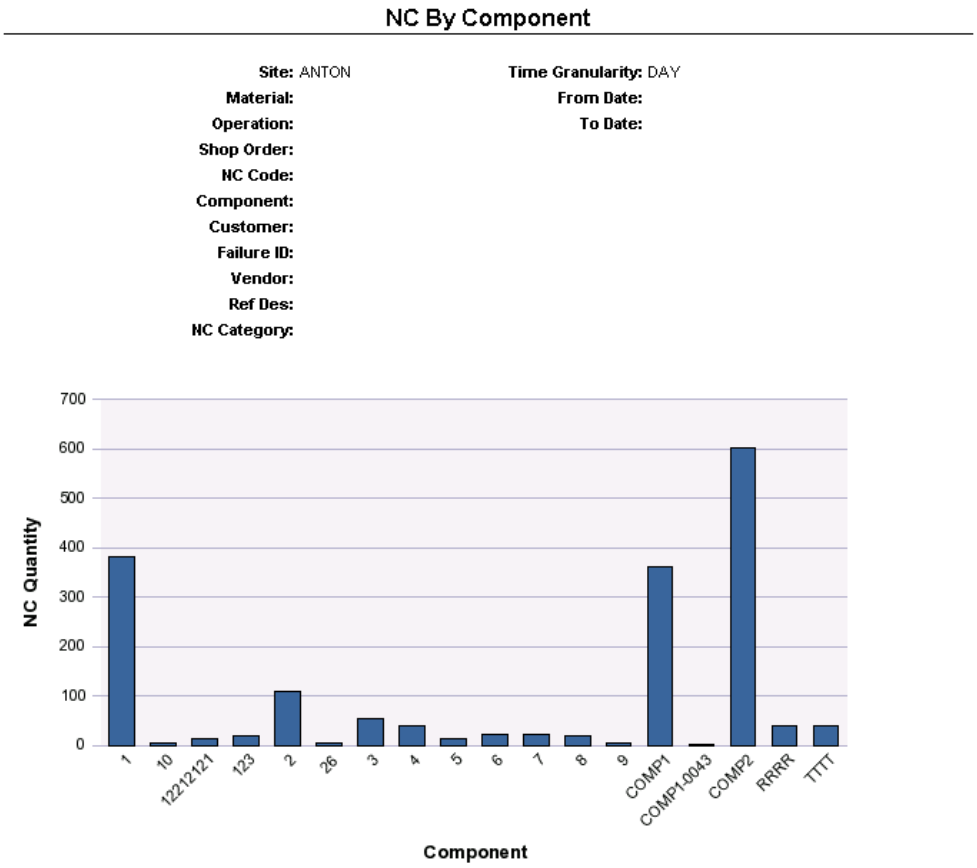
Dependent Universe

NC Summary - Nonconformance Summary Universe created to service NC Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the NC By Component report prompts, SAPMEBOBJ displays report search results in a new window.

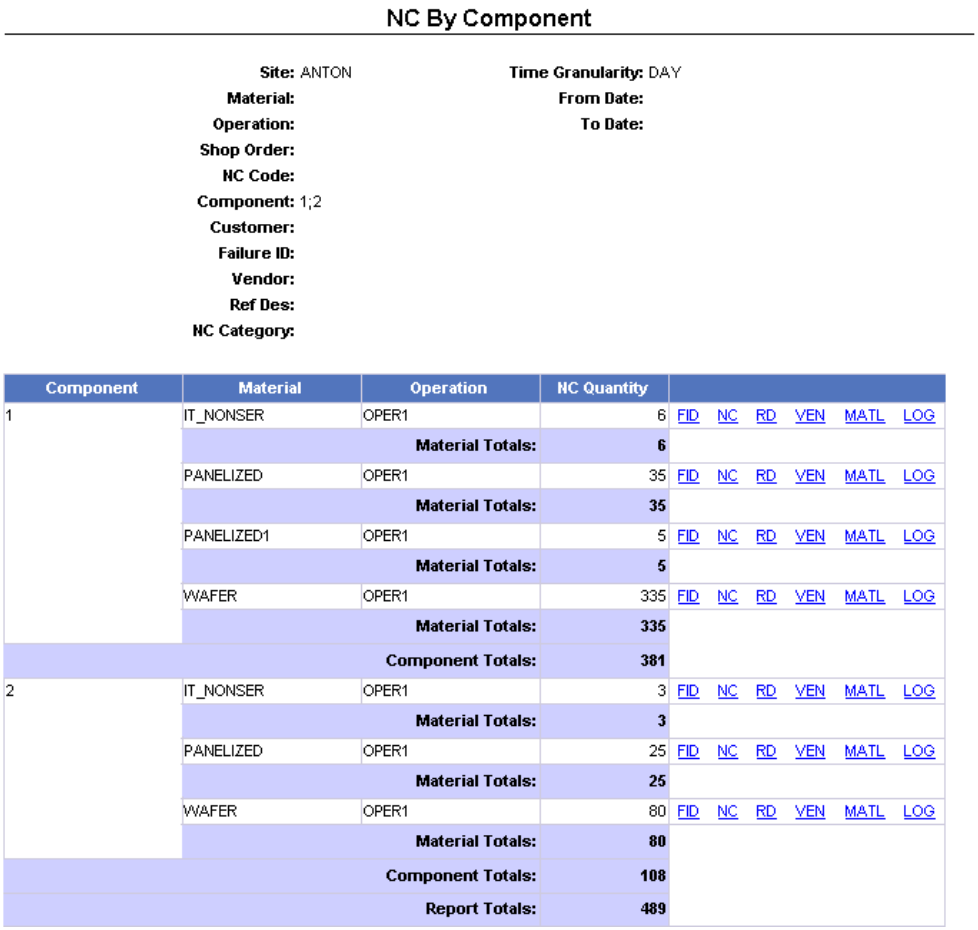
NC By Component Report (Graphical View)



NC By Component Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified components
Y-Axis	The quantity of NC codes logged for each component
Blue Bar	The NC quantity

Selecting the *Tabular* option from the *Report Type* drop-down list provides the NC By Component report data in a tabular form.

NC By Component Report (Tabular View)



NC By Component

Site: ANTON **Time Granularity:** DAY
Material: **From Date:**
Operation: **To Date:**
Shop Order:
NC Code:
Component: 1;2
Customer:
Failure ID:
Vendor:
Ref Des:
NC Category:

Component	Material	Operation	NC Quantity	
1	IT_NONSER	OPER1	6	FID NC RD VEN MATL LOG
		Material Totals:	**6**	
	PANELIZED	OPER1	35	FID NC RD VEN MATL LOG
		Material Totals:	**35**	
	PANELIZED1	OPER1	5	FID NC RD VEN MATL LOG
		Material Totals:	**5**	
	WAFER	OPER1	335	FID NC RD VEN MATL LOG
		Material Totals:	**335**	
		Component Totals:	**381**	
2	IT_NONSER	OPER1	3	FID NC RD VEN MATL LOG
		Material Totals:	**3**	
	PANELIZED	OPER1	25	FID NC RD VEN MATL LOG
		Material Totals:	**25**	
	WAFER	OPER1	80	FID NC RD VEN MATL LOG
		Material Totals:	**80**	
		Component Totals:	**108**	
		Report Totals:	**489**	

NC By Component Report Results	
Column/Field	**Description**
Component	The name of the component for which NC code was logged
Material	The material at which a defect NC code for this material was logged
Operation	The operation at which a defect NC code for the material was logged
QTY	The quantity of NC codes logged for the component at the site specified while logging into SAP ME
	Allows you to drill down to the following reports: FID (NC by Failure ID) NC (NC by NC Code) RD (NC by Ref Des) VEN (NC by Vendor) MATL (NC By Material) LOG (NC Log Detail Report)
Material Total	The NC quantity subtotal by a specific material
Component Total	The NC quantity subtotal by each component
Report Total	The NC quantity total for entire report

2.2.4 NC By Failure ID

This report provides a summary report sorted by failure ID, of the number and type of nonconformance recorded at a specific site over a specified date range. The report displays NC quantity by failure ID for a given time interval.

Search Criteria Fields

The following table shows the search criteria fields available for the NC By Failure ID report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Operation	Optional/Browse
Shop Order	Optional/Browse
NC Code	Optional/Browse
Component	Optional/Browse
Customer	Optional/Browse
Failure ID	Optional
Vendor	Optional
Ref Des	Optional
NC Category	Optional/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

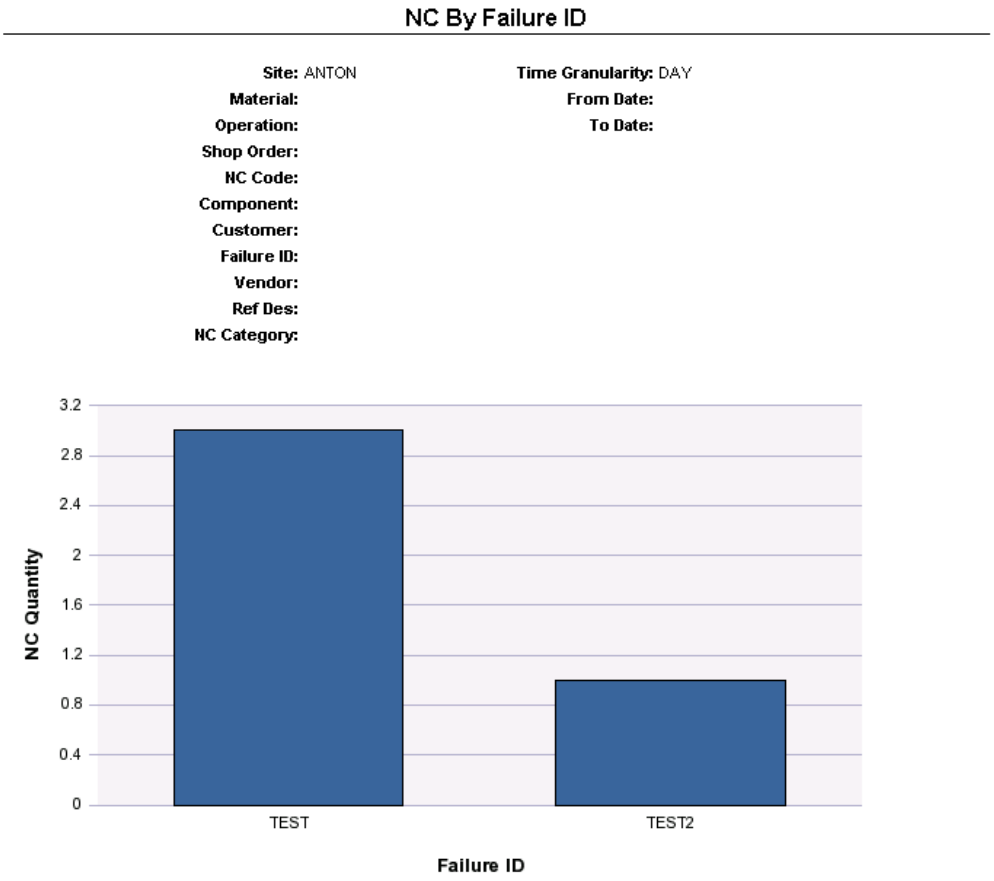
NC Summary - Nonconformance Summary Universe created to service NC Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the NC By Failure ID report prompts, SAPMEBOBJ displays report search results in a new window.

By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

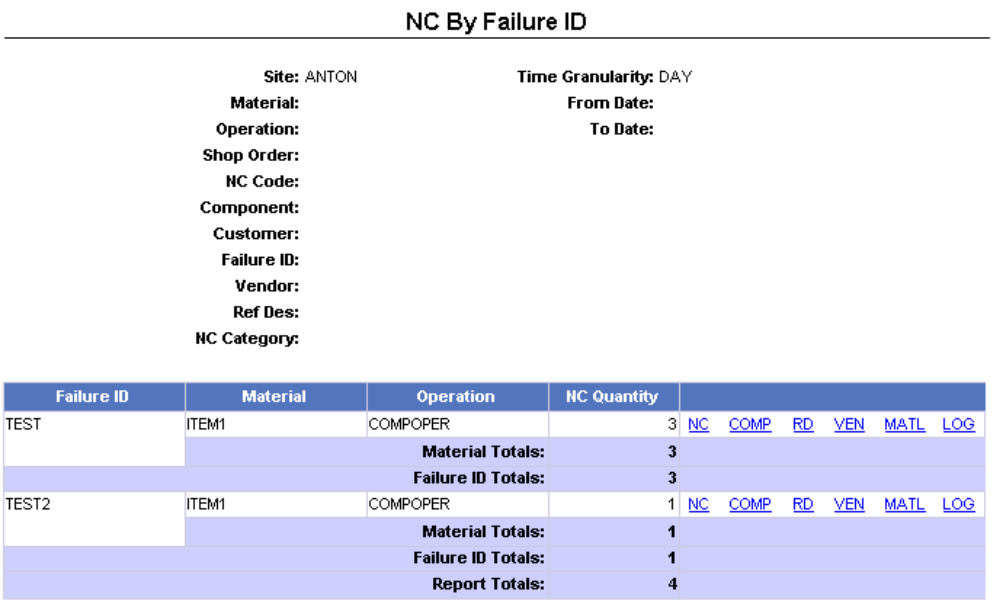
NC By Failure ID Report (Graphical View)



NC By Failure ID Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified failure IDs of the problem components
Y-Axis	The quantity of NC codes logged for each failure ID
Blue Bar	The NC quantity

Selecting the *Tabular* option from the *Report Type* drop-down list provides the NC By Failure ID report data in a tabular form.

NC By Failure ID Report (Tabular View)



NC By Failure ID

Site: ANTON **Time Granularity:** DAY
Material: **From Date:**
Operation: **To Date:**
Shop Order:
NC Code:
Component:
Customer:
Failure ID:
Vendor:
Ref Des:
NC Category:

Failure ID	Material	Operation	NC Quantity						
TEST	ITEM1	COMPOPER	3	NC	COMP	RD	VEN	MATL	LOG
		Material Totals:	**3**						
		Failure ID Totals:	**3**						
TEST2	ITEM1	COMPOPER	1	NC	COMP	RD	VEN	MATL	LOG
		Material Totals:	**1**						
		Failure ID Totals:	**1**						
		Report Totals:	**4**						

NC By Failure ID Report Results	
Column/Field	**Description**
Failure ID	The failure ID of the problem component. Failure ID is a code returned from an automated tester or operator indicating a symptom of the failure.
Material	The material at which a defect NC code for this material was logged.
Operation	The operation at which a defect NC code for the material was logged.
NC Quantity	The quantity of NC codes logged for the component at the site specified while logging into SAP ME.
	Allows you to drill down to the following reports: ▪ COMP (NC By Component) ▪ NC (NC by NC Code) ▪ RD (NC by Ref Des) ▪ VEN (NC by Vendor) ▪ MATL (NC By Material) ▪ LOG (NC Log Detail Report)
Failure ID Totals	The NC quantity subtotal by each failure ID
Report Totals	The NC quantity total for entire report

2.2.5 NC By Material

This report provides a summary report sorted by material, of the number and type of nonconformance recorded at a specific site over a specified date range. The report displays NC quantity by Material for a given time interval.

Search Criteria Fields

The following table shows the search criteria fields available for the NC By Material report along with their type values. For more information about each field type, see the “Managing Reports” section.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Operation	Optional/Browse
Shop Order	Optional/Browse
NC Code	Optional/Browse
Component	Optional/Browse
Customer	Optional/Browse
Failure ID	Optional
Vendor	Optional
Ref Des	Optional
NC Category	Optional/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

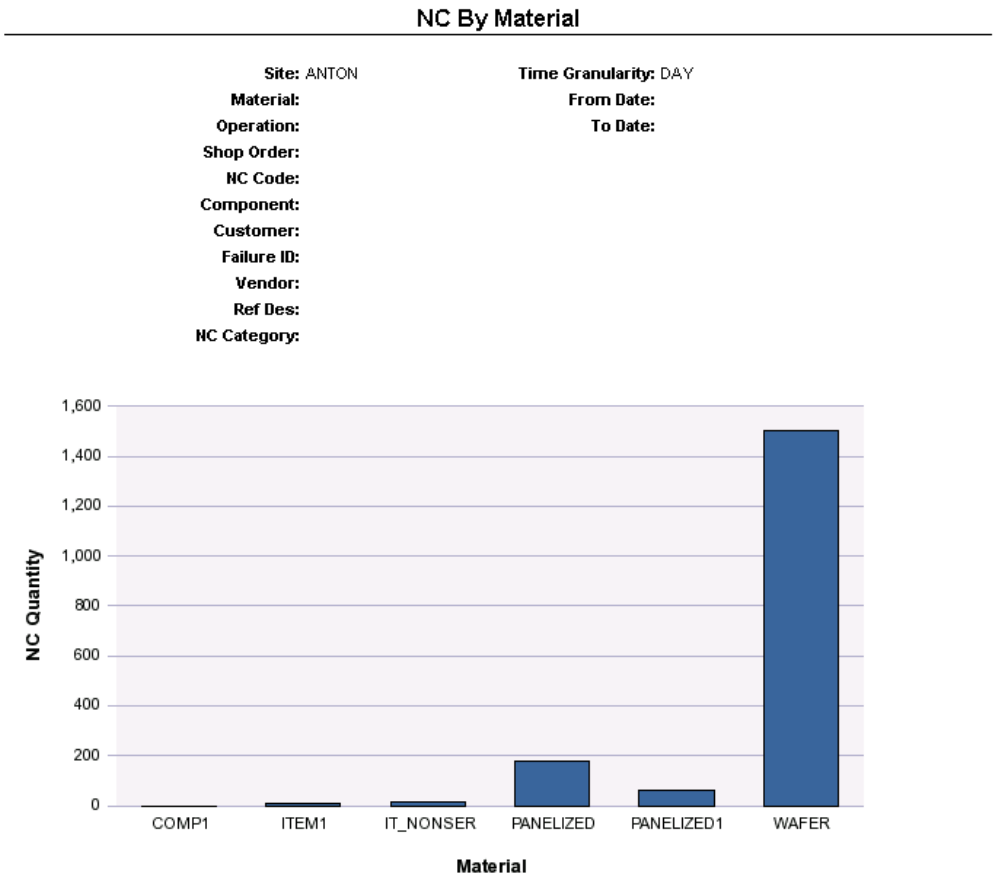
Dependent Universe

NC Summary - Nonconformance Summary Universe created to service NC Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the NC By Material report prompts, SAPMEBOBJ displays report search results in a new window.

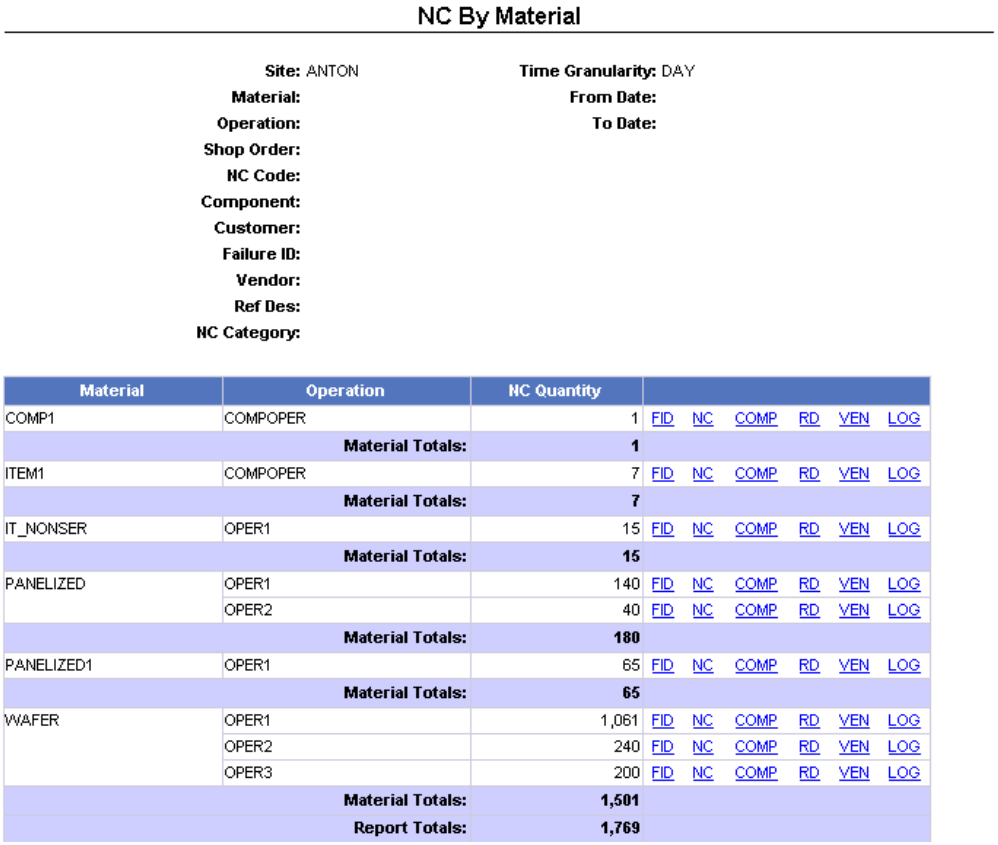
NC By Material Report (Graphical View)



NC By Material Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified materials
Y-Axis	The quantity of NC codes logged for a material
Blue Bar	The NC quantity

Selecting the *Tabular* option from the *Report Type* drop-down list provides the NC By Material report data in a tabular form. For more information about graphical and tabular views for report results, see the corresponding topic in the “Managing Reports” section.

NC By Material Report (Tabular View)



NC By Material

Site: ANTON
Material:
Operation:
Shop Order:
NC Code:
Component:
Customer:
Failure ID:
Vendor:
Ref Des:
NC Category:

Time Granularity: DAY
From Date:
To Date:

Material	Operation	NC Quantity						
COMP1	COMPOPER	1	FID	NC	COMP	RD	VEN	LOG
	Material Totals:	**1**						
ITEM1	COMPOPER	7	FID	NC	COMP	RD	VEN	LOG
	Material Totals:	**7**						
IT_NONSER	OPER1	15	FID	NC	COMP	RD	VEN	LOG
	Material Totals:	**15**						
PANELIZED	OPER1	140	FID	NC	COMP	RD	VEN	LOG
	OPER2	40	FID	NC	COMP	RD	VEN	LOG
	Material Totals:	**180**						
PANELIZED1	OPER1	65	FID	NC	COMP	RD	VEN	LOG
	Material Totals:	**65**						
WAFER	OPER1	1,061	FID	NC	COMP	RD	VEN	LOG
	OPER2	240	FID	NC	COMP	RD	VEN	LOG
	OPER3	200	FID	NC	COMP	RD	VEN	LOG
	Material Totals:	**1,501**						
	Report Totals:	**1,769**						

NC By Material Report Results	
Column/Field	**Description**
Material	The material at which a defect NC for this material was logged
Operation	The operation at which a defect NC code for the material was logged
NC QTY	
	Allows you to drill down to the following reports: ▪ COMP (NC By Component) ▪ NC (NC by NC Code) ▪ RD (NC by Ref Des) ▪ VEN (NC by Vendor) ▪ FID (NC by Failure ID) ▪ LOG (NC Log Detail Report)
Material Totals	The NC quantity subtotal by each material

NC By Material Report Results	
Column/Field	**Description**
Report Totals	The NC quantity total for entire report

2.2.6 NC By Material Group

This report provides a summary report sorted by material group, of the number and type of nonconformance recorded at a specific site over a specified date range. The report displays NC quantity by Material Group for a given time interval.

Search Criteria Fields

The following table shows the search criteria fields available for the NC By Material Group report along with their type values. For more information about each field type, see the "Managing Reports" section.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Operation	Optional/Browse
Shop Order	Optional/Browse
NC Code	Optional/Browse
Component	Optional/Browse
Customer	Optional/Browse
Failure ID	Optional
Vendor	Optional
Ref Des	Optional
NC Category	Optional/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

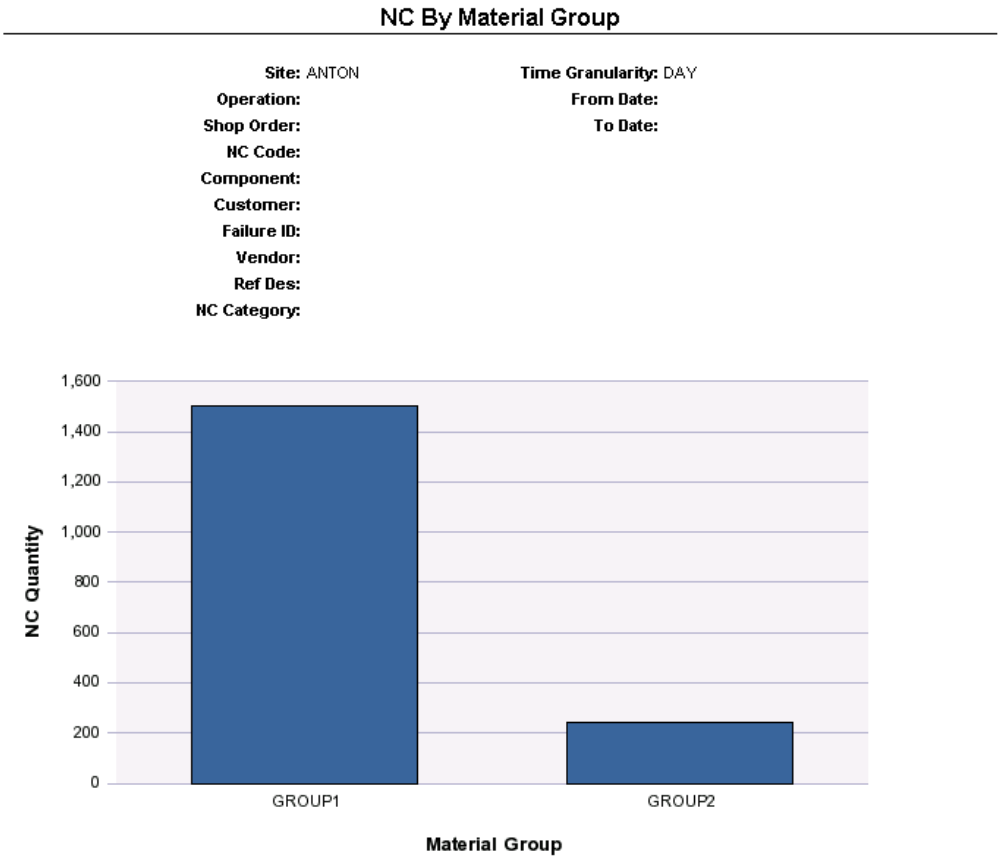
Dependent Universe

NC Summary - Nonconformance Summary Universe created to service NC Summary reports.

Report Results and Details

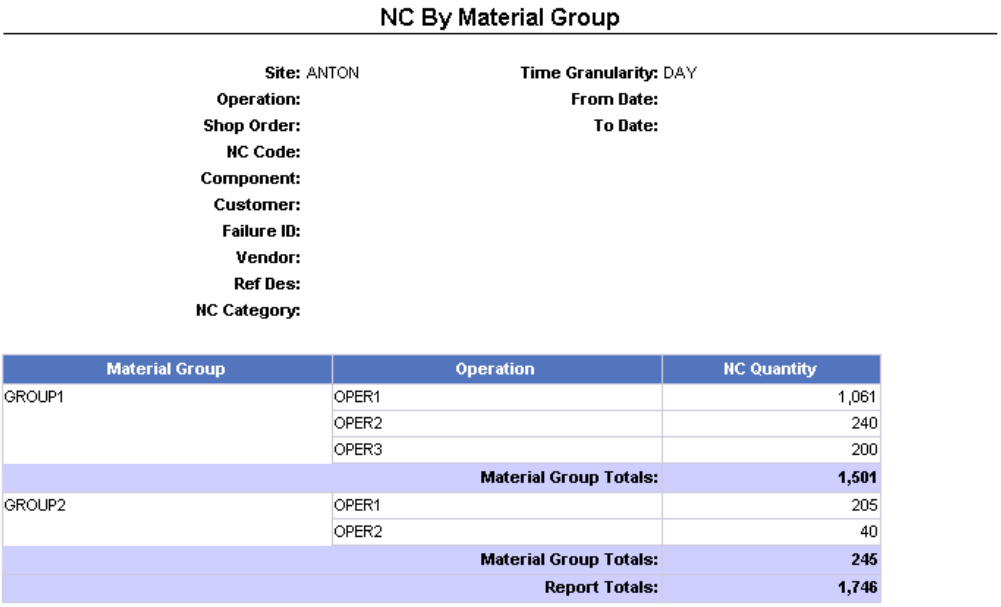
After the user specifies search criteria fields and chooses the *Run Query* button in the NC By Material Group report prompts, SAPMEBOBJ displays report search results in a new window.

NC By Material Group Report (Graphical View)



NC By Material Group Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified material groups
Y-Axis	The quantity of NC codes logged for each material group
Blue Bar	The NC quantity

NC By Material Group Report (Tabular View)



NC By Material Group

Site: ANTON
Operation:
Shop Order:
NC Code:
Component:
Customer:
Failure ID:
Vendor:
Ref Des:
NC Category:

Time Granularity: DAY
From Date:
To Date:

Material Group	Operation	NC Quantity
GROUP1	OPER1	1,061
	OPER2	240
	OPER3	200
	Material Group Totals:	**1,501**
GROUP2	OPER1	205
	OPER2	40
	Material Group Totals:	**245**
	Report Totals:	**1,746**

NC By Material Group Report Results	
Column/Field	**Description**
Material Group	The material group for which a defect NC code was logged.
Operation	The operation at which a defect NC code for the material was logged.
NC QTY	
Material Group Totals	The NC quantity subtotal by each material group
Report Totals	The NC quantity total for entire report

2.2.7 NC By NC Code

This report provides a summary report sorted by NC code, of the number and type of nonconformance recorded at a specific site over a specified date range. The report displays NC quantity by NC code for a given time interval.

Search Criteria Fields

The following table shows the search criteria fields available for the NC By NC Code report along with their type values. For more information about each field type, see the “Managing Reports” section.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Operation	Optional/Browse
Shop Order	Optional/Browse
Component	Optional/Browse
Customer	Optional/Browse
Failure ID	Optional
Vendor	Optional
Ref Des	Optional
NC Category	Optional/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

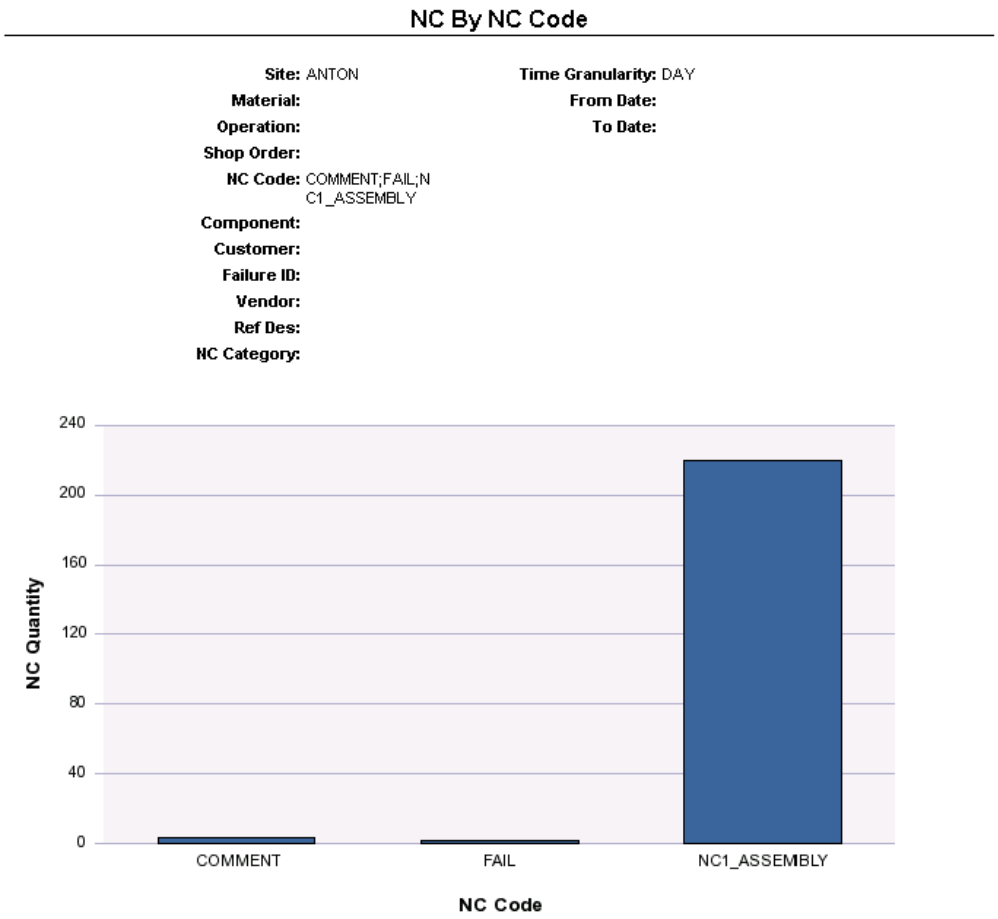
Dependent Universe

NC Summary - Nonconformance Summary Universe created to service NC Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the NC By NC Code report prompts, SAPMEBOBJ displays report search results in a new window.

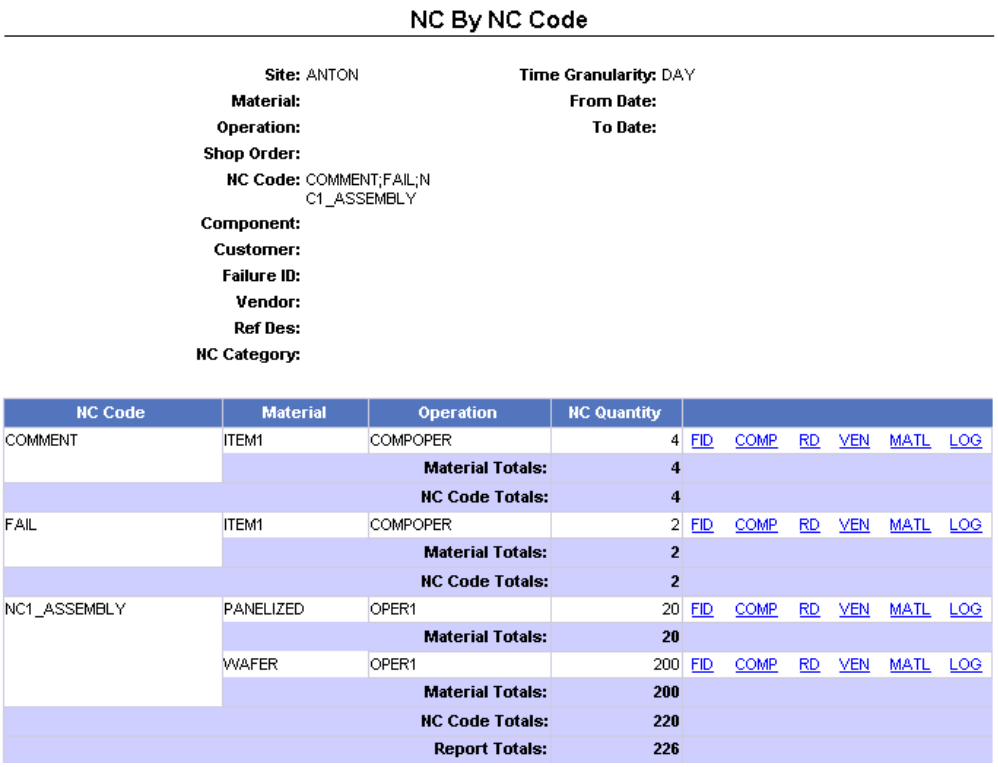
NC By NC Code Report (Graphical View)



NC By NC Code Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified NC codes
Y-Axis	The quantity of NC codes logged for each NC code
Blue Bar	The NC quantity

Selecting the *Tabular* option from the *Report Type* drop-down list provides the NC By NC Code report data in a tabular form.

NC By NC Code Report (Tabular View)



NC By NC Code

Site: ANTON
Material:
Operation:
Shop Order:
NC Code: COMMENT;FAIL;NC1_ASSEMBLY
Component:
Customer:
Failure ID:
Vendor:
Ref Des:
NC Category:

Time Granularity: DAY
From Date:
To Date:

NC Code	Material	Operation	NC Quantity						
COMMENT	ITEM1	COMPOPER	4	FID	COMP	RD	VEN	MATL	LOG
		Material Totals:	**4**						
		NC Code Totals:	**4**						
FAIL	ITEM1	COMPOPER	2	FID	COMP	RD	VEN	MATL	LOG
		Material Totals:	**2**						
		NC Code Totals:	**2**						
NC1_ASSEMBLY	PANELIZED	OPER1	20	FID	COMP	RD	VEN	MATL	LOG
		Material Totals:	**20**						
	WAFER	OPER1	200	FID	COMP	RD	VEN	MATL	LOG
		Material Totals:	**200**						
		NC Code Totals:	**220**						
		Report Totals:	**226**						

NC By NC Code Report Results	
Column/Field	**Description**
NC Code	The type of nonconformance logged. An NC code indicates that something is wrong, for example, the NC code FAIL indicates that an SFC number failed a test.
Material	The material at which a defect NC code for this material was logged.
Operation	The operation at which a defect NC code for the material was logged.
NC QTY	
	Allows you to drill down to the following reports: FID (NC by Failure ID) RD (NC by Ref Des) COMP (NC by Component) VEN (NC by Vendor) MATL (NC By Material) NC Log (Detail Report)
Material Totals	The NC quantity subtotal by each material

NC By NC Code Report Results	
Column/Field	**Description**
NC Code Totals	The NC quantity subtotal by each NC code
Report Totals	The NC quantity total for entire report

2.2.8 NC By Reference Designator

This report provides a summary report sorted by reference designator, of the number and type of nonconformance recorded at a specific site over a specified date range. The report displays NC quantity by reference designator for a given time interval.

Search Criteria Fields

The following table shows the search criteria fields available for the NC By Reference Designator report along with their type values. For more information about each field type, see the “Managing Reports” section.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Operation	Optional/Browse
Shop Order	Optional/Browse
NC Code	Optional/Browse
Component	Optional/Browse
Customer	Optional/Browse
Failure ID	Optional
Vendor	Optional
Ref Des	Optional
NC Category	Optional/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

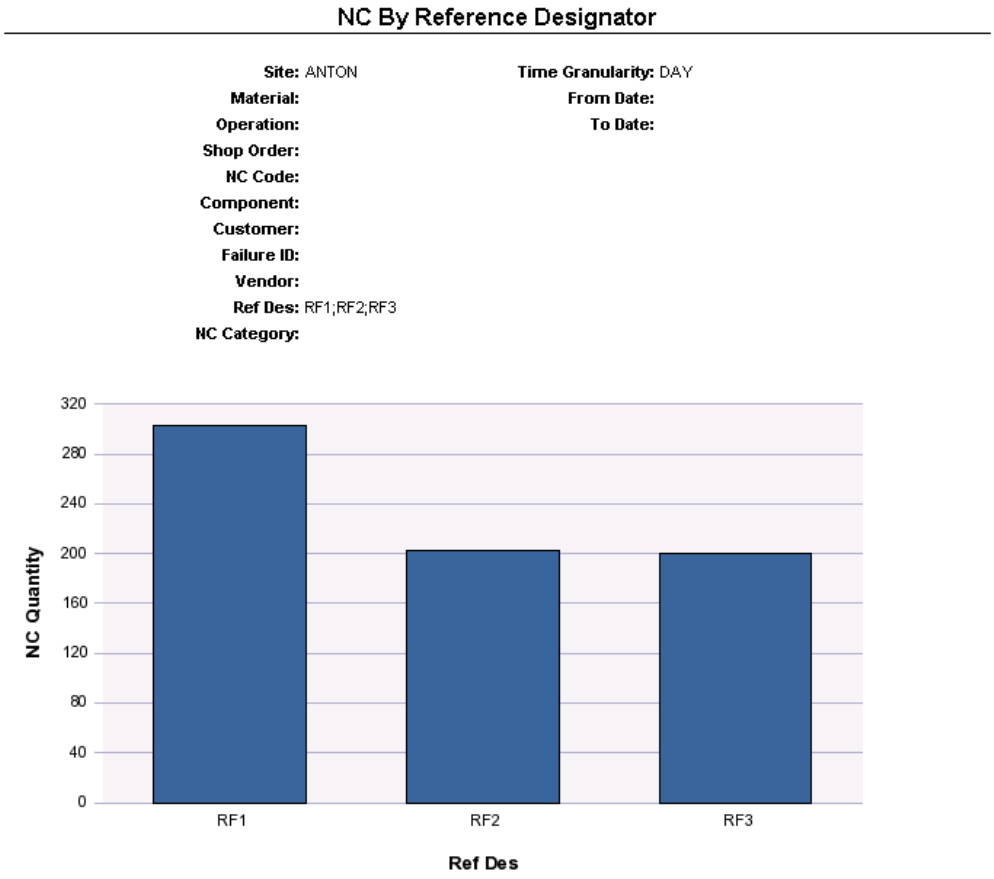
Dependent Universe

NC Summary - Nonconformance Summary Universe created to service NC Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the NC By Reference Designator report prompts, SAPMEBOBJ displays report search results in a new window.

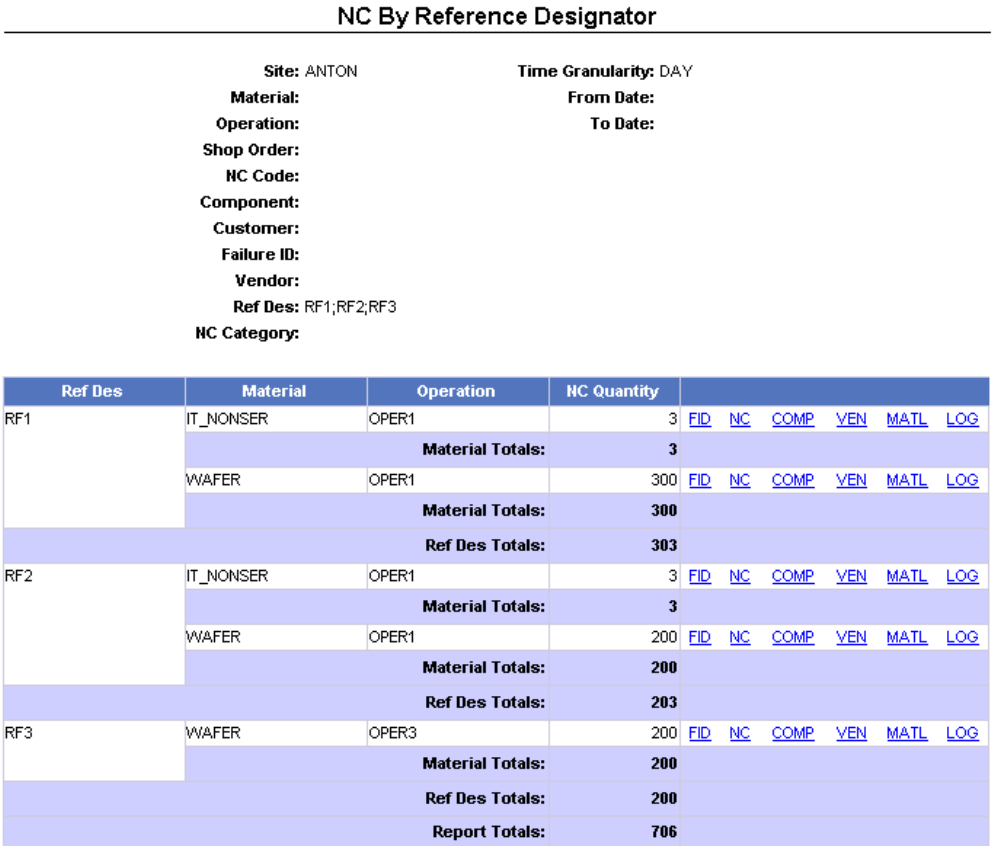
NC By Reference Designator Report (Graphical View)



NC By Reference Designator Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified reference designators
Y-Axis	The quantity of NC codes logged for each reference designator
Blue Bar	The NC quantity

Selecting the *Tabular* option from the *Report Type* drop-down list provides the NC By Reference Designator report data in a tabular form.

NC By Reference Designator Report (Tabular View)



NC By Reference Designator

Site: ANTON
Material:
Operation:
Shop Order:
NC Code:
Component:
Customer:
Failure ID:
Vendor:
Ref Des: RF1;RF2;RF3
NC Category:

Time Granularity: DAY
From Date:
To Date:

Ref Des	Material	Operation	NC Quantity						
RF1	IT_NONSER	OPER1	3	FID	NC	COMP	VEN	MATL	LOG
		Material Totals:	**3**						
	WAFER	OPER1	300	FID	NC	COMP	VEN	MATL	LOG
		Material Totals:	**300**						
		Ref Des Totals:	**303**						
RF2	IT_NONSER	OPER1	3	FID	NC	COMP	VEN	MATL	LOG
		Material Totals:	**3**						
	WAFER	OPER1	200	FID	NC	COMP	VEN	MATL	LOG
		Material Totals:	**200**						
		Ref Des Totals:	**203**						
RF3	WAFER	OPER3	200	FID	NC	COMP	VEN	MATL	LOG
		Material Totals:	**200**						
		Ref Des Totals:	**200**						
		Report Totals:	**706**						

NC By Reference Designator Report Results	
Column/Field	**Description**
Ref Des	The reference designator of the problem
Material	The material at which a defect NC code for this material was logged
Operation	The operation at which a defect NC code for the material was logged
NC QTY	
	Allows you to drill down to the following reports: NC (NC by NC Code) COMP (NC by Component) FID (NC by Failure ID) VEN (NC by Vendor) MATL (NC By Material) NC Log (Detail Report)

NC By Reference Designator Report Results	
Column/Field	**Description**
Material Group Totals	The NC quantity subtotal by each material group
Ref Des Totals	The NC quantity subtotal by each reference designator
Report Totals	The NC quantity total for entire report

2.2.9 NC By Vendor

This report provides a summary report sorted by vendor, of the number and type of nonconformance recorded at a specific site over a specified date range. The report displays NC quantity by vendor for a given time interval.

Search Criteria Fields

The following table shows the search criteria fields available for the NC By Vendor report along with their type values. For more information about each field type, see the “Managing Reports” section.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Customer	Optional/Browse
Shop Order	Optional/Browse
Operation	Optional/Browse
NC Code	Optional/Browse
Failure ID	Optional
Component	Optional/Browse
Ref Des	Optional
Customer	Optional/Browse
NC Category	Optional/Drop-down list
Vendor	Optional
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

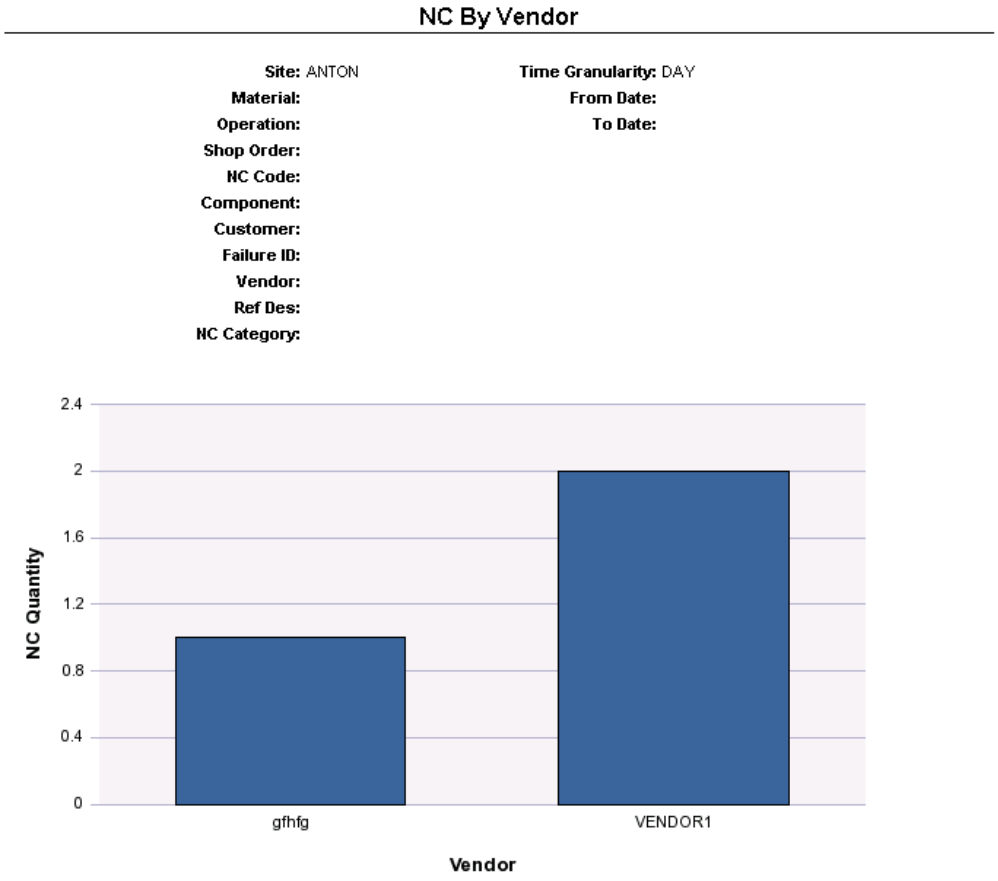
Dependent Universe

NC Summary - Nonconformance Summary Universe created to service NC Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the NC By Vendor report prompts, SAPMEBOBJ displays report search results in a new window.

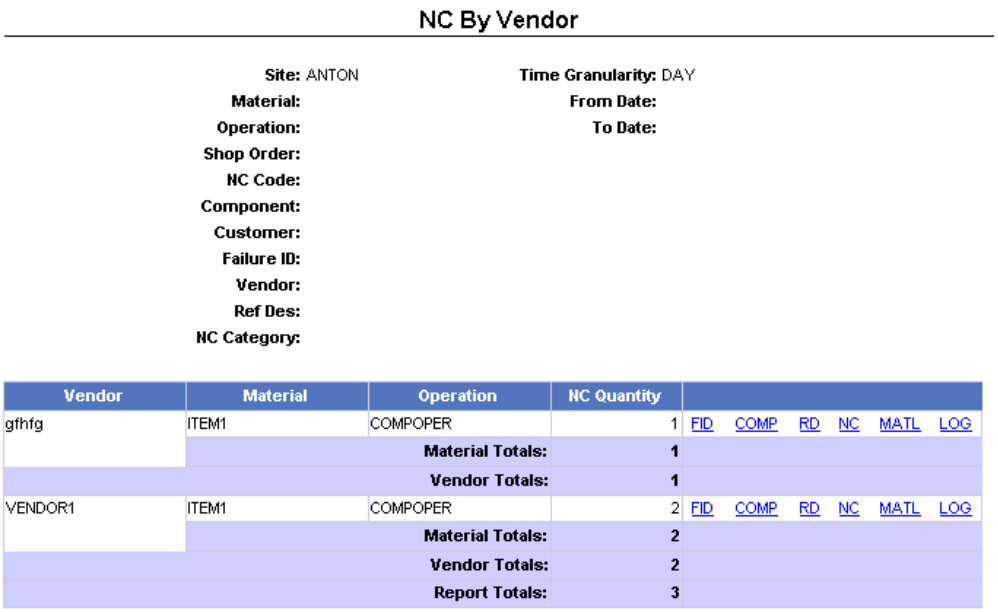
NC By Vendor Report (Graphical View)



NC By Vendor Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified vendors
Y-Axis	The quantity of NC codes logged for each vendor
Blue Bar	The NC quantity

Selecting the *Tabular* option from the *Report Type* drop-down list provides the NC By Vendor report data in a tabular form.

NC By Vendor Report (Tabular View)



NC By Vendor

Site: ANTON
Material:
Operation:
Shop Order:
NC Code:
Component:
Customer:
Failure ID:
Vendor:
Ref Des:
NC Category:

Time Granularity: DAY
From Date:
To Date:

Vendor	Material	Operation	NC Quantity	
gfhfg	ITEM1	COMPOPER	1	FID COMP RD NC MATL LOG
		Material Totals:	**1**	
		Vendor Totals:	**1**	
VENDOR1	ITEM1	COMPOPER	2	FID COMP RD NC MATL LOG
		Material Totals:	**2**	
		Vendor Totals:	**2**	
		Report Totals:	**3**	

NC By Vendor Report Results	
Column/Field	**Description**
Material	The material at which a defect NC code for this material was logged.
Operation	The operation at which a defect NC code for the material was logged.
NC QTY	
	Allows you to drill down to the following reports: NC (NC by NC Code) COMP (NC by Component) FID (NC by Failure ID) RD (NC by Ref Des) MATL (NC By Material) LOG (NC Log Detail Report)
Material Totals	The NC quantity subtotal by each material
Vendor Totals	The NC quantity subtotal by each vendor
Report Totals	The NC quantity total for entire report

2.2.10 NC Log

This report provides a summary report sorted by date, of nonconformance codes logged against a specific SFC number over a specified date range.

Search Criteria Fields

The following table shows the search criteria fields available for the NC Log report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
SFC	Optional/Browse
Material	Optional/Browse
Customer	Optional/Browse
Shop Order	Optional/Browse
Operation	Optional/Browse
NC Code	Optional/Browse
Failure ID	Optional
Component	Optional/Browse
Vendor	Optional
Ref Des	Optional
Incident Number	Optional/Browse
NC Category	Optional/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

NC Detail - Nonconformance Detail Universe created to service NC Log and NC Detail reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the NC Log report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the tabular view is available for the report by default.

NC Log Report

NC Log

Site: ANTON
SFC:
Material:
Customer:
Shop Order:
Operation:
NC Code:
Failure ID:
Component:
Vendor:
Ref Des:
Incident Number:
NC Category:

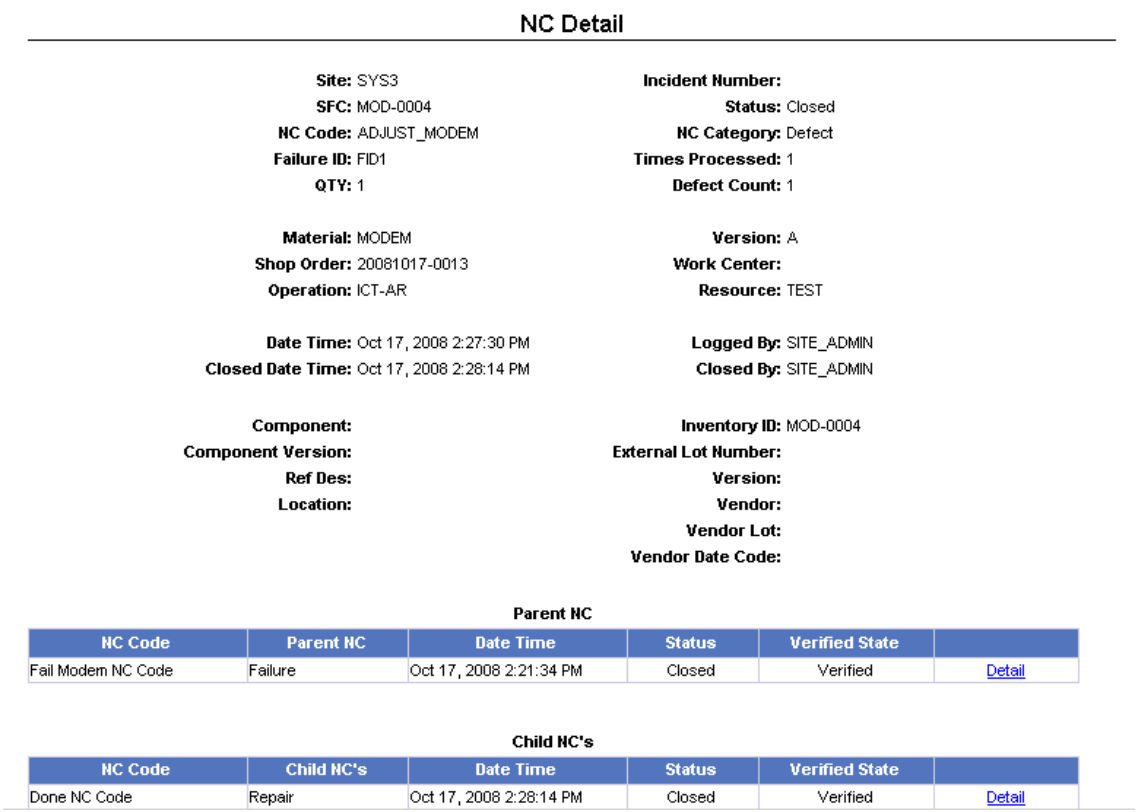
From Date:
To Date:

SFC	NC Code	Incident Number	NC Category	Material	Shop Order	Component	Ref Des	Date Time
ANTON1	COMMENT		FAILURE	ITEM1	20090408-23			Apr 8, 2009 7:30:26 AM
ANTON1	COMMENT		FAILURE	ITEM1	20090408-23			Apr 8, 2009 7:31:09 AM
ANTON2	COMMENT		FAILURE	ITEM1	20090408-23			Apr 8, 2009 7:31:33 AM
ANTON3	FAIL		FAILURE	ITEM1	20090408-23		TEST	Apr 8, 2009 7:32:06 AM
ANTON4	COMMENT		FAILURE	ITEM1	20090408-23		TEST	Apr 8, 2009 10:29:38 AM
ANTON5	FAIL		FAILURE	ITEM1	20090408-23			Apr 8, 2009 3:19:02 PM
ANTON6	ASSYNOTCLEAN		DEFECT	ITEM1	20090408-24			Apr 8, 2009 3:44:39 PM
ANTON6	FAIL		FAILURE	ITEM1	20090408-24			Apr 8, 2009 3:37:24 PM
ANTON6	FAIL		FAILURE	ITEM1	20090408-24			Apr 8, 2009 3:44:27 PM

NC Log Report Results	
Column/Field	**Description**
SFC	
NC Code	The type of nonconformance logged. An NC code indicates that something is wrong, for example, the NC code FAIL indicates that an SFC number failed a test.
Incident Number	The number to identify a nonconformance issue uniquely
NC Category	The category for this NC Code. Default values are FAILURE, DEFECT, or REPAIR. However, they can be customized in a resource bundle but are only used for reporting purposes.
Material	The material at which a defect NC code with the DPMO category for this material was logged
Shop Order	
Component	

NC Log Report Results	
Column/Field	**Description**
Ref Des	The reference designator of the problem
Date Time	The date and time the NC code was logged. Opens the *NC Log Detail* report.

NC Log Detail Report



NC Detail

Site: SYS3
SFC: MOD-0004
NC Code: ADJUST_MODEM
Failure ID: FID1
QTY: 1

Incident Number:
Status: Closed
NC Category: Defect
Times Processed: 1
Defect Count: 1

Material: MODEM
Shop Order: 20081017-0013
Operation: ICT-AR

Version: A
Work Center:
Resource: TEST

Date Time: Oct 17, 2008 2:27:30 PM
Closed Date Time: Oct 17, 2008 2:28:14 PM

Logged By: SITE_ADMIN
Closed By: SITE_ADMIN

Component:
Component Version:
Ref Des:
Location:

Inventory ID: MOD-0004
External Lot Number:
Version:
Vendor:
Vendor Lot:
Vendor Date Code:

Parent NC

NC Code	Parent NC	Date Time	Status	Verified State	
Fail Modem NC Code	Failure	Oct 17, 2008 2:21:34 PM	Closed	Verified	Detail

Child NC's

NC Code	Child NC's	Date Time	Status	Verified State	
Done NC Code	Repair	Oct 17, 2008 2:28:14 PM	Closed	Verified	Detail

NC Log Detail Report	
Column/Field	**Description**
Report Time zone	The time zone
Incident Number	
Site	The name of the site the user is logged into
Status	The status of the NC Code, such as *Open* or *Closed*
SFC	
NC Category	
NC Code	
Times Processed	The number of times the SFC number has been processed through the operation

NC Log Detail Report	
Column/Field	**Description**
Failure ID	
Defect Count	
Qty	The SFC number quantity
Version	A particular version or configuration of a material, routing, or other entity
Material	The component or higher-level assembly worked or consumed on your shop floor
Work Center	An area in a site at which inventory is manufactured or processed
Shop Order	
Resource	A machine or piece of equipment that performs work at an operation
Operation	
Logged By	The name of the user who logged the NC code
Date Time	The date and time the NC Code was logged
Closed By	The name of the user who closed the NC code
Closed Date Time	The date and time the NC code was canceled
Inventory ID	The inventory ID of the actual component
Component	
External Lot Number	The lot number of the component provided by the vendor or other outside source
Component Version	The version of the component
External Serial Number	The serial number of the component provided by the vendor or other outside source
Ref Des	
Vendor	The name of the vendor who supplied the actual component
Location	The location of the actual component
Vendor Lot	The vendor's lot number
Vendor Date Code	The vendor's date code

Parent NC Report	
Column/Field	**Description**
NC Category	

Parent NC Report	
Column/Field	**Description**
NC Code	
Date Time	The date and time the nonconformance was logged
Status	The status of the NC code, such as *Open* or *Closed*
Verified State	Indicates whether the state of the NC code is verified
Detail	The specific information about the NC code

Note that the *Child NC's* report column names are the same as for the *Parent NC* report.

2.3 Production Reports

The purpose of the production reports is to collect information about quantities of SFC numbers as they are processed through individual operations. These quantities are used to track various production rates and yields at specific operations. The following types of quantities are tracked:

- *Started*

  The quantity of SFC numbers started.
- *Done*

  The quantity of SFC numbers that reached the *Done* step of a routing.
- *Completed*

  The quantity of SFC numbers completed.
- *Nonconformed*

  The quantity of SFC numbers to which one or more NC Codes were assigned.
- *Failed*

  The quantity of SFC numbers to which one or more primary NC Codes were assigned.
- *Scrapped*

  The quantity of SFC numbers scrapped.

Each of these quantities is separated by the pass number of the SFC number through the operation. The pass number is the number of times an SFC number has been processed through an operation. There are three different pass types available:

- *Pass 1*

  SFC numbers first time started at an operation.
- *Pass 2*

  SFC numbers second time started at an operation after a completion or nonconformance.
- *Pass +*

  All other subsequent times an SFC number is started at an operation after a completion or nonconformance.

This section includes the following reports:

- Operation Process Time

- Operation Queue Time
- Production By Material
- Production Detail
- Yield By Material
- Yield By Operation

2.3.1 Operation Process Time

This report provides information on the total and average length of time it took a material to go through the production process from start to finish.

Search Criteria Fields

The following table shows the search criteria fields available for the Operation Process Time report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Operation	Required/Browse
Operation Version	Optional
Material	Optional/Browse
Material Version	Optional
Customer	Optional
Shop Order	Optional/Browse
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Note that you can select more than one value in the *Custom Granularity* list by holding down CTRL and choosing necessary values.

Dependent Universe

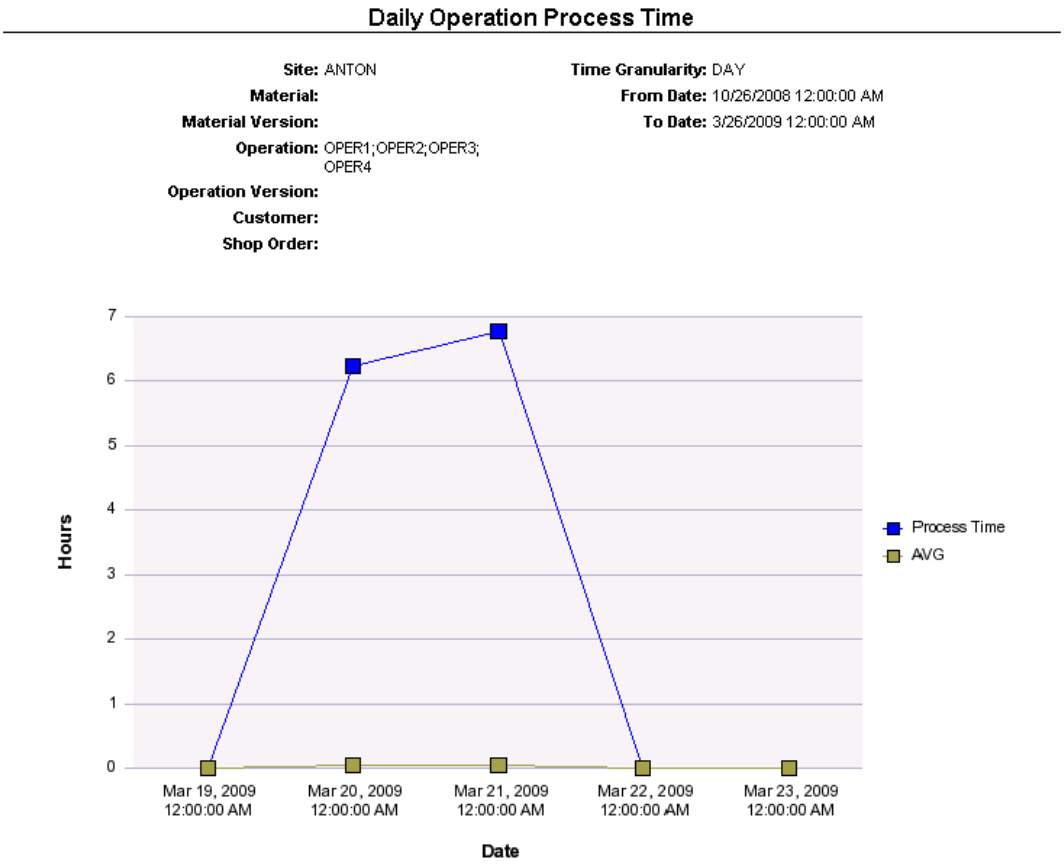
Production Cycle Time Summary - Production Cycle Time Summary Universe created to service Production Cycle Time Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Operation Process Time report prompts, SAPMEBOBJ displays report search results in a new window.

By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

Operation Process Time Report (Graphical View)



Operation Process Time Report Graphical Results	
Chart Field	**Description**
X-Axis	The date and time of the production process Note that the time period depends on the value selected from the *Sample Period* drop-down list. The value can be *Daily*, *Weekly*, or *Monthly*.
Y-Axis	The average time per day (in hours)
Brown Line	The average processing time over a number of days/weeks/months, depending on what time granularity is

Operation Process Time Report Graphical Results	
Chart Field	**Description**
	specified.
Blue Line	The time in hours

Selecting the *Tabular* option from the *Report Type* drop-down list provides the Operation Process Time report data in a tabular form.

Operation Process Time Report (Tabular View)

Daily Operation Process Time

Site: ANTON
Material:
Material Version:
Operation: OPER1;OPER2;OPER3; OPER4
Operation Version:
Customer:
Shop Order:

Time Granularity: DAY
From Date: 10/26/2008 12:00:00 AM
To Date: 3/26/2009 12:00:00 AM

Day of	Material	Process Time	Quantity	AVG
Mar 19, 2009 12:00:00 AM	IT_NONSER	0	0	0
	PANELIZED	0	0	0
	PANELIZED1	0	0	0
	WAFER	0	0	0
	Date Totals:	**0**	**0**	**0**
Mar 20, 2009 12:00:00 AM	IT_NONSER	0.25	5	0.05
	PANELIZED	0.5	10	0.05
	PANELIZED1	0	0	0
	WAFER	5.48	126	0.04
	Date Totals:	**6.23**	**141**	**0.04**
Mar 21, 2009 12:00:00 AM	IT_NONSER	1.01	3	0.34
	PANELIZED	5.52	98	0.06
	PANELIZED1	0.23	35	0.01
	WAFER	0	32	0
	Date Totals:	**6.76**	**168**	**0.04**
Mar 22, 2009 12:00:00 AM	PANELIZED	0	0	0
	Date Totals:	**0**	**0**	**0**
Mar 23, 2009 12:00:00 AM	PANELIZED	0.01	5	0
	Date Totals:	**0.01**	**5**	**0**
	Report Totals:	**13**	**314**	**0.04**

Operation Process Time Report Results	
Column/Field	**Description**
Day/Week/Month Of	The date and time of the production process Note that the time period depends on the value selected from the *Sample Period* drop-down list. The value can be *Daily*, *Weekly*, or *Monthly*.
Material	The component or higher-level assembly worked or consumed on your shop floor
Process Time	The length of time it took a material to go through the production process from start to finish.

Operation Process Time Report Results	
Column/Field	**Description**
QTY	The quantity of materials processed at the operation
AVG	The average length of time the shop orders were in queue at the operation
Date Totals	The process time and quantity by this date

2.3.2 Operation Queue Time

This report provides information on the total and average length of time a material was in queue for an operation.

Search Criteria Fields

The following table shows the search criteria fields available for the Operation Queue Time report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Operation	Required/Browse
Operation Version	Optional
Material	Optional/Browse
Material Version	Optional
Customer	Optional
Shop Order	Optional/Browse
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Note that you can select more than one value in the *Custom Granularity* list by holding down CTRL and choosing necessary values.

Dependent Universe

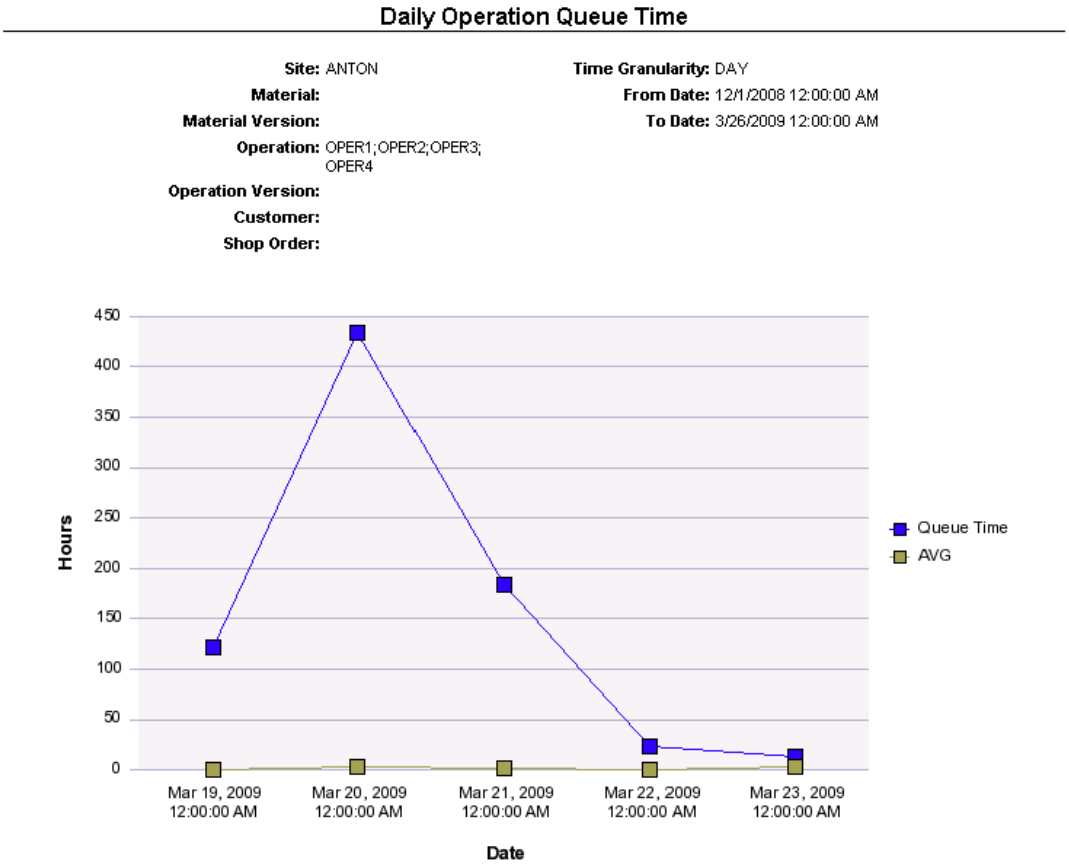
Production Cycle Time Summary - Production Cycle Time Summary Universe created to service Production Cycle Time Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Operation Queue Time report prompts, SAPMEBOBJ displays report search results in a new window.

By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

Operation Queue Time Report (Graphical View)



Operation Queue Time Report Graphical Results	
Chart Field	**Description**
X-Axis	The date and time of the production process
Y-Axis	The average time per day (in hours)
Brown Line	The average queue time over a number of days/weeks/months, depending on what time granularity is specified.
Blue Line	The queue time in hours

Selecting the *Tabular* option from the *Report Type* drop-down list provides the Operation Queue Time report data in a tabular form.

Operation Queue Time Report (Tabular View)

Daily Operation Queue Time

Site: ANTON
Material:
Material Version:
Operation: OPER1;OPER2;OPER3;OPER4
Operation Version:
Customer:
Shop Order:

Time Granularity: DAY
From Date: 12/1/2008 12:00:00 AM
To Date: 3/26/2009 12:00:00 AM

Day of	Material	Queue Time	Quantity	AVG
Mar 19, 2009 12:00:00 AM	IT_NONSER	22.66	0	0
	PANELIZED	22.92	0	0
	PANELIZED1	22.55	0	0
	WAFER	54.1	0	0
	Date Totals:	**122.23**	**0**	**0**
Mar 20, 2009 12:00:00 AM	IT_NONSER	83.47	5	16.69
	PANELIZED	95.83	10	9.58
	PANELIZED1	96	0	0
	WAFER	157.91	126	1.25
	Date Totals:	**433.21**	**141**	**3.07**
Mar 21, 2009 12:00:00 AM	IT_NONSER	30.21	3	10.07
	PANELIZED	66.38	98	0.68
	PANELIZED1	58.57	35	1.67
	WAFER	29.14	32	0.91
	Date Totals:	**184.3**	**168**	**1.1**
Mar 22, 2009 12:00:00 AM	PANELIZED	24	0	0
	Date Totals:	**24**	**0**	**0**
Mar 23, 2009 12:00:00 AM	PANELIZED	12.83	5	2.57
	Date Totals:	**12.83**	**5**	**2.57**
	Report Totals:	**776.58**	**314**	**2.47**

Operation Queue Time Report Results	
Column/Field	**Description**
Day/Week/Month Of	The date and time of the production process
Material	The component or higher-level assembly worked or consumed on your shop floor
Queue Time	The time the material was in queue at the operation
QTY	The quantity of materials processed at the operation
AVG	The average length of time the shop orders were in queue at the operation
Date Totals	The queue time and quantity by this date

2.3.3 Production By Material

This report provides information on the number of materials done at a specific site over a specified date range. The report displays the *Done* quantity of a specific material over specified time interval. Quantities are used to track various production rates and yields at specific operations.

Search Criteria Fields

The following table shows the search criteria fields available for the Production By Material report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Required/Browse
Material Version	Optional
Operation	Optional/Browse
Operation Version	Optional
Customer	Optional
Shop Order	Optional/Browse
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

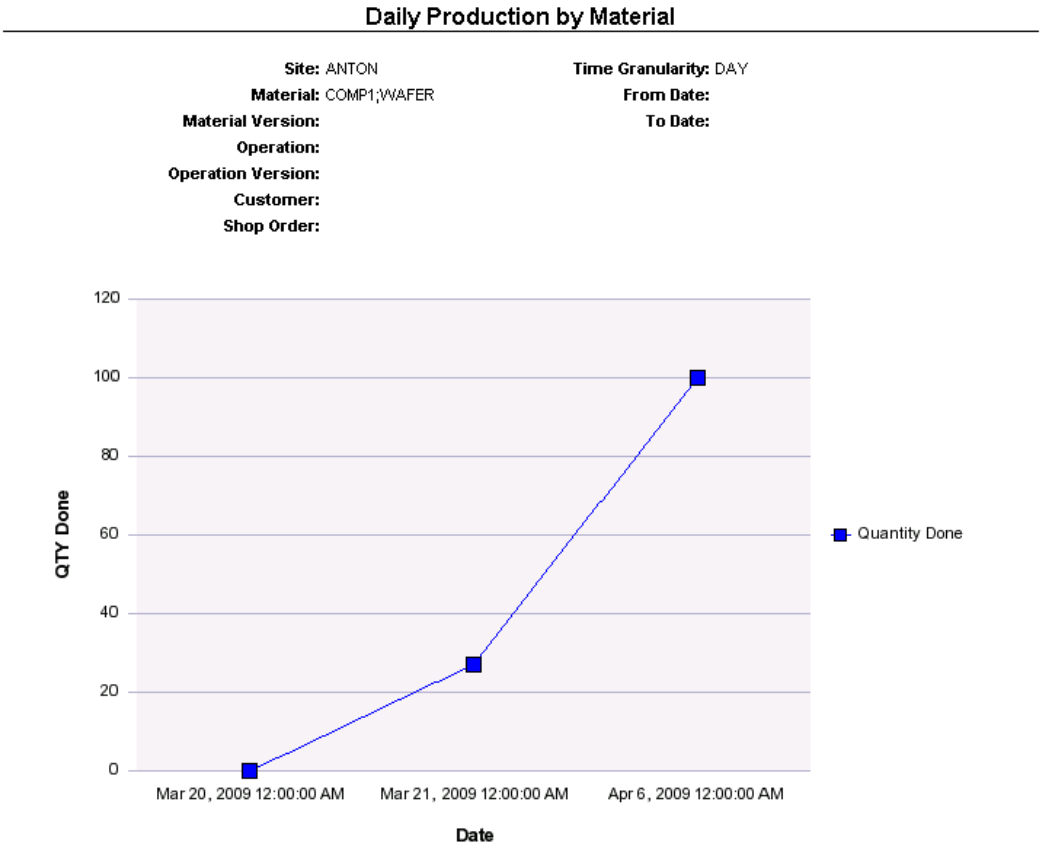
Production Summary - Production Summary Universe created to service Production Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Production By Material report prompts, SAPMEBOBJ displays report search results in a new window.

By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

Production By Material Report (Graphical View)



Production By Material Report Graphical Results	
Chart Field	**Description**
X-Axis	The date and time of the production process
Y-Axis	The done quantity
Blue Line	The material

Selecting the *Tabular* option from the *Report Type* drop-down list provides the Production By Material report data in a tabular form.

Production By Material Report (Tabular View)

Daily Production by Material

Site: ANTON
Material: COMP1;WAFER
Material Version:
Operation:
Operation Version:
Customer:
Shop Order:

Time Granularity: DAY
From Date:
To Date:

Day of	Material	Shop Order	QTY Done	Detail
Mar 20, 2009 12:00:00 AM	WAFER	20090320-7	0	Detail
		20090320-8	0	Detail
		SO_WAFER_1	0	Detail
		SO_WAFER_5	0	Detail
		Material Totals:	**0**	
		Date Totals:	**0**	
Mar 21, 2009 12:00:00 AM	COMP1	20090319-1	3	Detail
		20090319-3	3	Detail
		20090319-5	3	Detail
		20090321-17	1	Detail
		Material Totals:	**10**	
	WAFER	20090320-7	15	Detail
		SO_WAFER_1	2	Detail
		Material Totals:	**17**	
		Date Totals:	**27**	
Apr 6, 2009 12:00:00 AM	WAFER	20090406-19	0	Detail
		20090406-22	100	Detail
		Material Totals:	**100**	
		Date Totals:	**100**	
		Report Totals:	**127**	

Production By Material Report Results	
Column/Field	**Description**
Day/Week/Month Of	The date and time of the production process
Material	The component or higher-level assembly worked or consumed on your shop floor
Shop Order	
QTY Done	The done quantity for this shop order, for this date. The done quantity is the sum of the 1st pass quantity done, 2nd pass quantity done and 2nd pass + quantity done.
Material Totals	The done quantity for this material (across shop orders) for this date
Date Totals	The done quantity for this date. Opens the Production Detail report

2.3.4 Production Detail

This report provides information on the production process of an SFC number, including the date the production occurred. You can drill down to this report from the Yield By Operation, Production By Material and Yield By Material reports.

Search Criteria Fields

The following table shows the search criteria fields available for the Production Detail report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Operation	Optional/Browse
Customer	Optional
Shop Order	Optional/Browse

Dependent Universe

Production Detail - Production Detail Universe created to service Production Detail Reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Production Detail report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the tabular view is available for the report by default.

Production Detail Report

Production Detail

Site: ANTON
Material: PANELIZED
Operation: OPER1;OPER2
Customer:
Shop Order:

From Date: 3/20/2009 5:30:57 PM
To Date: 3/21/2009 2:34:06 PM

Date	SFC	Material	Operation	Times Thru	Start QTY	Complete QTY	NC QTY	Scrap QTY
Mar 20, 2009 5:30:57 PM	PAN-0001	PANELIZED	OPER1	1	0	0	0	0
Mar 20, 2009 5:35:05 PM	PAN-0002	PANELIZED	OPER1	1	0	0	0	0
Mar 20, 2009 6:14:11 PM	PAN-0003	PANELIZED	OPER1	1	5	0	5	0
Mar 20, 2009 6:22:33 PM	PAN-0003	PANELIZED	OPER1	1	0	0	0	0
Mar 20, 2009 6:25:01 PM	PAN-0005	PANELIZED	OPER1	1	5	0	5	5
Mar 21, 2009 9:10:09 AM	PAN-0006	PANELIZED	OPER1	1	0	0	0	0
Mar 21, 2009 9:24:21 AM	PAN-0006	PANELIZED	OPER1	1	0	0	0	0
Mar 21, 2009 9:39:01 AM	PAN-0007	PANELIZED	OPER1	1	5	0	4	4
Mar 21, 2009 2:33:51 PM	PAN-0001	PANELIZED	OPER1	1	5	5	0	0
Mar 21, 2009 2:33:51 PM	PAN-0002	PANELIZED	OPER1	1	5	5	0	0
Mar 21, 2009 2:33:51 PM	PAN-0003	PANELIZED	OPER1	1	5	5	0	0
Mar 21, 2009 2:33:51 PM	PAN-0006	PANELIZED	OPER1	1	5	5	0	0
Mar 21, 2009 2:33:51 PM	PAN-0007	PANELIZED	OPER1	1	1	1	0	0
Mar 21, 2009 2:34:06 PM	PAN-0001	PANELIZED	OPER2	1	5	5	0	0
Mar 21, 2009 2:34:06 PM	PAN-0002	PANELIZED	OPER2	1	5	5	0	0
Mar 21, 2009 2:34:06 PM	PAN-0003	PANELIZED	OPER2	1	5	5	0	0
Mar 21, 2009 2:34:06 PM	PAN-0006	PANELIZED	OPER2	1	5	5	0	0
Mar 21, 2009 2:34:06 PM	PAN-0007	PANELIZED	OPER2	1	1	1	0	0
			Report Totals:	**18**	**57**	**42**	**14**	**9**

Production Detail Report Results	
Column/Field	**Description**
Date	The date and time of the production process
SFC	
Material	The component or higher-level assembly worked or consumed on your shop floor.
Operation	The operation at which this production activity took place.
Times Thru	The number of iterations of an SFC number at an operation or resource.
Start Qty	If the pass number is 1, indicates the sum of first pass SFC number quantity started by each material within a specific date.

Production Detail Report Results	
Column/Field	**Description**
	If the pass number is 2, indicates the sum of second pass SFC number quantity started by each material within a specific date. If the pass number is 2+, indicates the sum of second + SFC number quantity started by each material within a specific date.
Complete Qty	The SFC number quantity completed at the specified operation.
NC Qty	
Scrap Qty	The quantity of materials scrapped during the operation

2.3.5 Yield By Operation

This report provides information on the number of materials that passed the first and second test, as well as the number of materials tested more than twice and passing those tests. This report is useful for determining, during a specific time period and for a given operation, what materials have the highest failures on either the first, second, and/or more tests.

Search Criteria Fields

The following table shows the search criteria fields available for the Yield By Operation report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Operation	Required/Browse
Material	Optional/Browse
Customer	Optional
Shop Order	Optional/Browse
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

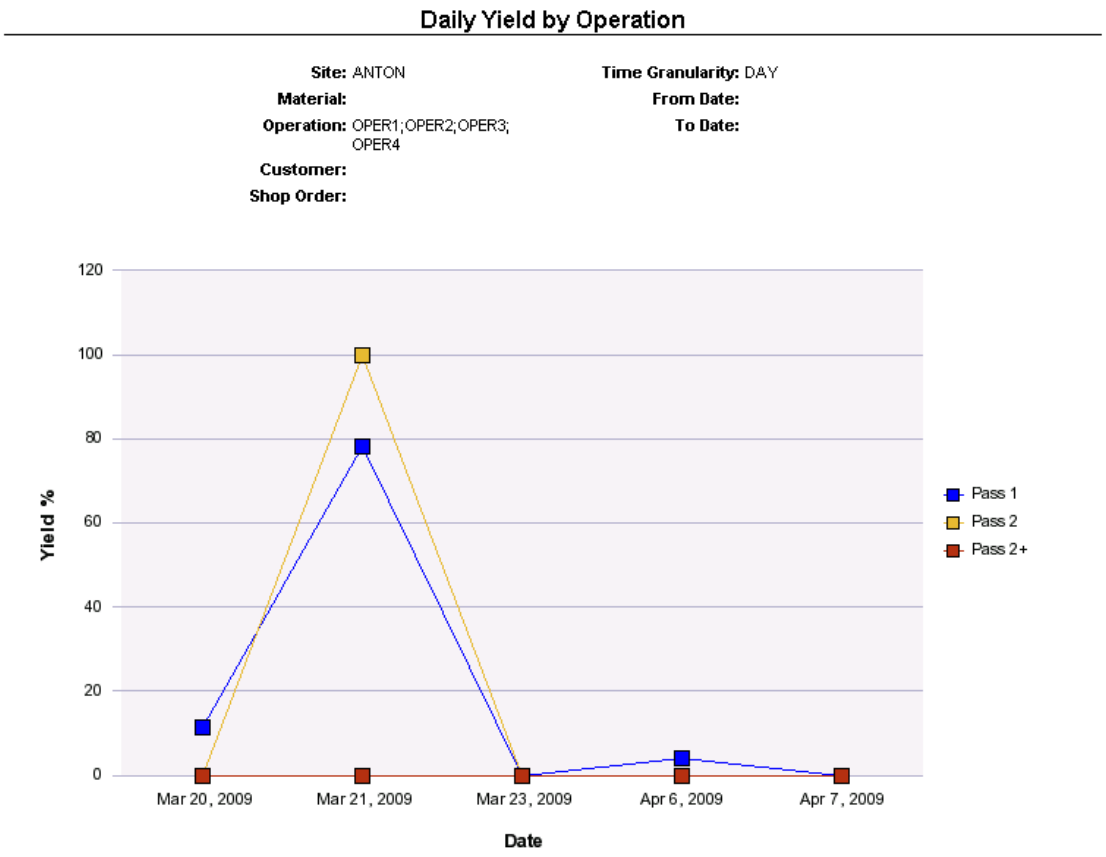
Dependent Universe

Production Summary - Production Summary Universe created to service Production Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Yield By Operation report prompts, SAPMEBOBJ displays report search results in a new window.

Yield By Operation Report (Graphical View)



Yield By Operation Report Graphical Results	
Chart Field	**Description**
X-Axis	The date and time of the production process
Y-Axis	The 1st pass, 2nd pass, and 2+ pass yield by operation (as a percentage)
Blue Line	The 1st pass yield by operation. The pass number is the number of times an SFC number has been processed through an operation. The 1st pass number shows SFC numbers first time started at an operation.
Yellow Line	The 2nd pass yield by operation. The pass number is the number of times an SFC number has been processed through an operation. The 2nd pass number shows SFC numbers second time started at an operation after a completion or nonconformance.

Yield By Operation Report Graphical Results	
Chart Field	**Description**
Red Line	The 2+ pass yield by operation. The pass number is the number of times an SFC number has been processed through an operation. The 2+ pass number shows all other subsequent times an SFC number is started at an operation after a completion or nonconformance.

Yield By Operation Report (Tabular View)

Daily Yield by Operation

Site: IRAS **Time Granularity:** DAY
Material: **From Date:**
Operation: OP1;PMR;_SYSTEM **To Date:**
Customer:
Shop Order:

Day of	Material	Pass 1 Start QTY	Pass 1 Complete QTY	Pass 1 Yield	Pass 2 Start QTY	Pass 2 Complete QTY	Pass 2 Yield	Pass 2+ Start QTY	Pass 2+ Complete QTY	Pass 2+ Yield	
Oct 22, 2008 12:00:00 AM	IT1	1	1	100	0	0	0	0	0	0	Detail
	IT2	1	1	100	0	0	0	0	0	0	Detail
	Date Totals:	**2**	**2**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	
	Report Totals:	**2**	**2**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	

Yield By Operation Report Results	
Column/Field	**Description**
Day/Week/Month Of	The date and time of the production process
Material	The component or higher-level assembly worked or consumed on your shop floor.
Pass Number	The number of times an SFC number has been processed through an operation. There are three different pass types available: *Pass 1*: SFC numbers first time started at an operation. *Pass 2*: SFC numbers second time started at an operation after a completion or nonconformance. *Pass +*: All other subsequent times an SFC number is started at an operation after a completion or nonconformance.
Start Qty	If the pass number is 1, indicates the sum of first pass SFC number quantity started by each material within a specific date. If the pass number is 2, indicates the sum of second pass SFC number quantity started by each material within a specific date. If the pass number is 2+, indicates the sum of second + SFC number quantity started by each material within a specific date.
Complete Qty	If the pass number is 1, indicates the sum of first pass SFC number quantity completed by each material within a specific date.

Yield By Operation Report Results	
Column/Field	**Description**
	If the pass number is 2, indicates the sum of second pass SFC number quantity completed by each material within a specific date. If the pass number is 2+, indicates the sum of second + SFC number quantity completed by each material within a specific date.
Yield	
Details Link	Opens the Production Detail report
Date Totals	The start and complete quantity for this date

2.3.6 Yield By Material

This report provides information on the number of materials passed the first and second test, as well as the number of materials tested more than twice and passed those tests. This report is useful for determining, during a specific time period and for a given material, what materials have the highest failures on either the first, second, and/or more tests. The report displays the 1st pass, 2nd pass, and 2+ pass Yield By Material at one or more operations. The pass number is the number of times an SFC number has been processed through an operation. There are three different pass types available:

- *Pass 1*: SFC numbers first time started at an operation.
- *Pass 2*: SFC numbers second time started at an operation after a completion or nonconformance.
- *Pass +*: All other subsequent times an SFC number is started at an operation after a completion or nonconformance.

Search Criteria Fields

The following table shows the search criteria fields available for the Yield By Material report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Required/Browse
Operation	Optional/Browse
Customer	Optional
Shop Order	Optional/Browse
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

Production Summary - Production Summary Universe created to service Production Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Yield By Material report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the tabular view is available for the report by default.

Yield By Material Report

Daily Yield by Material

Site: LOGNC
Material: COMP3;IT_BOM;ITEM1
Operation:
Customer:
Shop Order:
Time Granularity: DAY
From Date:
To Date:

Day of	Operation	Pass 1 Start QTY	Pass 1 Complete QTY	Pass 1 Yield	Pass 2 Start QTY	Pass 2 Complete QTY	Pass 2 Yield	Pass 2+ Start QTY	Pass 2+ Complete QTY	Pass 2+ Yield	
Oct 14, 2008 12:00:00 AM	OPER1	48	0	0	0	0	0	0	0	0	Detail
	OPER2	40	0	0	0	0	0	0	0	0	Detail
	Date Totals:	**88**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
Oct 18, 2008 12:00:00 AM	OPER1	0	0	0	10	0	0	0	0	0	Detail
	Date Totals:	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	
	Report Totals:	**88**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	

Yield By Operation Report Results	
Column/Field	**Description**
Day/Week/Month Of	The date and time of the production process
Operation	
Pass Number	The number of times an SFC number has been processed through an operation. There are three different pass types available: *Pass 1:* SFC numbers first time started at an operation. *Pass 2*: SFC numbers second time started at an operation after a completion or nonconformance. *Pass +*: All other subsequent times an SFC number is started at an operation after a completion or nonconformance.
Start Qty	If the pass number is 1, indicates the sum of first pass SFC number quantity started by each material within a specific date. If the pass number is 2, indicates the sum of second pass SFC number quantity started by each material within a specific date. If the pass number is 2+, indicates the sum of second + SFC number quantity started by each material within a specific date.
Complete Qty	If the pass number is 1, indicates the sum of first pass SFC number quantity completed by each material within a specific date. If the pass number is 2, indicates the sum of second pass SFC number quantity completed by each material within a specific date.

Yield By Operation Report Results	
Column/Field	**Description**
	If the pass number is 2+, indicates the sum of second + SFC number quantity completed by each material within a specific date.
Yield	
Details Link	Opens the Production Detail report
Date Totals	The start and complete quantity for this date

Note that the *Material* column in the previous table is displayed only in the *Daily Yield By Material Group* report, not in the *Daily Yield By Material* report

2.4 Resource Reports

The Resource reports allow you to track the percentage of time a resource spends in a particular state. This section includes the following reports:

- Resource Usage
- Resource Utilization

2.4.1 Resource Usage

This report provides information on the percentage of time a resource is utilized at each resource status state over a specified date range. The following resource states are available:

- Unknown
- Productive
- Standby
- Engineering
- Disabled
- Enabled
- Hold
- Scheduled Down
- Unscheduled Down
- Not Scheduled

Search Criteria Fields

The following table shows the search criteria fields available for the Resource Usage report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list

Search Criteria Field	Type
Date From	Required/Date/Time
Date To	Required/Date/Time
Resource	Required/Browse
Resource Type	Required/Drop-down list
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

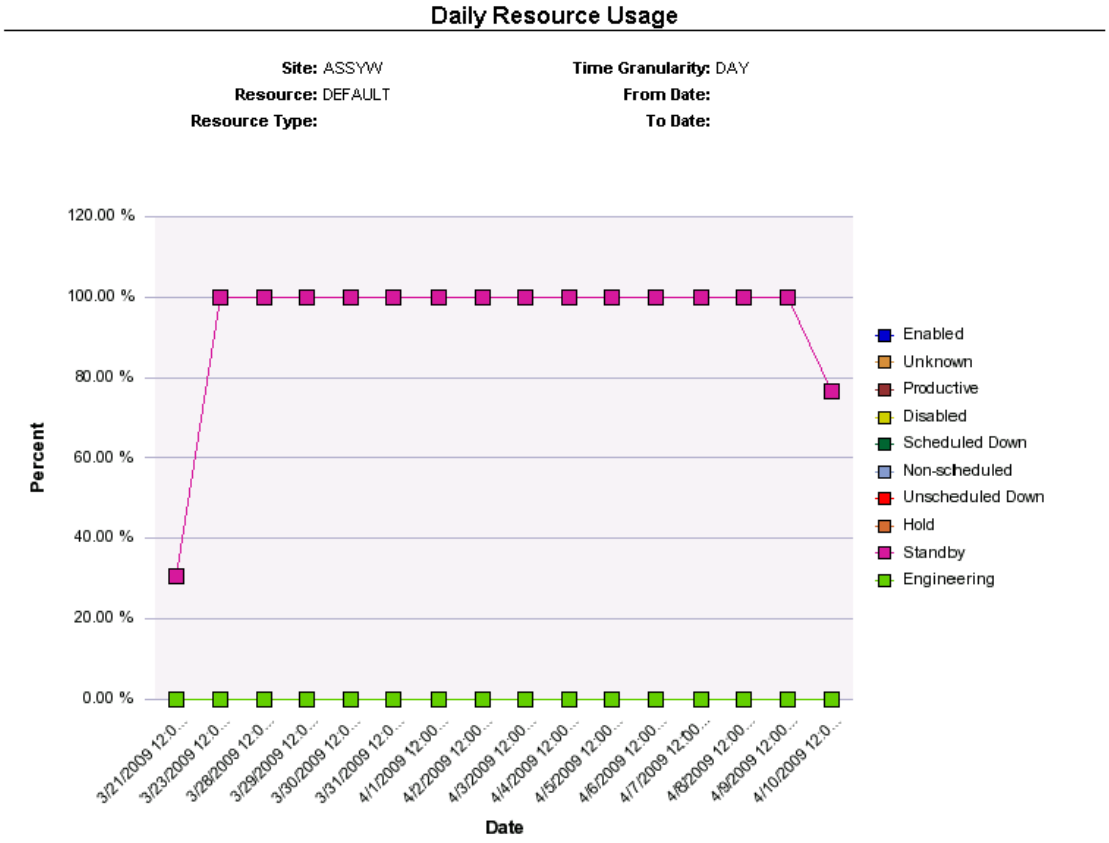
Resource Utilization Summary - Resource Utilization Summary Universe created to service Resource Utilization Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Resource Usage report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the graphical view is available for the report by default.

Resource Usage Report (Graphical View)



Resource Usage Report Graphical Results	
Chart Field	**Description**
X-Axis	The date and time of the production process
Y-Axis	The percentage of time a resource spent in each state
Linear Chart	The resource state for a given time period. The following resource states are available: • Unknown (an actual machine state) • Productive • Standby

Resource Usage Report Graphical Results	
Chart Field	**Description**
	• Engineering • Disabled • Enabled • Hold • Scheduled Down • Unscheduled Down • Not Scheduled

2.4.2 Resource Utilization

This report provides information on the utilization percentage for a specified resource over a specified time period.

Search Criteria Fields

The following table shows the search criteria fields available for the Resource Utilization report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Resource	Required/Browse
Sample Period	Required/Drop-down list
System Granularity	Required/Drop-down list
Custom Granularity	Required/Drop-down list

Dependent Universe

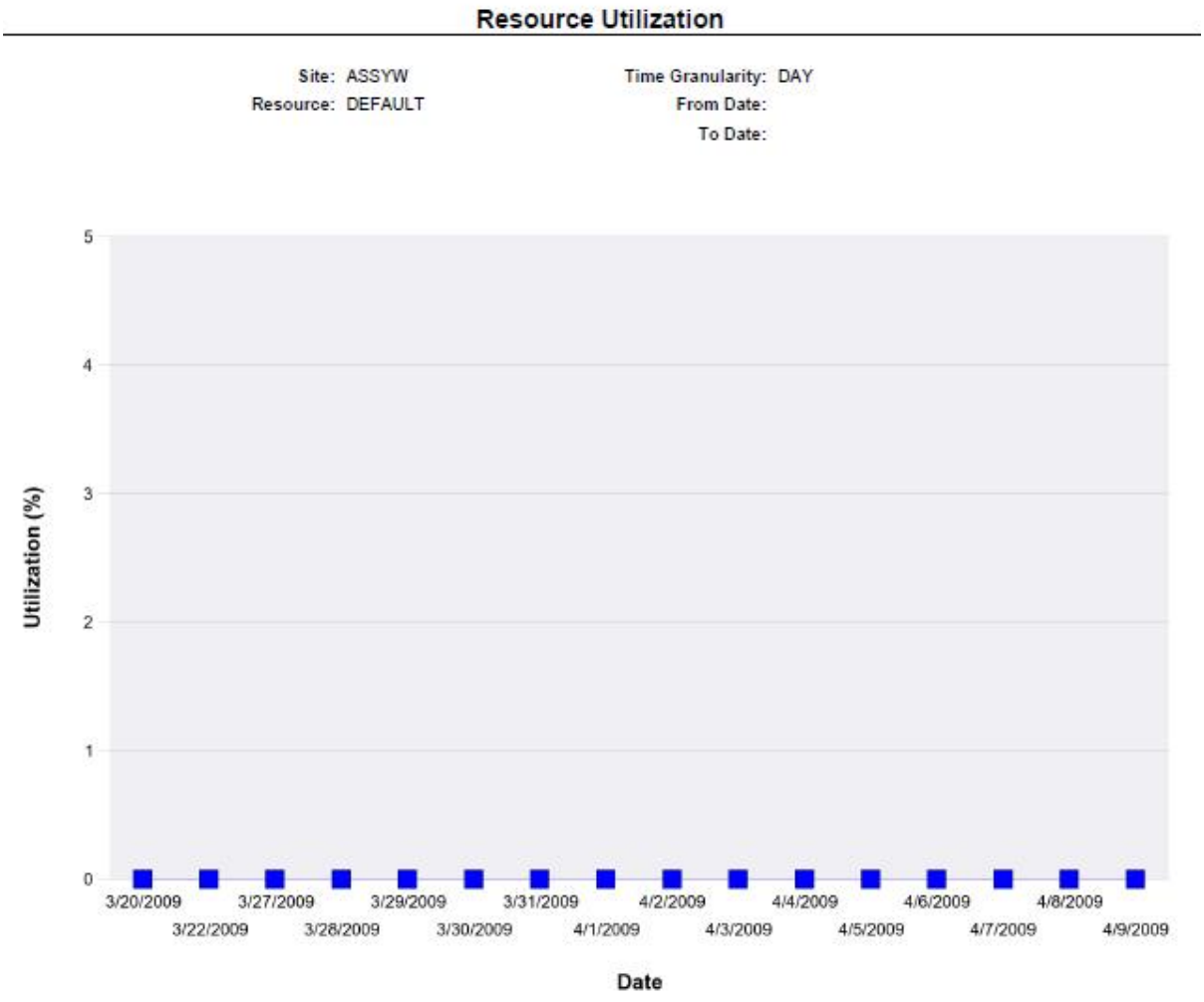
Resource Utilization Summary - Resource Utilization Summary Universe created to service Resource Utilization Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Resource Utilization report prompts, SAPMEBOBJ displays report search results in a new window.

By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

Resource Utilization Report (Graphical View)



Resource Utilization Report Graphical Results	
Chart Field	**Description**
X-Axis	The date and time of the production process
Y-Axis	The utilization percentage for the resource
Blue Line	The resource

Selecting the *Tabular* option from the *Report Type* drop-down list provides the Resource Utilization report data in a tabular form.

Resource Utilization Report (Tabular View)

Resource Utilization

Site: ASSYW
Resource: DEFAULT
Time Granularity: DAY
From Date:
To Date:

Day of	Available Time	Utilized Time	Util
3/20/2009	24	0	0
3/22/2009	24	0	0
3/27/2009	24	0	0
3/28/2009	24	0	0
3/29/2009	24	0	0
3/30/2009	24	0	0
3/31/2009	24	0	0
4/1/2009	24	0	0
4/2/2009	24	0	0
4/3/2009	24	0	0
4/4/2009	24	0	0
4/5/2009	24	0	0
4/6/2009	24	0	0
4/7/2009	24	0	0
4/8/2009	24	0	0
4/9/2009	24	0	0

Resource Utilization Report Results	
Column/Field	**Description**
Day/Week/Month Of	The date and time of the production process
Available Time	The available time of the production process
Utilized Time	The time the resource was utilized within the specified date
Until	The utilized time as a percentage of available time

2.5 Labor Reports

Labor Tracking reports provide information on labor hours spent by users on the shop floor. The time information is collected during production activities, such as Clock In/Out, Start, Complete, and others. The time is summarized by the labor rollup process in a form suitable for export to external systems. The rollup is a feature of Labor Tracking. Rollup periodically summarizes labor tracking data in the database, according to the settings (Labor Tracking Rules) defined in Labor Rule Maintenance. Labor tracking reports can then access the summarized data. The Labor Tracking Rules define the overall way SAP ME will handle tracking costs associated with a user or an SFC number.

Note that before setting Labor Tracking Rules you must set the global system rule enabling labor tracking.

During the summarization process, the time granularity is used. The time granularity is determined by the time granularity ODS Rule. The following table describes time granularities that are available in SAP ME.

Time Granularity	Description
Hour	The granularity is by hour. For example, if the start time is 08.12.2004 **7:00:00**, the end time will be 08.12.2004 **8:00:00**.
Day	The granularity is by day. For example, if the start time is 08.12.2004 **00:00:00**, the end time will be 08.12.2004 **23:59:59**.
Shift	The granularity is by shift. Since the granularity is by shift, the shift start and end time will be looked up and stored in.

Labor Tracking reports help users track labor hours to meet requirements and to improve floor labor efficiency.

Note that default values for the *USER ID* field are not displayed in Labor reports.

To view correct labor data, user must manually enter values in this field.

This section includes the following reports:

- Employee Time Summary
- LCC Usage By Shop Order
- User Attendance

2.5.1 Employee Time Summary

This report provides information on users' direct (actually performing value added effort) and indirect (such as idle, lunch, meetings) labor time for each day across a given date range, as well as helps to track hours spent in reworking products.

Search Criteria Fields

The following table shows the search criteria fields available for the Employee Time Summary report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
User ID	Optional/Browse
User Shift	Optional/Browse

Search Criteria Field	Type
Cost Center	Optional/Browse

Dependent Universe

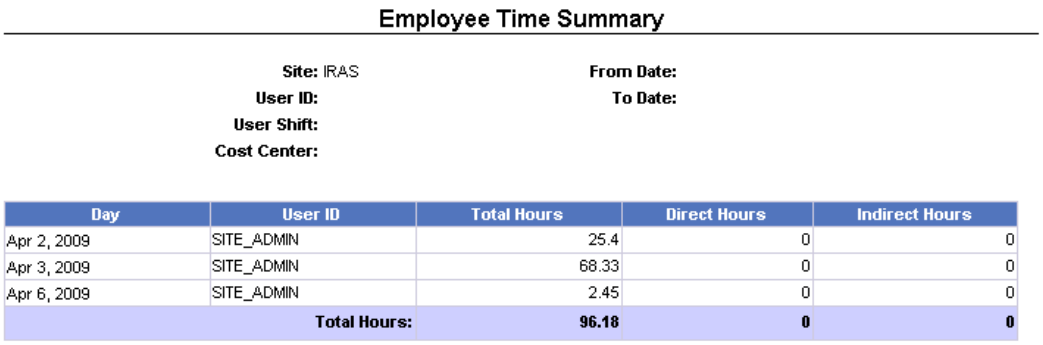
Labor Summary By User - Labor Summary by User Universe created to service Labor Summary by User reports

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Employee Time Summary report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the tabular view is available for the report by default.

Employee Time Summary Report



Employee Time Summary

Site: IRAS
User ID:
User Shift:
Cost Center:
From Date:
To Date:

Day	User ID	Total Hours	Direct Hours	Indirect Hours
Apr 2, 2009	SITE_ADMIN	25.4	0	0
Apr 3, 2009	SITE_ADMIN	68.33	0	0
Apr 6, 2009	SITE_ADMIN	2.45	0	0
	Total Hours:	**96.18**	**0**	**0**

Employee Time Summary Report Results	
Column/Field	**Description**
Day	The labor date the user clocked in
User ID	The user who performed the labor
Total Hours	The total labor time for this user on this date. Total labor time is the total time charged to this user on this date, including both direct and indirect labor.
Direct Hours	The total direct labor time for this user on this date
Indirect Hours	The total indirect labor time for this user on this date

2.6.0 LCC Usage By Shop Order

This report provides information on LCC usage by SFC number and Operation across a given date range. If data is not rolled up by SFC number, then no records will be displayed in this report.

Search Criteria Fields

The following table shows the search criteria fields available for the LCC Usage By Shop Order report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Operation	Optional/Browse
Material	Optional/Browse
Labor Charge Code	Optional/Browse
Resource	Optional/Browse
Routing	Optional/Browse
SFC	Optional/Browse
Shop Order	Optional/Browse
Step ID	Optional/Browse
Work Center	Optional/Browse

Dependent Universe

Labor Summary By SFC - Labor Summary by SFC Universe created to service Labor Summary by SFC reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the LCC Usage By Shop Order report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the tabular view is available for the report by default.

LCC Usage By Shop Order Report

Labor Charge Code Usage by Shop Order

Site: IRAS
Operation:
Material:
Labor Charge Code:
Resource:
Routing:
SFC:
Shop Order:
Step ID:
Work Center:

From Date:
To Date:

Start Date/ Time	LCC	SFC	Operation	Shop Order	Material	Total Hours	Production Hours	Rework Hours
Apr 2, 2009	Unassigned		OP1	20090325-1		25.4	25.4	0
Apr 3, 2009	Unassigned		OP1	20090325-1		68.33	68.33	0
Apr 6, 2009	Unassigned		OP1	20090325-1		2.41	2.41	0
Apr 6, 2009	Unassigned		OP2	20090406-2		0.04	0.04	0
					Report Totals:	**96.18**	**96.18**	**0**

LCC Usage By Shop Order Report Results	
Column/Field	**Description**
Start Date/Time	The date and time the shop order started the production process
LCC	The labor charge code assigned to the shop order and against which the labor is charged
SFC	
Operation	The operation at which this production activity took place
Shop Order	The shop order the labor is charged against
Material	
Total Hours	The total labor time for this user on this date. Total labor time is the total time charged to this user on this date, including both direct and indirect labor.
Production Hours	The time the user spent creating a product
Rework Hours	The time the user spent reworking products

2.5.3 User Attendance

This report provides information on each clock-in and clock-out interval for a given user over a period of time.

Search Criteria Fields

The following table shows the search criteria fields available for the User Attendance report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Optional/Check box/Date/Time
Date To	Optional/Check box/Date/Time
User ID	Optional/Browse
User Shift	Optional/Browse
Cost Center	Optional/Browse
Labor Charge Code	Optional/Browse

Dependent Universe

Labor Summary By User - Labor Summary by User Universe created to service Labor Summary by User reports

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the User Attendance report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the tabular view is available for the report by default.

User Attendance Report

User Attendance

Site: IRAS **From Date:**
User ID: **To Date:**
User Shift:
Cost Center:
Labor Charge Code:

Clock Date/Time	Record Type	User ID	User Shift	Cost Center	LCC
Oct 21, 2008 6:02:34 PM	SUP_IN	LUSER_1	SH1	MY_CC1	DIRECT_LCC
Oct 22, 2008 12:15:05 PM	CLK_OUT	LUSER_1	SH1	MY_CC1	DIRECT_LCC
Oct 22, 2008 12:15:18 PM	SUP_IN	LUSER_1	SH1	MY_CC1	DIRECT_LCC
Oct 21, 2008 5:56:16 PM	CLK_IN	LUSER_2	SHIFT_1	ACTIVE	NEW_OVRD
Oct 21, 2008 7:06:32 PM	CLK_OUT	LUSER_2	SHIFT_1	ACTIVE	NEW_OVRD
Oct 21, 2008 7:06:37 PM	CLK_IN	LUSER_2	SHIFT_1	ACTIVE	NEW_OVRD
Oct 21, 2008 7:10:05 PM	CLK_OUT	LUSER_2	SHIFT_1	ACTIVE	NEW_OVRD
Oct 21, 2008 7:10:46 PM	CLK_IN	LUSER_2	SHIFT_1	ACTIVE	NEW_OVRD
Oct 22, 2008 5:17:28 PM	SUP_OUT	LUSER_2	SHIFT_1	ACTIVE	NEW_OVRD

User Attendance Report Results	
Column/Field	**Description**
Clock Date/Time	The date and time of user's clock-in Note that if more that one clock-in occurs before a clock-out, or vice versa, the report displays the earliest clock-in and latest clock-out time.
Record Type	The type of the record.
User ID	The user who performed the labor
User Shift	
Cost Center	
LCC	The labor charge code assigned to the shop order and against which the labor is charged

2.6 Shop Order Reports

The ODS_SHOP_ORDER table is periodically refreshed from the WIP shop order table. For finished orders, this table contains actual vs. planned times by shop order, as well as quantities completed and scrapped by shop order.

Shop Order reports provide information on time duration and production quantities of individual shop orders at specific routing steps. Time duration is the time that a shop order spends at each step. This time is calculated as the time from the start of the first SFC number

at the operation to the time of the last SFC number completing the operation. Each of the QTY fields is summed based upon the actions taken on individual SFC numbers at specific steps.

Shop Order reports provide a comparison of the shop order's actual performance versus its planned performance.

This section includes the following reports:

- Order Exception
- Order Completion Distribution
- Order Lead Time By Operation

2.6.1 Order Exception

This report provides information on shop order performance against planned complete quantity and time. The report shows shop orders that were early, on time, or late for a specified date range. The shop order is regarded as completed on time if the 0 value is recorded in the *Days Late* column. A negative number indicates the number of days the shop order was early. A positive number indicates the number of days the shop order was late.

Search Criteria Fields

The following table shows the search criteria fields available for the Order Exception report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Customer	Optional/Browse
Percent of Qty Planned	Optional

Dependent Universe

Shop Order Detail - Shop Order Detail Universe created to service Shop Order Detail reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Order Exception report prompts, SAPMEBOBJ displays report search results in a new window.

Note that only the tabular view is available for the report by default.

Order Exception report

Order Exception

Site: ANTON
Material: COMP1;COMP2;COMP 3;PANELIZED
Customer:
Percent of Qty Planned:
From Date:
To Date:

Shop Order	Material	Planned QTY	Actual QTY	% of Planned QTY	Planned Complete Date	Actual Complete Date	Days Late
20090319-1	COMP1	3	3	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:26 PM	2
20090319-2	COMP2	3	3	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:28 PM	2
20090319-3	COMP1	3	3	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:27 PM	2
20090319-4	COMP2	3	3	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:29 PM	2
20090319-5	COMP1	3	3	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:27 PM	2
20090319-6	COMP2	3	3	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:30 PM	2
20090320-9	PANELIZED	10	5	50			0
20090321-10	PANELIZED	5	1	20		Mar 21, 2009 2:34:25 PM	0
20090321-11	PANELIZED	5	0	0			0
20090321-12	PANELIZED	5	0	0			0
20090321-13	PANELIZED	5	0	0			0
20090321-15	PANELIZED	5	0	0			0
20090321-16	PANELIZED	50	0	0			0
20090321-17	COMP1	1	1	100		Mar 21, 2009 5:06:48 PM	0
20090321-18	PANELIZED	5	0	0			0
20090406-20	PANELIZED	20	20	100		Apr 6, 2009 5:16:02 PM	0
SO_PAN_1	PANELIZED	5	5	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 2:34:24 PM	2
SO_PAN_10	PANELIZED	10	10	100	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 2:34:24 PM	2

Order Exception Report Results	
Column/Field	**Description**
Shop Order	The name of the shop order
Material	
Planned QTY	The shop order quantity planned to be produced at this operation
Actual QTY	The shop order quantity produced at this operation
% of Planned QTY	The percentage of shop order quantity planned to be produced at this operation
Planned Complete Date	The time the shop order is planned to be completed at this operation
Actual Complete Date	The time the shop order is completed at this operation.
Days Late	The quantity of days the shop order is late.

2.6.2 Order Completion Distribution

This report provides information on actual shop order performance against planned complete time over a specified date range. The shop order is regarded as completed on time if the 0 value is recorded in the *Days Late* column. A negative integer indicates the number of days the shop order was early. A positive integer indicates the number of days the shop order was late.

Search Criteria Fields

The following table shows the search criteria fields available for the Order Completion Distribution report along with their type values.

Search Criteria Field	Type
Date Range	Required/Drop-down list
Date From	Required/Date/Time
Date To	Required/Date/Time
Material	Optional/Browse
Customer	Optional/Browse

Dependent Universe

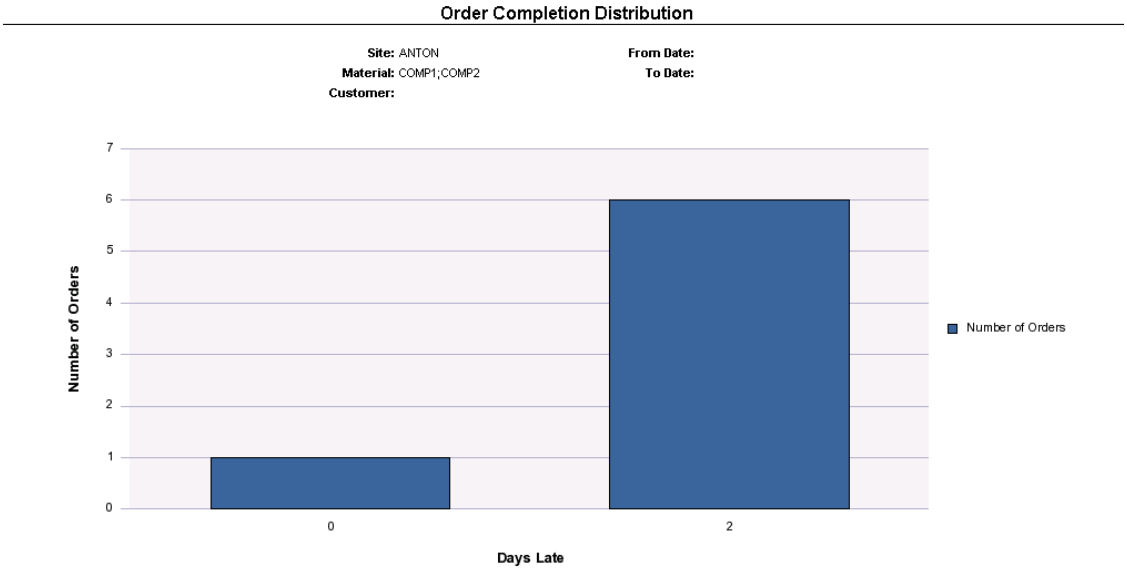
Shop Order Detail - Shop Order Detail Universe created to service Shop Order Detail reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Order Completion Distribution report prompts, SAPMEBOBJ displays report search results in a new window.

By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

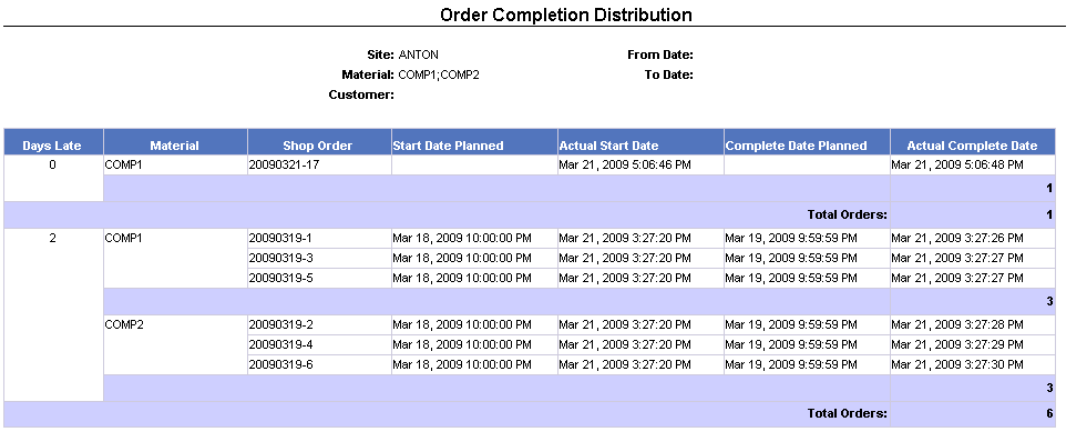
Order Completion Distribution Report (Graphical View)



Order Completion Distribution Report Graphical Results	
Chart Field	**Description**
X-Axis	The days a shop order was early/late, for example, -5 -4 -3 -2 -1 0 1 2 3 4 5. A negative number indicates the number of days the shop order was early. A positive number indicates the number of days the shop order was late. The shop order is regarded as completed on time if the 0 value is recorded in the *Days Late* column.
Y-Axis	The number of shop orders
Blue Bar	The shop order performance against planned complete time. Each bar indicates a number of days a shop order was early, or late for a specified date range.

Selecting the *Tabular* option from the *Report Type* drop-down list provides the Order Completion Distribution report data in a tabular form.

Order Completion Distribution Report (Tabular View)



Order Completion Distribution

Site: ANTON **From Date:**
Material: COMP1;COMP2 **To Date:**
Customer:

Days Late	Material	Shop Order	Start Date Planned	Actual Start Date	Complete Date Planned	Actual Complete Date
0	COMP1	20090321-17		Mar 21, 2009 5:06:46 PM		Mar 21, 2009 5:06:48 PM
						1
					Total Orders:	1
2	COMP1	20090319-1	Mar 18, 2009 10:00:00 PM	Mar 21, 2009 3:27:20 PM	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:26 PM
		20090319-3	Mar 18, 2009 10:00:00 PM	Mar 21, 2009 3:27:20 PM	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:27 PM
		20090319-5	Mar 18, 2009 10:00:00 PM	Mar 21, 2009 3:27:20 PM	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:27 PM
						3
	COMP2	20090319-2	Mar 18, 2009 10:00:00 PM	Mar 21, 2009 3:27:20 PM	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:28 PM
		20090319-4	Mar 18, 2009 10:00:00 PM	Mar 21, 2009 3:27:20 PM	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:29 PM
		20090319-6	Mar 18, 2009 10:00:00 PM	Mar 21, 2009 3:27:20 PM	Mar 19, 2009 9:59:59 PM	Mar 21, 2009 3:27:30 PM
						3
					Total Orders:	6

Order Completion Distribution Report Results	
Column/Field	**Description**
Days Late	The quantity of days the shop order is late
Material	
Shop Order	The name of the shop order
Start Date Planned	The time of the first SFC number of the shop order is planned to be started at this operation
Actual Start Date	The time of the first SFC number of the shop order is started at this operation
Complete Date Planned	The time of the first SFC number of the shop order is planned to be completed at this operation
Actual Complete Date	The time of the first SFC number of the shop order is completed at this operation
Total Orders	The total quantity of orders

2.6.3 Order Lead Time By Operation

This report provides information on the average lead and processing time a shop order spent at a particular operation.

Search Criteria Fields

The following table shows the search criteria fields available for the Order Lead Time By Operation report along with their type values.

Search Criteria Field	Type
Material	Optional/Browse
Material Version	Optional
Operation	Optional/Browse
Operation Version	Optional
Customer	Optional
Shop Order	Optional/Browse
Operation Type	Optional/ Drop-down list

Dependent Universe

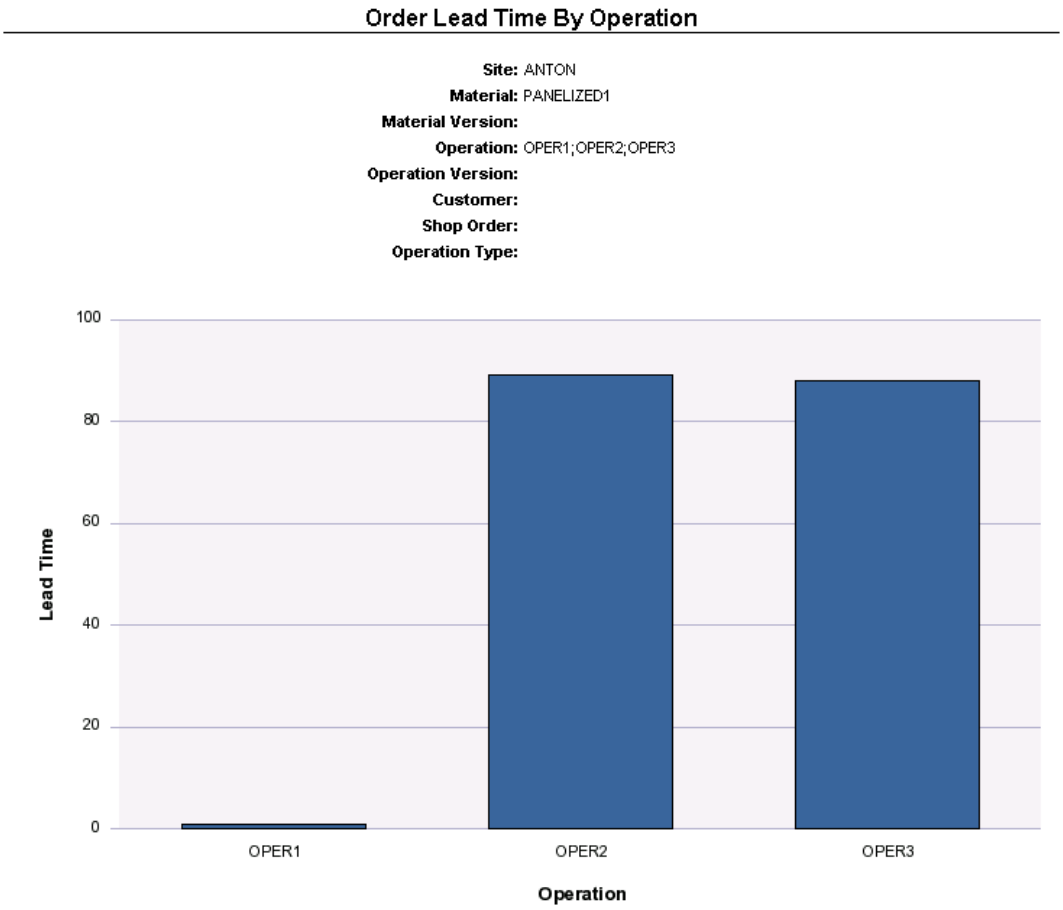
Shop Order Production Summary - Shop Order Production Summary Universe created to service Shop Order Production Summary reports.

Report Results and Details

After the user specifies search criteria fields and chooses the *Run Query* button in the Order Lead Time By Operation report prompts, SAPMEBOBJ displays report search results in a new window.

By default, graphical views are displayed for the report. Use the *Report Tab* to display report results in either graphical or tabular views.

Order Lead Time By Operation Report (Graphical View)



Order Lead Time By Operation Report Graphical Results	
Chart Field	**Description**
X-Axis	The identified operations
Y-Axis	The lead time
Blue Bar	The average lead time by operation

Selecting the *Tabular* option from the *Report Type* drop-down list provides the Order Lead Time By Operation report data in a tabular form.

Order Lead Time By Operation (Tabular View)

Order Lead Time By Operation

Site: ANTON
Material: PANELIZED1
Material Version:
Operation: OPER1;OPER2;OPER3
Operation Version:
Customer:
Shop Order:
Operation Type:

Operation	Material	Shop Order	QTY	Lead Time (HRS)	Processing Time (HRS)
OPER1	PANELIZED1	20090321-14	9	0	0.08
		20090406-21	30	0	0.02
		SO_PAN_1_1	0	0	0.12
			Material Averages:	**0**	**0.07**
			Operation Averages:	**0**	**0.07**
OPER2	PANELIZED1	20090321-14	5	0	0.03
		SO_PAN_1_1	5	44	0
		SO_PAN1_1	5	44	0
			Material Averages:	**29.33**	**0.01**
			Operation Averages:	**29.33**	**0.01**
OPER3	PANELIZED1	20090321-14	5	0	0
		SO_PAN_1_1	5	44	0
		SO_PAN1_1	5	44	0
			Material Averages:	**29.33**	**0**
			Operation Averages:	**29.33**	**0**

Order Lead Time By Operation Report Results	
Column/Field	**Description**
Operation	The operation at which this production activity took place
Material	
Shop Order	The name of the shop order
QTY	The SFC number quantity
Lead Time (hrs)	The total amount of time an SFC number spent at an operation, from the time it was placed in queue, until the time it left the operation.
Processing Time (hrs)	The amount of time the SFC number was actually being worked at the operation
Material Averages	*Material Average Lead Time*: The sum of lead times for a specific material within a specific operation divided by total quantity of a specific material within a specific operation. *Material Average Processing Time*: The sum of processing times for a specific material within a specific operation divided by total quantity of a specific material within a specific operation.

Order Lead Time By Operation Report Results	
Column/Field	**Description**
Operation Averages	*Operation Average Lead Time*: The sum of lead times across all materials within a specific operation divided by total materials quantity within a specific operation. *Operation Average Processing Time*: The sum of processing times across all materials within a specific operation divided by total materials quantity within a specific operation.

3 Localization

SAPMEBOBJ provides for various levels of Localization:

- The reports and universes provide only English/American (en_US) locale translation by default.
- The universes can be localized using the SAP BusinessObjects Translation Manager.
- The localization of database values subscribes to the following rules:
  - Database fields (aside from the fields listed in the “Dictionary Tables” section) are not translated by the Reports, Universes, or by the Translation Manager tool. These fields maintain the same locale and value as entered by the user when the field value was created.
  - Database values of the fields identified in the “Dictionary Tables” section are translated via database functions using a set of database dictionary tables.

3.1 The Translation Manager

The *Translation Manager* is a stand-alone application delivered in the BusinessObjects solution.

The purposes of this application are:

- To prepare a universe to be internationalized
- To define the content locales, the fallback locale and the design locale
- To list the universe metadata outline to be translated
- To define the date/time and number formatting options

All objects in the universe can be localized with the *Translation Manager* tool. Report Static Text objects have been created in the universe *Localization* class. These objects are used for textual representation (for example, Title and Total labels) on the report. The value of any such object in a universe can be translated to a different locale via *Translation Manager*.

For more information about the translation manager, see http://help.sap.com → *Analytics* → *Business Intelligence* → *Business Intelligence Platform (Enterprise)* → *BusinessObjects Business Intelligence Platform 4.1* → *Data Access and Semantic Layer* → *Translation Management Tool User Guide*.

3.2 Database Data Localization

This section describes the localization of translatable database fields and date/time and number fields.

3.2.1 Report Dictionary Tables

Many parameters in the Database are represented by special strings or characters. For instance, NC State takes values: 'C' (for 'Closed'), 'D' (for 'Canceled'), 'O' (for 'Open'), and ‘P’ (for Close Pending'). Such values are transformed to readable text with a help of the dictionary tables: `REPORT_DICTIONARY (WIP DB)` and `ODS_REPORT_DICTIONARY (ODS DB)`. To translate a given string/symbol it is necessary to join the table containing the

abbreviation with a dictionary table. Database functions have been provided for the predefine reports supplied with SAPMEBOBJ. For an example, see the following query:

```
select DATE_TIME, NC_STATE, TRANSLATION LOCALIZED_NC_STATE
from ODS_NC_DATA
left outer join ODS_REPORT_DICTIONARY on
ODS_NC_DATA.NC_STATE=ODS_REPORT_DICTIONARY.SHORT_NAME and
ODS_REPORT_DICTIONARY.CATEGORY='NC_STATE' and
ODS_REPORT_DICTIONARY.LOCALE='en_US'
```

Column	Description
CATEGORY	Category of a value being localized Dictionary tables support the next categories of localized entities: • BOM_TYPE - BOM Type • BOOLEAN_VALUE - Boolean Value • I18N - Generic localizable text • LABOR_ACTIVITY - Labor Activity • LABOR_TYPE - Labor Type • NC_CATEGORY - NC Category • NC_STATE - NC State • NC_VERIFICATION_STATE - NC Verification State • OPERATION_TYPE - Operation Type • RESOURCE_SETUP_STATE - Resource Setup State • ROUTER_TYPE - Router Type • SAMPLE_PERIOD - Sample Period (specific to reports, it is not a standard entity of SAP ME) • SITE_TYPE - Site Type • WORK_CENTER_CATEGORY - Work Center Category
SHORT_NAME	Short Name - abbreviating symbol or a string matching localizable DB record Short Names descriptions for each Category can be found in SAP ME Objects And DB Guide
LOCALE	Translation locale
TRANSLATION	Translation (readable name) of abbreviation

To support a different locale, do as follows:

1. Create a new entry for every unique existing Category entry with corresponding new values in LOCALE (i.e. the new Locale) and TRANSLATION (i.e. the new Translation value) columns
2. Modify the universes to update each query with the new locale, instead of `en_US`:
   `...and ODS_REPORT_DICTIONARY.LOCALE='NEW_LOCALE'`

Note that you must replace NEW_LOCALE with the appropriate value for the new locale.

3.2.2 Reference Table for Data Localization

This is the reference table about DB Data localization (locale en_US):

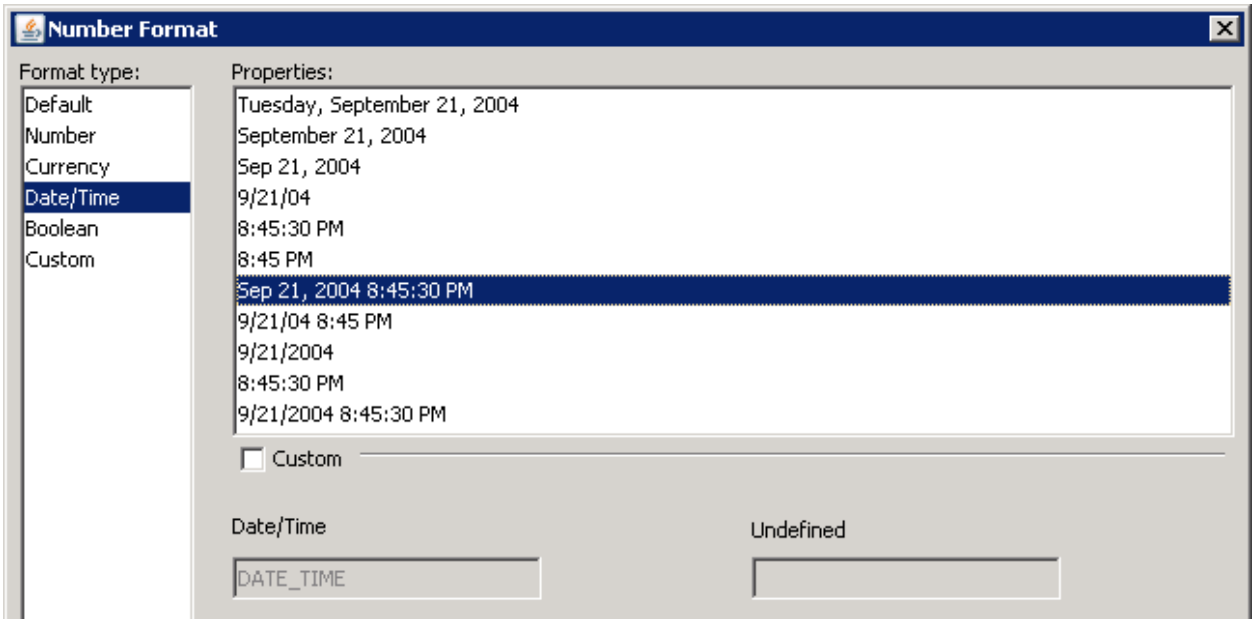
Category	Category Description	Short Name	Meaning/Description
BOM_TYPE	BOM Type	H	Shop Order-Specific
		S	SFC-Specific
		U	Normal Production
BOOLEAN_VALUE	Boolean Value	false	No
		true	Yes
I18N	Generic localizable text	I18N[TIME_GRANULARITY.DAY.desc]	Day Granularity
		I18N[TIME_GRANULARITY.HOUR.desc]	Hour Granularity
		I18N[TIME_GRANULARITY.SHIFT.desc]	Shift Granularity
LABOR_ACTIVITY	Labor Activity	CHG_U_LCC	Change User Labor Charge Code
		CLK_IN	Clock In
		CLK_OUT	Clock Out
		LABOR	Labor Time
		NS_LABOR	Non-SFC Labor Time
		SUP_IN	Supervisory Clock In
		SUP_OUT	Supervisory Clock Out
LABOR_TYPE	Labor Type	D	Direct
		I	Indirect
NC_CATEGORY	NC Category	DEFECT	Defect
		FAILURE	Failure
		REPAIR	Repair
NC_STATE	NC State	C	Closed
		D	Canceled
		O	Open
		P	Close Pending
NC_VERIFICATION_STATE	NC Verification State	K	Unknown
		N	Not Verified
		V	Verified
OPERATION_TYPE	Operation Type	N	Normal
		S	Special
		T	Test
RESOURCE_SETUP_STATE	Resource Setup State	B	Breaking Down
		N	Not Set Up
		O	Open

Category	Category Description	Short Name	Meaning/Description
		S	Set Up
		T	Setting Up
ROUTER_TYPE	Router Type	C	Special
		D	Disposition
		N	Nonconformance
		S	SFC-Specific
		U	Production
SAMPLE_PERIOD	Sample Period (specific to reports, it is not a standard entity of SAP ME)	D	Daily
		M	Monthly
		W	Weekly
SITE_TYPE	Site Type	P	Production
		T	Transfer
WORK_CENTER_ CATEGORY	Work Center Category	LEVEL0	None
		LEVEL1	Cell
		LEVEL2	Cell Group
		LEVEL3	Line
		LEVEL4	Line Group
		LEVEL5	Building

3.2.3 Date/Time and Number Formatting

Predefined Date Formatting

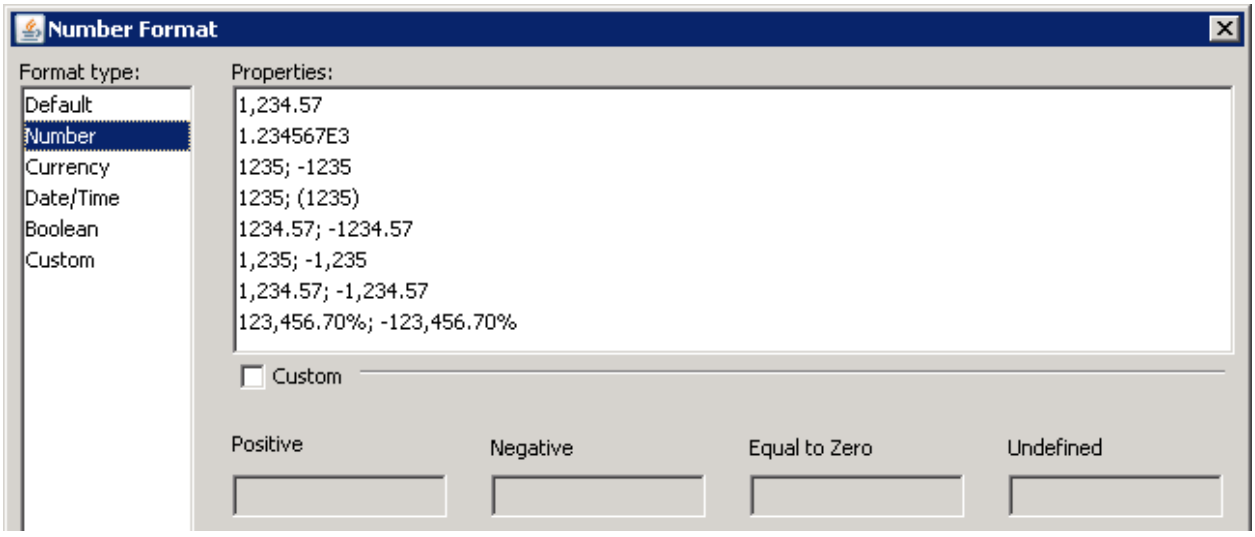
ODS and WIP predefined reports Dates are formatted in a standard `DATE_TIME` format as highlighted below. The following figure also shows the other predefined formatting possibilities for the Date/Time.



Predefined Number Formatting

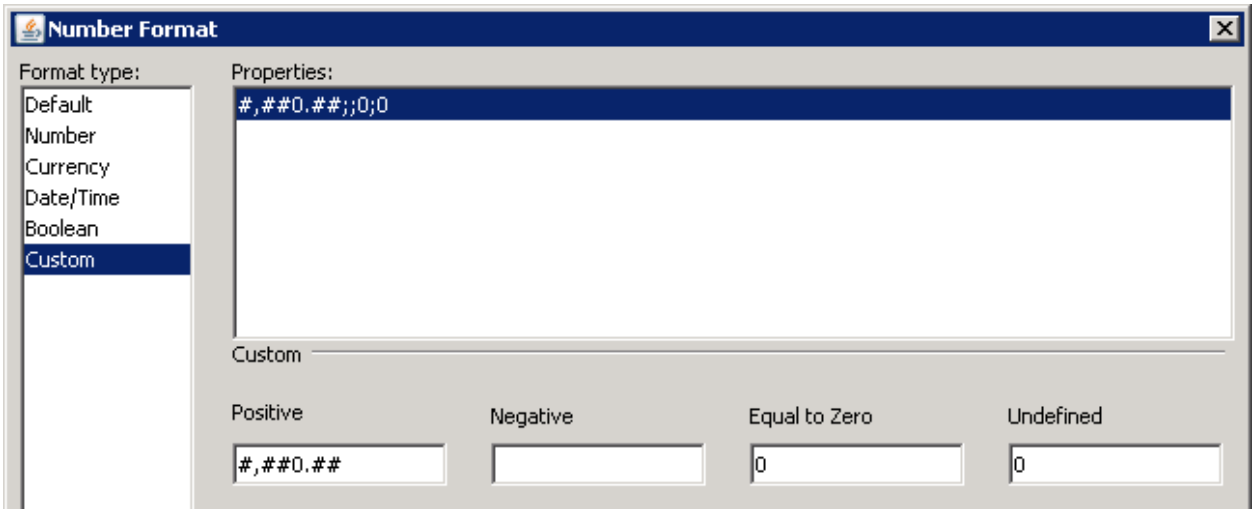
ODS and WIP predefined reports numbers are formatted with 2 digits after decimal sign in a standard en_US format.

The following figure shows the predefined formatting possibilities for the numbers.



Custom Formats

You can use the Custom format type to define a customized format for any cell. The following figure is an example of custom formatting possibilities for the numbers.



The following table lists the strings you can use to create custom formats:

Character(s)	Display(s)	Example
#	The corresponding digit. If the number has fewer digits than the number of # characters used to specify the format, no leading zeros are inserted.	'12345' with the format #,##0 gives '12,345' (if your locale defines the grouping separator as a comma) or '12 345' (if your locale defines the grouping separator as a space)
0	The corresponding digit. If the number has fewer digits than the number of 0 characters used to specify the format, a leading zero(s) is inserted before the number.	'123' with the format #0,000 gives '0,123'
,	The grouping separator as defined by your locale.	'1234567' with the format #,##0 gives '1,234,567' (if your locale defines the grouping separator as a comma) or '1 234 567' (if your locale defines the grouping separator as a nonbreaking space)
.	The decimal separator as defined by your locale.	'12.34' with the format #.#0 gives 12.34' (if your locale defines the decimal separator as a period) or '12,34' (if your locale defines the decimal separator as a comma)
[%]%	Displays a percentage sign (%) after the result and multiplies the result by 100.	
%	The % signs after the result, but does not multiply the result by 100.	

4 Glossary

C

Category (SAP ME)

Grouping that allows you to define the type of a defect, for example, whether the defect is an assembly, component, placement, or termination defect). The description of each DPMO category and standard methodologies SAP ME uses to calculate DPMO are given in the following table.

DPMO category	Calculation
Assembly	Assembly DPMO is the number of assembly defects divided by the number of assembly opportunities (number of assemblies processed) multiplied by 1,000,000.
Component	Component DPMO is the number of component defects divided by the number of component opportunities multiplied by 1,000,000.
Placement	Placement DPMO is the number of placement defects divided by the number of placement opportunities multiplied by 1,000,000. Applicable for only those processes where components are placed.
Termination	Termination DPMO is the number of termination defects divided by the number of termination opportunities multiplied by 1,000,000. Applicable only for those processes where terminations are soldered.

Class (SAP BusinessObjects)

A class is a logical grouping of objects within a universe. It represents a category of objects. The name of a class should indicate the category of the objects that it contains. A class can be divided hierarchically into subclasses.

Cost Center (SAP ME)

A code used to group users for the purpose of both reporting and supervising. Supervisors and employees are assigned to a cost center for the purpose of tracking their time.

Central Management Server (CMS (SAP BusinessObjects))

The Central Management Server (CMS) maintains a database of information about your BusinessObjects Enterprise system. It is known as the CMS database. All the platform services are managed and controlled by the CMS. The CMS also manages access to the system file store where the physical documents are managed.

Component (SAP ME)

A raw material, part, or subassembly that goes into a higher-level assembly.

D

Defect Count (SAP ME)

The total number of defects logged against the material at a specific operation within a specific DPMO category.

Defect Opportunities (SAP ME)

The total number of components or connections that had the possibility of being defective at a specific operation within a specific DPMO category.

Defect Rate (SAP ME)

The number of defects divided by the number of pieces processed and multiplied by 100.

Direct Labor Time (SAP ME)

The time users spend creating a product. Most companies classify the codes for rework and assembly tasks as direct labor.

DPMO (Defects per Million Opportunities) (SAP ME)

The total number of defects divided by the total number of opportunities for a defect multiplied by 1,000,000. DPMO data in SAP ME is predefined based upon a standard set of NC codes that can be included when SAP ME is installed. DPMO is rounded to a whole number.

E

Estimation Yield (SAP ME)

The expected percentage of assemblies with no defects for a particular process step or a combination of process steps (routing steps), based on historical defect rates.

F

Failure ID (SAP ME)

A code returned from an automated tester or operator indicating a symptom of the failure.

I

Indirect Labor Time (SAP ME)

The time users spend idle or performing tasks not directly associated with production of a product, such as idle, lunch, and meeting.

Incident Number (SAP ME)

A number to identify a nonconformance issue uniquely.

L

LCC (Labor Charge Code) (SAP ME)

A code used to describe a specific type of labor a user performs on the shop floor. LCC are classified as either direct or indirect.

M

Material (SAP ME)

A component or higher-level assembly worked or consumed on your shop floor.

N

Nonconformance (SAP ME)

The ability to label, handle, and track failures, dispositions, and corrective actions within SAP ME. The Nonconformance feature allows operators and machines to use nonconformance (NC) codes to mark SFC numbers as failing to conform to some standard or test.

NC quantity (SAP ME)

The quantity of NC codes logged for the component at the site specified while logging into SAP ME.

NC Category (SAP ME)

The category for an NC Code. Default values are FAILURE, DEFECT, or REPAIR. However, they can be customized in a resource bundle but are only used for reporting purposes.

NC Code (SAP ME)

An alphanumeric designator that indicates that an SFC number is considered nonconforming possibly indicates why it is nonconforming and what should be done with it.

O

Object (SAP BusinessObjects)

An object is a named component that maps to data or a derivation of data in the database. The name of an object should be drawn from the business vocabulary of the targeted user group.

Operation (SAP ME)

An operation at which operators can log a defect NC code with the DPMO category for a material.

P

Pass Number (SAP ME)

The number of times SFC number has been processed through an operation.

Pieces Processed (SAP ME)

The quantity of the SFC number that is defective at a specific operation within a specific

DPMO category.

Q

QTY (SAP ME)

The quantity of NC codes logged for a specific component at a specific site.

R

Reference Designator (SAP ME)

The physical location of a component on a printed circuit board. Reference designators specify where operators or machines must load components onto assemblies. For example, reference designators can tell an operator that you want the same component, such as a specific resistor model, loaded in four different places on a specific board. Reference designators are short combinations of letters and numbers, such as P2, VR1, D4, V1, and C5. These designators are printed directly on the circuit board.

S

SFC Number (SAP ME)

A unique identifier of a material. It can be generated by SAP ME or by the user. The SFC number is used for monitoring and tracking materials within the manufacturing process.

Shop Order (SAP ME)

An order authorizing the production of a specified material in specified quantities. Each shop order is identified by a unique shop order number. When shop orders are released to the shop floor, SAP ME assigns a unique SFC number to each material in the shop order.

U

User Shift (SAP ME)

A logic interval of time associated with a user’s attendance on the shop floor. User shifts are connected to users and are used for controlling User ETC (Electronic Time Card is time associated with this user) activity, reporting, clocking in, and out.

V

Version (SAP ME)

A particular version or configuration of a material, routing, or other entity.

Y

Yield (SAP ME)

The number of materials or the amount of product that is produced on the shop floor. The ratio of acceptable units produced, compared to the number of units started, at an operation. A planned yield is the scheduled yield. An actual yield is the yield actually produced on the shop floor.