ADMINISTRATION GUIDE | PUBLIC
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SAP Merchandise Planning 4.0 FPS01 Administration Guide

THE BEST RUN **SAP**

Content

1 SAP Merchandise Planning

1.1 Naming Conventions

Throughout this document the following naming conventions apply.

Definitions

The following terms are used consistently in the processes and procedures described in this guide:

Term	Definition
back-end system	The SAP NetWeaver-based back-end server on which SAP Customer Activity Repository and its consuming applications (such as SAP Merchandise Planning, SAP Assortment Planning, and SAP Promotion Management) are installed.
Common Installation Guide	Common Installation Guide for CARAB You can find this guide at http://help.sap.com/viewer/p/CARAB �'' <your version> ▶ *Installation and Upgrade* ▶ *Common Installation Guide CARAB* ▶.
Common Upgrade Guide	Common Upgrade Guide for CARAB You can find this guide at http://help.sap.com/viewer/p/CARAB �'' <your version> ▶ *Installation and Upgrade* ▶ *Common Upgrade Guide CARAB* ▶.

Naming Differences

Due to naming differences between the underlying technical objects of the components, the names of the following business objects are used interchangeably in this document:

SAP Customer Activity Repository	Demand Data Foundation (DDF) with Unified Demand Forecast (UDF)	SAP Promotion Management	SAP Assortment Planning	SAP Merchandise Planning	SAP ERP
article	product location (specific product in a specific location)	product	product	product	article material
article variant	product variant	product variant	product variant	product variant	article variant
store	location	location	location	location	store site

1.2   Getting Started

About this Document

This document is a single source of information for the implementation of SAP Merchandise Planning and is divided into the following main sections:

- Introduction with references to related documents and relevant SAP notes
- Security Information
- Operation Information
- Business Overview
- Configuration Information

> **i Note**
>
> If you are reading from a .pdf file, you can find the most current version of this document at http://
> help.sap.com/viewer/p/CARAB   *<your release>* ⟩ *Administration* ⟩ *SAP Merchandise Planning*
> *Administration Guide* .
>
> We strongly recommend that you use the document available there. The guide will be updated according to updates of the software.

Installation and Configuration

For information on planning and installation, http://help.sap.com/viewer/p/CARAB ➥ ❘▶ *<your release>* ❯ *Installation and Upgrade* ❯ *Common Installation Guide* ❳ .

For information on upgrades, see the ❘▶ *Follow-Up Activities* ❯ *Merchandise Planning for Retail* ❳ section at http://help.sap.com/viewer/p/CARAB ➥ ❘▶ *<your release>* ❯ *Installation and Upgrade* ❯ *Common Upgrade Guide* ❳ .

Related Information

For more information about implementation topics not covered in this guide, see the following:

Content	Location on SAP Help Portal
Sizing, calculation of hardware requirements - such as CPU, disk and memory resource - with the Quick Sizer tool	https://www.sap.com/about/benchmark/sizing.html ➥
Released platforms and technology-related topics such as maintenance strategies and language support	https://support.sap.com/en/release-upgrade-maintenance.html ➥
High Availability	http://www.sdn.sap.com/irj/sdn/ha ➥
Performance	https://www.sap.com/about/benchmark/sizing/performance.html ➥
Information about Support Package Stacks, latest software versions and patch level requirements	https://support.sap.com/en/my-support/software-downloads/support-package-stacks.html ➥
Information about Unicode technology	http://www.sdn.sap.com/irj/sdn/i18n ➥

Further Useful Links

The following table lists further useful links on SAP Help Portal: https://support.sap.com/en/index.html ➥

Content	Location on SAP Help Portal
Information about incident reporting/error messages	https://help.sap.com/viewer/get-support
SAP Notes search	http://support.sap.com/notes
SAP Software Distribution Center (software download and ordering of software)	http://support.sap.com/swdc
SAP Online Knowledge Products - role-specific learning maps	https://support.sap.com/esa

2 Security Information

2.1 Why is Security Important?

With the increasing use of distributed systems and the Internet for managing business data, the demands on security are also on the rise. When using a distributed system, you need to be sure that your data and processes support your business needs without allowing unauthorized access to critical information. User errors, negligence, or attempted manipulation of your system should not result in loss of information or processing time. These demands on security apply likewise to SAP Merchandise Planning. To assist you in securing SAP Merchandise Planning, we provide this security information.

Fundamental Security Guides

SAP Merchandise Planning is an add-on to SAP Customer Activity Repository. Therefore, the corresponding security information also applies to SAP Merchandise Planning. The most relevant sections or specific restrictions are indicated in the table below:

Fundamental Security Guides

Scenario, Application or Component Security Guide	Most Relevant Sections or Specific Restrictions
SAP Customer Activity Repository Security Guide	http://help.sap.com ⏎ *Customer Relationship Mgmt* ⏎ *SAP Customer Activity Repository* ⏎ *Security Information* ⏎
SAP NetWeaver Application Server ABAP Security Guide	http://help.sap.com/nw75 *Security Information* ⏎ *Security Guide* ⏎ *Security Guides for SAP NetWeaver Functional Units* ⏎ *Security Guides for the Application Server* ⏎ *Security Guides for AS ABAP* ⏎ *SAP NetWeaver Application Server ABAP Security Guide* ⏎
SAP HANA Security Guide	http://help.sap.com/hana/ ⏎ *SAP HANA Platform Core* ⏎ *Security* ⏎ *SAP HANA Security Guide* ⏎
SAP NetWeaver 7.4 Security Guide	http://help.sap.com/nw75 *Security Information* ⏎ *Security Guide* ⏎
SAP ERP 6.0 EHP 5 Security Guide	http://help.sap.com/erp/ ⏎ *Security Information* ⏎ *Security Guide* ⏎ *SAP ERP Central Component Security Guide* ⏎

Scenario, Application or Component Security Guide	Most Relevant Sections or Specific Restrictions
Portal Security Guide	http://help.sap.com/nw75 ▶ *Security Information* ▶ *Security Guide* ▶ *Security Guides for SAP NetWeaver Functional Units* ▶ *Security Guides for Enterprise Portal (EP) and EP Core - Application Portal (EPC)* ▶ *Portal Security Guide* ▶
SAP Gateway Security Guide	http://help.sap.com/nwgateway
SAP BusinessObjects Analysis, edition for Microsoft Office 2.3 SP3	http://help.sap.com/viewer/p/SAP_BUSINESSOB-JECTS_ANALYSIS_OFFICE ▶ *SAP BusinessObjects Analysis, edition for Microsoft Office* ▶ *Installation, Configuration, Security and Administration* ▶ *Administrator's Guide* ▶

Important SAP Notes

The most important SAP Notes that apply to the security of SAP Merchandise Planning are shown in the following table:

Title	SAP Note Number	Comment
SAP HANA 1.0: Security	https://launchpad.support.sap.com/#/notes/159623	Contains information and links to other notes related to the secure operation of SAP HANA
Authorization Check for Function Modules in SAP Customer Activity Repository and SAP POS DM	https://launchpad.support.sap.com/#/notes/1940161	Contains information about authorization objects required to support integration scenarios involving systems connected to SAP Customer Activity Repository using RFC connections.

2.2 Security Aspects of Data, Data Flow and Processes

The figure below describes an overview of the data flow for SAP Merchandise Planning for Retail.
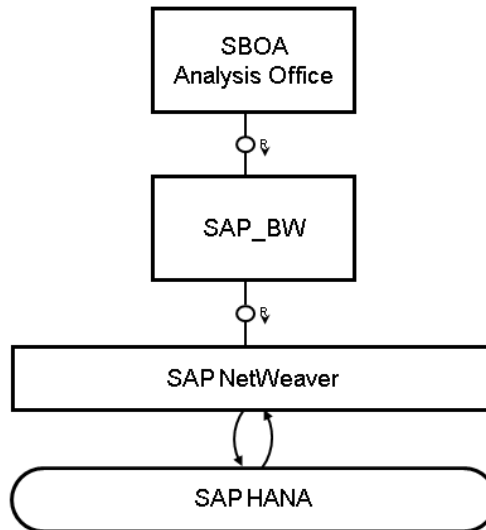
For more information about the technical system landscape, see the *Common Installation Guide*.

The table below shows the security aspect to be considered for the process step and what mechanism applies.

Step	Description	Security Measure
Connect the Application server to the SAP HANA database.	The application server connects to the SAP HANA database via a trusted RFC and gets the required information. This is created as part of the installation and system setup.	- Definition and implementation - Application customizing - RFC setup for trusted GW SSO - SAP XXX (SAP server) user default

2.3   User Administration and Authentication

User Management

User management for SAP Merchandise Planning uses the mechanisms provided with the SAP NetWeaver Application Server ABAP, for examples, user types, and password policies. For an overview of how these mechanisms apply for SAP Merchandise Planning for Retail, see the sections below.

The SAP HANA Content for SAP Merchandise Planning uses the user management and authentication mechanisms provided with the SAP HANA Platform. Therefore, the security recommendations and guidelines for user administration and authentication as described in the *Security* section of the *SAP HANA Administration Guide* also apply.

Similarly, other components of the technical system landscape for SAP Merchandise Planning for Retail, such as SAP ERP Central Component (ECC) and/or SAP NetWeaver Process Integration (PI), also use the mechanisms provided with the SAP NetWeaver AS ABAP. For an overview of how these mechanisms apply for SAP Merchandise Planning, see the sections below.

User Administration Tools

The table below shows the tools to use for user management and user administration with SAP Merchandise Planning.

Tool	Detailed Description	Prerequisites
User and role maintenance with SAP NetWeaver AS ABAP (Transactions SU01, PFCG)	For more information see: • *AS ABAP Authorization Concept* in the *SAP NetWeaver Application Server ABAP Security Guide* • SAP Library for SAP NetWeaver on SAP Help Portal at http://help.sap.com/nw75 Under Application Help, choose ▌ *Function-Oriented View* ❯ *Solution Life Cycle Management* ❯ *Security and User Administration* ❯	The SAP NetWeaver Application Server is running.

User Types

It is often necessary to specify different security policies for different types of users. For example, your policy may specify that individual users who perform tasks interactively have to change their passwords on a regular basis, but not those users under which background processing jobs run. The user types that are required for SAP Merchandise Planning:

• Individual Users:
   ○ Dialog users are used for interactive system access, such as SAP GUI for Windows or RFC connections.
   ○ Internet users are used for internet connections.
   ○ Named users are required for all Business Intelligence clients like SAP BusinessObjects BI Suite UIs.
• Technical users:
   ○ Communication users are used for dialog-free communication through RFC calls.
   ○ Background users are used for background processing and communication within the system, such as, running scheduled inbound or outbound dispatcher jobs.

For more information about these user types, see *User Types* in the *SAP NetWeaver AS ABAP Security Guide*.

Standard Users

SAP Merchandise Planning does not require specialized standard users. The POS Data Management component of SAP Merchandise Planning indirectly uses SAP NetWeaver standard users.

For information about SAP NetWeaver standard users, see *Protecting Standard Users* in the *SAP NetWeaver Application Server ABAP Security Guide*.

> → Recommendation
>
> We recommend changing the user IDs and passwords for users that are automatically created during installation.

User Data Synchronization

The application does not deliver additional user data synchronization related features in addition to those available in the SAP NetWeaver platform. It also does not impose any special needs or restrictions, which would limit the usage of related NetWeaver tools.

> i Note
>
> For any scenarios where system inter-connectedness at the user level is a requirement, it is mandatory that the same users exist throughout all the pertinent connected systems in the landscape.

Integration into Single Sign-On Environments

SAP Merchandise Planning supports the Single Sign-On (SSO) mechanisms provided by SAP NetWeaver AS ABAP. Therefore the security recommendations and guidelines for user administration and authentication as described in the *SAP NetWeaver Security Guide* also apply to SAP Merchandise Planning.

For more information about the available authentication mechanisms, see *User Authentication and Single Sign-On* in the *SAP NetWeaver Library*.

2.4   Authorizations

SAP Merchandise Planning uses the authorization concept provided by SAP NetWeaver AS ABAP. Therefore, the recommendations and guidelines for authorization as described in the SAP NetWeaver AS Security Guide ABAP also apply to SAP Merchandise Planning.

The SAP NetWeaver authorization concept is based on assigning authorizations to users based on roles. For role maintenance, use the profile generator (transaction `PFCG`) on the AS ABAP.

> i Note
>
> For more information about how to create roles, see *Role Administration* in the *SAP Netweaver Library*

Role and Authorization Concept for SAP Merchandise Planning

Standard Roles

The SAP Merchandise Planning application requires a layered system landscape. As an assortment planner or planning administrator, you must have the necessary users, roles and authorizations in all of the layers of the SAP Merchandise Planning application.

- **Back-end server**
  To access the relevant Customizing activities and use core SAP Merchandise Planning application functionality, you must have a user on the ABAP back-end server.
- **SAP HANA Database**
  To allow the SAP Merchandise Planning application to access SAP HANA views and procedures, which provide access to data and functionality directly on the database level, you must have a user on the database level.
  SAP HANA has implemented the regular SQL authorization concept based on privileges. For information, see http://help.sap.com/hana ➤ ▶ *SAP HANA Platform Core* ❯ *Security* ❯ *SAP HANA Security Guide* ❯

Standard Roles

Role	Description
`/RAP/BW_MPR_WORKBOOKS`	Grants access to the following SAP Merchandise Planning workbooks that are based on SAP BusinessObjects Analysis, edition for Microsoft Office. • 1.1 Regional Monthly Plan • 1.2 Regional Seasonal Plan • 1.3 Regional Seasonal Plan • 2.1 Retail Monthly Plan • 3.1 Wholesale Monthly Plan • 4.1 Ecommerce Monthly Plan • 5.1 OTB & OTS Reconciliation

Role	Description
SAP Customer Activity Repository co-deployed with SAP ERP	Directly from the SAP ERP database schema (SAP_ECC) on the SAP HANA database
SAP Customer Activity Repository standalone	From tables replicated to a dedicated SAP Customer Activity Repository schema from the source SAP ERP system

Verify Users and Roles

Procedure

1. Ensure that the user name of each individual assortment planner or planning administrator on the SAP HANA database level and back-end system is identical.
2. Ensure the required user settings on the SAP HANA database level:
   - Each SAP BW/HANA user at least needs following set of privileges:
     - Privilege `SELECT` on schema `_SYS_BI`

- Privilege `SELECT` on schema `SAP<SID>`
- Privilege `EXECUTE` on procedure `REPOSITORY_REST`
- Privilege `REPO.READ` on package `bw2hana/SAP<SID>_/RAP/<Infocube>_REPORTING`
  The corresponding privileges will be created automatically when activating BI Content.
  - Each SAP user should also have the following set of privileges
    - System privilege `ROLE ADMIN`
    - System privilege
    - `STRUCTUREDPRIVILEGE ADMIN`
    - Role `CONTENT_ADMIN`
    - Role `USER`
    - Privilege `EXECUTE` on procedure `TRUNCATE_PROCEDURE_OBJECTS`
    - Privilege `EXECUTE` on procedure `GET_PROCEDURE_OBJECTS`
    - *Session Client* of each user has to be set to the correct back-end system client.
      1. Log on to SAP HANA studio
      2. Open the *Modeler* perspective and use the *Navigator* to access your retail application bundle system.
      3. Under *Security*, select a user.
      4. Set the *Session Client* to the client number.
         This step is necessary for the SAP Merchandise Planning framework as the SAP Analysis for Microsoft Office workbooks obtain data from SAP HANA views.
    - Repeat these steps for all users of the back-end system.
3. Ensure that the planner has all necessary roles and authorization objects assigned to their user on the back-end server:
   1. Log on to the back-end server.
   2. Open *User Management* (transaction `SU01`)
   3. Enter the name of the user and select *Change.*
   4. On the *Roles* tab, verify that the following roles are assigned to the user:
      - `SAP_ISR_DDF_MASTER`
      - `/RAP/BW_MPR_WORKBOOKS`
   5. Set the SAP HANA User Mapping to C in transaction `RS2HANA_VIEW`.
   6. If required, enable tracing for the user with transaction `SU3`. On the Parameters tab, set the `RSPLS_HDB_PE_TRACE` parameter to value Y

2.5   Session Security Protections

To increase security and prevent access to the SAP logon ticket and security session cookie(s), we recommend activating secure session management. We also highly recommend using SSL to protect the network communications where these security-relevant cookies are transferred.

2.6   ABAP Server Session Security

For the ABAP front-end server, you must activate HTTP security session management by using the transaction `SICF_SESSIONS`. When you activate HTTP security session management, we recommend you activate the following extra protection for security-related cookies:

- `HttpOnly`
  This attribute instructs the browser to deny access to the cookie through client side script. As a result, even if a cross-site scripting (XSS) flaw exists and a user accidentally accesses a link that exploits this flaw, the browser will not reveal the cookie to a third party.
- `Secure`
  This attribute instructs the browser to send the cookie only if the request is being sent over a secure channel such as HTTPS. This helps protect the cookie from being passed over unencrypted requests.

> → Recommendation
>
> It is recommended that you configure the HTTP session expiration with a reasonable timeout of between 10 minutes to 1 hour. To configure this, you use the profile parameter `http/security_session_timeout`.

2.7   Network and Communication Security

Your network infrastructure is extremely important in protecting your system. Your network needs to support the communication necessary for your business needs without allowing unauthorized access. A well-defined network topology can eliminate many security threats based on software flaws (at both the operating system level and application level) or network attacks such as eavesdropping. If users cannot log on to your application or database servers at the operating system or database layer, then there is no way for intruders to compromise the machines and gain access to the backend system's database or files. Additionally, if users are not able to connect to the server LAN (local area network), they cannot exploit well-known bugs and security holes in network services on the server machines.

The network topology for SAP Merchandise Planning for Retail is based on the topology used by the SAP NetWeaver platform. Therefore, the security guidelines and recommendations described in the SAP NetWeaver Security Guide also apply to SAP Merchandise Planning for Retail. Details that specifically apply to SAP Merchandise Planning for Retail are described in the following topics:

- Communication Channel Security
  This topic describes the communication paths and protocols used by the application.
- Network Security
  This topic describes the recommended network topology for the application. It shows the appropriate network segments for the various client and server components and where to use firewalls for access protection. It also includes a list of the ports needed to operate the application.
- Communication Destinations
  This topic describes the information needed for the various communication paths, for example, which users are used for which communications.

Communication Channel Security

The table below shows the communication paths used by SAP Merchandise Planning fro Retail, the protocol used for the connection, and the type of data transferred.

Communication Path	Protocol Used	Type of Data Transferred	Data Requiring Special Protection
Application Server to application server	RFC	Application data	System information, personal data and transactional data

DIAG and RFC connections can be protected using Secure Network Communications (SNC). HTTP connections are protected using the Secure Sockets Layer (SSL) protocol. SOAP connections are protected with Web services security.

> → Recommendation
>
> We strongly recommend using secure protocols (SSL, SNC) whenever possible.

For more information, see *Transport Layer Security* and *Web Services Security* in the *SAP NetWeaver Security Guide*.

Network Security

The network topology for SAP Merchandise Planning for Retail is based on the topology used by the SAP NetWeaver platform. Therefore, refer to the following documentation for information on network security:

- SAP NetWeaver 7.50
- SAP Supply Chain Management Security Guide
- SAP Supplier Relationship Management Security Guide
- SAP Customer Activity Repository Security Guide

Ports

SAP Merchandise Planning for Retail runs on SAP NetWeaver and uses the ports from the AS ABAP. For more information, see the topics for *AS ABAP Ports* in the corresponding *SAP NetWeaver Application Server ABAP Security Guide* . For other components, for example, SAPinst, SAProuter, or the SAP Web Dispatcher, see also the document *TCP/IP Ports Used by SAP Applications*, which is located on SAP Community Network (SCN) at

http://scn.sap.com/community/security ➤ *Infrastructure Security* ❯ *Network and Communication Security* ❯

Communication Destinations

The table below shows an overview of the communication destinations used by SAP Merchandise Planning for Retail:

Destination	Type	User, Authorizations	Description
SAP ERP Retail	Trusted RFC Connection	Standard RFC user configuration	Connecting SAP ERP System for DRFOUT, SLT and creating Assortments

2.8 Data Storage Security

SAP Merchandise Planning for Retail saves data in the SAP HANA database of the SAP system. It relies on the underlying security features available in HANA for data protection.

2.9 Data Protection and Privacy

2.9.1 Introduction

Data protection is associated with numerous legal requirements and privacy concerns. In addition to compliance with general data protection and privacy acts, it is necessary to consider compliance with industry-specific legislation in different countries. SAP provides specific features and functions to support compliance with regard to relevant legal requirements, including data protection. SAP does not give any advice on whether these features and functions are the best method to support company, industry, regional, or country-specific requirements. Furthermore, this information should not be taken as advice or a recommendation regarding additional features that would be required in specific IT environments. Decisions related to data protection must be made on a case-by-case basis, taking into consideration the given system landscape and the applicable legal requirements.

> i Note
>
> SAP does not provide legal advice in any form. SAP software supports data protection compliance by providing security features and specific data protection-relevant functions, such as simplified blocking and deletion of personal data. In many cases, compliance with applicable data protection and privacy laws will

not be covered by a product feature. Definitions and other terms used in this document are not taken from a particular legal source.

> ⚠ Caution
>
> The extent to which data protection is supported by technical means depends on secure system operation. Network security, security note implementation, adequate logging of system changes, and appropriate usage of the system are the basic technical requirements for compliance with data privacy legislation and other legislation.

Generic Fields

You need to make sure that no personal data enters the system in an uncontrolled or non-purpose related way, for example, in free-text fields, through APIs, or customer extensions. Note that these are not subject to the read access logging (RAL) example configuration.

SAP Merchandise Planning

Data protection and privacy (DPP) related functionality has been implemented in the Demand Data Foundation (DDF) module in SAP Customer Activity Repository. DDF includes a reusable data layer that supports the planning, analysis, and forecasting required by different business processes. DDF acts as a liaison between the consuming application installed on top of SAP Customer Activity Repository and the modules within the repository that provide these business processes.

Details about DPP implementation in DDF are available in the *Customer Activity Repository Administration Guide*. See https://help.sap.com/viewer/p/CARAB ▶ *<Version>* ▶ *SAP Customer Activity Repository* ▶ *Administration Guide* ▶ *Security Information* ▶ *Data Protection and Privacy* ▶. Topics specific to DDF:

- Reporting or displaying personal data stored: *Information Report*.
- Simplified blocking of personal data: *Deletion of Personal Data* section *Expected Behavior Within Demand Data Foundation (DDF)*.

Parent topic: Data Protection and Privacy [page 17]

Related Information

Glossary [page 19]

2.9.2 Glossary

The following terms are general to SAP products. Not all terms may be relevant for this SAP product.

Term	Definition
Blocking	A method of restricting access to data for which the primary business purpose has ended.
Business Purpose	The legal, contractual, or in other form justified reason for the processing of personal data to complete an end-to-end business process. The personal data used to complete the process is predefined in a purpose, which is defined by the data controller. The process must be defined before the personal data required to fulfill the purpose can be determined.
Consent	The action of the data subject confirming that the usage of his or her personal data shall be allowed for a given purpose. A consent functionality allows the storage of a consent record in relation to a specific purpose and shows if a data subject has granted, withdrawn, or denied consent.
Data Subject	Any information relating to an identified or identifiable natural person ("data subject"). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier, or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Deletion	Deletion of **personal data** so that the data is no longer available.
End of business	Defines the end of active business and the start of residence time and retention period.
End of Purpose (EoP)	The point in time when the processing of a set of personal data is no longer required for the primary business purpose, for example, when a contract is fulfilled. After the EoP has been reached, the data is blocked and can only be accessed by users with special authorizations (for example, tax auditors).
End of Purpose (EoP) check	A method of identifying the point in time for a data set when the processing of **personal data** is no longer required for the primary **business purpose**. After the **EoP** has been reached, the data is **blocked** and can only be accessed by users with special authorization, for example, tax auditors.

Term	Definition
Personal Data	Any information relating to an identified or identifiable natural person ("data subject"). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier, or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Purpose	The information that specifies the reason and the goal for the processing of a specific set of personal data. As a rule, the purpose references the relevant legal basis for the processing of personal data.
Residence Period	The period of time between the end of business and the end of purpose (EoP) for a data set during which the data remains in the database and can be used in case of subsequent processes related to the original purpose. At the end of the longest configured residence period, the data is blocked or deleted. The residence period is part of the overall retention period.
Retention Period	The period of time between the end of the last business activity involving a specific object (for example, a business partner) and the deletion of the corresponding data, subject to applicable laws. The retention period is a combination of the residence period and the blocking period.
Sensitive Personal Data	A category of personal data that usually includes the following type of information: • Special categories of personal data, such as data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, genetic data, biometric data, data concerning health or sex life or sexual orientation. • Personal data subject to professional secrecy • Personal data relating to criminal or administrative offenses • Personal data concerning insurances and bank or credit card accounts

Term	Definition
Technical and Organizational Measures (TOM)	Some basic requirements that support data protection and privacy are often referred to as technical and organizational measures (TOM). The following topics are related to data protection and privacy and require appropriate TOMs, for example: • **Access control** Authentication features • **Authorizations** Authorization concept • **Read access logging** • **Transmission control/communication security** • **Input control/change logging** • **Availability control** • **Separation by purpose** Subject to the organizational model implemented and must be applied as part of the authorization concept.

Parent topic: Data Protection and Privacy [page 17]

Related Information

Introduction [page 17]

2.10 Security-Relevant Logging and Tracing

SAP Merchandise Planning for Retail does not provide additional security logging and tracing above those available within SAP NetWeaver. For more information on:

- Logging and Tracing for ABAP, see http://help.sap.com ▶ *SAP NetWeaver Library* ▶ *Administrator's Guide* ▶ *SAP NetWeaver Security Guide* ▶ *Security Aspects for System Management* ▶ *Auditing and Logging* .
- Logging and Tracing for NetWeaver Business Client, see http://help.sap.com ▶ *SAP NetWeaver Library -> Administrator's Guide* ▶ *SAP NetWeaver Security Guide* ▶ *Security Guides for SAP NetWeaver According to Usage Types* ▶ *Security Guides for Usage Types EPC and EP -> Portal Security Guide* ▶ *Logging and Tracing* ▶ *Identity Mangement* ▶ *User Management of the Application Server Java* ▶ *Troubleshooting* ▶ *Logging and Tracing.* .
- Logging and Tracing for customizing changes, use the `SCU3` transaction to activate the logging of changes to the table data.

2.11 Services for Security Lifecycle Management

The following services are available from Active Global Support to assist you in maintaining security in your SAP systems on an ongoing basis.

Security Chapter in the EarlyWatch Alert (EWA) Report

This service regularly monitors the Security chapter in the EarlyWatch Alert report of your system. It tells you:

- Whether SAP Security Notes have been identified as missing on your system.
  In this case, analyze and implement the identified SAP Notes if possible. If you cannot implement the SAP Notes, the report should be able to help you decide on how to handle the individual cases.
- Whether an accumulation of critical basis authorizations has been identified.
  In this case, verify whether the accumulation of critical basis authorizations is okay for your system. If not, correct the situation. If you consider the situation okay, you should still check for any significant changes compared to former EWA reports.
- Whether standard users with default passwords have been identified on your system.
  In this case, change the corresponding passwords to non-default values.

Security Optimization Service (SOS)

The Security Optimization Service can be used for a more thorough security analysis of your system, including:

- Critical authorizations in detail
- Security-relevant configuration parameters
- Critical users
- Missing security patches

This service is available as a self-service within SAP Solution Manager, as a remote service, or as an on-site service. We recommend you use it regularly (for example, once a year) and in particular after significant system changes or in preparation for a system audit.

Security Configuration Validation

The Security Configuration Validation can be used to continuously monitor a system landscape for compliance with predefined settings, for example, from your company-specific SAP Security Policy. This primarily covers configuration parameters, but it also covers critical security properties like the existence of a non-trivial Gateway configuration or making sure standard users do not have default passwords.

Security in the RunSAP Methodology / Secure Operations Standard

With the E2E Solution Operations Standard Security service, a best practice recommendation is available on how to operate SAP systems and landscapes in a secure manner. It guides you through the most important security operation areas and links to detailed security information from SAP's knowledge base wherever appropriate.

3 Operation Information

3.1 Monitoring

Monitoring is an essential task in managing SAP Technology. Monitoring allows you to detect any irregularities or deviations from the ideal business process flow. It also allows you to detect error situations concerning core business processes at an early stage. SAP Merchandise Planning uses frameworks developed in Demand Data Foundation (DDF) for its monitoring purposes as most of the master data and transaction data comes from DDF.

SAP Merchandise Planning does not have any specific monitoring implemented unless specified in this guide. Demand Data Foundation (DDF) internally uses the SAP NetWeaver standard functionality for monitoring. For more information about this functionality, see the Operation Guides for SAP NetWeaver at http://help.sap.com/nw75 *Operations*.

Alert Monitoring

SAP provides you with the infrastructure and recommendations to set up your alert monitor in such a way that critical situations are identified as quickly as possible.

Component-Specific Monitoring

Specific CCMS monitoring for SAP Merchandise Planning is not available.

Detailed Monitoring

SAP Merchandise Planning uses standard SAP BW logging and tracing utilities such as transaction code `RSRT`.

SAP HANA Monitoring

SAP Merchandise Planning uses standard SAP HANA Monitoring tools for monitoring SAP HANA. For more information, see the *SAP HANA Administration Guide* at http://help.sap.com/hana_platform *System Administration*.

SAP Business Warehouse Monitoring

SAP Merchandise Planning has its own, local BI Content. SAP Assortment Planning BI Content uses standard SAP Business Warehouse (SAP BW) Monitoring tools. You can execute the following tasks to monitor SAP BW processes and the status of local BI Content objects for SAP Merchandise Planning:

- Monitoring in the SAP BW Administration Cockpit
  - Monitor the performance of SAP BW processes
  - Monitor the status of SAP BW processes and requests
  - Display the SAP BW usage statistics
  - Monitor the database load
- Monitor SAP BW log files
- Display and evaluate SAP BW logs in the application log
- Manage InfoProviders
- Analyze statistical data for SAP BW

For more information about monitoring SAP BW for SAP NetWeaver 7.50, see SAP Library for SAP Gateway on SAP Help Portal at http://help.sap.com/nw75 *Application Help* *Function-Oriented View* *SAP Business Warehouse* *Administration of SAP Business Warehouse* *Administrative Tasks for Enterprise Data Warehouse* *Tasks performed regularly*.

SAP BusinessObjects Analysis, edition for Microsoft Office Monitoring

SAP Merchandise Planning uses the standard monitoring functionality of SAP BusinessObjects Analysis, edition for Microsoft Office Monitoring. SAP BusinessObjects Analysis provides log files and traces. For more information, see the *Administrator Guide: SAP BusinessObjects Analysis, edition for Microsoft Office* at http://help.sap.com/boaa.

Data Consistency

SAP Merchandise Planning provides no specific functionality to ensure data consistency but uses the infrastructure of SAP Customer Activity Repository.

3.2   Management

SAP provides you with an infrastructure to help your technical support consultants and system administrators effectively manage all SAP components and complete all tasks related to technical administration and operation.

Starting and Stopping

Start and Stop Sequences and Tools

Action and Component	Sequence	Tool	Detailed Description
Start SAP HANA database	1	`sapstartsrv`	See the information about starting and stopping SAP HANA systems in the SAP HANA Administration Guide.
Start SAP Systems and Instances	2	`STARTSAP`(for UNIX)	See the information about starting and stopping SAP Systems based on SAP NetWeaver at http://help.sap.com/nw75 ▶ *Application Help* ▶ *Function-oriented View* ▶ *Solution Lifecycle Management* ▶ *Starting and Stopping SAP Systems Based on SAP NetWeaver* ▶.
Start SAP LT Replication Server (Optional)	3	SAP HANA studio	Use SAP HANA studio to start replication of tables required by SAP Merchandise Planning. For more information, see the SAP LT Replication Server Operations Guide.
Stop SAP LT Replication Server (Optional)	4	SAP HANA studio	Use SAP HANA studio to stop replication of tables required by SAP Merchandise Planning. For more information, see the SAP LT Replication Server Operations Guide.

Action and Component	Sequence	Tool	Detailed Description
Stop SAP Systems and Instances	5	`STOPSAP`(for UNIX)	See the information about starting and stopping SAP Systems based on SAP NetWeaver at http://help.sap.com/nw75 ▶ *Application Help* ❯ *Function-oriented View* ❯ *Solution Lifecycle Management* ❯ *Starting and Stopping SAP Systems Based on SAP NetWeaver* ❯ .
Stop SAP HANA database	6	`sapstartsrv`	See the information about starting and stopping SAP HANA systems in the SAP HANA Administration Guide.

Administration Tools

There is no specific administration tool for SAP Merchandise Planning.

SAP Merchandise Planning uses the standard SAP NetWeaver administration tools. For more information, see SAP Help Portal for SAP NetWeaver at http://help.sap.com/nw . Choose a release. Choose ▶ *System Administration and Maintenance Information* ❯ *Technical Operations for SAP NetWeaver* ❯ *Administration of SAP NetWeaver Systems.* ❯ .

SAP Merchandise Planning for Retail also uses the administration tools available with SAP HANA. For more information, see SAP Help Portal for SAP HANA platform at http://help.sap.com/hana_appliance . Choose ▶ *System Administration* ❯ *SAP HANA Technical Operations Manual* ❯ .

SAP Merchandise Planning for Retail also uses the administration tools available with SAP Business Warehouse. For more information about administration tools for SAP NetWeaver 7.50, see SAP Help Portal at http://help.sap.com/nw75.

Backup and Restore

You must back up your system landscape regularly to ensure that you can restore and recover it in case of failure. The backup and restore strategy of your system landscape must not only include your strategy for your SAP system, but it must also be included in your company's overall business requirements and incorporated into your entire process flow.

In addition, the backup and restore strategy must cover disaster recovery processes, such as how to recover from the loss of a data center due to a fire. It is important that your strategy specifies that normal data and

backup data are stored in separate physical locations, so that both types of data are not lost in case of a disaster. SAP Merchandise Planning is based on SAP NetWeaver technology; therefore, the SAP NetWeaver backup procedures can also be used for SAP Merchandise Planning.

Subject	Path
Backup and recovery processes for ABAP, JAVA, Business Intelligence, or Process Integration	See the Technical Operations Manual for SAP NetWeaver at http://help.sap.com/nw . Choose a release. Choose *System Administration and Maintenance Information* *Technical Operations for SAP NetWeaver* .
Best Practice - Backup and Restore for SAP System Land-scapes	See SAP Enterprise Support Academy at https://support.sap.com/en/offerings-programs/enterprise-support/enterprise-support-academy.html . R
Backing up and recovering the SAP HANA database	See SAP Help Portal for SAP HANA platform at http://help.sap.com/hana_appliance . Choose *System Administration* *SAP HANA Administration Guide* .

Periodic Tasks

This section describes the tasks required to run to keep the application running smoothly over time. It is important that you monitor the successful execution of these tasks on a regular basis.

Periodic Tasks

Program Name/Task	Task scheduling tool	Recommended Frequency and method	Detailed Description
DRFOUT (for master data replication)	-	Frequency: • Initial setup of the system • Whenever master data changes Method: Manual task	Perform this task in the SAP ERP system to replicate the needed master data from SAP ERP system to the system for SAP Merchandise Planning. Out of possible 15 outbound implementations, SAP Merchandise Planning for Retail needs at least the following outbound implementations: • PPHY (Plant Hierarchy) • PAHY (Article Hierarchy) • PINV (Inventory) • PMAP (Moving Average Price) • PMAT (Material) • PMCH (Material Group Hierarchy) • PMPL (Material/Plant) • PPLT (Plant) • PSOS (Source of Supply) • PSPR (Sales Price) • PVEN (Vendor) For more information, see the *Configuring Data Replication from SAP ERP DDF* section in the SAP Merchandise Planning in the *Common Installation Guide*.
DRFOUT (for building up Inventory History)	Transaction SM36 for scheduling a background job	Frequency: Weekly Method: Scheduled periodic task	We recommend that you schedule a weekly periodic task to replicate inventory data (outbound implementation PINV) from the SAP ERP system to the system for SAP Merchandise Planning. This replication builds up the inventory history data that is needed by SAP Merchandise Planning.

For information about scheduled periodic tasks for SAP NetWeaver 7.5, see http://help.sap.com/nw75

▌ *Application Help* ❯ *Function-oriented View* ❯ *Search and Operational Analytics* ❯ *Managing Search and Operational Analytics* ❯ *Technical Operations Manual* ❯ *Administration* ❯ *Periodic Tasks* ❯ *Scheduled Periodic Tasks* ◢.

3.3   High Availability

SAP Merchandise Planning is based on SAP HANA and SAP NetWeaver technology; all high availability considerations that apply to SAP HANA and SAP NetWeaver, such as increasing system availability, improving performance, and eliminating unplanned downtime, also apply to SAP Merchandise Planning.

Additional Information on high availability

Topic	Path
General information on high availability strategies for SAP NetWeaver-based systems	See SAP Help Portal for SAP NetWeaver at http://help.sap.com/nw🔗. Choose a release. Under *Application Help*, choose ▌ *Function-Oriented View* ❯ *Solution Life Cycle Management* ❯ *SAP Business Continuity* ◢.
General information on high availability strategies for SAP HANA based systems	See SAP Help Portal for SAP HANA Platform at http://help.sap.com/hana_appliance🔗. Under *System Administration* , choose ▌ *SAP HANA Technical Operations Manual* ◢.

3.4   Software Change Management

Software Change Management standardizes and automates software distribution, maintenance, and testing procedures for complex software landscapes and multiple software development platforms. These functions support your project teams, development teams, and application support teams. The goal of Software Change Management is to establish consistent, solution-wide change management that allows for specific maintenance procedures, global rollouts (including localizations), and open integration with third-party products.

Transport and Change Management

SAP Merchandise Planning uses the infrastructure of SAP NetWeaver.

For transport and change management issues, the procedures of SAP NetWeaver apply. For more information, see the *Transport and Change Management* section in the *Technical Operations Manual* for your SAP NetWeaver release on SAP Help Portal at http://help.sap.com/netweaver🔗.

Development Requests and Development Release Management

You use the standard tools and procedures of SAP NetWeaver to transport SAP Merchandise Planning code extensions or customizing changes. All such changes are captured by the transport system and are transportable.

For information about procedures for SAP BusinessObjects Analysis, see the section about life-cycle management with SAP NetWeaver in the *Administrator Guide: SAP BusinessObjects Analysis, edition for Microsoft Office* at http://help.sap.com/boaa🔗.

Additional Information on development requests and development release management

Topic	Path
Change and Transport System	See SAP Help Portal for SAP NetWeaver at http://help.sap.com/nw🔗. Choose a release. Under *System Administration and Maintenance Information*, choose ▸ *Technical Operations for SAP NetWeaver* ❯ *Administration of Application Server ABAP* ❯.
Change Management for SAP HANA-based systems	See SAP Help Portal for SAP HANA platform at http://help.sap.com/hana_appliance🔗. Under *System Administration*, choose ▸ *SAP HANA Technical Operations Manual* ❯.
Manual correction process for ABAP on SAP HANA	See SAP Note 1798895🔗.

Support Packages and Patch Implementation

We recommend that you implement SAP NetWeaver (including SAP BW), SAP HANA, SAP Analysis for Microsoft Office, and SAP Merchandise Planning support package stacks. These support package stacks are sets of support packages and patches for the respective product version that must be used in the given combination. The technology for applying support packages and patches will not change.

You can find detailed information about the availability of SP stacks for SAP Customer Activity Repository on the SAP Support Portal at http://support.sap.com/sp-stacks🔗. See the corresponding Release Information Notes (RINs) before you apply any support packages or patches of the selected SP stack.

3.5   Support Desk Management

Support Desk Management enables you to set up an efficient internal support desk for your support organization that seamlessly integrates your end users, internal support employees, partners, and SAP Active Global Support specialists with an efficient problem resolution procedure. For support desk management, you need the methodology, management procedures, and tools infrastructure to run your internal support organization efficiently.

Remote Support Setup

If you want to use SAP remote services (for example, SAP EarlyWatch or Remote Consulting), or if you would like to permit an SAP support consultant to work directly in your system to make a more precise problem diagnosis, set up a remote service connection. Additionally, there exists an ABAP role for read-only access for remote support that is also relevant. This role (`SAP_RCA_SAT_DISP` for ABAP) is available in the STPI plug-in and is generated when a managed system is connected to SAP Solution Manager. Should any additional application-specific functionality be necessary for use by an SAP support consultant, then an applicable role should be defined providing the appropriate authorization(s) and assigned to the SAP support consultant's user logon.

Problem Message Handover

To create SAP support messages for your installation, you must specify an application component. For SAP Merchandise Planning, you can specify one of the following application components:

- CA_RT_MPR - to report support messages for general issues.
- CA_RT_MPR_PLN - to report support messages related to the workbook functions.

For more information about reporting incidents, see the SAP Support Portal at https://help.sap.com/viewer/get-support.

3.6   Troubleshooting

Authorization Issues with External SAP HANA Views for SAP BW InfoCubes

If there are issues with authorization for the external SAP HANA views that retrieve data of SAP BW InfoCubes that are contained in the package `system-local.bw.bw2hana.rap`, perform the following steps to solve the issue:

- Ensure that users have identical user names in SAP BW and in the SAP HANA database.
- Ensure that the *Session Client* in the SAP HANA database is set to SAP BW client.
- Ensure that the *SAP HANA User Mapping* is set to *C* (DBMS user or SAP HANA user with the same name as SAP BW user) using transaction `RS2HANA_VIEW`.
- Check if all necessary authorizations are available for the SAP<SID> user and for any other user. Do this check by executing the transaction `RS2HANA_CHECK`. The report states the missing authorizations. Grant the missing authorizations to the SAP<SID> user.
- You can regenerate BW2HANA authorizations with report `RS2HANA_AUTH_RUN` (executed in transaction `SE38`). This measure helps especially if `RS2HANA_CHECK` reports missing filter values.

SAP Analysis for Microsoft Office Troubleshooting

General

SAP Merchandise Planning uses the standard troubleshooting functionality of SAP Analysis for Microsoft Office Monitoring. SAP Analysis for Microsoft Office provides utilities for troubleshooting, such as error messages, log files and traces. For more information, see the Administrator Guide: SAP Analysis for Microsoft Office at http://help.sap.com/boaa .

4 Business Overview

4.1 Introduction to SAP Merchandise Planning

SAP Merchandise Planning (MP) enables consistent, end-to-end planning, and retail business processes based on industry best practices. The solution integrates and facilitates channel financial, location-to-merchandise, and open-to-buy processes including inventory management, purchase planning, and budgeting. It provides a centralized repository for all planning activities that enable the fast reconciliation of strategic merchandise plans and reduces the manual effort associated with spreadsheet based planning processes. In addition, there is standard integration allowing a finalized plan to be consumed by SAP Assortment Planning.

SAP Merchandise Planning is a consuming application of SAP Customer Activity Repository, which contains the SAP ERP data replicated as follows:

- SAP LT (Landscape Transformation) Replication Server for SAP HANA. For more information, see the
  ▌ *Post-Installation* ❭ *SAP Customer Activity Repository* ❭ *Configure Data Replication Steps* ❭. You can find this guide on SAP Help Portal at http://help.sap.com/car ↗▌ *Installation and Upgrade* ❭ *Common Installation Guide* ❭.
- Demand Data Foundation (DDF)
  DDF receives master data and time series data from DRFout processes. For more information, see the Enabling Demand Data Foundation [page 36] section in this guide.
- Reports for inventory, sales orders and shipments write data to DDF. For more information, see the *Configuration Information* of this guide.

4.2 Software Component Matrix

This section provides the software components used by each business process.

During the installation of SAP Customer Activity Repository retail applications bundle (`CAR RETAIL APPL BUNDLE 2.0`), all of the software components listed below are installed. Whereas all these software components will be installed, not all of them need to be configured, depending on your implementation scenario.

For information in installation prerequisites and installation instructions, see section *SAP Merchandise Planning* in the *Common Installation Guide*.

Software Components Used by SAP Merchandise Planning for Retail Business Processes

Merchandise Planning for Business Process	SAP Customer Activity Repository retail applications bundle (`CAR RETAIL APPL BUNDLE 2.0`)				SAP NetWeaver	
	`RTLDDF`	`RTLCAR`	`RTLAPPS`	`SAP RTL AFL FOR SAP HANA`	`ST-PI`	`SAP_BW`
Enabling Demand Data Foundation and Unified Demand Forecast	X					
Creating and Releasing Merchandise &Plan		X	X		X	X

Software Components Used by SAP Merchandise Planning Business Processes

SAP Merchandise Planning Business Process	SAP Customer Activity Repository applications bundle (`CAR RETAIL APPL BUNDLE 2.0`)				SAP NetWeaver	
	`RTLDDF`	`RTLCAR`	`RTLAPPS`	`SAP RTL AFL FOR SAP HANA`	`ST-PI`	`SAP_BW`
Enabling Demand Data Foundation and Unified Demand Forecast	X					
Creating and Releasing Merchandise Financial Plan		X	X		X	X

> **i Note**
>
> This Guide provides just one way to implement each business scenario. Alternative implementations, including other SAP solutions, business scenarios and processes might be applicable to your specific business needs.

4.3   Enabling Demand Data Foundation

The SAP Merchandise Planningapplication requires master data and time series data for the productive operation. This data is not native to this application, and it is created in other applications, such as SAP ERP (S4/HANA, or third party system).

Note that SAP Customer Activity Repository also receives data replicated from a connected SAP ERP system by using the System Landscape Transformation (SLT) replication. For more information, see the *Common Installation Guide.*

Process

> ⚠ Caution
>
> You must ensure that the following activities have been performed:
>
> - Installation and post-installation steps of the *Common Installation Guide*
> - Relevant configuration information in *Configuring Demand Data Foundation (DDF)*.
>   Note that only the following steps of this business process are relevant for this application:
>   ○ Send master data
>   ○ Receive master data
>   ○ Define sales history

The process to populate master data runs as follows:

1. Send master data (SAP ERP)
   SAP ERP prepares and sends the master data through a Data Replication Framework (DRF) (transaction `DRFOUT`).
   You have the following outbound implementations:

Sequence	Replication Mode	SAP ERP Outbound Implementation	SAP ERP Description	DDF Inbound Interface
1	Initialization	`PMCH`	Material Group Hierarchy	`/DMF/MDIF_PROD_HIER_INBOUND` Product Hierarchy
2	Initialization, Change, and Manual	`PMAT`	Material	`/DMF/MDIF_PRODUCT_INBOUND` Product
3	Initialization, Change, and Manual	`PPLT`	Plant	`/DMF/MDIF_LOCATION_INBOUND` Location

Sequence	Replication Mode	SAP ERP Outbound Implementation	SAP ERP Description	DDF Inbound Interface
4	Initialization, Change, and Manual	`PMPL`	Material and Plant	`/DMF/MDIF_PROD_LOC_INBOUND` Product Location
5	Change	`PSPR`	Sales Price	`/DMF/MDIF_PROD_LOC_INBOUND` Product Location
6	Initialization, Change, and Manual	`PCUS`	Customer	`/DMF/MDIF_LOCATION_INBOUND`
7	Initialization, Change, and Manual	`PINV`	Inventory	`/DMF/OPIF_INVENTORY_INBOUND` Inventory
8	Change	`PMAP`	Moving Average Price	`/DMF/MDIF_PROD_LOC_INBOUND` Product Location
9	Initialization, Change, and Manual	`PSOS`	Source of Supply	`/DMF/MDIF_LANE_INBOUND` Transportation Lane
10	Initialization, Change, and Manual	`PVEN`	Vendor	`/DMF/MDIF_LOCATION_INBOUND` Location
11	Initialization	`PAHY`	Article Hierarchy	`/DMF/MDIF_PROD_HIER_INBOUND` Product Hierarchy
12	*Initialization*	`PPHY`	Plant Hierarchy	`/DMF/MDIF_LOC_HIER_INBOUND` Location Hierarchy

When carrying out the data replication, the system automatically generates data replication logs, which you can then evaluate. You can access this option under *SAP Easy Access SAP Retail* (transaction `W10T`) under ▶ *Logistics* ❯ *Retailing* ❯ *Distributed Retailing* ❯ *Merchandise Lifecycle Optimization* ❯ *Outbound* ❯ *Analyze Log for Outbound Implementations (DRFLOG)* ❯.

2. Receive master data (DDF)
   By default, the DDF staging tables receive the data. You use the *Monitor Imports* function to view the data, transfer the data from the staging tables to the production tables, and to process the received data. For more information about this function, see SAP Help Portal at http://help.sap.com/car 🔗 ▶ *<your release>* ❯ *Application Help* ❯ *Demand Data Foundation* ❯ *General Services* ❯ *Monitor Imports* ❯.
   DDF performs validation checks before inserting the data into the production tables.

> **i Note**
>
> You can choose to bypass the staging tables in Customizing under ▎▶ *Cross-Application Components* ▶ *Demand Data Foundation* ▶ *Basic Settings* ▶ *Integration* ▶ *Define Import Settings* ▎. For more information, see the Customizing activity documentation (transaction **SPRO**).

3. Define sales history (DDF)
   This application uses point-of-sale (POS) data from SAP Business Warehouse (SAP BW) or from an external application.
   For more information on how to define the sales history, see http://help.sap.com/viewer/p/CARAB
   ▎▶ *<your release>* ▶ *Administration* ▶ *SAP Customer Activity Repository Administration Guide* ▶ *Getting Started* ▶ *Introduction to SAP Customer Activity Repository* ▎ section *Integrating Historical Demand Data*.

Result

The system updates the data.

4.4   Developing Merchandise Financial Plan

You use this business process to develop sales, margin, inventory, and receipt flow for the upcoming fiscal year and seasons at various levels of the merchandise, channel, and time hierarchies. A planner creates a company-wide merchandise plan at all levels of the merchandise (planned product) hierarchy for all selling channels to build a receipt (purchase) budget by month and week that is used for Open-To-Buy (OTB) purposes.

Process

The business process runs as follows:

1. Create merchandise plan summary
2. Create top-down merchandise plan
3. Create middle-out merchandise plan
4. Create bottom-up merchandise plan
5. Perform budget reconciliation

The system updates the planning information.

4.5 Using SAP Merchandise Planning Workbooks 1.0

These instructions are for users who choose to use the version 1.0 retail workbooks.

If you have upgraded to or have a new installation of SAP Customer Activity Repository applications bundle 4.0 FPS01 and wish to use the version 1.0 retail workbooks you have the following processes.

4.5.1 Developing Financial Plan

You use this business process to develop sales and margin plans for the upcoming fiscal years and seasons at various levels of the merchandise, channel, and time hierarchies. A planner creates a company-wide channel financial plan by distribution channel and sales organization for all selling channels to build a sales and margin plan by month and week that is used to seed the merchandise planning and the open to buy processes.

Process

The business process runs as follows:

1. Create channel mix plan
2. Create channel plan
3. Create channel merchandise plan

Result

The system updates the planning information.

4.5.2 Developing Merchandise Plan

You use this business process to develop sales, margin, inventory, and receipt flow for the upcoming fiscal year and seasons at various levels of the merchandise, channel, and time hierarchies. A planner creates a company-wide merchandise plan at all levels of the merchandise (planned product) hierarchy for all selling channels to build a receipt (purchase) budget by month and week that is used for Open-To-Buy (OTB) purposes.

Process

The business process runs as follows:

1. Create merchandise plan summary
2. Create top-down merchandise plan
3. Create middle-out merchandise plan
4. Create bottom-up merchandise plan
5. Perform budget reconciliation

Result

The system updates the planning information.

5 Configuration Information

5.1 Configure SAP Merchandise Planning

Use

SAP Merchandise Planning is a consuming application of SAP Customer Activity Repository, which contains data that is imported from SAP ERP or SAP S/4HANA into the following:

- SAP HANA for SAP ERP using SAP LT Replication Server (SLT), which is saved in the `SAP_ECC` authoring schema.
  Or
  SAP S/4HANA using SLT, which is saved in the `SAP_S4H` authoring schema.
- Demand Data Foundation (DDF)

Customizing Activities

There are key Customizing activities required to use the SAP Merchandise Planning application. These steps are performed using transaction `SPRO` and navigating to the required Customizing activity.

Demand Data Foundation Customizing Node

This node is accessible under ▶ *Cross-Application Components* ▶.

1. Perform the necessary configuration steps in DDF.
   The mandatory activities are marked in the configuration document *Configuring Demand Data Foundation (DDF)*.
2. Configure data replication from SAP ERP to DDF.
   SAP Merchandise Planning uses master data (such as product, location, and product hierarchy) as well as organizational data (such as sales organization and distribution channel) that is replicated from SAP ERP to DDF using `DRFOUT`.

   This step was performed during installation as described in section ▶ *SAP Customer Activity Repository* ▶ *Core (Mandatory for All Applications)* ▶. See http://help.sap.com/viewer/p/CARAB 🔗 ▶ *<Version>* ▶ ▶ *Common Installation Guide for SAP Customer Activity Repository applications bundle* ▶ *Set Up the Applications* ▶.
   For more information on setting up this data replication, see the following document *Configuring Data Replication from SAP ERP to DDF*.
3. Verify you have entered the *Merchandise Planning* and *Planning Configuration* relevant sections in Customizing activity ▶ *Cross-Application Components* ▶ *Demand Data Foundation* ▶ *Basic Settings* ▶ *Define Default Values* ▶. For more information see the documentation attached to each activity or the field level help (F1).

> **i Note**
>
> Geo Hierarchy ID is only for Merchandise Planning for Retail version 1.1 or prior.

Merchandise Planning Customizing Node

As of SAP Merchandise Planning 2.0 FP2, there is a ▶ *Cross Application Components* ▶ ❯ *Merchandise Planning* node containing **mandatory** steps for your implementation. Review the table below for applicable activities for your environment. Each Customizing activity has attached documentation to further explain the activity.

Technical Name	Customizing Path	Description
/RAP/MPR_CALC_ECC	▶ *Cross-Application Components* ❯ *Merchandise Planning* ❯ *Enhancements Using Business Add-Ins* ❯ *BAdI: ECC Calculate Open Qty, Goods Receipt and Returns KPI* ❯	Use this option if your source data system is SAP ECC.
/RAP/MPR_CALC_FMS	▶ *Cross-Application Components* ❯ *Merchandise Planning* ❯ *Enhancements Using Business Add-Ins* ❯ *BAdI: FMS Calculate Open Qty, Goods Receipt and Returns KPI* ❯	Use this option if your source data system is SAP FMS.
/RAP/MPR_CALC_S4H	▶ *Cross-Application Components* ❯ *Merchandise Planning* ❯ *Enhancements Using Business Add-Ins* ❯ *BAdI: S4H Calculate Open Qty, Goods Receipt and Returns KPI* ❯	Use this option if your source data system is SAP S4H.
/RAP/ MPR_COST_PRC_DETE RM	▶ *Cross-Application Components* ❯ *Merchandise Planning* ❯ *Enhancements Using Business Add-Ins* ❯ *BAdI: Cost Determination for Receipt, Open Qty and Returns* ❯	You use this BAdI to determine the purchase price for goods receipts, open purchase order and returns to vendor KPIs. The default implementation assumes moving average price is always available in the unit of measure.
/RAP/ MPOC_CALC_PO_RECE IPTS_KPI	▶ *Cross-Application Components* ❯ *Merchandise Planning* ❯ *Enhancements Using*	You use this BAdI to determine the calculation for goods receipt, open purchase order quantity and returns to vendor KPIs are based on segmentation and channel.

Technical Name	Customizing Path	Description
	Business Add-Ins ❯ *BAdI: Calculate Goods Receipt KPIs by Segmentation & Channel* ❯	
/RAP/ MPOC_CALC_INVENTO RY_KPI	▶ *Cross-Application Components* ❯ *Merchandise Planning* ❯ *Enhancements Using Business Add-Ins* ❯ *BAdI: Calculate Inventory KPIs Based on Segmentation & Channel* ❯	You use this BAdI to Calculate Inventory KPIs like Beginning of Period Cost and Unit Values for Distribution Centre, Store and Excess Inventory Stock based on segmentation and channel.
/RAP/ MPOC_PLANNING_YSC T	▶ *Cross-Application Components* ❯ *Merchandise Planning* ❯ *Enhancements Using Business Add-Ins* ❯ *BAdI: Select Season Year, Season, Collection and Theme* ❯	You use this BAdI: to select the season year, season, collection and theme relevant data for Merchandise Planning.

Implementation Tasks

Use of Workbook Versions

The version concept allows you to plan and view different working versions, and to create special versions for released and finalized plans. Each workbook can display up to two different versions in parallel, with the capability to copy or provide a working plan version from any other available version to begin the planning process

The version and planning levels are decided during installation. These concepts will affect your planning configuration set and integration with SAP Assortment Planning. The recommended standard is planning at the 5th node level of the product hierarchy (1-7 levels available). The installation will prompt you to create levels 5 and 7. The workbook versions are named by concatenating the level with the version. For example the merchandise financial plan for level 5 versions are:

- o Working Version - M51
  - o Simulated Version - M52
  - o Released Version - M5R
  - o Final Version - M5F
  - o In Season Version - M5P

Planning Configuration Sets

A Planning Configuration Set (PCS) is a prerequisite to creating a merchandise plan. A planning configuration defines entry and exit levels for merchandise and option plans based on a market hierarchy (representing an

organizational view on top of retail stores and wholesale customers) and a product hierarchy. The PCS must be specifically defined in order for the data to render properly in the workbook.

> **i Note**
>
> You must have an area of responsibility assigned for the product hierarchy and market hierarchy you will be using. From your *SAP Easy Access* menu, use transaction code `NWBC` and navigate to menu ▶ *Services* ❯ *Maintain Area of Responsibility* ❯.

For more information about *Planning Configurations* see https://help.sap.com/viewer/p/CARAB and navigate to ▶ *<your version>* ❯ *SAP Assortment Planning* ❯ *Assortment Planning* ❯ *Manage Planning Configuration Sets* ❯.

Integration with SAP Assortment Planning.

SAP Assortment Planning is not aware of the finalized version maintained in SAP Merchandise Planning. This means if you want to send your merchandise plans to an assortment plan, there are setup tasks. The standard integration is implemented in an `AMDP` BAdI named `/DMF/MPR_READ_KPI_DATA` which resides in fallback class `/DMF/CL_MPR_READ_DATA_DEFAULT`. The BAdI works as follows:

- While calling the API to fetch finalized version, the assortment plan interface selects product hierarchy node(s) of the same level as the plan. For example, based on the product hierarchy node of level 3 (or 4, 5, 6, 7), the system will automatically look for version M3F (or M4F, M5F, etc.).
- If standard integration is used, it is recommended that final released versions should be named as *M<level of product hierarchy node>F*.
- A specific custom extension is possible by implementing `AMDP BAdI /DMF/MPR_READ_KPI_DATA` if your planning version used for the merchanise plan does not follow the recommended naming convention.
  - The BAdI is available using transaction code `SPRO` and navigating to Customizing node ▶ *SAP Customizing Implementation Guide* ❯ *SAP Customer Activity Repository* ❯ *Demand Data Foundations* ❯ *Data Maintenance* ❯ *Planning Configuration* ❯ *Enhancements Using Business Add-Ins* ❯ *BAdI: Read Merchandise Planning KPI Data* ❯.

5.2   Data Load Reports

Context

While the master data and time series data is processed using DRFout, additional data is sourced from SAP LT replicated tables. In order to populate Demand Data Foundation with this data, reports are executed to load initial data at post installation and ongoing delta loads to match your scenario. These processes read replicated tables in SAP Customer Activity Repository and update DDF.

Procedure

1. `/DMF/OPIF_INVENTORY_INBOUND`. You use this program to populate historical inventory for a given date and location. Use transaction code `SE37` for further documentation or to execute.

2. `/RAP/MPR_ECC_KPI_CALC`. You use this report to populate goods movement key performance indicators (KPI) of returns, receipts, and open quantity. This report must be run during the post installation process to load 2 years of historical data. It is recommended you run this report weekly to update the aggregated KPIs with the ongoing ERP activity. Use transaction code `SE38` for further documentation and to execute.

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