



Installation Guide | PUBLIC

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Common Installation Guide for SAP Customer Activity Repository applications bundle 4.0 SPS06

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1 How to Use this Common Installation Guide

This guide describes how to install and set up the applications included in SAP Customer Activity Repository applications bundle 4.0 SPS06. Learn what applications are included in this release, and get an overview of the main installation steps.

Applications in this Release (Functional View)

⚠ Caution

If you already have an existing installation of any of these applications, you must perform a **software upgrade** rather than a new installation. In this case, see the *Common Upgrade Guide* for this release at <https://help.sap.com/viewer/p/CARAB>.

Functionally, SAP Customer Activity Repository applications bundle 4.0 SPS06 includes the following applications:

- SAP Customer Activity Repository 4.0 SPS06
- SAP Allocation Management 4.0 SPS06
- SAP Assortment Planning 4.0 SPS06
- SAP Merchandise Planning 4.0 SPS06
- SAP Promotion Management 4.0 SPS06

Product Documentation

You can find this guide and all product documentation for these applications on SAP Help Portal for SAP Customer Activity Repository applications bundle at <https://help.sap.com/viewer/p/CARAB>.

i Note

You can set up your back-end system to consume documentation directly from SAP Help Portal. For more information, see [Configure Access to Documentation Provided on SAP Help Portal \(Optional for All Applications\) \[page 298\]](#).

What to Install (Technical View)

Technically, SAP Customer Activity Repository applications bundle 4.0 SPS06 is delivered in the form of two installable **product versions**, one for the back-end and one for the front-end.

Product Versions for this Release	Purpose
SAP CARAB 4.0 SPS06	<p>Back-end product version:</p> <p>Contains several software components that provide the ABAP back-end functionality and the business content for all the applications in SAP Customer Activity Repository applications bundle 4.0 SPS06. For example, this includes SAP HANA views and SQLScript procedures, local BI Content, application function libraries, and workbooks, where applicable.</p>
SAP FIORI FOR SAP CARAB 4.0 SPS05	<p>Front-end product version:</p> <p>Contains one software component that includes the SAP Fiori apps for the applications in SAP Customer Activity Repository applications bundle 4.0 SPS06. This product version is also referred to as the <i>product-specific SAP Fiori UI component</i>.</p> <div style="border: 1px solid #0070c0; padding: 5px; margin-top: 10px;"> <p>i Note</p> <p>The front-end is on a lower version than the back-end.</p> </div>

Installation at a Glance

This guide leads you through the following main activities:

1. **Plan** your system landscape. For example, here you decide on the deployment option for your scenario and on the integration between your source master data system and your SAP Customer Activity Repository applications bundle scenario. These steps are described in section [Plan your System \[page 12\]](#).
2. **Install** the prerequisites. Here you ensure that all the prerequisite platforms, applications, and components meet the minimum requirements for this release and are installed and configured. These steps are described in section [Install the Prerequisites \[page 17\]](#).
3. **Prepare** the installation. Here you ensure that the technical prerequisites are installed. You also implement mandatory corrections, verify authorizations, and do other preparatory tasks. These steps are described in section [Install the Prerequisites \[page 17\]](#) and section [Prepare the Installation \[page 28\]](#).
4. **Install** the back-end product version and the front-end product version. These steps are described in section [Install the Software \[page 49\]](#). You must do these steps regardless of the application that you want to set up later on.
5. **Set up** the desired applications. These steps are described in section [Set Up the Applications \[page 76\]](#). First you do the general setup steps in section [Core \(Mandatory for All Applications\) \[page 76\]](#). You must do these core steps regardless of the application that you want to set up. After the core steps, you only need to do the steps that are required for your application. You do not need to read sections that do not apply to your application.

→ Tip

Get Notified of SAP Note Updates

This guide references several SAP Notes that are regularly updated with new information. If a note is particularly relevant for your scenario and you want to be informed of updates, you can easily set up email notifications. See SAP Note [2478289](#) (How to get notifications for SAP Notes or KBAs).

→ Tip

Get SAP Universal ID for Easy Login

With an SAP Universal ID, you get a single user login and profile. You are able to log in once to gain access to all of your authorized SAP platforms and applications.

SAP Universal ID is a free service offered by SAP which requires no software installation. For more information, see <https://discover.sap.com/universalid/en-us/about.html>.

1.1 Naming Conventions

This section explains **important terms** used in this guide. It also explains what specific **variables** stand for (for example, `SAP<SID>`, `SAPHANADB`, back-end server, or front-end server), and how to use them during the installation. Finally, you get an overview of names that **differ** depending on the application.

Important Terms

Term	Definition
<i>Common Installation Guide</i> <i>Common Upgrade Guide</i>	<p>Common guides for all the applications included in <i>SAP Customer Activity Repository applications bundle</i>.</p> <p>You can find both guides on SAP Help Portal at https://help.sap.com/viewer/p/CARAB. Select your version at the top.</p>
consuming application	<p>An application designed to consume and utilize data obtained from the SAP Customer Activity Repository platform.</p> <p>Examples:</p> <ul style="list-style-type: none">• SAP Allocation Management• SAP Assortment Planning• SAP Merchandise Planning• SAP Promotion Management
back-end server / system	<p>The SAP NetWeaver-based ABAP back-end server where you install the back-end product version of SAP Customer Activity Repository applications bundle (that is, SAP Customer Activity Repository and its consuming applications).</p>

Term	Definition
front-end server / system	The SAP NetWeaver-based ABAP front-end server where you install SAP Gateway, the central SAP Fiori UI component (including SAP Fiori launchpad), and the product-specific SAP Fiori UI component (that is, the front-end product version with the SAP Fiori apps for SAP Customer Activity Repository applications bundle).
source master data system	<p>SAP Customer Activity Repository applications bundle must be deployed alongside an SAP ERP (SAP Retail, SAP Fashion Management) or SAP S/4HANA (SAP S/4HANA Retail) central component as the single source of truth for all master data.</p> <p>Whenever this guide refers to a <i>source master data system</i>, it refers to the SAP ERP or SAP S/4HANA central component that you choose for your implementation.</p> <p>For more information, see Integration with Source Master Data Systems [page 16].</p>
SAP ERP	Unless otherwise specified, references in this guide to <i>SAP ERP</i> are comprehensive. That is, they apply to SAP Retail and SAP Fashion Management.

Important Variables

i Note

Variables are used as placeholders for objects that are user-defined or have different names in your customer system landscape.

When you come across one of the variables in the instructions, replace it with your customer-specific name of the respective object.

Example

- An instruction states to map an authoring schema to the `SAP<SID>` physical schema in your ABAP back-end system.
- The name of this physical schema is `ABCO1` in your customer system landscape.
- What you do is that you replace the `SAP<SID>` variable with this name. In our example, you map the authoring schema to the `ABCO1` physical schema.

Variable	Description
<p>Depending on the documentation and user interface, you might come across any of the following variables. They all mean the same:</p> <ul style="list-style-type: none"> • SAP<SID> • SAPHANADB • SAPABAP<num> • SAP<id> 	<p>Stands for the name of the ABAP back-end system or database schema or database user in your customer system landscape.</p> <p>Whenever this variable is used in this guide, replace it with your customer-specific name.</p> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p>→ Tip</p> <p>If you don't know what the customer-specific name is in your system landscape, there are two easy ways to find it:</p> <ul style="list-style-type: none"> • Log on to your ABAP back-end system using SAP Logon. Choose System > Status. In the section titled <i>Database data</i>, see the name for <i>Schema</i>. • In SAP HANA studio, the schema name is listed under <i>Catalog</i>. • For more information, see SAP Note 2535951 (FAQ: SAP HANA Users and Schemas). </div>
<DBSID>	Database ID in uppercase letters
<dbsid>	Database ID in lowercase letters
<INSTDIR>	Installation directory for the SAP system
<DVD_DIR>	Directory on which a DVD is mounted
<OS>	Operating system name within a path

Naming Differences

Due to naming differences between the underlying technical objects, the following terms are **used interchangeably** in this guide:

SAP Customer Activity Repository (all modules except for UDF and DDF)	Unified Demand Forecast (UDF) and Demand Data Foundation (DDF)		SAP Retail and SAP S/4HANA
	SAP Merchandise Planning		
	SAP Assortment Planning		
	SAP Promotion Management	SAP Allocation Management	
article	product	product	article
			material











SAP Customer Activity Repository (all modules except for UDF and DDF)	Unified Demand Forecast (UDF) and Demand Data Foundation (DDF)	SAP Merchandise Planning	SAP Assortment Planning	SAP Promotion Management	SAP Allocation Management	SAP Retail and SAP S/4HANA
article variant	product variant	product variant or product/color/size	article variant			
store	location (used as an umbrella term for stores, distribution centers, etc.)	store	store	site		

1.2 Information Available on SAP Help Portal

Information on prerequisite platforms, applications, and other components as well as quick links to SAP sites

Information on Prerequisite Platforms, Applications, Other Components

Information On	Path	Title
Installing SAP HANA	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ <Version> ▶ Installation and Upgrade ▶ SAP HANA Server Installation and Update Guide ▶	SAP HANA Server Installation and Update Guide
Installing SAP HANA database clients	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ <Version> ▶ Installation and Upgrade ▶ SAP HANA Client Installation and Update Guide ▶	SAP HANA Client Installation and Update Guide
Installing SAP HANA studio	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ <Version> ▶ Installation and Upgrade ▶ SAP HANA Studio Installation and Update Guide ▶	SAP HANA Studio Installation and Update Guide

Information On	Path	Title
Installing SAP LT (Landscape Transformation) Replication Server for SAP HANA	http://help.sap.com/viewer/p/SAP_HANA_REAL_TIME_REPLICATION   <Version> > Installation and Upgrade >	Installation Guide - Trigger-Based Data Replication Using SAP Landscape Transformation Replication Server
Managing major operational aspects of the SAP LT Replication Server	http://help.sap.com/viewer/p/SAP_HANA_REAL_TIME_REPLICATION   <Version> > Operations >	Application Operations Guide - SAP Landscape Transformation Replication Server
Using SAP HANA	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM   <Version> > Administration > SAP HANA Administration Guide >	SAP HANA Administration Guide
Using the SAP HANA development tools to create comprehensive analytical models and to build applications with SAP HANA interfaces and integrated development (for developers)	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM   <Version> > Development > SAP HANA Developer Guide (For SAP HANA Studio) >	SAP HANA Developer Guide
Defining data models for use in SAP HANA (for modelers, business analysts)	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM   <Version> > Development > SAP HANA Modeling Guide (For SAP HANA Studio) >	SAP HANA Modeling Guide
Installing Foundation on SAP NetWeaver AS for ABAP 7.52, version for SAP HANA	https://help.sap.com/viewer/p/SAP_NETWEAVER_AS_ABAP_752  <Version> > Installation and Upgrade > Master Guide >	SAP NetWeaver Master Guide
Installing SAP ERP 6.0	http://help.sap.com/viewer/p/SAP_ERP  <Version> > Installation and Upgrade > Installation Guide >	Installation Guide
Installing SAP S/4HANA	http://help.sap.com/viewer/p/SAP_S4HANA_ON-PREMISE   <Version> > Implement > Installation Guide >	Installation Guide for SAP S/4HANA

General Quick Links

SAP Site	Path
SAP Help Portal	http://help.sap.com
Knowledge Base Articles and SAP Notes	https://support.sap.com/en/index.html
Product Availability Matrix (PAM)	http://support.sap.com/pam
Maintenance and release strategy	https://support.sap.com/en/release-upgrade-maintenance.html
SAP Software Download Center	http://support.sap.com/swdc
SAP Solution Manager	http://support.sap.com/solutionmanager
SAP Security Optimization Services Portfolio	https://support.sap.com/en/offerings-programs/support-services/security-optimization-services-portfolio.html
Data Protection and Privacy	2590321 Upgrade recommendations to support GDPR compliance
Support information (quick access via SAP ONE Support Launchpad; requires login)	https://launchpad.support.sap.com/#/productsearch
Support package stacks, latest versions, patch level requirements	http://support.sap.com/patches
System sizing	http://www.sap.com/sizing

2 Plan your System

Plan your customer landscape so that it best serves your business scenario. Choose the best deployment option, and see from which source master data systems you can replicate data to your SAP Customer Activity Repository applications bundle system.

[System Landscape \[page 13\]](#)

Find out what a typical system landscape for SAP Customer Activity Repository applications bundle looks like. You can see the main layers in the diagram (database, back-end, front-end).

[Deployment Options: Central Hub Deployment \(Recommended\) and Embedded Deployment \[page 14\]](#)

Learn about the two basic deployment options for your SAP Customer Activity Repository applications bundle solution. Central hub deployment is the option that we recommend for all the applications described in this guide. **This guide is therefore based on central hub deployment.**

[Integration with Source Master Data Systems \[page 16\]](#)

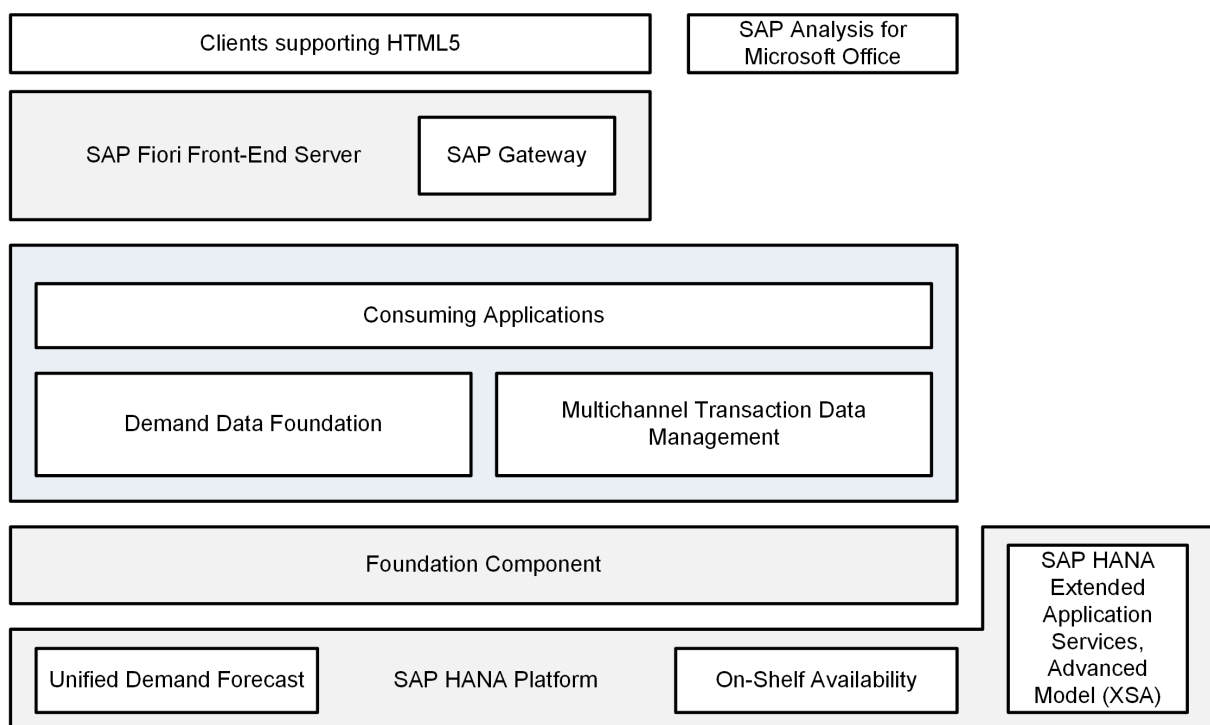
Get an overview of the source master data systems from which you can replicate master data and transactional data to SAP Customer Activity Repository applications bundle.

2.1 System Landscape

Find out what a typical system landscape for SAP Customer Activity Repository applications bundle looks like. You can see the main layers in the diagram (database, back-end, front-end).

System Landscape Example

The applications included in SAP Customer Activity Repository applications bundle require a layered system landscape, as shown in the following example:



System Landscape Example

The main layers from bottom to top are as follows:

- Database layer: SAP HANA Platform with the application function libraries (software component `SAP_RTL_AFL` for SAP HANA, containing UDF and OSA) running directly in the database
- Back-end layer: SAP NetWeaver providing the foundation layer on which the consuming applications (back-end product version `SAP_CARAB`) are installed
- Front-end layer: SAP Fiori front-end server with the SAP Fiori launchpad from which users can access the apps (front-end product version `SAP_FIORI_FOR_SAP_CARAB`)

Prerequisites

- For information on the minimum versions required for this release, see [Install the Prerequisites \[page 17\]](#).
- For information on the supported interoperability scenarios between the SAP CARAB back-end product version and the SAP Fiori for SAP CARAB front-end product version, see SAP Note [2815026](#) (Back-end and front-end interoperability in SAP Customer Activity Repository applications bundle 4.0).

2.2 Deployment Options: Central Hub Deployment (Recommended) and Embedded Deployment

Learn about the two basic deployment options for your SAP Customer Activity Repository applications bundle solution. Central hub deployment is the option that we recommend for all the applications described in this guide. **This guide is therefore based on central hub deployment.**

What is Central Hub Deployment?

With central hub deployment, the back-end product version is installed in the back-end system, while the front-end product version and the SAP Fiori front-end server are installed in a separate front-end system.

As a result, the SAP Fiori apps are deployed in separate systems (UIs in the front-end system, related OData services in the back-end system).

Because of the advantages listed below, we recommend the central hub deployment option for all scenarios of SAP Customer Activity Repository applications bundle.

Advantages of Central Hub Deployment


This option has the following advantages:

- It decouples the lifecycle of the SAP Fiori apps from that of the back-end components (separate shipments, allowing for interoperability between the back-end product version and the front-end product version of different releases).
- The SAP Fiori front-end server offers a central deployment of the UIs and a central enablement of OData access for multiple SAP application back-end systems.
- You have a central place for theming and branding SAP Fiori apps.
- You have a single point of maintenance for the user interfaces, browser support, and updated versions of SAPUI5 libraries.
- Changes to user interfaces are possible without having development authorizations in the back-end.
- Faster iterations for SAP Fiori apps are possible.

What is Embedded Deployment?

In general, when an SAP solution includes SAP Fiori apps, you can alternatively choose the embedded deployment option. Here you install the back-end components and front-end components in the same system (for example, the same SAP NetWeaver server). The advantage of this option is that you do not require a separate front-end system.

Caution



If you wish to use or are already using an embedded deployment scenario, carefully read SAP Note [2948396](#)  (*Front-end and back-end deployment options for SAP Customer Activity Repository applications bundle*).

The note contains important deployment information for the following scenario:

- Your current source master data system is SAP S/4HANA 1709 or 1809.
- You want to install or upgrade to SAP S/4HANA 1909 or higher.
- You are using your source master data system in an embedded deployment scenario. That is, you are also using it as your front-end system for SAP Customer Activity Repository applications bundle. In other words, you have installed the front-end product version `SAP Fiori for SAP CARAB` (containing the software component `UICAR001` with the SAP Fiori apps) on your SAP S/4HANA system.

Be aware that such an embedded scenario is no longer possible as of **SAP S/4HANA 1909**. For more information and for supported deployment alternatives, please see the note.

More Information

- For more information on deployment options for SAP Fiori, see the following:
 - [SAP Fiori Deployment Options and System Landscape Recommendations](#) 
 - [SAP Fiori: Getting Started](#) ► *<your front-end server version>* ► [SAP Fiori Deployment Options](#) ► [Deployment of SAP Fiori Front-End Server](#) ►
- If you wish to use **SAP Fiori front-end server 2020 for SAP S/4HANA** (`SAP Fiori FES 2020 for S/4HANA`) for your scenario of SAP Customer Activity Repository applications bundle, consult our *Important Notice* for the latest support information. Navigate to <https://help.sap.com/viewer/p/CARAB> and choose [► Implement](#) ► [Implementation Help](#) ► [Important Notice](#) ►.
- For interoperability information, see SAP Note [2815026](#)  (*Back-end and front-end interoperability in SAP Customer Activity Repository applications bundle 4.0*).

2.3 Integration with Source Master Data Systems

Get an overview of the source master data systems from which you can replicate master data and transactional data to SAP Customer Activity Repository applications bundle.

Overview

You can deploy your scenario of SAP Customer Activity Repository applications bundle in parallel with one of the following source master data systems:

Source Master Data System	Flavor
SAP ERP	SAP Retail (add-on to SAP ERP)
	SAP Fashion Management (add-on to SAP Retail)
SAP S/4HANA Retail	SAP S/4HANA Retail for merchandise management

i Note

Unless otherwise specified, references in this guide to *SAP ERP* are comprehensive. That is, they also apply to SAP Retail and SAP Fashion Management. For more information on this and other important terms used in this guide, see [Naming Conventions \[page 6\]](#).

Prerequisites

For information on what versions of the source master data systems are required for this release, see [Install the Prerequisites \[page 17\]](#).

3 Install the Prerequisites

This section lists all the prerequisite platforms, applications, and components that must be installed and configured to prepare the system landscape for **a new installation of this release**.

i Note

If you are **upgrading from a previous release**, the information in this *Common Installation Guide* is not relevant for you. Instead, proceed with the *Common Upgrade Guide* available at <https://help.sap.com/viewer/p/CARAB> on the *Implement* tab.

The prerequisites are grouped in two categories:

- *Common Prerequisites*, which must be installed regardless of the business scenario you are planning to implement
- *Application-Specific Prerequisites*, which are only relevant for specific applications under specific conditions

⚠ Caution

The prerequisites should be installed and configured by an experienced SAP Basis administrator.

i Note

You can find all important updates to the prerequisites made after the publication of this guide in the *Important Notice* available at <https://help.sap.com/viewer/p/CARAB> on the *Implement* tab.

→ Tip

This guide references several SAP Notes that are updated regularly. If you want to be informed of such updates because a note is particularly relevant for your scenario, you can easily set up email notifications for it. For instructions, see SAP Note [2478289](#) (How to get notifications for SAP Notes or KBAs).

Common Prerequisites

Foundation Component — ABAP FND ON HANA or SAP S/4HANA FOUNDATION

The minimum requirement for this release is as follows, regardless of the business scenario you are planning to implement:

Foundation Component	Minimum Requirement	Installation Information
ABAP FND ON HANA (Foundation on ABAP Platform, Version for SAP HANA)	<ul style="list-style-type: none">ABAP FND 1709 ON HANA SPS 06 (04/2020) (<i>foundation 1709 on SAP NetWeaver AS for ABAP 7.52, version for SAP HANA</i>)ABAP FND 1809 ON HANA SPS 04 (04/2020) (<i>foundation on ABAP platform 1809, version for SAP HANA</i>)	<ul style="list-style-type: none">SAP Note 2534199 (ABAP FND 1709 ON HANA: Release Information Note)SAP Note 2625488 (ABAP FND 1809 ON HANA: Release Information Note)
SAP S/4HANA FOUNDATION	<ul style="list-style-type: none">SAP S/4HANA FOUNDATION 1909 – FPS02 (05/2020) (<i>SAP S/4HANA Foundation</i>)	<ul style="list-style-type: none">SAP Note 2750164 (SAP S/4HANA FOUNDATION 1909: Release Information Note)

⚠ Caution

Before installing or upgrading the foundation component in your system landscape, check for the latest support information. See the *Important Notice* at <https://help.sap.com/viewer/p/CARAB> under

► [Implement](#) ► [Implementation Help](#) ►.

SAP HANA Platform 2.0

- **SAP HANA database** component:

The minimum requirement for this release is as follows, regardless of the business scenario you are planning to implement:

- **SAP HANA database 2.0 SPS05 revision 2.00.054 (sometimes referred to as revision 54)**
- Before installing a revision, check for the latest support information. See SAP Note [2818378](#) (*Which releases of SAP HANA Platform are supported for which releases of SAP Customer Activity Repository applications bundle (SAP CARAB)?*).

⚠ Caution

Guidance for Selecting a Higher Revision than the Minimum Revision

If you wish to use a **higher revision**, we recommend that you select one of the “maintenance revisions”. See SAP Note [2378962](#) (*SAP HANA 2.0 Revision and Maintenance Strategy*) and consult the information under *Last Released Revision or Maintenance Revision*.

Also use this same strategy if the minimum revision is no longer available for download from the **Software Download Center**. This situation might occur depending on when you perform the actual installation and how long ago the revision was released.

If you wish to use the **latest SAP HANA support package stack**, be aware that there are no maintenance revisions for it. In this case, we recommend the following:

1. To avoid incompatibilities, first consult SAP Note [2818378](#) (Which releases of SAP HANA Platform are supported for which releases of SAP Customer Activity Repository applications bundle (SAP CARAB)?).
Select a supported combination of releases. This applies not only during a new installation or an upgrade, but is equally relevant if you decide to upgrade your SAP HANA Platform to a higher revision or even support package stack later on.
2. Install the latest SAP HANA support package stack in your test system. Test it carefully to evaluate its impact on your customer system landscape. Only roll it out to your production system when you are sure that it integrates well with your day-to-day business processes.

- **SAP HANA AFL** component:

The minimum requirement for this release is the **SAP HANA AFL revision that is compatible with the selected SAP HANA database revision**.

For installation information, see the following:

- SAP Note [2818378](#) (Which releases of SAP HANA Platform are supported for which releases of SAP Customer Activity Repository applications bundle (SAP CARAB)?)
- SAP Note [2378962](#) (SAP HANA 2.0 Revision and Maintenance Strategy, lists the available maintenance revisions)
- SAP Note [2115815](#) (FAQ: SAP HANA Database Patches and Upgrades, helpful information on database upgrades, downgrades, downtimes, patch levels, and more)
- [SAP HANA 2.0 Revision Strategy](#) (what are revisions, what are support package stacks, what is the SAP HANA product availability and maintenance strategy)
- SAP Note [2844322](#) (SAP HANA Platform 2.0 SPS 05 Release Note)
- [SAP HANA Server Installation and Update Guide](https://help.sap.com/viewer/p/SAP_HANA_PLATFORM) for your SAP HANA Platform version at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM
- Overview, important links, and download of SAP HANA Platform 2.0: <http://support.sap.com>
► [Software Downloads](#) ► [By Alphabetical Index \(A-Z\)](#) ► [H](#) ► [SAP HANA PLATFORM EDITION](#) ► [SAP HANA PLATFORM EDITION 2.0](#) ► [INFO](#) ►
- SAP Note [2339267](#) (HANA Client version and installation manifest file doesn't match currently available HANA server version information)

If you are planning to upgrade from SAP HANA Platform 1.0 to SAP HANA Platform 2.0, also see the following:

- SAP Note [1948334](#) (SAP HANA Database Update Paths for SAP HANA Maintenance Revisions)
- SAP Note [2372809](#) (Mandatory Preparation Steps for Upgrading a SAP HANA 1 System to SAP HANA 2)
- SAP Note [2422421](#) (Guideline for upgrading a SAP HANA system with extended application services, advanced model)

SAP RTL AFL FOR SAP HANA

i Note

SAP RTL AFL FOR SAP HANA is a back-end software component of SAP Customer Activity Repository applications bundle. However, you must always install this component together with the SAP HANA Platform. You must do this **before** installing the SAP CARAB back-end product version. This guide leads you through the correct steps.

The minimum revision for SAP RTL AFL FOR SAP HANA applies regardless of the business scenario you are planning to implement. There is a minimum AFL revision for each SAP HANA database revision. Whichever AFL revision you choose, it must be compatible with the SAP HANA database revision.

Compatible Minimum Revisions

Minimum Revision of SAP RTL AFL FOR SAP HANA	Compatible With This Revision of the SAP HANA Database
AFL revision 54.0002 (patch 2 of revision 54)	SAP HANA database 2.00.054
AFL revision 55.0002 (patch 2 of revision 55)	SAP HANA database 2.00.055
AFL revision 56.0000 (patch 0 of revision 56)	SAP HANA database 2.00.056

⚠ Caution

No matter which AFL revision you choose, always install the **highest patch** available for download.

If you decide to install a **higher revision** of SAP RTL AFL FOR SAP HANA, it must again be compatible with the SAP HANA database revision.

When you download an AFL revision from the SAP Support Portal, the compatible SAP HANA database revision is always indicated.

i Note

Be aware that patches for different revisions can occur at different points in time. For example, the AFL patch 54.0002 might be released after the AFL patch 55.0002.

i Note

SAP RTL AFL FOR SAP HANA contains back-end functionality for two modules of SAP Customer Activity Repository: Unified Demand Forecast (UDF) and On-Shelf Availability (OSA). You must always **install** the component, regardless of the scenario you are planning to implement. You only need to **configure** UDF and/or OSA if you wish to use the functionality in your scenario.

SAP Landscape Transformation Replication Server

The minimum requirement for this release is **SAP Landscape Transformation Replication Server 2.0 for SAP HANA**, regardless of the business scenario you are planning to implement.

i Note

If your source master data system is SAP S/4HANA 1909, be aware that as of that release, the SAP LT Replication Server is no longer available as a standalone component. Instead, SAP S/4HANA 1909 includes an embedded SAP LT Replication Server by default.

To set up the data replication from an SAP S/4HANA 1909 system, you need to do some preparatory steps. This guide leads you through the correct steps in the data replication section ([Create/Replicate Source Master Data System Tables \[page 84\]](#)). The preparatory steps have the added advantage that they give you the option to still use a standalone SAP LT Replication Server.

For installation information and possible dependencies to other components, see the following:

- *Installation Guide (Replicating Data to SAP HANA)* at https://help.sap.com/viewer/p/SAP_LANDSCAPE_TRANSFORMATION_REPLICATION_SERVER
- SAP Note [1605140](#) (SAP Landscape Transformation Replication Server (SLT)): This is the central note for enabling trigger-based data replication (functional overview, download, installation, upgrade, corrections, implementation).
- SAP Note [2014562](#) (FAQ: SAP HANA LT Replication Server (SLT))
- SAP Note [2707835](#) (SLT Licensing, licensing and deployment overview by source master data system)
- SAP Note [2572945](#) (DMIS compatibility with S/4HANA, integration of DMIS component into S4CORE layer, release overview and guidance for SAP S/4HANA source master data systems)

SAP Fiori

SAP Fiori front-end server is an add-on product for SAP NetWeaver Application Server for ABAP (AS ABAP). It contains the front-end software components required to run SAP Fiori apps and the SAP Fiori launchpad.

The minimum requirement for this release is **SAP FIORI FRONT-END SERVER 4.0 - SAP Frontend Server 7.52**, regardless of the business scenario you are planning to implement. The minimum SAPUI5 version is **1.52.4**.

For more information, see the following:

- [SAP Fiori Overview](#) (your entry point to all documentation)
- Planning:
 - [Overview of SAP Fiori front-end server components and versions](#)
 - [SAP Fiori Deployment Options and System Landscape Recommendations](#)
 - For planning information and a helpful version overview (front-end server, application server ABAP, SAP Gateway, SAPUI5), see SAP Note [2217489](#) (Maintenance and Update Strategy for SAP Fiori Front-End Server).
- Installation and implementation:
 - [SAP Fiori Implementation Information](#) (select your front-end server version at the top)
 - SAP Note [2590653](#) (SAP Fiori front-end server deployment for SAP S/4HANA)
 - SAP Note [2484979](#) (SAP-Fiori-Frontend-Server 4.0 - General Information)
 - SAP Note [2618605](#) (SAP-Fiori-Frontend-Server 5.0 - General Information)
 - SAP Note [2775163](#) (SAP-Fiori-Frontend-Server 6.0 - General Information)
 - SAP Note [2919182](#) (SAP Fiori front-end server 2020 for SAP S/4HANA)

→ Tip

If you wish to check what SAPUI5 version is currently installed, there is an easy way to do this. See SAP Note [2282103](#) (How to check the version of SAPUI5 you have installed).

Source Master Data Systems

- Either SAP ERP or SAP S/4HANA must be installed.

i Note

Unless otherwise specified, references in this guide to *SAP ERP* are comprehensive. That is, they also apply to SAP Retail and SAP Fashion Management. For more information on this and other important terms used in this guide, see [Naming Conventions \[page 6\]](#).

- The minimum requirements for this release are as follows, regardless of the business scenario you are planning to implement:

Source Master Data System	Minimum Requirement	Installation Information
SAP ERP	<ul style="list-style-type: none"> ○ SAP ERP 6.0 Enhancement Package 7 SP16 or higher ○ SAP ERP 6.0 Enhancement Package 8 SP09 or higher 	<i>Installation Guide at https://help.sap.com/viewer/p/SAP_ERP</i>

Source Master Data System

Minimum Requirement

Installation Information

SAP S/4HANA

- SAP S/4HANA 1709 FPS2 or higher
- SAP S/4HANA 1809 Initial Shipment Stack or higher
- SAP S/4HANA 1909 Initial Shipment Stack or higher

- *Installation Guide* at https://help.sap.com/viewer/p/SAP_S4HANA_ON-PREMISE
- SAP Note [2482453](#) (SAP S/4HANA 1709: Release Information Note)
- SAP Note [2625407](#) (SAP S/4HANA 1809: Release Information Note)
- SAP Note [2769531](#) (SAP S/4HANA 1909: Release Information Note)

⚠ Caution

If you wish to use or are already using an embedded deployment scenario, carefully read SAP Note [2948396](#) (*Front-end and back-end deployment options for SAP Customer Activity Repository applications bundle*).

The note contains important deployment information for the following scenario:

- Your current source master data system is SAP S/4HANA 1709 or 1809.
- You want to install or upgrade to SAP S/4HANA 1909 or higher.
- You are using your source master data system in an embedded deployment scenario. That is, you are also using it as your front-end system for SAP Customer Activity Repository applications bundle. In other words, you have installed the front-end product version `SAP_FIORI_FOR_SAP_CARAB` (containing the software component `UICAR001` with the SAP Fiori apps) on your SAP S/4HANA system.

Be aware that such an embedded scenario is no longer possible as of **SAP S/4HANA 1909**. For more information and for supported deployment alternatives, please see the note.

i Note

If your source master data system is SAP S/4HANA 1909, be aware that as of that release, the SAP LT Replication Server is no longer available as a standalone component. Instead, SAP S/4HANA 1909 includes an embedded SAP LT Replication Server by default.

To set up the data replication from an SAP S/4HANA 1909 system, you need to do some preparatory steps. This guide leads you through the correct procedure in the data replication section ([Create/Replicate Source Master Data System Tables \[page 84\]](#)). The preparatory steps have the added advantage that they give you the option to still use a standalone SAP LT Replication Server.

i Note

There are some scenarios that are supported on older source master data systems than the minimum requirements specified above. For more information, see SAP Note [2696488](#) (SAP CARAB 4.0 Alignment with Source Master Data Versions (SAP Retail, SAP S/4HANA)).

→ Tip

If you are planning to convert from SAP ERP to SAP S/4HANA, you can use the SAP Readiness Check to check the readiness of your SAP ERP system. For more information, see SAP Note [2758146](#) (SAP Readiness Check 2.0 & Next Generation SAP Business Scenario Recommendation).

Application-Specific Prerequisites

SAP Customer Activity Repository

Prerequisites for SAP Customer Activity Repository

Prerequisite	Minimum Requirement	Mandatory/Optional	Installation Information
SAP Customer Relationship Management (SAP CRM)	The minimum requirement for this release is one of the following: <ul style="list-style-type: none">SAP Enhancement Package 2 for SAP CRM 7.0SAP Enhancement Package 2 for SAP CRM 7.0, Version for SAP HANA or higher	Optional, depending on whether or not you choose to implement customer determination with SAP CRM.	Installation Guide at https://help.sap.com/viewer/p/SAP_CUSTOMER_RELATIONSHIP_MANAGEMENT
SAP Smart Business	SAP Smart Business foundation component 1.0, most recent SPS	Optional, depending on whether or not you choose to implement the SAP Smart Business for Multichannel Sales Analytics dashboard within SAP Customer Activity Repository.	SAP Note 2018360 (Release Information Note for SAP SMART BUSINESS)

Prerequisite	Minimum Requirement	Mandatory/Optional	Installation Information
SAP Marketing solution (SAP Marketing or SAP Marketing Cloud)	SAP Marketing 1.10 or higher	Optional, depending on whether or not you choose to implement customer determination with your SAP Marketing solution.	<ul style="list-style-type: none"> For SAP Marketing, see the <i>Installation and Configuration Guide</i> at https://help.sap.com/viewer/p/SAP_HYBRIS_MARKETING. For SAP Marketing Cloud, see https://help.sap.com/viewer/p/SAP_MARKETING_CLOUD.
SAP Commerce	SAP Commerce 1811 or higher (in particular, the Accelerator, the Data Hub, and SAP Asynchronous Order Management)	Optional, depending on whether or not you choose to implement Omnichannel Article Availability and Sourcing (OAA) or Omnichannel Promotion Pricing (OPP) within SAP Customer Activity Repository.	https://help.sap.com/viewer/p/SAP_COMMERCE/
SAP Commerce, integration package for SAP for Retail	SAP Commerce, integration package for SAP for Retail 1811 or higher	Optional, depending on whether or not you choose to implement Omnichannel Article Availability and Sourcing (OAA) or Omnichannel Promotion Pricing (OPP) within SAP Customer Activity Repository.	See the <i>Administration Guide</i> delivered with the software package or from https://help.sap.com/viewer/p/IPR .

Prerequisite	Minimum Requirement	Mandatory/Optional	Installation Information
SAP Analytics Cloud	Content Innovation 12	Optional, depending on whether or not you choose to implement Omnichannel Article Availability and Sourcing (OAA) within SAP Customer Activity Repository. You only need to run and connect this application if you want to use the set of OAA analyses that has been predefined in SAP Analytics Cloud and that is part of the standard delivery of SAP Analytics Cloud. If you are using a different analytics tool, or if you do not run analytics at all, you do not need this application.	System Requirements and Technical Prerequisites
SAP IQ	SAP IQ 16.0, SP8 or higher	Optional, depending on whether or not you choose to use the Table Content Aging report to move data from SAP Customer Activity Repository to SAP IQ.	https://help.sap.com/viewer/product/SAP_IQ/16.1.latest/en-US?task=implement_task
SAP HANA Dynamic Tiering	SAP HANA Dynamic Tiering is delivered with the SAP HANA Platform. See the Common Prerequisites section above.	Optional, depending on whether or not you choose to use the Table Content Aging report to move data from SAP Customer Activity Repository to extended storage using SAP HANA Dynamic Tiering.	<i>SAP HANA Dynamic Tiering: Installation and Update Guide</i> at https://help.sap.com/viewer/p/SAP_HANA_DYNAMIC_TIERING
SAP HANA extended application services, advanced model (XSA)	SAP HANA XSA, version 1.0.88 or higher We recommend that you use the highest version available.	Optional, depending on whether or not you choose to use Omnichannel Promotion Pricing (OPP) within SAP Customer Activity Repository.	<i>SAP HANA Server Installation and Update Guide</i> at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM , search for section <i>Installing XS Advanced Runtime</i>

SAP Merchandise Planning

Prerequisites for SAP Merchandise Planning

Prerequisite	Minimum Requirement	Mandatory/Optional	Installation Information
SAP Analysis	SAP Analysis for Microsoft Office 2.8 SP02	Mandatory	<i>Administrator Guide</i> at https://help.sap.com/viewer/p/SAP_BUSINESS_OBJECTS_ANALYSIS_OFFICE

SAP Assortment Planning

Prerequisites for SAP Assortment Planning

Prerequisite	Minimum Requirement	Mandatory/Optional	Installation Information
SAP Analysis	SAP Analysis for Microsoft Office 2.8 SP02	Mandatory	<i>Administrator Guide</i> at https://help.sap.com/viewer/p/SAP_BUSINESS_OBJECTS_ANALYSIS_OFFICE

SAP Promotion Management

SAP Promotion Management requires only the common prerequisites.

SAP Allocation Management

SAP Allocation Management requires only the common prerequisites.

4 Prepare the Installation

Before you start with the actual installation of SAP Customer Activity Repository applications bundle 4.0 SPS06, you must first perform several preparatory tasks.

1. [Implement SAP Notes for the Installation \[page 28\]](#)

This section lists SAP Notes (corrections) that you must read and — when appropriate — implement **at different points in the installation process**. The section also points you to the release information notes (RINs) for this release. There you can find the back-end and front-end corrections that have become available since the software was released. The RINs complement the SAP Notes listed in this chapter.
2. [Verify SAP HANA Users and Privileges \[page 37\]](#)

SAP Customer Activity Repository applications bundle is installed in a multi-level system landscape: SAP HANA database (level 1), ABAP back-end server (level 2), and ABAP front-end server with SAP Gateway and SAP Fiori apps (level 3). Each level requires specific users with specific privileges. In this procedure, you set up the authorizations for the SAP HANA database (level 1).
3. [Verify Correct Schema Mapping \[page 41\]](#)

In SAP HANA studio, verify that the **authoring schemas** delivered by SAP are mapped to the correct **physical schemas** of your customer landscape. First do an n:1 mapping (all authoring schemas of SAP Customer Activity Repository applications bundle to the same `SAP<SID>` physical schema). Then do a 1:1 mapping (the authoring schema of each source master data system to the corresponding physical schema). If necessary, create any mappings that are missing. **This procedure is mandatory for all the applications.**
4. [Generate Time Data for Gregorian Calendar \[page 45\]](#)

Perform a generic calendar setting in SAP HANA studio. This generates the time data (calendar) for several scenarios and SAP Fiori apps in SAP Customer Activity Repository applications bundle. Setting up the *Gregorian* calendar is mandatory. Optionally, you can choose to set up the *Fiscal* calendar as well.
5. [Configure AFL Usage \[page 46\]](#)

Perform configuration tasks to enable the usage of application function libraries (such as the PAL and the OFL) for the applications SAP Assortment Planning and SAP Allocation Management.

4.1 Implement SAP Notes for the Installation

This section lists SAP Notes (corrections) that you must read and — when appropriate — implement **at different points in the installation process**. The section also points you to the release information notes (RINs) for this release. There you can find the back-end and front-end corrections that have become available since the software was released. The RINs complement the SAP Notes listed in this chapter.

Prerequisites

- Make sure that you have the latest version of *Note Assistant* (transaction SNOTE) installed. This is required so that notes can be implemented correctly. For more information, see the following:
 - Versions of *Note Assistant*: See https://support.sap.com/en/my-support/knowledge-base/note-assistant.html#section_2043200365.
 - Mandatory corrections for *Note Assistant*: See SAP Note [1668882](#) (*Note Assistant: Important notes for SAP_BASIS 730,731,740,750,751,752,753,754*).
- Make sure that you have the up-to-date version of each SAP Note, which you can always find on the SAP Support Portal at <http://support.sap.com/notes>.

→ Tip

If a note is particularly relevant for your scenario and you want to be informed of updates, you can easily set up email notifications. See SAP Note [2478289](#) (*How to get notifications for SAP Notes or KBAs*).

Release Information Notes (RINs) with Latest Corrections for all Applications

After the publication of this guide, additional corrections might become available. You can find these additional corrections in the RINs for this release:

- For the latest back-end corrections, see SAP Note [3046105](#).
- For the latest front-end corrections, see SAP Note [3046077](#).





The RINs are regularly updated if new corrections become available.



⚠ Caution

Always consult the **SAP Notes for SAP Customer Activity Repository**, regardless of your scenario. Notes listed here are often common corrections, applicable to all applications.

SAP Notes for SAP Customer Activity Repository

SAP Notes for SAP Customer Activity Repository

Implement	Area	SAP Note	Description
Prior to the installation	Back-end	2548843  <i>DD: data element changes from DEC to CURR, error for dependent views</i>	Only relevant if you are using ABAP FND 1709 ON HANA (<i>foundation 1709 on SAP NetWeaver AS for ABAP 7.52, version for SAP HANA</i>): If so, this is a mandatory correction for all the applications of SAP Customer Activity Repository applications bundle.
During the installation	Back-end	2330184  <i>Appearance of Non-Existence/Activation Errors of Views/DDL Sources within installation of CARAB 1.0 FPO3 and CARAB 2.0</i>	Consult this note if you get error messages during the installation. The note provides troubleshooting information for errors that might occur during . . .RSDB02CK. . . phases in transaction SUM. Example error messages: <ul style="list-style-type: none"> • 2EETG002 View "/AMR/C_P_A_L_C" does not exist in the database • 2EETG002 View "/AMR/V_APITSLOC" does not exist in the database
After the installation	Back-end	2576497  <i>SQL Error Code 274: inserted value too large for column</i>	Troubleshooting information for errors that might occur if the material number is longer than 18 characters.
After the installation	Back-end	2777415  <i>SAP Allocation Management: Activating /AM R/* views ends in Error</i>	Mandatory correction for all the applications of SAP Customer Activity Repository applications bundle. Implement this note regardless of the scenario that you wish to set up.


Implement	Area	SAP Note	Description
After the installation	Back-end	2857334  <i>Unsupported data type DEC-FLOAT34 / D34N when replicating from an SAP S/4HANA 1909 on premise system</i>	Only required if your source master data system is SAP S/4HANA 1909. In this case, the note is mandatory for all the applications of SAP Customer Activity Repository applications bundle.
After the installation	SAP S/4HANA 1909 back-end	2835297  <i>Missing OAA ATP Change Indicator entries for S/4HANA 1909</i>	Only required if your source master data system is SAP S/4HANA 1909. Mandatory if you are using omnichannel article availability and sourcing (OAA), for both sales channel mode and OAA profile mode. Not required for functions other than OAA and source master data systems other than SAP S/4HANA 1909.
After the installation	Back-end	2625428  <i>SADL GW: Exposure for Annotations on Entity Container with namespace</i>	Mandatory if you are using omnichannel article availability and sourcing (OAA) and using the functionality in sales channel mode. Not required for functions other than OAA. Not required if you are using OAA in OAA profile mode.
After the installation	Back-end	2623953  <i>SADL GW: Exposure for Annotations on Entity Container with namespace</i>	Mandatory if you are using omnichannel article availability and sourcing (OAA) and using the functionality in sales channel mode. Not required for functions other than OAA. Not required if you are using OAA in OAA profile mode.
After the installation	Back-end	1778607  <i>SAP HANA Live for SAP Business Suite</i>	Optional (only relevant if you choose to implement SAP HANA Live for SAP Business Suite). The note provides release information and implementation considerations.

SAP Notes for SAP Merchandise Planning

i Note

Always consult the table for SAP Customer Activity Repository, regardless of your scenario. Notes listed there are often common corrections, applicable to all consuming applications.

SAP Notes for SAP Merchandise Planning

Implement	Area	SAP Note	Description
After the installation	Back-end	1919631  <i>Activating the BPC imbedded is necessary</i>	Embedded BW-IP features explicitly needs the NW BPC10.1 license along with the PAK.

SAP Notes for SAP Assortment Planning

i Note

Always consult the table for SAP Customer Activity Repository, regardless of your scenario. Notes listed there are often common corrections, applicable to all consuming applications.

SAP Notes for SAP Assortment Planning



Implement	Area	SAP Note	Description
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SAP Notes for SAP Promotion Management

i Note

Always consult the table for SAP Customer Activity Repository, regardless of your scenario. Notes listed there are often common corrections, applicable to all consuming applications.

SAP Notes for SAP Promotion Management

Implement	Area	SAP Note	Description
After the installation	Back-End	2844653  <i>PMR Offer Transfer - include product promo cost price currency</i>	This note contains corrections to transfer offer from PMR to ERP including product promotion cost price currency.
After the installation	Back-End	2847080  <i>BAPI_PROMO_CREATE not accepting product purchase price currency</i>	This note contains corrections to BAPI_PROMO_CREATE to accept purchase price currency at item level.

SAP Notes for SAP Allocation Management


i Note






Always consult the SAP Notes for SAP Customer Activity Repository, regardless of your scenario. Notes listed there are common corrections, applicable to all consuming applications.






i Note

Some SAP Notes must be implemented **before** activation of SAP HANA content. If this is the case, this is indicated in the description of the note. Otherwise, the note must be implemented **after** activation of SAP HANA content.

SAP Notes for SAP Allocation Management

Implement	Area	SAP Note	Description
After the installation	Back-end and front-end	3058735  <i>SAP Allocation Management 4.0 FPS06 - Collective Note with all Corrections until RTC</i>	This note comprises all corrections for SAP Allocation Management up to the RTC of SAP Customer Activity Repository applications bundle 4.0 SPS06.

Implement	Area	SAP Note	Description
After the installation	Back-end	2994341  <i>AM 5.0 - NW ABAP 7.55 Cor- rections</i>	Corrects an issue for the loading of SAP Allocation Management apps if the SAP Customer Activity Repository system is running on SAP NetWeaver AS for ABAP 7.55.
After the installation	Follow-on system	2618509  <i>Blocked RFC for Creation of Allocation Ta- ble in S4H Sys- tem</i>	Implement the correction to facilitate the creation of allocation tables from SAP Allocation Management in the SAP S/4HANA follow-on system.
After the installation	Back-end	2631613  <i>SAP Allocation Management - Customizing - Define Busi- ness Scenarios</i>	Follow the instructions to create a valid business scenario ID.
After the installation	Back-end	2632881  <i>SHDB: Low and High Val- ues are clipped during conver- sion of Selec- tionTables into WHERE clauses</i>	This note contains corrections regarding the SAP HANA database.
After the installation	Back-end	2502917  <i>Unable to reg- ister the serv- ice /AMR/ OD_WORKLOAD _SRV with namespace</i>	This note is only relevant if the back-end component SAP_GWFND 752 is below SP 2.
After the installation	Back-end	2474287  <i>Handling of units of meas- ure inside SAP Allocation Management</i>	This note resolves inconsistent maintenance of units of measure between SAP ECC and SAP Customer Activity Repository.

Implement	Area	SAP Note	Description
After the installation	SAP S/4HANA Retail for merchandise management	2522603  <i>Wrapper RFC for ATP via Controller</i>	This note can be implemented for calling ATP (available-to-promise) for multiple products in the target SAP S/4HANA or ECC system. This note is intended to increase the performance of the ATP call to the target system
After the installation	Back-end	2641286  <i>Internal server error LCX_MISS-ING_PARAMETER in CL_SADL_ABQ I</i>	This note is relevant for SADL implementation services based on CDS views for back-end software component <code>SAP_GWFND 752</code> . This note is mandatory.
After the installation	Back-end	2636746  <i>OData Navigation not working</i>	This note is mandatory for OData services based on CDS views with parameters relevant for <code>GW_FND</code> version ABAP 7.52 and above.
After the installation	Back-end	2441184  <i>Static ABAP generation error of classes /AMR/CL... when installing CARAB 1.0 FPO3, CARAB 2.0, and CARAB 4.0</i>	The manual instructions in the note must be implemented for the successful activation of SAP Allocation Management applications. This note is mandatory.
After the installation	Back-end	2777415  <i>SAP Allocation Management : Activating /AMR/* views ends in Error</i>	Mandatory correction

Implement	Area	SAP Note	Description
After the installation	Follow-on system	2416853  <i>RFC function module to create allocation table for SAP Allocation Management</i>	Enhanced functionality for the transfer of allocation data to an ECC system.
After the installation	Follow-on system	2524857  <i>RFC function module to create allocation table for SAP Allocation Management in S4H system</i>	Creation of an allocation table from SAP Allocation Management in SAP S/4HANA system for the transfer of allocation plans.
After the installation	Back-end	2734192  <i>ABAP CDS: preserved key and view defined without key fields</i>	Addresses an SAP Gateway framework issue with SADL association. This note is relevant for NetWeaver ABAP stack version 7.52 SPS02. This note fixes the DDLS activation. Be sure to re-activate DDLS /AMR/V_OD_CM_TL_SET_CDS after implementing the note.
After the installation	Back-end	2877030  <i>RFC function module to create alloc. table for AMR Rel. 4.0 FP03</i>	Relevant when SAP ERP is the source system for SAP Customer Activity Repository. Supported versions: SAP ERP 6.0, EHP 7 and EHP 8.
After the installation	Back-end	2877896  <i>RFC function module to create alloc. table for AMR Rel. 4.0 FP03(S4H)</i>	Relevant when SAP S/4HANA is the source system for SAP Customer Activity Repository. Supported versions: SAP S/4HANA 1709 and higher.

Parent topic: [Prepare the Installation \[page 28\]](#)

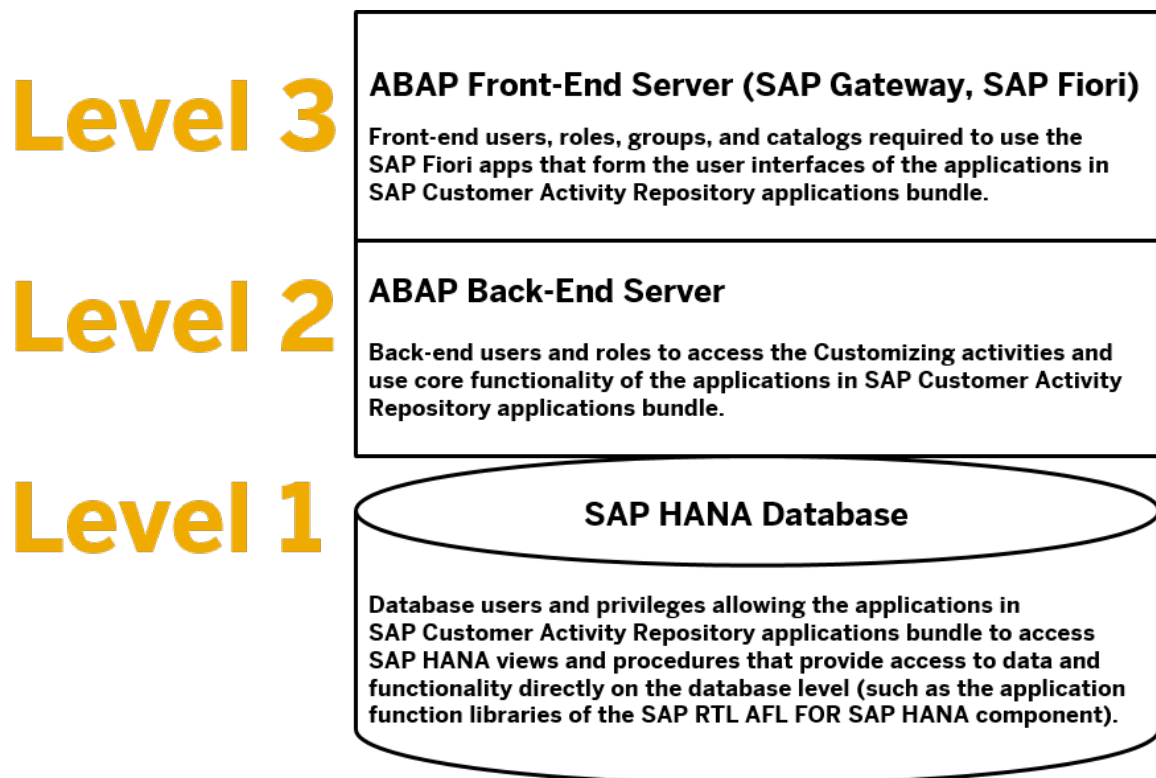
Next: [Verify SAP HANA Users and Privileges \[page 37\]](#)

4.2 Verify SAP HANA Users and Privileges

SAP Customer Activity Repository applications bundle is installed in a multi-level system landscape: SAP HANA database (level 1), ABAP back-end server (level 2), and ABAP front-end server with SAP Gateway and SAP Fiori apps (level 3). Each level requires specific users with specific privileges. In this procedure, you set up the authorizations for the SAP HANA database (level 1).

Overview

In the following figure, you can see the three levels and the required authorizations:



Authorization Levels for SAP Customer Activity Repository applications bundle

⚠ Caution

Level 1: You must always set up the SAP HANA users and privileges first, that is, **before** installing SAP Customer Activity Repository applications bundle on the ABAP back-end server and the ABAP front-end server. This procedure is described below.

i Note

Level 2 and Level 3: You can only set up these authorizations **after** the installation. In most cases, you only need to do this if you are doing a new installation. If you are doing an upgrade from a lower support package stack or feature package stack, the authorizations should already be available.

- Level 2: This procedure is described in section *Verify Back-End Users and Roles*.
- Level 3: The required authorizations depend on the consuming application and SAP Fiori apps that you wish to use. For example, the procedures are described in the following sections:
SAP Customer Activity Repository: *Set Up SAP Fiori Apps for SAP Customer Activity Repository*; SAP Assortment Planning: *Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad*; SAP Allocation Management: *Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad*

Prerequisites

- You are authorized to maintain users and assign privileges in the SAP HANA system.

i Note

For more information or if you encounter any issues during the procedure below, see the *SAP HANA Administration Guide for SAP HANA Platform* at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM. Select your version at the top. Search for section *Managing SAP HANA Users* and section *User Authorization*.

- You know what the source master data system is (for example, SAP S/4HANA or SAP Retail).
- You know what the name of the `SAP<SID>` ABAP database schema is in your customer system landscape.

i Note

In this guide, `SAP<SID>` is used as a variable. Replace it with the name of the database user or database schema in your ABAP back-end system. You might also come across documentation or user interfaces that use `SAPHANADB`. Both variables mean the same.

For more information and an example, see the *Important Variables* in section [Naming Conventions \[page 6\]](#).

For more information about database users and schemas, see SAP Note [2535951](#) (FAQ: *SAP HANA Users and Schemas*).

→ Tip

If you don't know the `SAP<SID>` of your system, there are two easy ways to find it:

- Log on to your ABAP back-end system using SAP Logon. Choose **System** > **Status**. In the section titled *Database data*, see the name for *Schema*.
- In SAP HANA studio, the schema name is listed under *Catalog*.

Procedure

To set up the authorizations, follow these steps:

1. Open SAP HANA studio and log on to your back-end system.

2. Choose **Window > Perspective > Open Perspective > SAP HANA Administration Console**.
3. In the **Systems** view, choose **Security > Users** to display the list of database users.
4. Verify that the following users exist and that they have the required privileges and roles. If necessary, assign any missing privileges and roles.

⚠ Caution

Users marked * must be identical on all three levels. Make sure these users have the same name on the SAP HANA database level, on the ABAP back-end server, and on the ABAP front-end server.

Users	Privileges / Roles
<p>SAP<SID></p> <p>This is the generic database user that you need for the connection from the ABAP back-end server to the SAP HANA database.</p>	<ul style="list-style-type: none"> ○ Privilege REPO. IMPORT ○ Privilege ROLE ADMIN ○ Privilege STRUCTUREDPRIVILEGE ADMIN ○ Privilege EXECUTE on procedure TRUNCATE_PROCEDURE_OBJECTS ○ Privilege EXECUTE on procedure GET_PROCEDURE_OBJECTS ○ Privilege SELECT on schema SAP_ECC (required if your source master data system is SAP Retail) ○ Privilege SELECT on schema SAP_S4H (required if your source master data system is SAP S/4HANA) ○ Role CONTENT_ADMIN ○ Role AFLPM_CREATOR_ERASER_EXECUTE This role enables the user to execute functions of the PAL library (required by SAP Assortment Planning, for example). For more information, see Enable Usage of PAL Functions [page 47] and SAP Note 2046767. ○ Role AFL__SYS_AFL_OFI_AREA_EXECUTE ○ Additionally, grant the following privileges, with option <i>Grantable to others</i>, on these schemas: On schema _SYS_BIC: <ul style="list-style-type: none"> ○ Privilege CREATE ANY ○ Privilege ALTER On schema <your SAP S/4HANA or SAP Retail schema name>: <ul style="list-style-type: none"> ○ Privilege SELECT

Users

Privileges / Roles

`_SYS_REPO`

- Privilege `SELECT`, with option *Grantable to others*, on the following physical database schemas:
 - Physical database schema of your back-end system (referred to as `SAP<SID>` in this guide)
 - Physical database schema that contains the SAP S/4HANA or SAP Retail tables
 - Physical database schema that contains the SAP CRM tables
 - Physical database schema that contains the SAP Marketing Cloud tables
 - Authoring schema `SAP_S4H` (required if your source master data system is SAP S/4HANA)
 - Authoring schema `SAP_ECC` (required if your source master data system is SAP Retail)

→ Tip

You can use the following example SQL statement to grant the privilege:

```
GRANT SELECT ON SCHEMA <Your schema name> TO  
_SYS_REPO WITH GRANT OPTION;
```

- Role `UDF_DEPLOY_SYS_REPO`.
For information about the privileges automatically assigned with this role, see [Set Up Authorizations for Unified Demand Forecast \(UDF\) \[page 80\]](#).
- For SAP Allocation Management, grant the following additional privileges:
 - Privilege `CREATE SCHEMA`
This privilege enables the user to create a schema in the SAP HANA database.

Users	Privileges / Roles
<Your User Name> *	<ul style="list-style-type: none"> ○ Privilege <code>SELECT</code> on schema <code>_SYS_BI</code> ○ Privilege <code>SELECT</code> on schema <code>SAP<SID></code> ○ Privilege <code>EXECUTE</code> on procedure <code>REPOSITORY_REST</code> ○ Privilege <code>SELECT</code> on schema <code>SAP_S4H</code> (if your source master data system is SAP S/4HANA) ○ Privilege <code>SELECT</code> on schema <code>SAP_ECC</code> (if your source master data system is SAP Retail) ○ Set the <i>Session Client</i> of this database user to the correct back-end system client. This step is required to enable the SAP Assortment Planning planning framework, where SAP Analysis for Microsoft Office workbooks obtain data from SAP HANA views. <div style="border: 1px solid #ccc; background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p>i Note</p> <p>If you encounter issues with the steps below, see the <i>Assign Default Client</i> section in the <i>SAP HANA Modeling Guide</i> at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM.</p> </div> <ol style="list-style-type: none"> 1. Still under Security > Users, select the user. 2. On the <i>User</i> tab, set the <i>Session Client</i> to the client number created in the <i>Set Up SAP Client</i> section.

5. Save your changes.

Result

You have successfully set up the users and privileges in the SAP HANA back-end system. Continue with the next section.

Parent topic: [Prepare the Installation \[page 28\]](#)

Previous: [Implement SAP Notes for the Installation \[page 28\]](#)

Next: [Verify Correct Schema Mapping \[page 41\]](#)

4.3 Verify Correct Schema Mapping

In SAP HANA studio, verify that the **authoring schemas** delivered by SAP are mapped to the correct **physical schemas** of your customer landscape. First do an n:1 mapping (all authoring schemas of SAP Customer Activity Repository applications bundle to the same `SAP<SID>` physical schema). Then do a 1:1 mapping (the

authoring schema of each source master data system to the corresponding physical schema). If necessary, create any mappings that are missing. **This procedure is mandatory for all the applications.**

Context

Why Schema Mapping?

Schema mapping is required if the source system and the target system have different physical schemas.

- Schema mapping allows you to transport SAP HANA objects from the source system to the target system. For example, from the SAP delivery system to your test system, and from your test system to your production system. After schema mapping, you can access and deploy the transported objects.
- Schema mapping is a prerequisite to activate the SAP HANA content.
- Schema mapping is a prerequisite to replicate the required SLT tables from the source master data system to the target system (your SAP Customer Activity Repository back-end system).

What are Authoring Schemas and Physical Schemas?

The SAP HANA content of SAP Customer Activity Repository applications bundle is delivered with several authoring schemas (for different scenarios and different source master data systems).

- The *authoring schema* is the logical database schema with which the SAP HANA objects were originally created in the SAP source system. The authoring schema is listed in each object's properties in SAP HANA studio. Different objects can have different authoring schemas.
- The *physical schema* is the logical database schema of your customer back-end system (referred to as `SAP<SID>`, sometimes also as `SAPHANADB`).

In the procedure below, you must map the *authoring schemas* to the *physical schemas* of your customer back-end system.

Prerequisites

- You have set up the authorizations as described in [Verify SAP HANA Users and Privileges \[page 37\]](#).
- You know what the name of the `SAP<SID>` database schema is in your customer back-end system. This is the physical schema name that you will need to enter in the mapping procedure below.

i Note

In this guide, `SAP<SID>` is used as a variable. Replace it with the name of the database user or database schema in your ABAP back-end system. You might also come across documentation or user interfaces that use `SAPHANADB`. Both variables mean the same.

For more information and an example, see the *Important Variables* in section [Naming Conventions \[page 6\]](#).

For more information about database users and schemas, see SAP Note [2535951](#) (FAQ: SAP HANA Users and Schemas).

→ Tip

If you don't know the SAP<SID> of your system, there are two easy ways to find it:

- Log on to your ABAP back-end system using SAP Logon. Choose ► *System* ► *Status* ►. In the section titled *Database data*, see the name for *Schema*.
- In SAP HANA studio, the schema name is listed under *Catalog*.

Authoring Schemas

The following tables show the two sets of authoring schemas that are relevant for this release. In the procedure below, you map these authoring schemas to the physical schemas of your customer system landscape.

Table 1: Authoring Schemas for SAP Customer Activity Repository applications bundle

Schema Name	Required For
SAP_CAR	SAP HANA objects for SAP Customer Activity Repository
SAP_DDF	SAP HANA objects for Demand Data Foundation and Unified Demand Forecast
SAPOSA	SAP HANA objects for On-Shelf Availability
SAP_RAP	SAP HANA objects for consuming applications (for example, SAP Assortment Planning, SAP Merchandise Planning, or SAP Promotion Management)
SAP_RTLRAP_AMR	SAP HANA objects for SAP Allocation Management

Table 2: Authoring Schemas for Source Master Data Systems

Schema Name	Required For
SAP_CRM	SAP Customer Relationship Management
SAP_CUAN	SAP Marketing Cloud
SAP_ECC	SAP ERP (SAP Retail)
SAP_S4H	SAP S/4HANA Retail

Procedure

i Note

If you encounter issues during the steps below, see the *SAP HANA Modeling Guide (SAP HANA Studio)* at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM. Select your version at the top. Search for section *Map Authoring Schema to Physical Schema* and also consult the subsections.

1. In SAP HANA studio, log on to your back-end system.
2. Choose ► *Window* ► *Perspective* ► *Open Perspective* ► *SAP HANA Modeler* ►.
3. Choose ► *Help* ► *Quick View* ► *Schema Mapping* ►.
4. Select the system and choose *Add*.
5. Enter the authoring schemas and physical schemas that you want to map:

⚠ Caution

Make sure that you enter the names correctly.

Make sure there are no leading or trailing spaces before or after a name. Space characters cause issues with schema mapping.

1. Map all authoring schemas from Table 1 to the same physical schema (*SAP<SID>*) of your customer system. This is the n:1 mapping step. If necessary, add new mappings.
 2. Map each authoring schema from Table 2 to the physical schema for the respective source master data system in your customer system. This is the 1:1 mapping step. If necessary, add new mappings.
6. Choose *OK*.

i Note

If you are using an **SAP HANA system with multiple isolated tenant databases** to perform cross-database access between tenants, you must provide the authoring database name and the physical database name in the schema mapping definition.

You maintain schema mapping definitions in the `SYS_BI.M_DATABASE_SCHEMA_MAPPING` table.

Parent topic: [Prepare the Installation \[page 28\]](#)

Previous: [Verify SAP HANA Users and Privileges \[page 37\]](#)

Next: [Generate Time Data for Gregorian Calendar \[page 45\]](#)

4.4 Generate Time Data for Gregorian Calendar

Perform a generic calendar setting in SAP HANA studio. This generates the time data (calendar) for several scenarios and SAP Fiori apps in SAP Customer Activity Repository applications bundle. Setting up the *Gregorian* calendar is mandatory. Optionally, you can choose to set up the *Fiscal* calendar as well.

Use

Perform this procedure to generate the time data for the calendar type *Gregorian*.

i Note

There is a second calendar type called *Fiscal*. It is used if the financial year is not the same as the calendar year (for example, April to March).

The Fiscal calendar is required for SAP Assortment Planning and for SAP Merchandise Planning.

You can set up both calendar types already now. Or you can set up the fiscal calendar type later on when you get to the application-specific sections ([Generate Time Data - Fiscal Calendar \[page 264\]](#)).

Prerequisites

- You are familiar with the calendar information for SAP HANA Platform.

i Note

For more information, see https://help.sap.com/viewer/p/SAP_HANA_PLATFORM and select your version. Choose **Develop** > **Development** > **SAP HANA Modeling Guide (for SAP HANA Studio)**. Search for the *Generate Time Data* section and see also the subsections.

Procedure

1. Open SAP HANA studio and log in to your back-end system.
2. Open the *SAP HANA Modeler* perspective.
3. On the *Quick View* tab, choose *Generate Time Data*.
4. Select your back-end system and choose *Next*.
5. Set up the Gregorian calendar:
 - Select the calendar type *Gregorian*.
 - Enter a *From Year* and a *To Year*.

i Note

The range of years should include all the years of data that you plan to store in SAP Customer Activity Repository.

❖ Example

If you plan to start using SAP Customer Activity Repository on January 1, 2019, enter 2019 as your starting year. But if you plan to access sales documents created in SAP Retail that date back to January 2017, enter 2017 as your starting year.

- Select the granularity.

i Note

Day is the minimum granularity required for SAP Customer Activity Repository. You can choose a finer level of granularity, for example *Hour*, if necessary.

- Choose *Finish*.
6. (Optional) If you wish to set up the fiscal calendar as well, follow the instructions in [Generate Time Data - Fiscal Calendar \[page 264\]](#).

Parent topic: [Prepare the Installation \[page 28\]](#)

Previous: [Verify Correct Schema Mapping \[page 41\]](#)

Next: [Configure AFL Usage \[page 46\]](#)

4.5 Configure AFL Usage

Perform configuration tasks to enable the usage of application function libraries (such as the PAL and the OFL) for the applications SAP Assortment Planning and SAP Allocation Management.

[Enable Usage of PAL Functions \(SAP Assortment Planning\) \[page 47\]](#)

To enable the usage of the PAL algorithm for SAP Assortment Planning, perform the required setup steps.

[Check the OFL Installation \[page 48\]](#)

Confirm that the OFL algorithm was installed successfully as prerequisite for SAP Assortment Planning and SAP Allocation Management.

Parent topic: [Prepare the Installation \[page 28\]](#)

Previous: [Generate Time Data for Gregorian Calendar \[page 45\]](#)

4.5.1 Enable Usage of PAL Functions (SAP Assortment Planning)

To enable the usage of the PAL algorithm for SAP Assortment Planning, perform the required setup steps.

Use

The installation of SAP HANA Platform includes the installation of the PAL algorithm, a prerequisite for SAP Assortment Planning.

To enable the usage of the PAL algorithm, as required by SAP Assortment Planning, perform the following procedure.

Note

You do not need to create the `AFL_WRAPPER_GENERATOR` or `AFL_WRAPPER_ERASER` procedures, nor do you need to generate any special PAL procedures; this is done automatically.

Procedure

- To confirm that the PAL functions were installed successfully, you can run `SELECT` statements in the three relevant public views as follows:
 - `SELECT * FROM SYS.AFL_AREAS WHERE AREA_NAME = 'AFLPAL';`
In the case of a successful installation, the statement should return 1 row.
 - `SELECT * FROM SYS.AFL_PACKAGES WHERE AREA_NAME = 'AFLPAL';`
In the case of a successful installation, the statement should return 1 row.
 - `SELECT * FROM SYS.AFL_FUNCTIONS WHERE AREA_NAME = 'AFLPAL';`
In the case of a successful installation, the statement should return many rows. Verify that the function `KMEANS` is part of the list.

```
select * from SYS.AFL_FUNCTIONS WHERE AREA_NAME = 'AFLPAL'
```

	FUNCTION_OID	SCHEMA_NAME	AREA_NAME	PACKAGE_NAME	FUNCTION_NAME	CREATE_TIMESTAMP	INPUT_PARAMETER_COUNT	RE
101	574,505,979	_SYS_AFL	AFLPAL	PAL	KMEANS	Apr 20, 2017 4:45:41.852 AM	2	
102	574,505,980	_SYS_AFL	AFLPAL	PAL	KMEANS_OVERLOAD_2_4	Apr 20, 2017 4:45:41.86 AM	2	
103	574,505,981	_SYS_AFL	AFLPAL	PAL	KMEANS_OVERLOAD_2_5	Apr 20, 2017 4:45:41.869 AM	2	
104	574,505,982	_SYS_AFL	AFLPAL	PAL	KMEDOIDS	Apr 20, 2017 4:45:41.877 AM	2	
105	574,505,983	_SYS_AFL	AFLPAL	PAL	KMEDIANS	Apr 20, 2017 4:45:41.885 AM	2	
106	574,505,984	SYS AFL	AFLPAL	PAL	VALIDATEKMEANS	Apr 20, 2017 4:45:41.893 AM	3	

More Information

- Section [Install the Prerequisites \[page 17\]](#) | [Common Prerequisites](#) | [SAP HANA Platform](#)
- http://help.sap.com/hana_platform | [<Version>](#) | [Reference](#) | [SAP HANA Predictive Analysis Library \(PAL\)](#)

4.5.2 Check the OFL Installation

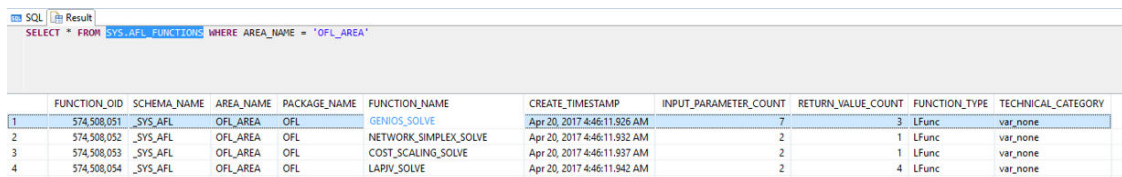
Confirm that the OFL algorithm was installed successfully as prerequisite for SAP Assortment Planning and SAP Allocation Management.

Use

The installation of SAP HANA Platform includes the installation of the OFL algorithm, a prerequisite for SAP Assortment Planning.

Procedure

1. To confirm that the OFL was installed successfully, you can run `SELECT` statements in the three relevant public views as follows:
 - `SELECT * FROM SYS.AFL_AREAS WHERE AREA_NAME = 'OFL_AREA';`
In the case of a successful installation, the statement should return 1 row.
 - `SELECT * FROM SYS.AFL_PACKAGES WHERE AREA_NAME = 'OFL_AREA';`
In the case of a successful installation, the statement should return 1 row.
 - `SELECT * FROM SYS.AFL_FUNCTIONS WHERE AREA_NAME = 'OFL_AREA';`
In the case of a successful installation, the statement should return 4 rows. Verify that the function `GENIOS_SOLVE` is part of the list.



The screenshot shows a SQL console window with the following query and result:

```
SELECT * FROM SYS.AFL_FUNCTIONS WHERE AREA_NAME = 'OFL_AREA'
```

	FUNCTION_OID	SCHEMA_NAME	AREA_NAME	PACKAGE_NAME	FUNCTION_NAME	CREATE_TIMESTAMP	INPUT_PARAMETER_COUNT	RETURN_VALUE_COUNT	FUNCTION_TYPE	TECHNICAL_CATEGORY
1	574,508,051	_SYS_AFL	OFL_AREA	OFL	GENIOS_SOLVE	Apr 20, 2017 4:46:11.926 AM	7	3	LFunc	var_none
2	574,508,052	_SYS_AFL	OFL_AREA	OFL	NETWORK_SIMPLEX_SOLVE	Apr 20, 2017 4:46:11.932 AM	2	1	LFunc	var_none
3	574,508,053	_SYS_AFL	OFL_AREA	OFL	COST_SCALING_SOLVE	Apr 20, 2017 4:46:11.937 AM	2	1	LFunc	var_none
4	574,508,054	_SYS_AFL	OFL_AREA	OFL	LAPIV_SOLVE	Apr 20, 2017 4:46:11.942 AM	2	4	LFunc	var_none

5 Install the Software

For a correct **installation**, you must first install the required prerequisites and implement the pre-installation SAP Notes. Then you install the back-end components and the front-end components. Finally, you implement the SAP Notes that can only be applied after the installation.

→ Tip

If you encounter issues during these procedures, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

1. [Verify Prerequisites and SAP Notes \(Pre-Installation\) \[page 50\]](#)
Ensure that the required prerequisites and pre-installation SAP Notes have been implemented in your system landscape.
2. [Install ABAP Back-End Server \[page 50\]](#)
First install the SAP HANA database together with the AFL components for this release. Then install the SAP CARAB 4.0 SPS06 back-end product version of SAP Customer Activity Repository applications bundle in your ABAP back-end system. Complete the back-end installation by setting up one or more SAP clients.
3. [Install ABAP Front-End Server \[page 60\]](#)
Install the complete UI layer in the front-end system. The UI layer consists of three components: SAP Gateway, the central SAP Fiori UI component (SAP Fiori front-end server with SAP Fiori launchpad), and the product-specific SAP Fiori UI component (front-end product version SAP FIORI FOR SAP CARAB 4.0 SPS05 of SAP Customer Activity Repository applications bundle).
4. [Verify SAP Notes and RINs \(Post-Installation\) \[page 65\]](#)
There are SAP Notes (corrections) that can only be implemented **after** you have installed the back-end product version and the front-end product version. You must therefore do this additional check and implement the required notes, before you move on to the setup steps for the applications.
5. [Install Alternate Storage \(Optional\) \[page 66\]](#)
You only need to implement this procedure if you plan on using the [Table Content Aging](#) report delivered with SAP Customer Activity Repository. This report allows you to copy your transaction log (TLOG) data and its extensions from your SAP HANA database to an alternate storage technology (such as SAP IQ or Apache Hadoop), thereby reducing your total cost of hardware ownership.

5.1 Verify Prerequisites and SAP Notes (Pre-Installation)

Ensure that the required prerequisites and pre-installation SAP Notes have been implemented in your system landscape.

Procedure

1. Verify that you have installed and configured the prerequisites that are required for your scenario. In [Install the Prerequisites \[page 17\]](#), see the *Common Prerequisites* and the *Application-Specific Prerequisites*.
2. Verify that **all SAP Notes** that must be applied **before the installation** have been implemented for your scenario.
See [Implement SAP Notes for the Installation \[page 28\]](#).

⚠ Caution

Always consult the table for SAP Customer Activity Repository, regardless of your scenario. Notes listed there are often common corrections, applicable to all consuming applications.

Parent topic: [Install the Software \[page 49\]](#)

Next: [Install ABAP Back-End Server \[page 50\]](#)

5.2 Install ABAP Back-End Server

First install the SAP HANA database together with the AFL components for this release. Then install the SAP CARAB 4.0 SPS06 back-end product version of SAP Customer Activity Repository applications bundle in your ABAP back-end system. Complete the back-end installation by setting up one or more SAP clients.

Context

- The AFL components (for example, `SAP_RTL_AFL_FOR_SAP_HANA` and `SAP_HANA_AFL`) run directly in the SAP HANA database. The revision of each AFL component must be compatible with the revision of the SAP HANA database.
- The ABAP back-end server is based on the foundation component (for example, `ABAP_FND_ON_HANA`). Here you install the SAP CARAB 4.0 SPS06 back-end product version. The back-end product version provides the business logic and the back-end data (for example, users, roles, and authorizations).

i Note

You can find a general system landscape overview showing the ABAP back-end server and the ABAP front-end server at https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ► *Implement* ► *Installation and Upgrade* ► *SAP Fiori: Setup and Configuration* ► *Setup of SAP Fiori System Landscape* ►.

1. [Download and Install the Application Function Library \(SAP RTL AFL FOR SAP HANA\) \[page 51\]](#)
Install **compatible revisions** of the SAP HANA database and the application function library components (SAP HANA AFL and SAP RTL AFL FOR SAP HANA). You must do this **before** you install the back-end product version of SAP Customer Activity Repository applications bundle. This procedure is mandatory for all the scenarios.
2. [Install SAP CARAB Back-End Product Version \[page 54\]](#)
Install the SAP CARAB 4.0 SPS06 back-end product version of SAP Customer Activity Repository applications bundle 4.0 SPS06 in your back-end system. First create a stack XML file with Maintenance Planner. Then install this file with Software Update Manager (transaction SUM).
3. [Set Up SAP Client \[page 57\]](#)
Set up an SAP client in your ABAP back-end system. Map the client of your source master data system to the client in your ABAP back-end system. The steps to follow depend on whether your scenario uses the Demand Data Foundation (DDF) module in SAP Customer Activity Repository or not.

Parent topic: [Install the Software \[page 49\]](#)

Previous: [Verify Prerequisites and SAP Notes \(Pre-Installation\) \[page 50\]](#)

Next: [Install ABAP Front-End Server \[page 60\]](#)

5.2.1 Download and Install the Application Function Library (SAP RTL AFL FOR SAP HANA)

Install **compatible revisions** of the SAP HANA database and the application function library components (SAP HANA AFL and SAP RTL AFL FOR SAP HANA). You must do this **before** you install the back-end product version of SAP Customer Activity Repository applications bundle. This procedure is mandatory for all the scenarios.

Overview

There is one software component in SAP Customer Activity Repository applications bundle that you must always install (or upgrade) first:

- SAP RTL AFL FOR SAP HANA

You must install (upgrade) this component together with the following components of SAP HANA Platform:

- SAP HANA AFL
- SAP HANA DATABASE

The revision of each AFL component must be **compatible** with the revision of the SAP HANA database. Be aware of the following dependencies.

Dependencies Between AFL Components and the SAP HANA Database

The SAP RTL AFL FOR SAP HANA component is part of SAP Customer Activity Repository applications bundle but follows a different release cycle.

The reason is that AFL components (such as SAP RTL AFL FOR SAP HANA and SAP HANA AFL) run directly in the SAP HANA database. Because of this, they are released in sync with the SAP HANA database.

The releases are called “revisions”. Whenever a new revision of the SAP HANA database is released, a new revision of each AFL component is released. As a result, there are always several revisions of each component available for download.

⚠ Caution

Compatible Revisions

For each revision of an AFL component, there is **only one compatible revision** of the SAP HANA database. Whenever you upgrade the AFL components to a new revision, you must also upgrade the database. Whenever you upgrade the database to a new revision, you must also upgrade the AFL components.

This applies not only during a **new installation** or an **upgrade**, but is equally relevant during **normal business operations**.

Patches for Same Revision

Patches are the sole exception to this rule. Within the same revision, you **can and should** upgrade the AFL components to the **highest available patch**. Here is an example:

- Your current revision is:
SAP RTL AFL FOR SAP HANA revision **54.0002** for SAP HANA database 2.0 SPS05 revision 2.00.054
- A higher patch might be:
SAP RTL AFL FOR SAP HANA revision **54.0003** for SAP HANA database 2.0 SPS05 revision 2.00.054

In this case, you should install the higher patch of the AFL. You do not need to update the database.

→ Tip

You can easily check which revision is currently installed in your back-end system:

1. Execute transaction DB02 to open the *Diagnostics: Missing Tables and Indexes* screen.
2. Choose ► *Current Status* ► *Overview* ▾ to open the *SAP HANA database* overview.
3. Under ► *Installed Plug-Ins* ▾, choose *RTL* to open the table with the plug-in details.
4. Search for **SAP RTL AFL** and see the values for *rev-number* and *rev-patchlevel*.

Download and Install SAP RTL AFL FOR SAP HANA

→ Tip

When you download AFL components from the SAP Support Portal, the compatible revision of the SAP HANA database is always indicated.

1. Determine which revision of the SAP HANA database and the AFL components you need. To select the best revision for your scenario, see the *Common Prerequisites* in section [Install the Prerequisites \[page 17\]](#). Carefully read the information under *SAP HANA Platform 2.0* and *SAP RTL AFL FOR SAP HANA*:
 - Note the **minimum revision** of the SAP HANA database and the AFL components. You need at least this revision for the current release.
 - Read the *Caution* to know what to do if you wish to select a **higher revision than the minimum revision**.Once you have selected a revision, this gives you the compatible revisions of the other components.
2. Download the compatible revisions from the SAP Support Portal at <http://support.sap.com> under [▶ Software Downloads ▶](#):

→ Tip

Alternatively, you can log in to the SAP ONE Support Launchpad at <https://launchpad.support.sap.com/#/softwarecenter/> and follow the navigation from there.

- **SAP RTL AFL FOR SAP HANA:**
The component is included in the SAP CARAB back-end product version. To download one of the available revisions, choose [▶ By Alphabetical Index \(A-Z\) ▶ C ▶ CAR RETAIL APPLICATIONS BUNDLE ▶ SAP CARAB 4.0 ▶ Support Packages and Patches ▶ DOWNLOADS ▶ COMPRISED SOFTWARE COMPONENT VERSIONS ▶ SAP RTL AFL FOR SAP HANA 200 ▶](#).

→ Tip

You might need to select a different *LINUX* option from the dropdown to display more revisions.

⚠ Caution

Always install the **highest available patch** of the revision that you have selected.

i Note

When downloading *SAP RTL AFL FOR SAP HANA*, you might also see another AFL component called *SAP XRP AFL*. You can ignore this component and don't need to download or install it.

- **SAP HANA AFL and SAP HANA DATABASE:**
These components are part of SAP HANA Platform. To download one of the available revisions, choose [▶ By Alphabetical Index \(A-Z\) ▶ H ▶ SAP HANA PLATFORM EDITION ▶ SAP HANA PLATFORM EDITION 2.0 ▶ Support Packages and Patches ▶ DOWNLOADS ▶ SAP HANA AFL 2.0 ▶](#) and [▶ SAP HANA DATABASE 2.0 ▶](#).

3. Install the selected revisions of SAP RTL AFL FOR SAP HANA, SAP HANA AFL, and SAP HANA DATABASE in your back-end system.
See SAP Note [2377894](#) and carefully follow the steps for the new installation scenario.

→ Tip

If you encounter issues, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

For installation and upgrade information for SAP HANA Platform, see the following sections of the *SAP HANA Server Installation and Update Guide* (select your version at the top):

- [Installing an SAP HANA System](#)
- [Updating the SAP HANA System](#)

Result

You have successfully installed the SAP RTL AFL FOR SAP HANA component.

→ Remember

For future updates of your system landscape, remember that the dependencies between the AFL components and the SAP HANA database still apply:

- For example, should you decide to upgrade your SAP Customer Activity Repository applications bundle scenario to a higher release requiring a higher AFL revision, you will also need to upgrade the SAP HANA database and SAP HANA AFL.
- Likewise, should you decide to upgrade your SAP HANA database to a higher revision (for example, to use new features in SAP HANA), you will also need to upgrade the AFL components.

Parent topic: [Install ABAP Back-End Server \[page 50\]](#)

Next: [Install SAP CARAB Back-End Product Version \[page 54\]](#)

5.2.2 Install SAP CARAB Back-End Product Version

Install the SAP CARAB 4.0 SPS06 back-end product version of SAP Customer Activity Repository applications bundle 4.0 SPS06 in your back-end system. First create a stack XML file with Maintenance Planner. Then install this file with Software Update Manager (transaction SUM).

i Note

The back-end product version contains the software components listed below. You can also find the components on the SAP Support Portal, in the [download area for the back-end product version](#):

- RTLAPPS 400
- RTLCAR 400
- RTLDDF 400
- XI CONTENT RTLAPPS 400
- XI CONTENT RTLCAR 400

- XI CONTENT RTLDFF 400
- XSAC_OPP_PPS
- XSAC_OPP_PPS_2
- SAP RTL AFL FOR SAP HANA 200: This component requires a separate installation procedure, which you have already done (see [Download and Install the Application Function Library \(SAP RTL AFL FOR SAP HANA\) \[page 51\]](#)).
- SAP XRP AFL 1.0: You can ignore this component and don't need to download or install it.

Prerequisites

- You have completed all of the procedures described in the previous sections of this guide. In particular, see the tasks in section [Prepare the Installation \[page 28\]](#).
- You have installed compatible revisions of the SAP HANA database and the AFL components (SAP HANA AFL and SAP RTL AFL FOR SAP HANA 200).
- (Optional) If you need information on the supported interoperability scenarios between the back-end product version and the front-end product version, see SAP Note [2815026](#) (Back-end and front-end interoperability in SAP Customer Activity Repository applications bundle 4.0).

Overview

In the procedures below you do the following:

Use this tool...	To do this...
Maintenance Planner More information: https://help.sap.com/viewer/p/MAINTENANCE_PLANNER	Plan your system landscape and create a stack XML file based on the required product versions.
Software Update Manager (SUM) More information: https://support.sap.com/en/tools/software-logistics-tools/software-update-manager.html	Install or upgrade components using the stack XML file.

Note

It may be possible to install or upgrade components using the SAP Add-On Installation Tool (transaction SAINT) or the Support Package Manager (transaction SPAM). However, these alternative procedures are not described in this guide. For information on whether they are supported for your implementation scenario and on how to proceed in this case, see SAP Note [1803986](#) (Rules to use SUM or SPAM/SAINT to apply SPs for ABAP stacks).

Create Stack XML File With Maintenance Planner

i Note

If you encounter issues with Maintenance Planner, see the following SAP Notes for possible solutions:

- [2535751](#): *Can not select the higher release for Netweaver in Maintenance Planner*
- [2314463](#): *Required file K-XXXXXXXXXX.SAR is not visible for your user Sxxxxxxx*

1. Log on to Maintenance Planner at <https://support.sap.com/en/alm/solution-manager/processes-72/maintenance-planner.html> under **Access Maintenance Planner**.
2. Choose *Plan a New System*.
3. Choose *Plan*.
4. Choose the system type *ABAP (Install an ABAP System)* and enter a three-character system ID (SID).
5. Select the system type that you wish to install (for example, *Install an ABAP FND ON HANA system* or *SAP S/4HANA FOUNDATION*).
6. Select a product version and a support package stack.

i Note

For the minimum versions required for this release, see section [Install the Prerequisites \[page 17\]](#) under *Foundation Component — ABAP FND ON HANA or SAP S/4HANA FOUNDATION*.

7. Select a product version instance.
8. Choose *Confirm Selection*.
9. Choose *Install or Maintain an Add-On*.
10. Select the back-end product version `SAP CARAB 4.0` and the support package stack `SPS06 (06/2021)`.
11. Select the instance `CAR Retail Application Bundle`.
12. Choose *Confirm Selection*.
13. Choose *Next*.
14. Select the operating system and database for your scenario.
15. Choose *Confirm Selection*.
16. Review the details of your stack dependent and stack independent files. If everything is OK, choose *Next*.
17. Choose *Download Stack XML*.
You have now created the stack XML file.

Install Stack XML File With Software Update Manager (SUM)

1. Download and install the SUM tool:
 1. See the SAP Support Portal at <https://support.sap.com/en/tools/software-logistics-tools/software-update-manager.html>.
 2. Consult the information for SUM 2.0 SP xx and follow the instructions.
2. In SUM, install your add-on product using the stack XML file that you have created in the first procedure.

Result

You have successfully installed the back-end product version.

i Note

With this installation, several SAP HANA content packages have already been activated automatically. This saves you manual activation steps later on.

Continue with the next section.

Parent topic: [Install ABAP Back-End Server \[page 50\]](#)

Previous: [Download and Install the Application Function Library \(SAP RTL AFL FOR SAP HANA\) \[page 51\]](#)

Next: [Set Up SAP Client \[page 57\]](#)

5.2.3 Set Up SAP Client

Set up an SAP client in your ABAP back-end system. Map the client of your source master data system to the client in your ABAP back-end system. The steps to follow depend on whether your scenario uses the Demand Data Foundation (DDF) module in SAP Customer Activity Repository or not.

Prerequisites

Verify whether your scenario requires data replicated from the source master data system via the SAP System Landscape Transformation Replication Server (SLT).

- The non-DDF scenarios all use the SLT replication.
- The DDF scenarios all use the data replication framework (DRF, transaction `DRFOUIT`). However, some scenarios can additionally use the SLT replication:
 - SAP Allocation Management: **mandatory**
 - SAP Assortment Planning: optional (depends on your customer-specific implementation)
 - SAP Merchandise Planning: optional (depends on your customer-specific implementation)

If your scenario uses the SLT replication, you must define **SLT transformation rules to map the clients**. You must do this mapping before the actual replication. The procedures below describe how you do this for each scenario.

i Note

You define an SLT transformation rule by matching a client number in the source master data system to a client number in your SAP Customer Activity Repository applications bundle ABAP back-end system (*SAP Client* `MANDT`). Without this mapping, errors may occur (for example, table joins can fail and the scenarios relying on master data would not be functional).

i Note

If you need more information about the client concept, see [SAP NetWeaver Library: Function-Oriented View](#) and select your support package (SP). Choose [Application Server ABAP](#) > [Other Services](#) > [Services for Administrators](#) and consult the [Client Concept](#) section and the [Multichannel Administration](#) section.

Procedure for All Scenarios Using Demand Data Foundation

Follow this procedure in the following cases:

- You want to model and forecast demand using the UDF module in SAP Customer Activity Repository.
- You want to use the Omnichannel Promotion Pricing (OPP) module in SAP Customer Activity Repository.
- You want to use SAP Allocation Management.
- You want to use SAP Assortment Planning.
- You want to use SAP Merchandise Planning.
- You want to use SAP Promotion Management.

Follow these steps:

1. In transaction `scc4`, create the necessary client in your ABAP back-end system.

⚠ Caution

If you are performing a client copy, only do this after you have successfully imported all related software components. Also, only import or transfer Customizing tables after the client copy is complete. For instructions, see SAP Note [337623](#) (*Customizing after installation or upgrade*).

2. In Customizing (transaction `spro`), choose [Cross-Application Components](#) > [Demand Data Foundation](#) > [Basic Settings](#) > [Define Logical Systems](#).

i Note

If you have multiple source master data systems and/or clients, you must define a logical system for each system/client.

i Note

For the DDF scenarios with SLT replication, you also use this Customizing activity to define SLT transformation rules. You do this by matching a [Logical System](#) (your back-end system client) to an [ERP Client](#) (client number) for an [MD Sys Typ](#) (source master data system type).

1. Carefully read the activity documentation for detailed instructions and examples.
2. Define the logical systems that you need and map the clients as required for your scenario.

Procedure for Scenarios Not Using Demand Data Foundation

Follow this procedure if you are implementing a non-DDF scenario:

i Note

All of the following scenarios are modules in SAP Customer Activity Repository.

- POS Data Transfer and Audit
- Multichannel Transaction Data Management
- Inventory Visibility (including Omnichannel Article Availability and Sourcing, OAA)
- On-Shelf Availability

Follow these steps:

1. Verify the client numbers in the source master data systems:
 - source SAP Retail system
 - source SAP S/4HANA system
 - source systems of any optional products that you wish to implement with SAP Customer Activity Repository (such as SAP CRM or SAP Marketing Cloud)

i Note

SAP Customer Activity Repository includes SAP HANA content that provides views on a combination of client-dependent data authored in these source master data systems. For instance, sales documents are created in a source SAP Retail system and are replicated to SAP Customer Activity Repository.

Likewise, customer information can be optionally replicated from a source SAP CRM or SAP Marketing Cloud system.

2. In transaction `scc4`, create the necessary client in your ABAP back-end system.

⚠ Caution

If you are performing a client copy, only do this after you have successfully imported all related software components. Also, only import or transfer Customizing tables after the client copy is complete. For instructions, see SAP Note [337623](#) (Customizing after installation or upgrade).

Cross-system information is client-dependent. As a result, the *SAP Client* (`MANDT`) attribute must be used as one of the join attributes in the SAP HANA views to combine cross-system sales and master data. If you want to replicate data from only a single source master data system, all data (whether created or replicated) must be affiliated with the same client number. Note that this does not apply to scenarios with multiple source master data systems (for more information, see the optional step below).

⚠ Caution

SLT Transformation Rules:

Using the same client number might not be possible due to the specifics of your implementation and client setup rules. In this case, **you must use SLT transformation rules before replicating the data.** The rules allow you to transform the source SAP Retail or SAP S/4HANA clients and, optionally, the source SAP CRM or SAP Marketing Cloud clients to match the client in your back-end system.

Example:

SAP Retail and SAP CRM (or SAP Marketing Cloud) are set up on client 100 in your implementation. In this case, you should also set up your installation on client 100. If, for any reason, you are unable to do so, you can transform the source client to 100 using SLT transformation rules.

3. (Optional) Do this step if you have multiple source master data systems:
 1. For configuration options for scenarios with multiple source master data systems, see the [Multiple ECC Support](#) section in the application help for SAP Customer Activity Repository.
 2. In Customizing, do the client mapping:
Choose ► [SAP Customer Activity Repository](#) ► [General Settings](#) ► [Client Mapping For Multiple ERP Systems](#) ►.
 3. Carefully read the activity documentation.
 4. Enable the multiple ERP support and map the clients for each of the systems.

Parent topic: [Install ABAP Back-End Server \[page 50\]](#)

Previous: [Install SAP CARAB Back-End Product Version \[page 54\]](#)

5.3 Install ABAP Front-End Server

Install the complete UI layer in the front-end system. The UI layer consists of three components: SAP Gateway, the central SAP Fiori UI component (SAP Fiori front-end server with SAP Fiori launchpad), and the product-specific SAP Fiori UI component (front-end product version SAP FIORI FOR SAP CARAB 4.0 SPS05 of SAP Customer Activity Repository applications bundle).

Context

- The **ABAP front-end server** contains all the infrastructure components to generate SAP Fiori app-specific UIs for the client and to communicate with the back-end systems.
- The **central SAP Fiori UI component** (SAP Fiori front-end server) is a framework that provides the common infrastructure for all SAP Fiori apps. The component contains the SAP Fiori launchpad, which is the basis of all SAP Fiori apps and provides fundamental functions (such as logon, surface sizing, navigation between apps, and role-based app catalogs). End-users access SAP Fiori apps from the SAP Fiori launchpad.
- The **product-specific SAP Fiori UI component** (SAP FIORI FOR SAP CARAB 4.0 SPS05 front-end product version) contains the SAP Fiori apps delivered with this release of SAP Customer Activity Repository applications bundle.

i Note

You can find a general system landscape overview showing the ABAP back-end server and the ABAP front-end server at https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION under ► [Implement](#) ► [Installation and Upgrade](#) ► [SAP Fiori: Setup and Configuration](#) ► [Setup of SAP Fiori System Landscape](#) ►.

1. [Install SAP Gateway on the ABAP Front-End Server \[page 61\]](#)
SAP Gateway (SAP Gateway Foundation, `SAP_GWFND`) is a component in SAP NetWeaver. In this procedure, you ensure that the required SAP NetWeaver version is installed on your ABAP front-end server.
2. [Verify Installation of Central SAP Fiori UI Component \[page 62\]](#)
The central SAP Fiori UI component includes the SAPUI5 control library and the SAP Fiori launchpad. The component is delivered as part of the SAP Fiori front-end server. Verify that the required version of SAP Fiori front-end server is installed in your front-end system.
3. [Install SAP FIORI FOR SAP CARAB Front-End Product Version \[page 63\]](#)
Install the SAP FIORI FOR SAP CARAB 4.0 SPS05 front-end product version in your front-end system. The product version contains the SAP Fiori apps for this release of SAP Customer Activity Repository applications bundle. First create a stack XML file with Maintenance Planner and then install the stack XML file with Software Update Manager (transaction `SUM`).

Parent topic: [Install the Software \[page 49\]](#)

Previous: [Install ABAP Back-End Server \[page 50\]](#)

Next task: [Verify SAP Notes and RINs \(Post-Installation\) \[page 65\]](#)

5.3.1 Install SAP Gateway on the ABAP Front-End Server

SAP Gateway (SAP Gateway Foundation, `SAP_GWFND`) is a component in SAP NetWeaver. In this procedure, you ensure that the required SAP NetWeaver version is installed on your ABAP front-end server.

Context

SAP Gateway Foundation handles the communication between the ABAP back-end server and the client on the front-end. It establishes a connection between SAP Business Suite or application data and the target clients, platforms, and programming framework.

As of SAP NetWeaver 7.40, the major components of SAP Gateway have been integrated into SAP NetWeaver as SAP Gateway Foundation (`SAP_GWFND`). SAP Gateway Foundation has since been an integral part of SAP NetWeaver.

Procedure

1. Ensure that the required SAP NetWeaver version is installed on your front-end server. For more information, see the following:
 - For the required version, see [Install the Prerequisites \[page 17\]](#) and choose ► [Common Prerequisites](#) ► [Foundation Component — ABAP FND ON HANA or SAP S/4HANA FOUNDATION](#) ► and [SAP Fiori](#).
 - For information on deployment options for SAP Gateway, see [Quick Configuration](#).
 - For installation, configuration, and security information, see the SAP Gateway product documentation at [SAP Gateway Foundation \(SAP_GWFND\)](#).
 - For installation and upgrade information for SAP Fiori, see https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION and choose ► [Implement](#) ► [Installation and Upgrade](#) ► [SAP Fiori: Setup and Configuration](#) ► [Setup of SAP Fiori System Landscape](#) ►. Here you can also find a system landscape diagram.

Parent topic: [Install ABAP Front-End Server \[page 60\]](#)

Next: [Verify Installation of Central SAP Fiori UI Component \[page 62\]](#)

5.3.2 Verify Installation of Central SAP Fiori UI Component

The central SAP Fiori UI component includes the SAPUI5 control library and the SAP Fiori launchpad. The component is delivered as part of the SAP Fiori front-end server. Verify that the required version of SAP Fiori front-end server is installed in your front-end system.

Context

The SAP Fiori front-end server contains the software components that are required to run SAP Fiori scenarios on an ABAP front-end server.

Procedure

1. Verify what version of SAP Fiori front-end server is required for this release.

In section [Install the Prerequisites \[page 17\]](#), see under ► [Common Prerequisites](#) ► [SAP Fiori](#) ►. This section also points you to the installation information.
2. Ensure that the required version is installed on your front-end server.

Parent topic: [Install ABAP Front-End Server \[page 60\]](#)

Previous: [Install SAP Gateway on the ABAP Front-End Server \[page 61\]](#)

Next: [Install SAP Fiori for SAP CARAB Front-End Product Version](#) [page 63]

5.3.3 Install SAP Fiori for SAP CARAB Front-End Product Version

Install the SAP Fiori for SAP CARAB 4.0 SPS05 front-end product version in your front-end system. The product version contains the SAP Fiori apps for this release of SAP Customer Activity Repository applications bundle. First create a stack XML file with Maintenance Planner and then install the stack XML file with Software Update Manager (transaction SUM).

i Note

The front-end product version contains the software component `UICAR001_400`. You can also find the component on the SAP Support Portal, in the [download area for the front-end product version](#).

Prerequisites

- You have completed the previous procedures in this guide.
- (Optional) If you need information on the supported interoperability scenarios between the back-end product version and the front-end product version, see SAP Note [2815026](#) (*Back-end and front-end interoperability in SAP Customer Activity Repository applications bundle 4.0*).

Overview

In the procedures below you do the following:

Use this tool...	To do this...
Maintenance Planner More information: https://help.sap.com/viewer/p/MAINTENANCE_PLANNER	Plan your system landscape and create a stack XML file based on the required product versions.
Software Update Manager (SUM) More information: https://support.sap.com/en/tools/software-logistics-tools/software-update-manager.html	Install or upgrade components using the stack XML file.

i Note

It may be possible to install or upgrade components using the SAP Add-On Installation Tool (transaction `SAINT`) or the Support Package Manager (transaction `SPAM`). However, these alternative procedures are

not described in this guide. For information on whether they are supported for your implementation scenario and on how to proceed in this case, see SAP Note [1803986](#) (Rules to use SUM or SPAM/SAINT to apply SPs for ABAP stacks).

Create Stack XML File With Maintenance Planner

i Note

If you encounter issues with Maintenance Planner, see the following SAP Notes for possible solutions:

- [2535751](#): Can not select the higher release for Netweaver in Maintenance Planner
- [2314463](#): Required file K-XXXXxxxxxxx.SAR is not visible for your user Sxxxxxxx

1. Log on to Maintenance Planner at <https://support.sap.com/en/alm/solution-manager/processes-72/maintenance-planner.html> under ► *Access Maintenance Planner*.
2. Choose *Plan a New System*.
3. Choose *Plan*.
4. Choose the system type *ABAP (Install an ABAP System)* and enter a three-character system ID (<SID>).
5. Select the system type that you wish to install.
6. Select a product version and a support package stack.
7. Select a product version instance.
8. Choose *Confirm Selection*.
9. Choose *Install or Maintain an Add-On*.
10. Select the SAP FIORI FOR SAP CARAB 4.0 front-end product version and the SPS05 (06/2021) support package stack.
11. Select an instance of SAP Fiori front-end server.
12. Choose *Confirm Selection*.
13. Choose *Next*.
14. Select the operating system and database for your scenario.
15. Choose *Confirm Selection*.
16. Review the details of your stack dependent and stack independent files. If everything is OK, choose *Next*.
17. Choose *Download Stack XML*.
You have now created the stack XML file.

Install Stack XML File With Software Update Manager (SUM)

1. Download and install the SUM tool:
 1. See the SAP Support Portal at <https://support.sap.com/en/tools/software-logistics-tools/software-update-manager.html>.
 2. Consult the information for SUM 2.0 SP xx and follow the instructions.
2. In SUM, install your add-on product using the stack XML file that you have created in the first procedure.

Result

You have successfully installed the front-end product version for this release.

Continue with the next section.

Parent topic: [Install ABAP Front-End Server \[page 60\]](#)

Previous: [Verify Installation of Central SAP Fiori UI Component \[page 62\]](#)

5.4 Verify SAP Notes and RINs (Post-Installation)

There are SAP Notes (corrections) that can only be implemented **after** you have installed the back-end product version and the front-end product version. You must therefore do this additional check and implement the required notes, before you move on to the setup steps for the applications.

Prerequisites

Make sure that you have the up-to-date version of each SAP Note, which you can always find on the SAP Support Portal at <http://support.sap.com/notes>.

Procedure

Check whether there are SAP Notes that can only be implemented *after the installation*. See the [Implement SAP Notes for the Installation \[page 28\]](#) section and do the following:

- a. Always check the release information notes (RINs) indicated there. The RINs list the installation- and upgrade-relevant corrections that have become available since this guide was published and the software was released. Implement any corrections from the RINs that are required for your scenario.
- b. Always check the table for SAP Customer Activity Repository. SAP Notes listed there are often common corrections, applicable to all consuming applications.
- c. Then check the SAP Notes for your consuming application. Implement any corrections required for your scenario.

Task overview: [Install the Software \[page 49\]](#)

Previous: [Install ABAP Front-End Server \[page 60\]](#)

Next: [Install Alternate Storage \(Optional\) \[page 66\]](#)

5.5 Install Alternate Storage (Optional)

You only need to implement this procedure if you plan on using the *Table Content Aging* report delivered with SAP Customer Activity Repository. This report allows you to copy your transaction log (TLOG) data and its extensions from your SAP HANA database to an alternate storage technology (such as SAP IQ or Apache Hadoop), thereby reducing your total cost of hardware ownership.

Use

For more information, see SAP Help Portal at <https://help.sap.com/viewer/p/CARAB> | [<Version>](#) | [Use](#) | [Application Help](#) | [SAP Customer Activity Repository](#) | [POS Data Transfer and Audit](#) | [Implementing a POS Transaction Data Storage Strategy](#) | [Using the Table Content Aging Report](#) |

i Note

If your scenario includes demand modeling and forecasting with the Unified Demand Forecast (UDF) module, we recommend retaining the historical sales data in memory.

Process Flow

In order to successfully install alternate storage, you must execute the following procedures:

1. Do one of the following:
 - Install and set up integration with SAP IQ, **or**
 - Install and set up integration with Apache Hadoop, **or**
 - Install and set up integration with SAP HANA Dynamic Tiering
2. Create the remote source in SAP HANA studio (not applicable for integration with SAP HANA Dynamic Tiering).
3. Create the virtual table.
4. Set the deploy mode in SAP HANA Transport for ABAP.

Parent topic: [Install the Software \[page 49\]](#)

Previous task: [Verify SAP Notes and RINs \(Post-Installation\) \[page 65\]](#)

5.5.1 Install and Set Up Integration with SAP IQ

You use these procedures to install and set up SAP IQ to support the *Table Content Aging* report (transaction /CAR/TABLE_AGING) delivered with SAP Customer Activity Repository.

The SAP HANA database points to your SAP IQ database using SAP HANA smart data access (SDA), which exposes data from SAP IQ remote sources as virtual tables.

For more information, see SAP Help Portal at <https://help.sap.com/viewer/p/CARAB> |> <your release> > Use > Application Help > SAP Customer Activity Repository > POS Data Transfer and Audit > Implementing a POS Transaction Data Storage Strategy > Using the Table Content Aging Report >.

Install SAP IQ

A detailed procedure is described in the *SAP IQ Installation and Update Guide*.

For more information, see SAP Help Portal at https://help.sap.com/viewer/p/SAP_IQ |> Implement > Installation and Upgrade > SAP IQ Installation and Update Guide for <your operating system> >.

Configure SAP IQ

1. Allocate sufficient space into which your data will be loaded.

i Note

The default DBSpaces provided during installation are intended to be used for SAP IQ system management. You should create your own DBSpace under the *Main* store with a DB File that is large enough to satisfy your sizing requirements.

For more information, see SAP Help Portal at https://help.sap.com/viewer/p/SAP_IQ |> Use > Reference > SAP IQ SQL Reference > SQL Statements > CREATE DBSPACE Statement >.

2. Create an in-memory row-level versioning (RLV) store.

For more information, see SAP Help Portal at https://help.sap.com/viewer/p/SAP_IQ |> Operate > Administration > SAP IQ Administration: In-Memory Row-Level Versioning > About In-Memory Row-Level Versioning >.

i Note

Click *View All* if topic does not appear in initial list.

3. Create a database under the content created at the beginning of this procedure.

i Note

Ensure the following:

- The SAP IQ stores are configured with a large enough cache configuration, main memory, and temporary memory.
- The page size should be set to 128KB.
- The concurrency aligns with the amount of processes that will be triggered during the data copy.

For more information, see SAP Help Portal at https://help.sap.com/viewer/p/SAP_IQ ► *Implement* ► *Configuration* ► *Performance and Tuning Guide* ►.

4. Create the following tables in the DBSpace created at the beginning of the procedure:

- /POSDW/TLOGF
- /POSDW/TLOGF_EXT
- /POSDW/TLOGF_X
- /POSDW/PLOGF

i Note

These tables should have the same structure as the tables in your SAP HANA system. One possible way is to export the table structure via Export SQL on the SAP HANA side, and import it on the SAP IQ side using the SQL console.

The SQL statement requires some modifications, such as:

- Converting all the column names in the exported SQL statement to lower case (for example, "RETAILSTOREID becomes "retailstoreid").
You can simply convert the entire SQL statement into lower case and then only convert the table name to upper case to keep the table name unchanged.
- Renaming of NVARCHAR to VARCHAR.
- Removing references to CS_* (for example, CS_FIXED).

5. Enable the RLV for the tables you just created.

6. Set the snapshot versioning property of the transaction to row-level.

❁ Example

```
set option Snapshot_Versioning = 'Row-level';
```

7. Enable connection blocking and set the blocking timeout threshold.

❁ Example

```
set option blocking = 'On';  
set option blocking_timeout = '0';
```

Install SAP IQ Drivers

Install and configure the ODBC database drivers required to connect to the remote source.

i Note

Each data source driver setup is described in its own section. The prerequisites are given as a simple guide; you will need to consult the original driver documentation provided by the driver manufacturer for more detailed information.

A detailed procedure is described in the *SAP HANA Administration Guide*.

For more information, see SAP Help Portal at http://help.sap.com/viewer/p/SAP_HANA_PLATFORM
▶ Administration ▶ SAP HANA Administration Guide for SAP HANA Platform ▶ Data Access ▶ SAP HANA Smart Data Access ▶ Setting Up ODBC Drivers ▶ SAP IQ ODBC Driver ▶.

5.5.2 Install and Set Up Integration with Apache Hadoop

You use these procedures to install and set up Apache Hadoop to support the *Table Content Aging* report (transaction /CAR/TABLE_AGING) delivered with SAP Customer Activity Repository.

The SAP HANA database points to your Hadoop cluster using SAP HANA smart data access (SDA), which exposes data from Hadoop remote sources as virtual tables.

For more information, see SAP Help Portal at <http://help.sap.com/viewer/p/CARAB> ▶ <Version> ▶ Use ▶ Application Help ▶ SAP Customer Activity Repository ▶ POS Data Transfer and Audit ▶ Implementing a POS Transaction Data Storage Strategy ▶ Using the Table Content Aging Report ▶.

Process Flow

To successfully install and set up integration with Apache Hadoop, you must execute the following procedures:

1. Install Apache Hadoop.
2. Do one of the following:
 - Install and set up the Apache Hive ODBC driver, **or**
 - Install and set up the SAP HANA Spark controller.
3. Create and partition tables in Apache Hive.
4. Create a NFS mount on SAP NetWeaver.

Install Apache Hadoop

According to the *SAP HANA Administration Guide for SAP HANA Platform*, SAP HANA smart data access is supported by Hortonworks Distribution for Apache Hadoop: version 2.3 (supported on Intel-based hardware platforms only).

For more information on integration between SAP HANA and Apache Hadoop, see SAP Help Portal at http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ Administration ▶ SAP HANA Administration Guide for SAP HANA Platform ▶ Data Access ▶ SAP HANA Smart Data Access ▶.







For more information on installing Apache Hadoop, see <http://docs.hortonworks.com> ▶ All ▶ HDP ▶ 2.3 ▶ HDP 2.3.0 (GA) ▶.

Install and Set Up Apache Hive ODBC Driver

i Note

Integration between SAP HANA and Apache Hadoop requires **either** an Apache Hive ODBC driver **or** an SAP HANA Spark controller.

Implement this procedure only if you wish to integrate SAP HANA with Apache Hadoop via the Apache Hive ODBC driver.




1. According to the *SAP HANA Administration Guide for SAP HANA Platform*, SAP HANA smart data access is supported by Hortonworks Distribution for Apache Hadoop: version 2.3 (This includes Apache Hadoop version 1.0.3 and Apache Hive 0.9.0; supported on Intel-based hardware platforms only).
For more information on integration between SAP HANA and Apache Hadoop, see SAP Help Portal at http://help.sap.com/viewer/p/SAP_HANA_PLATFORM  Administration > SAP HANA Administration Guide for SAP HANA Platform > Data Access > SAP HANA Smart Data Access .
For more information on installing the Apache Hive ODBC driver, see <http://docs.hortonworks.com>  All > HDP > 2.3 > HDP 2.3.0 (GA) .
2. Set up the driver as described in the *SAP HANA Administration Guide for SAP HANA Platform* at http://help.sap.com/viewer/p/SAP_HANA_PLATFORM  Administration > SAP HANA Administration Guide for SAP HANA Platform > Data Access > SAP HANA Hadoop Integration .



Install and Set Up the SAP HANA Spark Controller

i Note

Integration between SAP HANA and Apache Hadoop requires **either** an Apache Hive ODBC driver **or** an SAP HANA Spark controller.

Implement this procedure only if you wish to integrate SAP HANA with Apache Hadoop via the SAP HANA Spark controller.

1. Confirm the right combination of versions required between SAP HANA, Apache Spark, and the SAP HANA Spark controller. Use the *SAP HANA Spark Controller Compatibility Matrix* to do this. This document is available under https://help.sap.com/viewer/p/SAP_HANA_SPARK_CONTROLLER. Navigate to  Additional Information > SAP HANA Spark Controller Compatibility Matrix .
2. Install and set up the SAP HANA Spark controller as described in SAP Note [2273047](#) .

For more information on installing and setting up the SAP HANA Spark controller, see SAP Help Portal at http://help.sap.com/viewer/p/SAP_HANA_PLATFORM  Administration > SAP HANA Administration Guide for SAP HANA Platform > Data Access > SAP HANA Hadoop Integration .

Create and Partition Tables

Create the SAP schema, tables, and table partitions as described in SAP Note [2317597](#).

Create a NFS Mount on SAP NetWeaver

The TLOG data and its extensions are copied from your SAP HANA database to Hadoop using the HDFS NFS Gateway on your Hadoop system. To enable this you must create a mount point on your SAP NetWeaver system for the data files to be created directly in the Hadoop File System (HDFS).

i Note

The following steps are only **guidelines** which provide an example of how to mount Network File System (NFS) on an SAP NetWeaver Linux-based client.

1. Make sure the NFS client is installed based on the examples provided:

Operating System	Command
Red Hat, CentOS	<code>sudo yum install nfs-utils</code>
Ubuntu	<code>sudo apt-get install nfs-common</code>
SUSE	<code>sudo zypper install nfs-client</code>

2. List the NFS shares exported on the server.

Example

```
showmount -e <host>
```

3. Set up a mount point for an NFS share.

Example

```
sudo mkdir <folder>
```

i Note

You must ensure that the folder paths share the same naming conventions, as follows:

Temporary data folder	<code>/tmp/tct_csv_out/temp</code>
Data folder	<code>/tmp/tct_csv_out/data</code>

4. Mount the cluster using NFS.

Example

```
sudo mount -o hard, nolock <host> <folder>
```

On your HDFS, the different tables are stored under a folder using the following convention:

```
<data_directory>/<schema>/<table>/<businessdaydate=partition_value>/{files}
```

On the SAP NetWeaver file system, the Hadoop files are stored under a physical path and file name that is derived from a customer-definable logical path or file name. The configuration is provided via the `FILE` transaction. Inside the `FILE` transaction, you also need to make use of parameters `PARAM_1` and `PARAM_2`. `PARAM_1` will be populated during runtime by the program (generated file name) and `PARAM_2` will be populated by the program during runtime `<schema>/<table>/<businessdaydate=partition_value>`.

Example (Data Directory)

If the Hadoop data files are stored in Unix/Linux folder `<schema>/<table>/businessdaydate=partition_value/{files}PARAM_1.CSV` and physical directory `/tmp/tct_csv_out/data/hdp/apps/hive/warehouse/<PARAM_2><FILENAME>`.

You create the following logical path in the `FILE` transaction as follows:

Logical path	/CAR/HDFS_DATA
Name	HDFS Data
Syntax group	UNIX
Physical path	/tmp/tct_csv_out/data/hdp/apps/hive/warehouse/<PARAM_2><FILENAME>

You create the following logical file in the `FILE` transaction as follows:

Logical file	/CAR/HDFS_DATA
Name	HDFS Data
Physical file	<PARAM_1>.CSV
Data format	WK1
Application area	IS
Logical path	/CAR/HDFS_DATA

Example (Temporary Directory)

`/tmp/tct_csv_out/data/hdp/apps/hive/warehouse/`On top of the Hadoop data files, you also need to provide a temporary directory in which the program will populate script files and also temporarily store data files to be compressed.

If the temporary files are stored in Unix/Linux folder `/tmp/tct_csv_out/temp/{files}`, you create the following logical path in the `FILE` transaction as follows:

Logical path	/CAR/HDFS_TEMP
Name	HDFS Temp
Syntax group	UNIX

Physical path	/tmp/tct_csv_out/temp/<FILENAME>
---------------	----------------------------------

You create the following logical file in the FILE transaction as follows:

Logical file	/CAR/HDFS_TEMP
Name	HDFS Temp
Physical file	<PARAM_1>.SH
Data format	
Application area	IS
Logical path	/CAR/HDFS_TEMP

5.5.3 Install and Set Up Integration with SAP HANA Dynamic Tiering

You use these procedures to install and set up SAP HANA Dynamic Tiering to support the *Table Content Aging* report (transaction /CAR/TABLE_AGING) delivered with SAP Customer Activity Repository.

SAP HANA Dynamic Tiering adds the SAP HANA dynamic tiering service to your SAP HANA system. You use this service to create the extended store and extended tables. Extended tables behave like all other SAP HANA tables, but their data resides in the disk-based extended store.

For more information, see SAP Help Portal at <http://help.sap.com/viewer/p/CARAB> > <your release> > Use > Application Help > SAP Customer Activity Repository > POS Data Transfer and Audit > Implementing a POS Transaction Data Storage Strategy > Using the Table Content Aging Report >.

Install SAP HANA Dynamic Tiering

A detailed procedure is described in the *SAP HANA Dynamic Tiering: Installation and Update Guide*.

For more information, see SAP Help Portal at http://help.sap.com/hana_options_dt > Implement > Installation and Upgrade >.

Create Extended Storage

A detailed procedure is described in the *SAP HANA Dynamic Tiering: Administration Guide*.

For more information, see SAP Help Portal at http://help.sap.com/hana_options_dt **▶▶ Operate ▶ Administration ▶ SAP HANA Dynamic Tiering: Administration Guide ▶** and consult the following subsections:

- **▶▶ System Administration ▶ Managing Extended Storage ▶**
- **▶▶ System Administration ▶ Managing Tables ▶ Extended Store Tables ▶ Convert HANA Tables to Extended Store Tables Using the SAP HANA Cockpit ▶**

5.5.4 Create the Remote Source in SAP HANA Studio

i Note

This step is not applicable if you are integrating the alternate storage feature with SAP HANA Dynamic Tiering.

Create a remote source by selecting the appropriate adapter and configuring the connection properties and user credentials.

A detailed procedure is described in the *SAP HANA Administration Guide for SAP HANA Platform*.

For more information, see SAP Help Portal at http://help.sap.com/viewer/p/SAP_HANA_PLATFORM **▶▶ Administration ▶ SAP HANA Administration Guide for SAP HANA Platform ▶ Data Access ▶ SAP HANA Smart Data Access ▶ Managing Remote Sources ▶ Creating a Remote Source ▶**.

5.5.5 Create the Virtual Table

Create the following virtual tables to access the data stored in remote tables:

Virtual Table	Remote Table
VT_TLOGF_NLS	/POSDW/TLOGF
VT_TLOGF_X_NLS	/POSDW/TLOGF_X
VT_TLOGF_EXT_NLS	/POSDW/TLOGF_EXT
VT_PLOGF_NLS	/POSDW/PLOGF

A detailed procedure is described in the *SAP HANA Administration Guide for SAP HANA Platform*.

For more information, see SAP Help Portal at http://help.sap.com/viewer/p/SAP_HANA_PLATFORM **▶▶ Administration ▶ SAP HANA Administration Guide for SAP HANA Platform ▶ Data Access ▶ SAP HANA Smart Data Access ▶ Managing Virtual Tables ▶**.

5.5.6 Activate Alternate Storage

1. In your back-end system, execute report `/CAR/ACTIVATE_HTA`.
2. Confirm or set the following:
 - In the *ECC Mode* section, choose the relevant ECC mode for your system.
 - In the *External Systems* section, choose *Nearline Storage*.
3. Press *Execute*.

This deploys package `sap.is.retail.car.nls` for ECC mode SAP ERP, or `sap.is.retail.car_s4h.nls` for ECC mode S/4HANA. Each package contains views that combine TLOG data from SAP HANA with TLOG data from the alternate storage system.

6 Set Up the Applications

You have installed the back-end components and front-end components of SAP Customer Activity Repository applications bundle. Now you must first do the setup steps under [▶ SAP Customer Activity Repository > Core \(Mandatory for All Applications\) ▶](#). These steps are required for **all the applications**. Then you either continue with the setup steps under [▶ SAP Customer Activity Repository > Advanced \(Optional\) ▶](#) or do the setup steps for your application.

For **SAP Allocation Management**, first consult the information in section [SAP Allocation Management](#). Then do the setup steps under [▶ SAP Customer Activity Repository > Core \(Mandatory for All Applications\) ▶](#).

6.1 SAP Customer Activity Repository

First do the setup steps under [▶ SAP Customer Activity Repository > Core \(Mandatory for All Applications\) ▶](#). Then you can continue with the setup steps under [▶ SAP Customer Activity Repository > Advanced \(Optional\) ▶](#) or do the setup steps for your application.

[Core \(Mandatory for All Applications\) \[page 76\]](#)

Perform the core steps to set up SAP Customer Activity Repository as the common platform. The core steps are mandatory for SAP Customer Activity Repository and **for all the consuming applications**.

[Advanced \(Optional\) \[page 111\]](#)

After you have completed the core steps, do the advanced steps that are relevant to your scenario. The advanced steps are optional. They enable specific functionality in SAP Customer Activity Repository.

[Troubleshooting \[page 188\]](#)

Diagnose and resolve issues that may arise when you install, upgrade, and set up your scenario. If you need to report a customer incident, see the information at the end of this section.

6.1.1 Core (Mandatory for All Applications)

Perform the core steps to set up SAP Customer Activity Repository as the common platform. The core steps are mandatory for SAP Customer Activity Repository and **for all the consuming applications**.

Caution

Always do the core steps first. Then you can continue with the *Advanced (Optional)* steps for SAP Customer Activity Repository or with the setup steps for your application.

1. [Verify Back-End Users and Roles \[page 77\]](#)

Ensure that the required users on the **SAP HANA database** level and on the **back-end application** level have the privileges, roles, and authorizations required for your scenario.

2. [Set Up Authorizations for On-Shelf Availability \(OSA\) \[page 79\]](#)

In SAP HANA studio, grant the `AFL__SYS_AFL_POSDM_AREA_EXECUTE` role to the `SAP<SID>` user in your back-end system. This short procedure is mandatory for **all the applications**, because it is required for the successful activation of the SAP HANA content later on.

3. [Set Up Authorizations for Unified Demand Forecast \(UDF\) \[page 80\]](#)

In SAP HANA studio, create three roles for UDF and grant the required privileges. Then assign two roles to the `SAP<SID>` user (sometimes also called `SAPHANADB` user) and one role to the `_SYS_REPO` standard user. This procedure is **mandatory for all the applications** because the authorizations are needed for the successful activation of the SAP HANA content later on.

4. [Create/Replicate Source Master Data System Tables \[page 84\]](#)

Create the tables in SAP Customer Activity Repository that are required for replicating data from your source master data system. Then do the actual replication of the data. You need SAP HANA studio and the SAP Landscape Transformation Replication Server (SLT) for this procedure. For reference, you can download a spreadsheet that lists the required tables for each source master data system (SAP Retail, SAP S/4HANA).

5. [Activate SAP HANA Content \[page 89\]](#)

Activate the SAP HANA content for your scenario by running the `/CAR/ACTIVATE_HTA` report in the back-end system. You can run this report as many times as required. For example, if you choose to extend your scenario at a later point in time, you run the report again to activate the SAP HANA content for the added options.

6. [Activate SAP HANA Content for the Calculation of Demand Data Foundation \(DDF\) \[page 91\]](#)

If your scenario includes the calculation of Demand Data Foundation (DDF), do the additional steps described here to activate the required SAP HANA content. All steps are mandatory.

7. [Activate SAP HANA Script Server \[page 94\]](#)

Activate the script server for the SAP HANA database. This step is mandatory for all the applications.

8. [Configure Demand Data Foundation \[page 94\]](#)

Configure the DDF module in SAP Customer Activity Repository as required for your scenario.

9. [Configure SAP Gateway \[page 99\]](#)

Perform several configuration steps for SAP Gateway and activate the OData services for the SAP Fiori apps. The steps to follow depend on the SAP NetWeaver version on your front-end server.

6.1.1.1 Verify Back-End Users and Roles

Ensure that the required users on the **SAP HANA database** level and on the **back-end application** level have the privileges, roles, and authorizations required for your scenario.

Prerequisites

- You are aware that user names in the **front-end application** must be the same as those in the SAP HANA database and the back-end application.
- You have performed the steps in section [Verify SAP HANA User and Privileges \[page 37\]](#).

Procedure

Ensure that your **back-end application user** has the following roles and authorizations:

User	Role / Authorization				
<Your User Name>*	<ul style="list-style-type: none">• SAP_ISR_DDF_MASTER• SAP_ISR_AP_MASTER• /RAP/BW_AP_WORKBOOKS• /RAP/BW_MPR_WORKBOOKS• In transaction RS2HANA_VIEW, set SAP HANA User Mapping to C (<i>DBMS user, else SAP HANA user with same name as BW user</i>).• In transaction RS2HANA_CHECK, verify that authorizations for generating SAP HANA views out of local BI Content objects are set up. Correct any resulting issues. For more information, see Authorizations for Generated SAP HANA Views.• If you need detailed information about PAK execution, the user profile must have the following parameters maintained. Be aware that as a result of the additional logging, these settings might slow down the performance. In transaction SU3, select the <i>Parameters</i> tab. Enter the parameter and the desired value as shown below and choose <i>Save</i>.				
	<table><thead><tr><th>Parameter</th><th>Value</th></tr></thead><tbody><tr><td>RSPLS_HDB_PE_TRACE</td><td>Y</td></tr></tbody></table>	Parameter	Value	RSPLS_HDB_PE_TRACE	Y
Parameter	Value				
RSPLS_HDB_PE_TRACE	Y				

More Information

For information on setting up front-end application users, see the following:

- For SAP Assortment Planning: [Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad \[page 279\]](#)
- For SAP Allocation Management: [Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad \[page 297\]](#)

Parent topic: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Next: [Set Up Authorizations for On-Shelf Availability \(OSA\) \[page 79\]](#)

6.1.1.2 Set Up Authorizations for On-Shelf Availability (OSA)

In SAP HANA studio, grant the `AFL__SYS_AFL_POSDM_AREA_EXECUTE` role to the `SAP<SID>` user in your back-end system. This short procedure is mandatory for **all the applications**, because it is required for the successful activation of the SAP HANA content later on.

Context

The `AFL__SYS_AFL_POSDM_AREA_EXECUTE` role enables the `SAP<SID>` user to call the OSA application function library (part of the `SAP_RTL_AFL_FOR_SAP_HANA` component) in the SAP HANA database.

Prerequisites

- You have mapped authoring schemas to physical schemas as described in [Verify Correct Schema Mapping \[page 41\]](#).
- You have installed the `SAP_RTL_AFL_FOR_SAP_HANA` component as described in [Download and Install the Application Function Library \(SAP_RTL_AFL_FOR_SAP_HANA\) \[page 51\]](#).
- You have database administrator rights so that you can grant roles to users.
- You have an `SAP<SID>` user and an `SAP<SID>` physical schema in your SAP HANA database. **The names must be identical.**

i Note

The name `SAP<SID>` is used as a variable. Replace it with the name of the database user or database schema in your ABAP back-end system. Instead of `SAP<SID>`, you might also come across documentation or user interfaces that mention `SAPHANADB`. Both variables mean the same.

For more information and an example, see the *Important Variables* in [Naming Conventions \[page 6\]](#).

If you need more information on database users and schemas, see section [Verify Correct Schema Mapping \[page 41\]](#).

Procedure

→ Tip

- If you encounter issues related to authorization or authentication, see section *Security-Related Issues* of the *SAP HANA Troubleshooting and Performance Analysis Guide*, which you can find at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM for your SAP HANA Platform version.
- We have provided an example SQL statement below that you can adapt as needed for your system landscape.

1. In SAP HANA studio, access your back-end system and open the *SAP HANA Administration Console*.
2. Choose ► *Security* ► *Users* ►.
3. Select your SAP<SID> user and open the user details (or double-click the user).
4. On the *Granted Roles* tab, choose the plus icon and select **AFL__SYS_AFL_POSDM_AREA_EXECUTE** as the role name.

❖ Example

SQL example: `grant AFL__SYS_AFL_POSDM_AREA_EXECUTE to SAP<SID>;`

5. Save your changes by choosing the *Deploy (F8)* icon at the top right.

Result

You have successfully set up the authorizations for OSA. Continue with the next section.

Parent topic: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous: [Verify Back-End Users and Roles \[page 77\]](#)

Next: [Set Up Authorizations for Unified Demand Forecast \(UDF\) \[page 80\]](#)

6.1.1.3 Set Up Authorizations for Unified Demand Forecast (UDF)

In SAP HANA studio, create three roles for UDF and grant the required privileges. Then assign two roles to the SAP<SID> user (sometimes also called SAPHANADB user) and one role to the `_SYS_REPO` standard user. This procedure is **mandatory for all the applications** because the authorizations are needed for the successful activation of the SAP HANA content later on.

Context

The three roles for UDF have the following purpose:

Role	Purpose
UDF_EXECUTE	Required to execute UDF. Enables the SAP<SID> user to call the UDF application function library (AFL) in the SAP HANA database.

Role	Purpose
UDF_DEPLOY	Required to activate the SAP HANA content for UDF. Enables the SAP<SID> user to deploy the SAP HANA content for UDF.
UDF_DEPLOY_SYS_REPO	Required to activate the SAP HANA content. Defines additional privileges for the _SYS_REPO standard user.

i Note

If you need more information on standard users (such as _SYS_REPO), see the following guides for your SAP HANA Platform version at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM:

- *SAP HANA Security Guide*: Search for section *SAP HANA User Management*.
- *SAP HANA Security Checklists and Recommendations*: Search for section *Recommendations for Database Users, Roles, and Privileges*.

Prerequisites

- You have mapped the authoring schemas to the physical schemas as described in [Verify Correct Schema Mapping \[page 41\]](#).
- You have installed the SAP RTL AFL FOR SAP HANA component as described in [Download and Install the Application Function Library \(SAP RTL AFL FOR SAP HANA\) \[page 51\]](#).
- You have database administrator rights so that you can grant roles to users.
- You have an SAP<SID> user and an SAP<SID> physical schema in your SAP HANA database. **The names must be identical.**

i Note

The name SAP<SID> is used as a variable. Replace it with the name of the database user or database schema in your ABAP back-end system.

Instead of SAP<SID>, you might also come across documentation or user interfaces that mention SAPHANADB. Both variables mean the same.

For more information and an example, see the *Important Variables* in [Naming Conventions \[page 6\]](#).

If you need more information on database users and schemas, see [Verify Correct Schema Mapping \[page 41\]](#).

Procedure

→ Tip

- If you encounter issues related to authorization or authentication, see the *Security-Related Issues* section of the *SAP HANA Troubleshooting and Performance Analysis Guide*, which you can find at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM under *Operate*. Select your version at the top.
- We have provided example SQL statements below that you can adapt as needed for your system landscape.

1. In SAP HANA studio, log on to your back-end system and open the *SAP HANA Administration Console*.
2. Navigate to ► *Security* ► *Roles* and select *New Role* from the context menu.
3. In the *Role Name* field, enter `UDF_EXECUTE`.

❁ Example

SQL example: `create role UDF_EXECUTE;`

4. Make the following settings for this role:
 - On the *Granted Roles* tab: Choose the plus icon and select the `AFL__SYS_AFL_UDFCORE_AREA_EXECUTE` role from the list.

❁ Example

SQL example: `grant AFL__SYS_AFL_UDFCORE_AREA_EXECUTE to UDF_EXECUTE;`

- On the *Object Privileges* tab: Add the following catalog objects and grant them the following privileges:
 - Catalog object (schema name) `SAP<SID>`: privileges *SELECT*, *INSERT*, *UPDATE*, *DELETE*

❁ Example

SQL example: `grant SELECT, INSERT, UPDATE, DELETE on schema SAP<SID> to UDF_EXECUTE;`

- Catalog object (schema name) `_SYS_BIC`: privileges *SELECT*, *EXECUTE*

❁ Example

SQL example: `grant SELECT, EXECUTE on schema _SYS_BIC to UDF_EXECUTE;`

- On the *Analytic Privileges* tab: Add the `_SYS_BI_CP_ALL` privilege.

❁ Example

SQL example: `call GRANT_ACTIVATED_ANALYTICAL_PRIVILEGE('_SYS_BI_CP_ALL', 'UDF_EXECUTE');`

5. Save your changes by choosing the *Deploy (F8)* icon at the top right.
6. Navigate to ► *Security* ► *Users*.
7. Select the `SAP<SID>` user from the list and open the details screen (or double-click the user).
8. On the *Granted Roles* tab, add the `UDF_EXECUTE` role.

❖ Example

SQL example: `grant UDF_EXECUTE to SAP<SID>`

9. Save your changes by choosing the *Deploy (F8)* icon at the top right.

i Note

You have created the first role with the required privileges and granted the role to the SAP<SID> user.

10. Now create the second role. Navigate again to ► *Security* ► *Roles* ▾ and select *New Role* from the context menu.
11. In the *Role Name* field, enter UDF_DEPLOY.

❖ Example

SQL example: `create role UDF_DEPLOY;`

12. Make the following settings for this role:
 - On the *Granted Roles* tab: Choose the plus icon and select the CONTENT_ADMIN role from the list.

❖ Example

SQL example: `grant CONTENT_ADMIN to UDF_DEPLOY;`

- On the *System Privileges* tab: Add the CATALOG_READ privilege.

❖ Example

SQL example: `grant CATALOG_READ to UDF_DEPLOY;`

13. Save your changes by choosing the *Deploy (F8)* icon at the top right.
14. Navigate again to ► *Security* ► *Users* ▾.
15. Select the SAP<SID> user from the list and open the details screen (or double-click the user).
16. On the *Granted Roles* tab, add the UDF_DEPLOY role.

❖ Example

SQL example: `grant UDF_DEPLOY to SAP<SID>;`

17. Save your changes by choosing the *Deploy (F8)* icon at the top right.

i Note

You have created the second role and granted the role to the SAP<SID> user.

18. Now create the third role. Navigate again to ► *Security* ► *Roles* ▾ and select *New Role* from the context menu.
19. In the *Role Name* field, enter UDF_DEPLOY_SYS_REPO.

❖ Example

SQL example: `create role UDF_DEPLOY_SYS_REPO;`

20. On the *Object Privileges* tab, make these settings:

Add the catalog object (schema name) `SAP<SID>` and grant the privileges *SELECT*, *INSERT*, *UPDATE*, and *DELETE*.

❖ Example

```
SQL example: grant SELECT, INSERT, UPDATE, DELETE on schema SAP<SID> to
UDF_DEPLOY_SYS_REPO;
```

21. Save your changes by choosing the *Deploy (F8)* icon at the top right.

22. Navigate again to **Security > Users**.

23. Select the `_SYS_REPO` user from the list and open the details screen (or double-click the user).

24. On the *Granted Roles* tab, add the `UDF_DEPLOY_SYS_REPO` role.

❖ Example

```
SQL example: grant UDF_DEPLOY_SYS_REPO to _SYS_REPO;
```

25. Save your changes by choosing the *Deploy (F8)* icon at the top right.

i Note

You have created the third role with the required privileges and granted the role to the `_SYS_REPO` user.

Result

You have successfully set up the authorizations for UDF.

Parent topic: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous: [Set Up Authorizations for On-Shelf Availability \(OSA\) \[page 79\]](#)

Next task: [Create/Replicate Source Master Data System Tables \[page 84\]](#)

6.1.1.4 Create/Replicate Source Master Data System Tables

Create the tables in SAP Customer Activity Repository that are required for replicating data from your source master data system. Then do the actual replication of the data. You need SAP HANA studio and the SAP Landscape Transformation Replication Server (SLT) for this procedure. For reference, you can download a spreadsheet that lists the required tables for each source master data system (SAP Retail, SAP S/4HANA).

Prerequisites

- You have completed the previous procedures in this guide.
- You have installed the SAP Landscape Transformation Replication Server. For the minimum version required, installation and implementation information, see [Install the Prerequisites \[page 17\]](#) and consult the *Common Prerequisites*.
- If your source master data system is **SAP S/4HANA 1909**, be aware that as of that release, the SAP LT Replication Server is no longer available as a standalone component. Instead, SAP S/4HANA 1909 includes an embedded SAP LT Replication Server by default.

⚠ Caution

To be able to replicate the data from an SAP S/4HANA 1909 system, you first need to prepare the replication. This preparation has the added advantage that it gives you the option to still use a standalone SAP LT Replication Server. Follow the steps in [SAP S/4HANA 1909 Only - Prepare Data Replication with SAP Landscape Transformation Replication Server \[page 88\]](#). Then return to this procedure here.

Context

SAP Customer Activity Repository applications bundle can use data originating from a single or multiple source master data systems.

The list of tables to create and replicate depends on your leading source master data system:

- **SAP Retail:** for installations based on the `SAP_ECC` schema
- **SAP S/4HANA Retail:** for installations based on the `SAP_S4H` schema

In this procedure, you first create and then replicate the required tables.

i Note

It is possible to combine the steps *create* and *replicate*.

Procedure

1. **Download the spreadsheet with the SLT tables for your version of SAP Customer Activity Repository applications bundle:**
 - a. Navigate to SAP Help Portal at <https://help.sap.com/viewer/p/CARAB> and select your version at the top.
 - b. Choose **Implement** **SLT Tables for SAP Customer Activity Repository applications bundle 4.0 (all versions)** and download the current archive.
 - c. Extract the spreadsheet and see the tables listed for your source master data system.

2. ⚠ Caution

You must always create and replicate **all the tables** listed for your source master data system in the spreadsheet. This is necessary not only for the data replication itself but also for the successful activation of the SAP HANA content later on.

Create all the tables listed for your source master data system.

- a. Configure access from the SAP Landscape Transformation Replication Server to the source SAP Retail or SAP S/4HANA Retail system (RFC connection), and from the SAP Landscape Transformation Replication Server to the target SAP HANA database of your SAP Customer Activity Repository back-end system.

For more information, see the *Installation Guide (Replicating Data to SAP HANA)* at https://help.sap.com/viewer/p/SAP_LANDSCAPE_TRANSFORMATION_REPLICATION_SERVER.

- b. Ensure that your SAP Customer Activity Repository back-end system is connected to SAP HANA studio.

If necessary, set the connection as follows:

1. Log on to SAP HANA studio.
 2. Right-click in the *Navigator* pane and select *Add System*.
 3. In the *Specify System* dialog, enter the *Host Name*, *Instance Number*, and *Description*.
 4. In the *Connection Properties* dialog, enter your system *User Name* and *Password*.
 5. Save your changes.
- c. Ensure that the database schemas are created on the SAP HANA database of your back-end system. These are the schemas on your SAP HANA database to which the SAP Retail and/or SAP S/4HANA data will be replicated.

i Note

For more information, see the [Create a Schema](#) section of the *SAP HANA Developer Guide*.

- d. Create **all the tables** for your source master data system.
 1. Log on to the SAP Landscape Transformation Replication Server.
 2. Execute transaction **LTTRC** (*SAP LT Replication Server Cockpit*).
 3. Define and select your replication configuration.

i Note

For more information, see *SAP Library* at https://help.sap.com/viewer/p/SAP_LANDSCAPE_TRANSFORMATION_REPLICATION_SERVER. Search for section *Creating a Configuration*.

4. Choose . A screen opens that shows the details of this replication configuration.
5. Select the *table overview* tab. You can now see the *data provisioning* function.
6. Execute the *table overview* function. On the subsequent pop-up, select the function for table creation.
7. Choose the multiple selection push-button next to the table name field.
8. In the next screen, you can either enter the table names manually or upload a text file with the table names (recommended):

Create this text file from the spreadsheet that you downloaded before. Make sure that the text file contains only the table names and no other data. Then upload the text file.

9. Choose `Copy (F8)` to return to the previous screen.
10. Choose `Execute (F8)` to trigger the creation of the tables.

You have successfully created the tables in your SAP Customer Activity Repository back-end system.

3. Replicate all the tables listed for your source master data system.

i Note

If your SAP Retail or SAP S/4HANA Retail system and your back-end SAP Customer Activity Repository system are co-deployed on the same SAP HANA database, you do not need to replicate the tables.

- a. Save a CSV file of the required tables. You will later load the tables from this file.
- b. In SAP HANA studio, choose `Window > Perspective > Open Perspective > SAP HANA Modeler`.
- c. In the *Quick View* panel, choose *Data Provisioning* to open the *Data Provisioning Editor* for your system.

If the *Quick View* panel is not displayed, choose `Help > Quick View`.

- d. In the *Data Provisioning Editor*, make any necessary adjustments: remove or add tables, select the appropriate source system, and select the target schema for the replication.
- e. Choose *Replicate* to open the *Replicate Request* screen.
- f. Choose *Load from file*, browse to the location where you saved the CSV file, and select it.
- g. The tables in the file are added to the *Selected* column on the right-hand side. Choose *Finish*.

i Note

In the *Data Provisioning Editor*, you can monitor the action status of the tables using *Data Load Management*.

Results

You have successfully replicated the tables from your source master data system into your SAP Customer Activity Repository back-end system. Continue with the next section.

Task overview: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous: [Set Up Authorizations for Unified Demand Forecast \(UDF\) \[page 80\]](#)

Next task: [Activate SAP HANA Content \[page 89\]](#)

6.1.1.4.1 SAP S/4HANA 1909 Only - Prepare Data Replication with SAP Landscape Transformation Replication Server

Only perform this procedure if your source master data system is SAP S/4HANA 1909. If so, you must do the steps described here before doing the actual replication.

Context

If your source master data system is SAP S/4HANA 1909, be aware that the SAP LT Replication Server is no longer available as a standalone component. Instead, SAP S/4HANA 1909 includes an embedded SAP LT Replication Server by default.

To be able to replicate data from SAP S/4HANA 1909 into SAP Customer Activity Repository, you first need to prepare the replication as described below.

This preparation has the added advantage that it gives you the option to still use a standalone SAP LT Replication Server.

Procedure

Prepare data replication from SAP S/4HANA 1909 to SAP Customer Activity Repository, using an embedded or a standalone SAP LT Transformation Server:

1. Pause your current SLT replication routine with the SAP LT Replication Server.
2. Upgrade your source master data system to SAP S/4HANA 1909 as described in the corresponding product documentation. For more information, see [SAP Help Portal for SAP S/4HANA 1909](#).
3. Implement SAP Note [2857334](#) (Unsupported data type DECFLOAT34 / D34N when replicating from a S/4 HANA OP1909 system) in your SAP S/4HANA 1909 system.
4. Adjust your SLT configuration as described in the note.
5. Now you can resume the data replication. Return to section [Create/Replicate Source Master Data System Tables \[page 84\]](#) and follow the instructions.

6.1.1.5 Activate SAP HANA Content

Activate the SAP HANA content for your scenario by running the `/CAR/ACTIVATE_HTA` report in the back-end system. You can run this report as many times as required. For example, if you choose to extend your scenario at a later point in time, you run the report again to activate the SAP HANA content for the added options.

Prerequisites

You have successfully completed all the previous procedures in this guide.

Context

The `/CAR/ACTIVATE_HTA` report activates the SAP HANA Transport for ABAP (HTA) objects for your scenario. For more information on the report, see the accompanying system documentation.

→ Tip

If you encounter issues during the activation, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

Procedure

1. Start transaction `SE38`.
2. Enter `/CAR/ACTIVATE_HTA` as the program (report) and choose *Execute* (`F8`).
3. On the *Activate SAP HANA Content for SAP CARAB* screen, select all the options for which you wish to activate the SAP HANA content. Use the following table for reference:

i Note

If the SAP HANA content is already active for an option, you can see this directly on the screen.

To activate the SAP HANA content for... Select at least these options...

SAP Allocation Management	Follow the instructions in Activate SAP HANA Content for SAP Allocation Management [page 286] .
Calculation of Demand Data Foundation (DDF) (without SAP Allocation Management)	Follow the instructions in Activate SAP HANA Content for the Calculation of Demand Data Foundation (DDF) [page 91] .

To activate the SAP HANA content for... Select at least these options...

SAP Assortment Planning	No action required. The SAP HANA content was already activated automatically during the upgrade of the back-end product version.
Unified Demand Forecast (UDF) and SAP Fiori apps for demand forecasting (<i>Analyze Forecast, Adjust Forecast, Manage Demand Influencing Factors</i>)	No action required. The SAP HANA content was already activated automatically during the installation of the back-end product version.
On-Shelf Availability	<ul style="list-style-type: none">○ <i>ECC Mode</i>: Select your source master data system.○ <i>Business Scenarios Activation</i>: Select <i>On-Shelf Availability</i> and <i>Customer Activity Repository</i>.
Omnichannel Article Availability and Sourcing (OAA)	<ul style="list-style-type: none">○ <i>ECC Mode</i>: Select your source master data system.○ <i>Business Scenarios Activation</i>: Select <i>Omnichannel Article Availability</i>.
SAP Merchandise Planning	No action required. The SAP HANA content was already activated automatically during the upgrade of the back-end product version.
SAP Promotion Management	No action required.

4. Do a dry run to verify your selections:
 - a. Select *Perform Prerequisite Check* and choose *Execute* (F8).
 - b. Read the system log and first resolve any issues found during the check. See the [Troubleshooting \[page 188\]](#) section for possible solutions.
5. Activate the SAP HANA content for real:
 - a. Deselect *Perform Prerequisite Check*.
 - b. Choose *Execute* (F8) again.
6. Verify that the activation was successful. There are three ways how you can do this:
 - a. Simply rerun the report. You can see all the options that are now active.
 - b. Or: Start transaction `SCTS_HTA_DEPLOY`. Specify a SAP HANA content package (for example, `sap.is.retail`), select *Include subpackages*, and choose *Execute* (F8). You can see all the packages and objects including their status.
 - c. Or: Navigate to the same package in SAP HANA studio or SAP Web IDE and check whether all its views are active.

Results

You have successfully activated the SAP HANA content for your scenario. Continue with the next section.

Task overview: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous task: [Create/Replicate Source Master Data System Tables \[page 84\]](#)

Next: [Activate SAP HANA Content for the Calculation of Demand Data Foundation \(DDF\) \[page 91\]](#)

6.1.1.6 Activate SAP HANA Content for the Calculation of Demand Data Foundation (DDF)

If your scenario includes the calculation of Demand Data Foundation (DDF), do the additional steps described here to activate the required SAP HANA content. All steps are mandatory.

⚠ Caution

If you wish to calculate distribution curves for SAP Allocation Management (that is, for the “distribution curve analysis”), skip the steps below and follow the instructions in [Activate SAP HANA Content for SAP Allocation Management \[page 286\]](#).

Run the Report for Creating the Dummy Schema and Dummy Tables

The `/DMF/CREATE_SLT_TABLES` ([Create SLT Tables](#)) report checks for a missing physical schema and, if necessary, creates this as a dummy schema together with the corresponding dummy tables.

Prerequisites

- You have an SAP HANA database user in the ABAP back-end system with the authorization to create the dummy schema (privilege `CREATE SCHEMA`). This should already be the case if the authorizations were set up as described in section [Verify SAP HANA Users and Privileges \[page 37\]](#).
- You have implemented SAP Note [2916915](#) (Error when activating HANA content for distribution curves after executing report `/DMF/CREATE_SLT_TABLES`).

Procedure

1. Run the report `/DMF/INSERT_SLT_TABLES_TO_DB` ([Insert SLT Table Entries to Database](#) in insert mode (by deselecting the simulation setting).
2. In your ABAP back-end system, start transaction `SE38`. Enter `/DMF/CREATE_SLT_TABLES` as the program and choose [Execute](#).
3. Select your source master data system. For SAP S/4HANA, also select the version.
4. For the [Physical Source Schema](#), enter the name of the physical schema into which your SLT tables should be replicated.

i Note

If the physical source schema already exists in the SAP HANA database, only the dummy tables in this schema are created when you execute the report.

5. For the [Physical Dummy Schema](#), enter the name of the schema to be created.
6. Select the simulation mode for a test run and execute the report. Check for errors in the application log and resolve them.

7. Run the report again, this time without simulation mode.

Maintain Schema Mapping

Check the name of your physical schema:

1. If it is one of the default names below, no further action is required:
 - `SAP_S4H`, for SAP S/4HANA
 - `SAP_ECC`, for SAP Retail and SAP Fashion Management
2. If your physical schema has a **different name**, do the following:
In SAP HANA studio, create a schema mapping where your customer-specific name is used as authoring schema for the physical schema. For instructions, see [Verify Correct Schema Mapping \[page 41\]](#).

Set `PREWORK_DONE` Indicator for DDF Packages

Demand Data Foundation (DDF) has a number of SAP HANA content packages that are relevant:

- `sap.is.ddf.ecc`
- `sap.is.ddf.fms`
- `sap.is.ddf.fms_s4h`
- `sap.is.ddf.cross.ecc`
- `sap.is.ddf.cross.fms`
- `sap.is.ddf.cross.fms_s4h`
- `sap.is.ddf.cross`
- `sap.is.ddf.dc`

These packages have the activation mode `P` (*Package and its objects deployed only after prework done*). In this procedure, you confirm that the prework has been done. You do this by setting the `PREWORK_DONE` indicator in the `CTS_HOT_PREWORK` table to `X` for all the packages above.

Procedure

1. Start transaction `SE16`, enter `CTS_HOT_PREWORK` as the table, and choose *Execute*.
2. Enter `sap.is.ddf.*` as `ABAP_HANA_PACKAGE_ID` and choose *Execute*.
3. You now see a list that includes the DDF packages above. Switch to change mode to edit the entries.
4. Check whether all of the DDF packages above have the `PREWORK_DONE` indicator set to `X`.
5. If the setting is still missing for one of the DDF packages above, double-click the entry and set `PREWORK_DONE` to `X`.
6. Save your changes.

Note

Here is how you can always check the current settings and display details for each package:

1. Start transaction `SE16`, enter `CTS_HOT_PACKAGE` as the table, and choose *Execute*.
2. Enter `sap.is.ddf.*` as `ABAP_HANA_PACKAGE_ID` and choose *Execute*.

3. You now see a list that includes the DDF packages above. For each of the DDF packages above, double-click the entry to display the package details.
4. For each package, verify the current setting in field `HOT_ACTIVATION_MODE` (set to `P`).

Check and Activate the SAP HANA Content for Demand Data Foundation (DDF)

Depending on your scenario, there might still be inactive DDF packages even though you have already activated the content as described in the previous section ([Activate SAP HANA Content \[page 89\]](#)).

Now you make sure that those packages are activated as well.

Procedure

1. Execute transaction `SCTS_HTA_DEPLOY` (*SAP HANA Transport for ABAP - Deployment*).
2. Deploy each of the following packages **in exactly the same order** as listed below. One by one, enter the package ID in *SAP HANA Repository Package* and choose *Execute*.

⚠ Caution

Do not select the *Include subpackages* option.

1. `sap.is.ddf.ecc`
2. `sap.is.ddf.fms`
3. `sap.is.ddf.fms_s4h`
4. `sap.is.ddf.cross.ecc`
5. `sap.is.ddf.cross.fms`
6. `sap.is.ddf.cross.fms_s4h`
7. `sap.is.ddf.cross`
8. `sap.is.ddf.dc`

Result

You have successfully activated the SAP HANA content for calculating Demand Data Foundation.

Parent topic: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous task: [Activate SAP HANA Content \[page 89\]](#)

Next task: [Activate SAP HANA Script Server \[page 94\]](#)

6.1.1.7 Activate SAP HANA Script Server

Activate the script server for the SAP HANA database. This step is mandatory for all the applications.

Context

The script server is an auxiliary SAP HANA server that is required to execute application function libraries (AFLs). For example, this applies to the `SAP_HANA_AFL` component (which includes the SAP HANA Predictive Analysis Library (PAL) and other libraries) and to the `SAP_RTL_AFL_FOR_SAP_HANA` component (which includes the libraries for Unified Demand Forecast and On-Shelf Availability).

i Note

- The service name is `scriptserver`.
- The operating system process is `hdbscriptserver`.
- The operating system process can be started while the SAP HANA database is already running.

Procedure

1. In SAP HANA studio, verify that the script server is active.
2. If the script server is not active, restart it manually as described in SAP Note [1650957](#) (SAP HANA Database: Starting the Script Server).

Task overview: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous: [Activate SAP HANA Content for the Calculation of Demand Data Foundation \(DDF\) \[page 91\]](#)

Next: [Configure Demand Data Foundation \[page 94\]](#)

6.1.1.8 Configure Demand Data Foundation

Configure the DDF module in SAP Customer Activity Repository as required for your scenario.

Required Configuration

The configuration of DDF is mandatory for the following scenarios:

- You want to model and forecast demand using the UDF module in SAP Customer Activity Repository.

- You want to use the Omnichannel Promotion Pricing (OPP) module in SAP Customer Activity Repository.
- You want to use SAP Allocation Management.
- You want to use SAP Assortment Planning.
- You want to use SAP Merchandise Planning.
- You want to use SAP Promotion Management.

i Note

The configuration of DDF is optional for the following SAP Customer Activity Repository scenarios:

- POS Data Transfer and Audit
- Multichannel Transaction Data Management
- Inventory Visibility (including Omnichannel Article Availability and Sourcing, OAA)
- On-Shelf Availability

For additional configuration and integration information, see the following sources:

- In the application help for SAP Customer Activity Repository at <http://help.sap.com/viewer/p/CARAB>, search for section *Master Data Replication from SAP ERP to Demand Data Foundation*.
- In the *SAP Customer Activity Repository Administration Guide*, see section *Configure Demand Data Foundation (DDF)* and section *Configure Data Replication from SAP ERP to DDF*.

i Note

If you encounter issues during the configuration, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

Overview of DDF Configuration Tasks

1. [Perform General Demand Data Foundation Configuration \[page 96\]](#)
Perform various configuration steps in Customizing for DDF. DDF must be fully configured and operational for all the scenarios for which it is mandatory.
2. [Activate Services \[page 96\]](#)
Activate services for DDF using transaction `SICF`.
3. [Configure Automatic Flattening of Hierarchies \[page 97\]](#)
Configure the system so it automatically creates and updates flat structures for the product and location hierarchies in DDF. The flat structures are required so that the consuming applications can correctly recognize the hierarchies.
4. [Import SAP NetWeaver Portal Roles for DDF \[page 98\]](#)
Set up user authorizations for DDF using the `PFCG` roles from the SAP NetWeaver Business Client (NWBC) and from the SAP NetWeaver Portal (optional). Both sets of roles operate in the same manner.
5. [Check Performance-Related Configuration Options \(Optional\) \[page 99\]](#)
Use additional configuration options for Demand Data Foundation (DDF) to optimize performance for different use cases.

Parent topic: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous task: [Activate SAP HANA Script Server \[page 94\]](#)

Next: [Configure SAP Gateway \[page 99\]](#)

6.1.1.8.1 Perform General Demand Data Foundation Configuration

Perform various configuration steps in Customizing for DDF. DDF must be fully configured and operational for all the scenarios for which it is mandatory.

Procedure

1. Perform all of the Customizing activities that are required for DDF.
For more information, see the *Configure Demand Data Foundation (DDF)* section of the *SAP Customer Activity Repository Administration Guide*.

Parent topic: [Configure Demand Data Foundation \[page 94\]](#)

Next: [Activate Services \[page 96\]](#)

6.1.1.8.2 Activate Services

Activate services for DDF using transaction `SICF`.

Procedure

1. Execute transaction `SICF`.
2. On the Maintain Service screen, expand the *Virtual Hosts/Services* node and activate all of the following services:
 1. `default_host sap bc nwb**`
 2. `default_host sap bc webdynpro sap POWL**`
 3. `default_host sap bc webdynpro dmF**`
 4. `default_host sap public bc**`
 5. `default_host sap public myssocntl`
 6. `default_host sap bc Gui sap Its / webgui`

^{*}Activate all services.

Parent topic: [Configure Demand Data Foundation \[page 94\]](#)

Previous: [Perform General Demand Data Foundation Configuration \[page 96\]](#)

Next task: [Configure Automatic Flattening of Hierarchies \[page 97\]](#)

6.1.1.8.3 Configure Automatic Flattening of Hierarchies

Configure the system so it automatically creates and updates flat structures for the product and location hierarchies in DDF. The flat structures are required so that the consuming applications can correctly recognize the hierarchies.

Context

Flat structures describe the parent-child relationships of hierarchies in a flattened format. A hierarchy can be vertically or horizontally flattened. Each row of the resulting flat structure contains one parent-child relationship.

When you create (or update) a product hierarchy, product group, location hierarchy, or location group in Demand Data Foundation (DDF), the system should create (or update) the corresponding flat structure. Without this, you get hierarchy errors in the consuming applications.

To configure the automatic flattening of hierarchies, follow these steps:

Procedure

1. Carefully read SAP Note [1425876](#) and follow the instructions.
2. Execute transaction **SWETYPV** and ensure that you have activated all required event type linkages and have enabled the specified event queues. In particular, check that the *Linkage Activated* and *Enable Event Queue* options are for each of the following events: LOCATION_CREATED, LOCATION_UPDATED, CREATE_LOC_HIER, CREATE_PROD_HIER. If you need to change a setting, you can do so in the *Details* screen of each event.

For more information about event handling, see SAP Note [1098805](#), in particular sections *Events* and *Transactions for troubleshooting*.

Results

You have set up the automatic flattening of the hierarchies. When you now create (or update) a hierarchy, the system will automatically run the /DMF/TREE_FLATTENER_PROD_INS report (for product hierarchies) or

the `/DMF/TREE_FLATTENER_LOC_INS` report (for location hierarchies) and create (or update) the corresponding flat structure.

Task overview: [Configure Demand Data Foundation \[page 94\]](#)

Previous: [Activate Services \[page 96\]](#)

Next: [Import SAP NetWeaver Portal Roles for DDF \[page 98\]](#)

6.1.1.8.4 Import SAP NetWeaver Portal Roles for DDF

Set up user authorizations for DDF using the `PFCG` roles from the SAP NetWeaver Business Client (NWBC) and from the SAP NetWeaver Portal (optional). Both sets of roles operate in the same manner.

Use

The roles have been designed for use in SAP NetWeaver Business Client. To use the functions of these roles in SAP NetWeaver Portal, you must upload the roles from the SAP back-end system to the portal. The uploaded objects are converted into portal objects.

Procedure

1. Use the *Role Upload* tool to generate the SAP NetWeaver Portal roles automatically. For information about this tool, see SAP Note [1685257](#).
You can also enhance the SAP NetWeaver Portal roles; for example, you can create your own iViews.
You can upload the following roles for DDF:
 - `SAP_ISR_DDF_MASTER`
 - `SAP_ISR_DDF_READONLY_MASTER`

For descriptions of these roles and information about maintaining roles in SAP Customer Activity Repository, see section *Authorizations* in the *SAP Customer Activity Repository Administration Guide*.

Parent topic: [Configure Demand Data Foundation \[page 94\]](#)

Previous task: [Configure Automatic Flattening of Hierarchies \[page 97\]](#)

Next: [Check Performance-Related Configuration Options \(Optional\) \[page 99\]](#)

6.1.1.8.5 Check Performance-Related Configuration Options (Optional)

Use additional configuration options for Demand Data Foundation (DDF) to optimize performance for different use cases.

Procedure

See the following options and implement those that are relevant for you:

Use Case	Configuration Option
You have a great number of products and locations, so that the resulting tables are very large.	Consider table partitioning. For information, see the <i>Partition Tables for UDF and DDF</i> section of the <i>SAP Customer Activity Repository Administration Guide</i> .
You want to optimize workload distribution.	Consider setting up load balancing. For information, see https://help.sap.com/viewer/p/CARAB >> <Version> > Application Help > SAP Customer Activity Repository > Demand Data Foundation > General Services > Configure Load Balancing >.
You are using DDF together with UDF to model and forecast consumer demand.	Optimize performance for modeling and forecasting processes. For information, see the Optimize UDF Performance <i>Optimize UDF Performance</i> section of the <i>SAP Customer Activity Repository Administration Guide</i> .

Parent topic: [Configure Demand Data Foundation \[page 94\]](#)

Previous: [Import SAP NetWeaver Portal Roles for DDF \[page 98\]](#)

6.1.1.9 Configure SAP Gateway

Perform several configuration steps for SAP Gateway and activate the OData services for the SAP Fiori apps. The steps to follow depend on the SAP NetWeaver version on your front-end server.

[Perform General SAP Gateway Configuration \[page 100\]](#)

Make several general configuration settings (for example, set profile parameters, activate ICF services, or make language settings). The settings may vary depending on the SAP NetWeaver version installed on your front-end server, or on other specifics related to your system landscape.

[Connect SAP Gateway to Your Back-End System \[page 101\]](#)

Set up the connection between SAP Gateway on your front-end server and your back-end system. In other words, set up the OData Channel (ODC).

[Activate SAP Gateway \[page 102\]](#)

Before you can use SAP Gateway, you must activate it globally on your front-end server.

[Activate OData Services \[page 103\]](#)

First activate all the common OData services for SAP Fiori (mandatory). Then select the OData services for the application and SAP Fiori apps that you wish to use and activate these services as well.

[Configure SAP Fiori Launchpad \[page 108\]](#)

Perform the general configuration of the SAP Fiori launchpad. You must do this procedure before you can set up SAP Fiori apps for any of the applications.

[Calculate SAPUI5 Application Index for SAP Fiori Apps \[page 109\]](#)

Configure and run the `/UI5/APP_INDEX_CALCULATE` (*Calculation of SAPUI5 Application Index for SAPUI5 Repositories*) report in your front-end system. The report updates the SAPUI5 application index. If the index is up-to-date, the system can find data related to SAP Fiori apps significantly faster.

Parent topic: [Core \(Mandatory for All Applications\) \[page 76\]](#)

Previous: [Configure Demand Data Foundation \[page 94\]](#)

6.1.1.9.1 Perform General SAP Gateway Configuration

Make several general configuration settings (for example, set profile parameters, activate ICF services, or make language settings). The settings may vary depending on the SAP NetWeaver version installed on your front-end server, or on other specifics related to your system landscape.

Use

The steps are not specific to this guide and are described in the product documentation of your SAP NetWeaver version.

Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Consult the product documentation for your SAP NetWeaver version to determine what settings to make. For SAP Gateway for SAP NetWeaver 7.52, see https://help.sap.com/viewer/p/SAP_NETWEAVER_AS_ABAP_752 and choose **>> <Version>** **> Application Help** **> SAP Gateway Foundation (SAP_GWFND)** **> SAP Gateway Foundation Configuration Guide** **> General Configuration Settings** **>**.
3. Perform the general SAP Gateway configuration specific to your SAP NetWeaver version.

i Note

If you encounter issues, see SAP Note [1797736](#) (SAP Gateway Troubleshooting Guide) for possible solutions.

6.1.1.9.2 Connect SAP Gateway to Your Back-End System

Set up the connection between SAP Gateway on your front-end server and your back-end system. In other words, set up the OData Channel (ODC).

Use

The steps are not specific to this guide and are described in the product documentation for your SAP NetWeaver version.

i Note

As of SAP NetWeaver 7.40, the major components of SAP Gateway have been integrated into the SAP NetWeaver system as SAP Gateway Foundation (SAP_GWFND). SAP Gateway Foundation has since been an integral part of SAP NetWeaver.

Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Set up the OData Channel as described in the *SAP Gateway Foundation Configuration Guide* for your SAP NetWeaver version.
Use [SAP Help Portal for SAP NetWeaver](#) as your entry point and navigate to the guide for your version. Here are two examples:

❖ Example

For SAP Gateway on Foundation for ABAP Platform, see the [SAP Gateway Foundation Configuration Guide](#).

If required, select a different version at the top.

Search for section *Connection Settings for the SAP Gateway Hub System* and follow the instructions.

❖ Example

For SAP Gateway for SAP NetWeaver 7.52, see https://help.sap.com/viewer/p/SAP_NETWEAVER_AS_ABAP_752.

Select your version at the top and choose [Application Help](#) > [SAP Gateway Foundation \(SAP_GWFND\)](#) > [SAP Gateway Foundation Configuration Guide](#) > [SAP Gateway Configuration](#) > [User, Developer, and Administrator Roles](#) and [Connection Settings for the SAP Gateway Hub System](#).

3. Set up the required roles on the front-end server and assign your user to these roles.
4. Specify the connection settings on the SAP Gateway hub system:
 - Connection from SAP Gateway to consumer systems
These settings allow you to connect the SAP Gateway host to the consumer systems (clients from which you access the SAP Fiori apps).
 - Connection from SAP Gateway to SAP back-end system
These settings allow you to connect SAP Gateway to your back-end system. They include the following steps:
 - Creating a type 3 connection from the SAP Gateway host to your back-end system
 - Defining a trust relationship between your back-end system and the SAP Gateway host
 - Configuring your back-end system to accept SAP assertion tickets from the SAP Gateway host
 - Configuring your SAP Gateway host to accept SAP assertion tickets from your back-end system
 - Configuring the necessary system aliases

6.1.1.9.3 Activate SAP Gateway

Before you can use SAP Gateway, you must activate it globally on your front-end server.

Use

The steps are not specific to this guide and are described in the product documentation for your SAP NetWeaver version.

i Note

As of SAP NetWeaver 7.40, the major components of SAP Gateway have been integrated into the SAP NetWeaver system as SAP Gateway Foundation (SAP_GWFND). SAP Gateway Foundation has since been an integral part of SAP NetWeaver.

Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Follow the steps in the *Activating SAP Gateway* section of the *SAP Gateway Foundation Configuration Guide* for your SAP NetWeaver version.

Use [SAP Help Portal for SAP NetWeaver](#) as your entry point and navigate to the guide for your version. Here are two examples:

❁ Example

For SAP Gateway on Foundation for ABAP Platform, see the [SAP Gateway Foundation Configuration Guide](#).

If required, select a different version at the top.

Search for section *Activating SAP Gateway* and follow the instructions.

❁ Example

For SAP Gateway for SAP NetWeaver 7.52, see https://help.sap.com/viewer/p/SAP_NETWEAVER_AS_ABAP_752.

Select your version at the top and choose ► *Application Help* ► *SAP Gateway Foundation (SAP_GWFND)* ► *SAP Gateway Foundation Configuration Guide* ► *SAP Gateway Configuration* ► *Activating SAP Gateway* ►.

6.1.1.9.4 Activate OData Services

First activate all the common OData services for SAP Fiori (mandatory). Then select the OData services for the application and SAP Fiori apps that you wish to use and activate these services as well.

Context

For security reasons, the OData services are delivered in an inactive state:

- The **common OData services** are delivered as part of the SAP Fiori front-end server. They are required for the SAP Fiori launchpad and you must always activate them.
- The **application-specific OData services** are delivered with SAP Customer Activity Repository applications bundle. You only need to activate the services that are relevant for your application and scenario.

Procedures

Mandatory: Activate Common OData Services for SAP Fiori

1. Log on to your front-end server (your SAP Gateway system).
2. In transaction **SPRO**, navigate to ► *SAP Reference IMG* ► *SAP NetWeaver* ► *SAP Gateway* ► *OData Channel* ► *Administration* ► *General Settings* ► *Activate and Maintain Services* ► and execute the Customizing activity.

→ Tip

As a quick shortcut to the same screen, use transaction `/n/IWFND/MAINT_SERVICE`.

The *Service Catalog* shows you all the services that are currently active in your SAP Gateway system.

3. To add and activate more services, choose *Add Service*.
The *Add Selected Services* screen is displayed.
4. In *System Alias*, select the alias of your local back-end system.
This is the alias that you have created in [Connect SAP Gateway to your Back-End System \[page 101\]](#). For example, LOCAL.
5. In *Technical Service Name*, specify `/UI2*`.
6. Choose *Get Services* (or press `ENTER`).
7. Select all the common OData services for SAP Fiori:

Common OData Services for SAP Fiori

`/UI2/PAGE_BUILDER_CONF`

`/UI2/PAGE_BUILDER_CUST`

`/UI2/PAGE_BUILDER_PERS`

`/UI2/TRANSPORT`

`/UI2/INTEROP`

8. Choose *Add Selected Services* and follow the instructions.

Result

The common OData services are now active in your SAP Gateway system.

Activate Application-Specific OData Services for SAP Customer Activity Repository applications bundle

1. Log on to your front-end server (your SAP Gateway system).
2. In transaction `SPRO`, navigate to `SAP Reference IMG` `>` `SAP NetWeaver` `>` `SAP Gateway` `>` `OData Channel` `>` `Administration` `>` `General Settings` `>` `Activate and Maintain Services` and execute the Customizing activity.

→ Tip

As a quick shortcut to the same screen, use transaction `/n/IWFND/MAINT_SERVICE`.

The *Service Catalog* shows you all the services that are currently active in your SAP Gateway system.

3. Activate the services that are required for your application:
 1. Choose *Add Service*.
The *Add Selected Services* screen is displayed.
 2. In *System Alias*, select the alias of your back-end system.
 3. Choose *Get Services* (or press `ENTER`).
The available services are displayed.

4. Use the following table for reference and select the services for your application:

→ Tip

You can also see the required OData services for each app in the SAP Fiori Reference Library at <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/>. Search for the app name, choose *IMPLEMENTATION INFORMATION*, and select a delivery. The OData services are listed under *Configuration*.

For this Application... Activate These OData Services...

- | | |
|---------------------|--|
| SAP Customer | ○ For POS Data Transfer and Audit: none |
| Activity Repository | ○ For Multichannel Transaction Data Management: none |
| | ○ For Unified Demand Forecast and the apps for demand forecasting (<i>Analyze Forecast, Adjust Forecast, Manage Demand Influencing Factors</i>): |
| | ○ /DMF/ANALYZEFORECAST_SRV |
| | ○ /DMF/OD_FC_TIME_SERIES_VIZ_SRV |
| | ○ /DMF/DEMAND_PLAN_UTILITIES_SRV |
| | ○ /DPL/OD_ADJUST_FORECAST_SRV |
| | ○ /DPL/OD_DEMAND_PLANNING_SRV |
| | ○ For Demand Data Foundation (optional; alternative to using the DRF data replication framework for importing master data): |
| | ○ /DMF/API_DOCUMENT |
| | ○ /DMF/API_GENERIC_TIME_SERIES |
| | ○ /DMF/API_INVENTORY |
| | ○ /DMF/API_LOCATION |
| | ○ /DMF/API_LOCATION_HIERARCHY |
| | ○ /DMF/API_PRODUCT |
| | ○ /DMF/API_PRODUCT_HIERARCHY |
| | ○ /DMF/API_PRODUCT_LOCATION |
| | ○ /DMF/API_SALES_HISTORY |
| | ○ /DMF/API_TRANSPORTATION_LANE |
| | ○ /DMF/API_ATTRIBUTES |
| | ○ /DMF/API_IMAGES |
| | ○ /DMF/API_MERCHANDISE_PLAN_KPI |
| | ○ /DMF/API_PHPs |
| | ○ For the <i>Manage Product Attributes</i> app: |
| | ○ /DMF/API_ATTRIBUTES_SRV (optional, to import external attributes for integration scenarios with non-SAP source master data systems) |
| | ○ For Omnichannel Promotion Pricing: none |
| | ○ For Omnichannel Article Availability and Sourcing (part of Inventory Visibility): |
| | ○ With SAP S/4HANA back-end: |
| | ○ /OAA/F3391_MSN_SRV |
| | ○ /OAA/F2586_MSS_SRV |
| | ○ /OAA/F2659_MSC_SRV |
| | ○ /OAA/F3392_MS_SRV |
| | ○ With SAP Retail back-end: |
| | ○ /OAA/F2530_MSN_SRV |
| | ○ /OAA/F2586_MSS_SRV |
| | ○ /OAA/F2659_MSC_SRV |
| | ○ /OAA/F3003_MS_SRV |
| | ○ For On-Shelf Availability: |
| | ○ /OSA/ON_SHELF_AVAILABILITY |
| | ○ For SAP Smart Business for Multichannel Sales Analytics: none |
-

For this Application... Activate These OData Services...

Calculation of Distribution Curves	For the <i>Configure Distribution Curves</i> app and the calculation of distribution curves: <ul style="list-style-type: none"> ○ /DMF/DIST_CURVE
SAP Allocation Management	<ul style="list-style-type: none"> ○ /AMR/OD_ALLOCATIONPLAN_SRV ○ /AMR/OD_COMMON_SRV ○ /AMR/OD_MARKETUNIT_SRV ○ /AMR/OD_PARAM_SRV ○ /AMR/OD_WORKLOAD_SRV ○ /AMR/OD_PRODUCT_FLOW_SRV ○ /AMR/OD_KPI_CONFIG_SRV ○ /AMR/OD_ALLOCATIONRESULT_SRV ○ /AMR/OD_BASKET_SRV ○ /AMR/OD_ALLOCATIONPLAN_SEARCH_SRV ○ /AMR/OD_CAPACITYMANAGEMENT_SRV
SAP Assortment Planning	<ul style="list-style-type: none"> ○ /DMF/CURRENCY_LIST_SRV ○ /DMF/LOCATION_CLUSTERSET_SRV ○ /DMF/MASTER_DATA_SRV ○ /DMF/MODULE_MANAGEMENT_SRV ○ /DMF/OBJ_ATTRIBUTE_SRV ○ /DMF/PLAN_CONFIG_SRV ○ /DMF/SEARCH_LOCATIONS_SRV ○ /DMF/SEARCH_PRODUCTS_SRV ○ /DMF/SEASONS_SRV ○ /RAP/ASSORTMENT_LIST_SRV ○ /RAP/OPTION_PLAN_SRV ○ /RAP/PHP_MATCH_SRV ○ /RAP/VALIDITY_PERIOD_SRV ○ /RAP/V_OP_KPI_Q_CDS_CDS ○ /RAP/OPT_PLN_KPI_SRV ○ /RAP/V_OP_OCLST_PRSL_Q_CDS_CDS ○ /RAP/STYLE_PLAN_SRV
SAP Merchandise Planning	Not applicable (this application does not have SAP Fiori apps)
SAP Promotion Management	<ul style="list-style-type: none"> ○ /DMF/PROD_MD_SRV (<i>Master Data Retrieval</i>) ○ /DMF/OFFER_MANAGEMENT_V2_SRV (<i>Manage Promotional Offers</i>) ○ /DMF/PRODUCT_GROUP_SRV (<i>Manage Product Groups</i>) ○ /DMF/LOCATION_SUBGROUP_SRV (<i>Manage Location Subgroups</i>) ○ /PRM/OFFER_CONTENT_SRV (<i>Offer Content Assignment</i>)

4. Choose *Add Selected Services* and follow the instructions.

i Note

User roles are only needed if you want to have connections to multiple back-end systems or multiple clients on the same back-end. The user roles are system-specific and are not delivered by default. If required, you must create them manually. If you define multiple user roles for different connections, make sure you have only one role assigned to your user at any time. If you need to change roles, first remove the old role from your user, then assign the new role.

Result

The application-specific OData services that you have selected are now active in your SAP Gateway system.

6.1.1.9.5 Configure SAP Fiori Launchpad

Perform the general configuration of the SAP Fiori launchpad. You must do this procedure before you can set up SAP Fiori apps for any of the applications.

Context

SAP Fiori launchpad is a shell that hosts SAP Fiori apps, and provides the apps with services such as navigation, personalization, embedded support, and configuration.

The configuration steps are not specific to this guide and are described in the product documentation of your SAP NetWeaver version on the front-end server.

Prerequisite

You have installed the central SAP Fiori UI component on the front-end server. The component contains the SAP Fiori launchpad.

Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Set up and configure the SAP Fiori launchpad as described in the corresponding product documentation.

Examples:

- For SAP NetWeaver 7.52, see [UI Technologies in SAP NetWeaver](#) and select your version. Choose [▶ SAP Fiori Launchpad ▶ Administration Guide ▶](#).
- For version 1809 (SAPUI 753) and higher, see [SAP Fiori Launchpad](#).

If required, select a different version at the top.

3. (Optional) Configure additional settings to improve the performance of the SAP Fiori Launchpad. These settings are relevant for the following scenario:
 - Your source master data system is SAP S/4HANA 1809 or higher.
 - You are using Web Dynpro applications or SAP GUI for HTML transactions as tiles on the SAP Fiori launchpad.

For more information, see SAP Help Portal at https://help.sap.com/viewer/product/SAP_S4HANA_ON-PREMISE/1809/en-US?task=implement_task and select your version at the top. Open the *Upgrade Guide* and search for section *SAP Fiori Launchpad Settings for Improved Performance*.

6.1.1.9.6 Calculate SAPUI5 Application Index for SAP Fiori Apps


Configure and run the `/UI5/APP_INDEX_CALCULATE` (*Calculation of SAPUI5 Application Index for SAPUI5 Repositories*) report in your front-end system. The report updates the SAPUI5 application index. If the index is up-to-date, the system can find data related to SAP Fiori apps significantly faster.

Use

The SAPUI5 application index provides indexing and caching for data related to SAP Fiori apps, components, and libraries. This data is contained in SAPUI5 repositories on the SAP NetWeaver Application Server for ABAP. Initially, the index is empty. It is calculated and updated each time you run the report.

Prerequisites

You are familiar with the prerequisites, configuration options, and requirements of the `/UI5/APP_INDEX_CALCULATE` report. For more information, see the following:

- SAP Note [2227577](#)  (*Recalculation of the SAPUI5 Application Index After Implementing an SAP Note*)
 - Report documentation in transaction `SE38`
 - *SAPUI5: UI Development Toolkit for HTML5*: Here you can find detailed information on the SAPUI5 application index and the report.
- For more information, see [SAPUI5 Application Index](#).

Configuration

To configure how the index should be calculated, you can choose from several options in the `/UI5/APP_INDEX_CALCULATE` report:

- Tab *Complete Index*, option *Depending on Expiry Period and Import of Transport Requests*: This option updates those SAPUI5 repositories and the distribution layer where either the specified expiration period (in hours and minutes) has elapsed or where a transport has changed the content of the repositories and the distribution layer since the last update.

i Note

This is the default mode with an expiration period of 24 hours. We recommend that you use this mode when scheduling the report for periodic execution.

- Tab *Complete Index*, option *Full Calculation*: This option performs a full update of all SAPUI5 repositories and the distribution layer regardless of any expiration dates.
- *Single SAPUI5 Repository Only*: Here you select the repository for which you wish to update the index.
- *SAPUI5 Distribution Layer Only*: Here you update the index only based on the distribution layer.

Operation

Configure and run the report in all your front-end systems.

→ Tip

You can run the report manually, but we recommend the following best practices:

- **Schedule** the report as a periodic job for all follow-on systems to which the changes are transported. This ensures that the application index is updated based on the transports imported by each system. For example, you can use transaction `SM36` for this purpose.
- **Always run** the report in the following situations:
 - after any changes to the content of SAPUI5 ABAP repositories (for example, implementation of SAP Notes, upgrades, changes to SAP Gateway systems)
 - after installing a new version of the distribution layer
 - after implementing an SAP Note containing changes to an SAP Fiori app

Procedure

i Note

If you experience issues, see the following troubleshooting tips for possible solutions:

- SAP Note [2364579](#) (SAPUI5 application index is not calculated, is outdated or contains errors)
- SAP Community at [Fiori - How to Troubleshoot SAPUI5 Application Index Specific Issues](#)

1. Log on to your front-end system.
2. Execute transaction SE38, specify `/UI5/APP_INDEX_CALCULATE` as the program (report), and choose *Execute* (F8).
3. Configure the report.
4. Choose *Execute* (F8) again to run the report manually.

→ Tip

Schedule the report to run on a regular basis in all your front-end systems.

Result: The SAPUI5 application index is updated based on your settings.

6.1.2 Advanced (Optional)

After you have completed the core steps, do the advanced steps that are relevant to your scenario. The advanced steps are optional. They enable specific functionality in SAP Customer Activity Repository.

Prerequisites

You have completed the steps described in [Core \(Mandatory for All Applications\) \[page 76\]](#).

Advanced Steps

[Replicate Optional Tables \[page 112\]](#)

Set up the table replication from your SAP CRM source system and from your SAP Marketing Cloud source system. Both procedures are optional.

[Configure SAP Smart Business for Multichannel Sales Analytics \[page 117\]](#)

Do these procedures if you wish to use the SAP Smart Business for multichannel sales analytics cockpit. The cockpit provides you with an overview of the most important key performance indicators for a category manager. The KPI tiles are provided using the SAP Smart Business framework. They serve as access points to analytical SAP Fiori apps.

[Configure On-Shelf Availability \[page 119\]](#)

Configure the On-Shelf Availability (OSA) module in SAP Customer Activity Repository. All steps are **optional** and depend on your implementation scenario.

[Ensure that Third-Party CRM Sales Orders are Transferred to SAP ERP \[page 121\]](#)

Do this procedure if sales orders were created in a third-party customer relationship management (CRM) system. You must ensure that this data is transferred to the source master data system. From there, it can be replicated to (or accessed directly by) SAP Customer Activity Repository.

[Partition /POSDW/TLOGF and Aggregation Tables \[page 122\]](#)

If you wish to use the POS Data Transfer and Audit module, we recommend that you partition the /POSDW/TLOGF table and several aggregation tables (such as /POSDW/TLOGF_EXT). This improves

standard database operations (such as inserting, updating, deleting, and reading) and mass operations (such as archiving or index merging).

[Customize Copies of SAP HANA Views \[page 123\]](#)

Do this procedure if you have extended the delivered data model (for example, if you have added custom fields to tables). First create copies of views included in SAP HANA Live for SAP ERP or in the SAP HANA content for SAP Customer Activity Repository. Then customize these copies to reflect your specific data model extensions.

[Complete UDF Setup \[page 124\]](#)

Set up the Unified Demand Forecast (UDF) module in SAP Customer Activity Repository to enable demand modeling and forecasting for different scenarios and consuming applications. To be able to use UDF, you must at least do the mandatory steps. Additionally, you can choose from several optional steps. We also point you to helpful performance information for UDF.

[Set Up SAP Fiori Apps for SAP Customer Activity Repository \[page 131\]](#)

Perform common setup steps that are required for the apps in SAP Customer Activity Repository. For example, check that the prerequisites are installed and prepare the system landscape. Then set up the apps that you want to use in your scenario.

[Configure Omnichannel Article Availability and Sourcing for Use with SAP Customer Activity Repository \[page 160\]](#)

To set up the OAA module, you need to integrate the source master data system (SAP S/4HANA or SAP Retail), SAP Customer Activity Repository, SAP Commerce, and SAP Commerce, integration package for SAP for Retail. You also need to set up asynchronous order management and the data replication between SAP S/4HANA or SAP Retail, SAP Commerce, and SAP Customer Activity Repository.

[Configure Omnichannel Promotion Pricing for Use with SAP Customer Activity Repository \[page 163\]](#)

To use the OPP module, you need to activate the functionality in Customizing and configure it for your specific scenario.

6.1.2.1 Replicate Optional Tables

Set up the table replication from your SAP CRM source system and from your SAP Marketing Cloud source system. Both procedures are optional.

6.1.2.1.1 Replicate SAP CRM Tables (Optional)

Set up the replication of tables from your SAP CRM source system. You only need to perform this procedure if you have an SAP CRM system in your SAP Customer Activity Repository landscape and you are planning to use

the standard SAP implementation of customer identification delivered with the SAP Customer Activity Repository.

Procedure

1. Ensure that the SAP LT Replication Server is installed and that a user with the appropriate authorizations is set up in the target SAP HANA database.

If you have already ensured proper installation of the SAP LT Replication Server during previous procedures, skip to the next step. Otherwise, refer to one of the following for more information:

- <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > Installation Information
- <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Technical Prerequisites and Authorization Aspects

2. Set up a user in the source SAP CRM system and grant relevant authorizations to this user.

For more information, see <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Configuration Information and Replication Concepts > System Connections and Authorizations

3. Specify a configuration in SAP LT Replication Server, which contains the definition of the connections between:

- The source SAP CRM system and the SAP LT Replication Server
- The SAP LT Replication Server and the target SAP HANA database

For more information, see <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Accessing the Configuration and Monitoring Dashboard

The name that you assign to your configuration will be also be used as the name of the database catalog schema that is automatically created on the target SAP HANA database. This is the schema to which you will replicate the tables from the source SAP CRM system.

Once you save the configuration, a schema GUID and a mass transfer ID are automatically created and assigned to the configuration. Furthermore, several dictionary tables are automatically replicated from your source system to your target SAP HANA database.

For more information, see <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Important Transactions and Control Tables

4. Define client transformation rules for all the SAP CRM tables that you plan to replicate.

In most cases, you need to apply transformation rules to map the client of the source SAP CRM system to the client on the target SAP Customer Activity Repository system.

⚠ Caution

Transformation rules must be defined **prior** to replicating tables.

For more information, refer to one of the following:

- *Set Up SAP Client* section in the *Common Installation Guide*.
 - <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Important Transactions and Control Tables > Data Transformation Capabilities within SAP Landscape Transformation Replication Server >
 - SAP Note [1733714](#)
5. Specify which SAP ERP tables to replicate using information from one of the two following sources:
- SAP Note [2538135](#), for installations based on the SAP_ECC schema
 - SAP Note [2538187](#), for installations based on the SAP_S4H schema

For more information, see:

- <http://help.sap.com/hba> > Installation, Security, Configuration, and Operations Information > Administrator's Guide > Configuration Steps > Replicate Data (Side-by-Side Only) >
 - <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Configuration Information and Replication Concepts > (<Managing the Replication Process Using the SAP HANA Studio> and <Important Transactions and Control Tables>) >
6. Map the authoring schema `SAP_CRM` to your particular physical database schema which contains the SAP CRM tables. If the physical database schema is already named `SAP_CRM`, this schema mapping is not required.

Authoring Schema	Physical Schema
<code>SAP_CRM</code>	<Name of Your Schema for Storing SAP_CRM Data>

For more information, see http://help.sap.com/hana_platform > Development and Modeling > SAP HANA Modeling Guide > Importing Table Definitions and Data > Map Authoring Schema to the Physical Schema >.

i Note

Every time you make changes to the schema mapping, the SAP HANA content must be redeployed.

You can do this using one of two methods:

- Execute the `/CAR/ACTIVATE_HANA_CONTENT` report as described in SAP Note [2330386](#).
- Manually redeploy only those SAP HANA objects which are impacted by your schema mapping change.

6.1.2.1.2 Replicate SAP Marketing Cloud Tables (Optional)

Set up the replication of tables from your SAP Marketing Cloud source system. You only need to perform this procedure if you have a SAP Marketing Cloud system in your SAP Customer Activity Repository landscape and

you are planning to use the standard SAP implementation of customer identification delivered with the SAP Customer Activity Repository.

Procedure

1. If you plan to implement SAP Marketing Cloud co-deployed with SAP Customer Activity Repository, the SAP Marketing Cloud tables will not be replicated because they already exist in the same SAP HANA database and the same database schema.

Note

Client transformation is not possible without table replication, therefore a co-deployed scenario is only possible if the client numbers in the two back-end systems are identical.

For more information, see *Set Up SAP Client* section in the *Common Installation Guide*.

2. If you plan to implement SAP Marketing Cloud side-by-side with SAP Customer Activity Repository, do the following:
 1. Define client transformation rules for all the SAP Marketing Cloud tables that you plan to replicate. In most cases, you need to apply transformation rules to map the client of the source SAP Marketing Cloud system to the client on the target SAP Customer Activity Repository system.

Caution

Transformation rules must be defined **prior** to replicating tables.

For more information, refer to one of the following:

- *Set Up SAP Client* section in the *Common Installation Guide*.
- <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Important Transactions and Control Tables > Data Transformation Capabilities within SAP Landscape Transformation Replication Server
- SAP Note [1733714](#)
- 2. Specify which SAP ERP tables to replicate using information from one of the two following sources:
 - SAP Note [2538135](#), for installations based on the SAP_ECC schema
 - SAP Note [2538187](#), for installations based on the SAP_S4H schema

For more information, see:

- <http://help.sap.com/hba> > Installation, Security, Configuration, and Operations Information > Administrator's Guide > Configuration Steps > Replicate Data (Side-by-Side Only)
 - <http://help.sap.com/hana> > SAP HANA > SAP HANA Options > SAP HANA Real-Time Replication > SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server > System Administration and Maintenance Information > Configuration Information and Replication Concepts > (<Managing the Replication Process Using the SAP HANA Studio> and <Important Transactions and Control Tables>)
3. Regardless of whether you implement SAP Marketing Cloud co-deployed or side-by-side with SAP Customer Activity Repository, map the authoring schema `SAP_CUAN` to your particular physical database

schema that contains the SAP CRM tables. If the physical database schema is already named SAP_CUAN, this schema mapping is not required.

Authoring Schema	Physical Schema
SAP_CUAN	<Name of Your Schema for Storing SAP Marketing Cloud Data>

For more information, see http://help.sap.com/hana_platform [Development and Modeling](#) [SAP HANA Modeling Guide](#) [Importing Table Definitions and Data](#) [Map Authoring Schema to the Physical Schema](#) .

Note

Every time you make changes to the schema mapping, the SAP HANA content must be redeployed.

You can do this using one of two methods:

- Execute the `/CAR/ACTIVATE_HANA_CONTENT` report as described in SAP Note [2330386](#) .
- Manually redeploy only those SAP HANA objects that are impacted by your schema mapping change.

Side-by-Side Scenario (SLT)

1. Define client transformation rules for all the SAP Marketing Cloud tables that you plan to replicate. In most cases, you need to apply transformation rules to map the client of the source SAP Marketing Cloud system to the client on the target SAP Customer Activity Repository system.

Caution

Transformation rules must be defined **prior** to replicating tables.

For more information, refer to one of the following:

- *Set Up SAP Client* section in the *Common Installation Guide*.
 - <http://help.sap.com/hana> [SAP HANA](#) [SAP HANA Options](#) [SAP HANA Real-Time Replication](#) [SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server](#) [System Administration and Maintenance Information](#) [Important Transactions and Control Tables](#) [Data Transformation Capabilities within SAP Landscape Transformation Replication Server](#) .
 - SAP Note [1733714](#) .
2. Read SAP Note [1897025](#) and replicate the tables listed in the `.txt` file attached to this SAP Note. For more information, see <http://help.sap.com/hana> [SAP HANA](#) [SAP HANA Options](#) [SAP HANA Real-Time Replication](#) [SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server](#) [System Administration and Maintenance Information](#) .

6.1.2.2 Configure SAP Smart Business for Multichannel Sales Analytics

Do these procedures if you wish to use the SAP Smart Business for multichannel sales analytics cockpit. The cockpit provides you with an overview of the most important key performance indicators for a category manager. The KPI tiles are provided using the SAP Smart Business framework. They serve as access points to analytical SAP Fiori apps.

Use

The steps in this section are optional and depend on your specific implementation requirements.

i Note

For more information about the cockpit, see the application help for SAP Customer Activity Repository at <https://help.sap.com/viewer/p/CARAB>. Search for section *SAP Smart Business for Multichannel Sales Analytics*.


6.1.2.2.1 Install the SAP Smart Business Modeler Apps Framework

The SAP Smart Business for Multichannel Sales Analytics apps included in this installation are based on the SAP Smart Business Modeler Apps Framework. Installation and setup of this framework includes the following:

- Installation of SAP Smart Business Modeler apps on the front-end server
- Installation of SAP Smart Business products on the SAP HANA Server
- Installation of SAP Web Dispatcher
- Communication channels
- App implementation

For more information on these topics, see https://help.sap.com/viewer/p/UI_ADD-ON_FOR_SAP_NETWEAVER_10 ▶ *Application Help* ▶ *SAP Library* ▶ *SAPUI5: UI Development Toolkit for HTML5* ▶ *SAPUI5 Application Frameworks* ▶ *SAP Smart Business* ▶ *Setting up the SAP Smart Business Modeler Apps Framework* ▶.

i Note

If you are installing User Interface Add-On 2.0 for SAP NetWeaver, you must download and install add-on object UISAFND1 100 as described in SAP Note [2183947](https://support.sap.com/en/notes/2183947.html) .

6.1.2.2.2 Configure SAP Web Dispatcher for the SAP Smart Business Modeler Apps

SAP Web Dispatcher lies between the Internet and your SAP system. It is the entry point for HTTP(s) requests into your system. As a “software web switch”, SAP Web Dispatcher can reject or accept connections. It contributes to security and also balances the load in your SAP system.

Where to Find Configuration Information

To find the SAP Web Dispatcher information for your SAP NetWeaver release, see the following:

- Central SAP Web Dispatcher note: [908097](#)  *SAP Web Dispatcher: Release, Installation, Patches, Documentation*
- Product documentation: https://help.sap.com/viewer/p/SAP_NETWEAVER. Choose your SAP NetWeaver Platform and select the support package stack at the top right.
For configuration information, search for “Administration of the SAP Web Dispatcher”.
For a configuration example, search for “SAP Web Dispatcher Configuration Reference”.
For architecture information, search for “Architecture and Functions of the SAP Web Dispatcher”.

How to Configure SAP Web Dispatcher for the SAP Smart Business Modeler Apps

The following parameters values are required:

- Source master data system: SAP ECC
Parameter `wdisp/system_542` requires the following URL: `/sap/is/retail/car/mcsa/odata`
Resulting setting: `wdisp/system_542 /sap/is/retail/car/mcsa/odata`
- Source master data system: SAP S/4HANA
Parameter `wdisp/system_542` requires the following URL: `/sap/is/retail/car_s4h/mcsa/odata`
Resulting setting: `wdisp/system_542 /sap/is/retail/car_s4h/mcsa/odata`

Other Solutions

If you use any other reverse proxy, see the manufacturer's documentation for more information.

6.1.2.3 Configure On-Shelf Availability

Configure the On-Shelf Availability (OSA) module in SAP Customer Activity Repository. All steps are **optional** and depend on your implementation scenario.

i Note

The configuration of OSA is **mandatory** if you want to generate intraday forecasts. For information about this feature, see <https://help.sap.com/viewer/p/CARAB> |> <Version> > *Application Help* > *SAP Customer Activity Repository* > *Unified Demand Forecast* > *General Services* > *Generate Intraday Forecasts* >.

i Note

If you encounter any issues when upgrading OSA, see [Troubleshooting \[page 188\]](#) for a possible solution.

6.1.2.3.1 Generate Run IDs for OSA Processing Steps

Use

Each scheduled run of a processing step of On-Shelf Availability (OSA) has a generated run ID. This is the unique identification for a job.

The run ID is used to distinguish several runs within one period. Each processing step has its own ID generator:

Processing Step	Transaction for the ID Generator
Intraweek Pattern	<code>/OSA/NR_IWP</code>
Estimation	<code>/OSA/NR_EST</code>
Monitoring	<code>/OSA/NR_MON</code>
Analysis	<code>/OSA/NR_ANA</code>

For each of the four ID generator transactions, you must define the range of run IDs.

Procedure

Do the following steps for each transaction:

1. Log on to your back-end system.
2. Execute the transaction by specifying either `/n<transaction>` or `/o<transaction>`.
Example for the first transaction: `/n/OSA/NR_IWP`
3. Choose *Intervals* in change mode.

4. In the first row of the table, enter the following values for the following fields:
 - Field *No*: **01**
 - Field *From No.*: **0000000000000001**
 - Field *To Number*: **9999999999999999**
5. Save your changes.

6.1.2.3.2 Check Field Contents in SAP HANA Content for On-Shelf Availability

Use

There are two OSA-specific SAP HANA views that can be customized:

- AN_TRANSACTION
- PROMOTION_TRANS

You must check if the fields in these views contain the mappings or formulas you need.


Caution

If you need to modify a view, be aware that a new installation will rewrite the modifications. It is therefore recommended to back up the modified views.

Procedure

To change the mapping or the formula of a field, do these steps:

1. Define the data foundation that is the source for the view, that is, the table /POS DW/TLOGF.
2. Define filters for the view.
3. Map the fields from source to target.
4. Create measures and calculation fields.

For more information, see the documentation under https://help.sap.com/viewer/p/SAP_HANA_PLATFORM .

Definitions for a View (Using the AN_TRANSACTION View as an Example)

The following definitions are set by default for the AN_TRANSACTION view:

- The source of the view is the table /POS DW/TLOGF.
- Examples of filters for the views:
 - RECORDQUALIFIER = '5': Only sales records are used.
 - DATASTATUS in ('2' , '3'): Only those records are used that passed the SAP Customer Activity Repository validation.
 - RETAILQUANTITY > 0.0: Negative quantities are not used by On-Shelf Availability.

- VOIDEDLINE = ' ': Canceled transactions are not used by On-Shelf Availability.
- Examples of fields mappings:
 - MANDT: Client ID. This field is mapped to the MANDT column of the /POSDW/TLOGF table.
 - STORE_ID: Store ID. This field is mapped to the RETAILSTOREID column of the /POSDW/TLOGF table.
 - BUSINESSDAYDATE: Business day. This field is mapped to the BUSINESSDAYDATE column of the /POSDW/TLOGF table.
- Examples of measures:
 - RETAILQUANTITY: Amount of units sold. Refers to the SALESUOM (Sales Unit of Measure) field that is also defined in the /POSDW/TLOGF table. Contains the value of the RETAILQUANTITY field.
 - PRICE: Price specified in the store currency. Contains the value of the ACTUALUNITPRICE field.
- Examples of calculated fields:
 - TRANS_TIME_DBL: Value of the TRANS_TIME output field of type DOUBLE. The format of the transaction time that is stored in BEGINTIMESTAMP and ENDTIMESTAMP is <YYYYMMDDhhmms>.
 - DISCOUNT: Total relative discount applied on the item.
Calculated as $(ITEMDISC + DISTDISC) / (RETAILQUANTITY * ACTUALUNITPRICE)$. If the price is not a positive number, 0 is returned.
Definitions:
 - DISTDISC: global discount on the whole purchase; currently not used.
 - ITEMDISC: item-specific discount; currently used.

6.1.2.4 Ensure that Third-Party CRM Sales Orders are Transferred to SAP ERP

Do this procedure if sales orders were created in a third-party customer relationship management (CRM) system. You must ensure that this data is transferred to the source master data system. From there, it can be replicated to (or accessed directly by) SAP Customer Activity Repository.

Use

Sales documents are accessed by SAP Customer Activity Repository (either through replication or direct data access) from a source SAP ERP system.

One way that sales documents of type *Sales Order* can be generated in a SAP ERP system is through the transfer of sales orders created using an SAP CRM source system or a third-party CRM system.

When customers create sales orders using SAP CRM systems, these sales orders are inherently compatible to the sales document structure in SAP ERP. They are transferred to SAP ERP via the *Data Exchange for Sales Orders: CRM Enterprise - ERP System* process. For more information, see SAP Library for SAP CRM on SAP Help Portal at <http://help.sap.com/crm>. Select the applicable version of SAP CRM. Under *Application Help*, open SAP Library and choose ► *Basic Functions* ► *Business Transaction* ► *Data Exchange for Business Transactions* ►.

Customers who use third-party CRM systems to create sales orders, and who want to access these sales orders from SAP Customer Activity Repository, must ensure that their sales order data meets the following criteria:

- It includes the information required by SAP Customer Activity Repository.
- It has been transferred to SAP ERP so that SAP Customer Activity Repository can access the data.

Procedure

1. Ensure that the fields required by SAP Customer Activity Repository are filled during the transfer of sales order data from your third-party CRM system to SAP ERP.
2. Ensure that sales order data has been transferred from your third-party CRM system to SAP ERP.

6.1.2.5 Partition /POSDW/TLOGF and Aggregation Tables

If you wish to use the POS Data Transfer and Audit module, we recommend that you partition the /POSDW/TLOGF table and several aggregation tables (such as /POSDW/TLOGF_EXT). This improves standard database operations (such as inserting, updating, deleting, and reading) and mass operations (such as archiving or index merging).

Use

SAP Customer Activity Repository contains the POS Data Transfer and Audit module, which is used to receive a large volume of data from your connected stores. POS Data Transfer and Audit, or more specifically, its POS Inbound Processing Engine (PIPE), processes the incoming transactions and stores them in the /POSDW/TLOGF table.

Since every point-of-sale transaction line item is stored as a separate row in the /POSDW/TLOGF table, the table can quickly grow to become very large and should therefore be partitioned.

Also, you can select to store extension segments in a dedicated /POSDW/TLOGF_EXT table using the [Store Extensions in Separate Table](#) option of the [Define General Settings](#) Customizing activity. The /POSDW/TLOGF_EXT table should be partitioned in the same way as the /POSDW/TLOGF table.

For more information about extension segments, see the *Appendix* section in the *SAP Customer Activity Repository Administration Guide*.

i Note

Partitioning is typically used in distributed systems, but it may also be beneficial for single-host systems.

Procedure

1. Read the *Table Partitioning in the SAP HANA Database* section of the *SAP HANA Administration Guide for SAP HANA Platform* at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM.
2. Plan your **partition specifications** in accordance to the following guidelines:
 - A single partition should not contain more than 1 billion rows.
 - The total number of partitions of a single table should not exceed 1000.
 - Because the actual act of partitioning a table also uses system resources, do not start partitioning the `/POSDW/TLOGF` table until its volume has surpassed 250 million rows.
3. Partition the `/POSDW/TLOGF` table as required according to SAP Note [1719282](#) (POS TLOG Table Partitioning Information).
4. Depending on your requirements, you may also optionally partition the following tables. The same SAP Note is relevant for these as well.
 - `/POSDW/TLOGF_EXT`
 - `/POSDW/AGGR01`
 - `/POSDW/ACCRTB`

6.1.2.6 Customize Copies of SAP HANA Views

Do this procedure if you have extended the delivered data model (for example, if you have added custom fields to tables). First create copies of views included in SAP HANA Live for SAP ERP or in the SAP HANA content for SAP Customer Activity Repository. Then customize these copies to reflect your specific data model extensions.

Use

For example, you need to execute this procedure if you have extended your POS transaction data model. The views delivered with the SAP HANA content for SAP Customer Activity Repository are built on the standard `/POSDW/TLOGF` table. If you have added custom fields to the `/POSDW/TLOGF` table, you have to create views that expose these fields.

⚠ Caution

Do not modify standard SAP HANA content.

In general, if you have extended any standard SAP data models, you must copy and adapt the standard SAP HANA content.

⚠ Caution

If you have created a copy of a view shipped as part of the standard SAP HANA content and have made modifications to this copy, a subsequent upgrade of SAP HANA Live for SAP ERP or SAP HANA content for SAP Customer Activity Repository will not update your copied and modified version of the view. SAP Notes or enhancements shipped by SAP will also have to be manually implemented on the copied, and subsequently modified, SAP HANA content.

Procedure

1. Log on to SAP HANA studio.
2. Open the *Modeler* and use the *Navigator* to access the folder that contains the view that you want to copy.
For example, ► <Your System Name> ► *Content* ► *sap* ► *is* ► *retail* ► *car* ► *Calculation Views* ►.
3. Identify the view you want to copy. For example, `sap.is.retail.car/POSSalesQuery`.
4. Use the *Auto Documentation* feature of SAP HANA studio to identify all reuse and private views that are consumed by your selected view, as well as any query views that might consume your view:
 1. Right-click on the selected view, and choose *Auto Documentation* from the context menu.
 2. Browse to the location where you want to save the file and choose *Finish*.
 3. Open the generated *.pdf file, and locate the *Cross-References* section of the document.
The *Cross-References* section displays the hierarchy of calculation (query, reuse, and private) views that are accessed by the selected view. Affected underlying, as well as all consuming views, in this hierarchy must also be copied and modified as a result of your extension.

❖ Example

Calculation views `sap.is.retail.car/POSSales`, `sap.is.retail.car/POSLogItem`, and `sap.is.retail.car/TLOGF_ITEM_COM` are all consuming the `/POSDW/ TLOGF` table and are consumed by the `sap.is.retail.car/POSSalesQuery` view.

Therefore, if you have extended the `/POSDW/TLOGF` table, all these views must be copied and modified.

5. For each view identified in the previous step, do the following:
 1. In the *Navigator* panel, select an object and in the context menu, choose *Copy*.
 2. Navigate to the package where you want to paste the view and choose *Paste*.

i Note

You must have write permissions on the target package to which you are pasting the view. Also, you should copy the view to your own package. Do not modify the original `sap` package.

3. Modify the copied view as required.
For more information, see the *Creating Views* section of the *SAP HANA Developer Guide*.
4. Right-click on the copied and modified view and select *Activate*.

6.1.2.7 Complete UDF Setup

Set up the Unified Demand Forecast (UDF) module in SAP Customer Activity Repository to enable demand modeling and forecasting for different scenarios and consuming applications. To be able to use UDF, you must at least do the mandatory steps. Additionally, you can choose from several optional steps. We also point you to helpful performance information for UDF.

Use

UDF supports the following scenarios:

Scenario	Set Up and Configure UDF
Apps for demand forecasting: <ul style="list-style-type: none">• Analyze Forecast• Adjust Forecast• Manage Demand Influencing Factors	Mandatory for all the apps
SAP Promotion Management	Mandatory (if you want to use UDF to generate what-if forecasts for offer planning) Optional (without what-if forecasts)
SAP Assortment Planning	Optional in general, but depends on your customer scenario
SAP Allocation Management	Both applications offer functionality that can use UDF forecast data. For more information, see SAP Help Portal at https://help.sap.com/viewer/p/CARAB and consult the <i>Application Help</i> and <i>Administration Guide</i> of either application.
SAP Merchandise Planning	There is currently no integration between UDF and SAP Merchandise Planning.

Prerequisites

- You have set up the users, roles, and privileges for UDF as described in [Set Up Authorizations for Unified Demand Forecast \(UDF\) \[page 80\]](#).
- You have configured the DDF module as described in [Configure Demand Data Foundation \[page 94\]](#).

Procedure

→ Tip

If you encounter issues during the setup, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

Perform Mandatory Setup Steps

1. Log on to your ABAP back-end system.

2. In transaction SPRO, do the Customizing for UDF that is required for all scenarios:

i Note

For more information about each Customizing activity, see the accompanying system documentation in SPRO.

Customizing for UDF (All Scenarios)

Do These Steps	Here in Customizing
Define the time series source with historical demand data that you wish to import to DDF and use as input for UDF.	<p>▶ Cross-Application Components ▶ Demand Data Foundation ▶ Imported Data ▶ Time Series ▶ Define Time Series for Key Figure Configuration ▶</p> <div><p>⚠ Caution</p><p>Additional Customizing for SAP Promotion Management</p><p>If you wish to use what-if forecasts in SAP Promotion Management, additionally configure this second activity:</p><p>▶ Cross-Application Components ▶ Demand Data Foundation ▶ Data Maintenance ▶ Define Time Series Source ▶</p></div>
Define settings for modeling and forecasting.	<p>▶ Cross-Application Components ▶ Demand Data Foundation ▶ Modeling and Forecasting ▶</p> <p>See all the activities under this node.</p>

Review the default settings of the business exceptions that UDF can raise; adjust the settings as required for your scenario.

► [Cross-Application Components](#) ► [Demand Data Foundation](#) ► [Basic Settings](#) ► [Exception Management](#) :

- [Maintain Configuration Data for High Level Exceptions](#)

1. Execute the activity to display the table of exceptions.

i Note

You might need to scroll to the right to see all table columns.

2. Filter the table by the application area `/DMF/UDF_BUSINESS`. Here you can find the business exceptions for UDF. You can configure the behavior of each exception and switch it on or off as needed. Each exception triggers a corresponding message.

i Note

You can see the message numbers and short texts in the table. If you wish to display details, select the message in the table and double-click [Assignment Business Area](#).

If you wish to display the long text of a message, execute transaction `SE91` and enter `/DMF/UDF_BUSINESS` as the message class. Select the message that you are interested in and choose [Long Text](#).

3. In the [Default Priority](#) column, verify the priority setting of each exception. If required, change to edit mode and adjust the setting. If an exception is not relevant for your scenario, set it to [Not Relevant/ Switched Off](#).

→ Tip

There are 3 messages (exceptions) for which we recommend that you switch them off for best performance. Only switch them on if you really need them for your scenario. The messages are:

- Message 019: [No historical demand data for product &1 location &2 using priors](#)
- Message 020: [No demand model for product &1 location &2 multi-channel &3 using priors](#)
- Message 060: [Product &1 and location &2 removed from service due to MRP type](#)

Explanation: The messages indicate issues in the input data (such as the time series source with historical demand data). Depending on the quality of this data, the messages might be raised for a great many product locations, and this can impact performance. It's best to check the integrity of the input data before running

UDF jobs. For example, you can use the data validation report described in SAP Note [2161484](#).

Behavior: Note that the messages have a different default priority depending on your release of SAP Customer Activity Repository. Adjust the configuration as follows:

- For any release of SAP Customer Activity Repository 4.0 or for SAP Customer Activity Repository 5.0 Initial Shipment Stack: The messages are switched on by default. Set the default priority of each message that you don't need to *Not Relevant/Switched Off*.
- For SAP Customer Activity Repository 5.0 FPS01 or higher stacks of this release: The messages are switched off by default. Only switch on those messages that you need for your scenario.

4. Save your changes.

- *Maintain Configuration Data for Low Level Exceptions:*

(Optional) This activity works similarly to the previous one. Here you can find the technical exceptions for UDF in the application area /DMF/UDF_TECHNICAL.

Each technical exception is already assigned to a business exception. Technical exceptions typically indicate issues that need to be solved by system administrators.

→ Tip

We recommend that you keep the default settings.

- *Define Customer-Specific Replacement Messages:*

(Optional) Configure this activity if you wish to use different message texts than the ones provided by default.

- *Define Customizable Message Status:*

(Optional) Configure this activity if you wish to use different or additional statuses than the ones provided by default.

3. Check and, if necessary, change the setting for how the covariance matrix is generated during modeling.
 1. Navigate to **► Cross-Application Components ► Demand Data Foundation ► Modeling and Forecasting ► Define Modeling Control Settings ►** and execute the Customizing activity.
 2. Check that the MOD_COV_REDUCED parameter is configured correctly for your scenario.

The parameter controls whether the “full covariance matrix” (default) or the “reduced covariance matrix” should be generated:

For these scenarios...	... use this setting
You want to use UDF to generate the forecast confidence index (FCI) for SAP Promotion Management.	<p>The full covariance matrix is mandatory for the FCI.</p> <div style="border: 1px solid #ccc; background-color: #f0f0f0; padding: 10px;"> <p>i Note</p> <p>Be aware that the generation of the full covariance matrix is performance-intensive.</p> </div> <p>Correct setting of MOD_COV_REDUCED:</p> <ul style="list-style-type: none"> ○ Either the parameter is not listed at all under <i>Configuration Type Code</i>. ○ Or the parameter is listed under <i>Configuration Type Code</i> and the <i>Configuration Value</i> is empty. <p>Either setting activates the default (full covariance matrix is generated).</p>
<p>All other scenarios, that is:</p> <ul style="list-style-type: none"> ○ You want to calculate hierarchical priors (HPRs). ○ You want to use SAP Promotion Management, but without generating the FCI. ○ You want to use other consuming applications, but not SAP Promotion Management. 	<p>The reduced covariance matrix is sufficient for those scenarios and also saves runtime.</p> <p>Correct setting of MOD_COV_REDUCED:</p> <ul style="list-style-type: none"> ○ The parameter is listed under <i>Configuration Type Code</i> and the <i>Configuration Value</i> is set to x. <p>This setting overrides the default.</p>

Make any other settings as required for your scenario and save your changes.

4. Configure the modeling and forecasting features that you wish to use in your scenario. See the *Configure Unified Demand Forecast (UDF)* section of the *SAP Customer Activity Repository Administration Guide*.

i Note

You can find detailed configuration information for a number of UDF features in this section. Use it to fine-tune UDF for your customer scenario and requirements.

5. Set up your forecast scenario for best performance. See the following sections of the *SAP Customer Activity Repository Administration Guide*:

→ Tip

We highly recommend that you read this information carefully and implement any performance tips that are relevant for your scenario.

1. Optimize the performance of modeling, forecasting, and the calculation of hierarchical priors. See *Optimize UDF Performance*.

2. Set up routines for regular data housekeeping. For example, schedule reports to regularly delete obsolete data. See *Administration Tools*.
6. Set up the integration and data replication between your source master data system and your SAP Customer Activity Repository system.
See the following sections of the *SAP Customer Activity Repository Administration Guide*:
 - Integration information for UDF and DDF:
Introduction to SAP Customer Activity Repository and Configure DDF Integration Scenarios
 - Setup of the data replication framework (DRF, transaction DRFOUT) for replicating master and transactional data:
Configure Data Replication from SAP ERP and SAP S/4HANA to DDF
7. In the future development of your scenario, you might implement custom code or change UDF output tables. Please take note of the following information to ensure that such adaptations will continue to function correctly for your scenario:

⚠ Caution

With the release of SAP Customer Activity Repository 4.0 FPS03, the UDF database storage design was refactored to enhance system performance. Be aware that as a result, the following open SQL statements are no longer supported for the following UDF tables:

Do not use any of these SQL statements...	... with any of these tables
UPDATE FROM wa	/DMF/UMD_TSD
UPDATE FROM TABLE itab	/DMF/UMD_TS
DELETE FROM wa	/DMF/UFC_TSD
DELETE FROM TABLE itab	/DMF/UFC_TS
DELETE WHERE UP TO N ROWS	/DMF/UFC_TRC
MODIFY FROM wa	/DMF/UMD_PAR
MODIFY FROM TABLE itab	/DMF/UMD_PAR_COV
ORDER BY PRIMARY KEY	/DMF/UMD_PRI
SELECT SINGLE FOR UPDATE	/DMF/TS_PS
Usage of Table Buffer	
EXPORT/IMPORT	

You have now completed the mandatory setup steps for UDF.

Perform Optional Setup Steps

You have the following additional options:

1. (Highly recommended) Set up the apps for demand forecasting (*Analyze Forecast, Adjust Forecast, Manage Demand Influencing Factors*).
See [Set Up SAP Fiori Apps for SAP Customer Activity Repository \[page 131\]](#).

2. Verify the data replication results that are relevant for UDF:
For example, verify that the following data is replicated correctly from the source master data system: product hierarchy, location hierarchy, product prices, delisting information for product locations (table `/DMF/PRODLOC_TD`), closing days and public holidays for locations (tables `/DMF/LOC`, `/DMF/TSTRM`, `/DMF/LOC_TSTRM`, `/DMF/TSTRM_DAY`).

i Note

For information on the data replication, see *Configure Data Replication from SAP ERP and SAP S/4HANA to DDF* section in the *SAP Customer Activity Repository Administration Guide*.

3. To achieve a high forecast accuracy right from the beginning, provide ample promotional data:
 - Load the historical promotions into UDF (if this data is available).
 - Define user DIFs in the past to be able to consider the historical promotions.
 - Check the offer lift type codes of offers created in SAP Promotion Management and then transferred (translated) to UDF. In particular, check for the offer lift type codes 98 and 99 and solve the underlying issues. For more information, see [Verify Integration with SAP Promotion Management](#).
4. Implement the following SAP Notes if relevant for your scenario:
 - [2161484](#): Get information about an ABAP validation report that you can use to check the input data for modeling and forecasting and solve potential issues.

6.1.2.8 Set Up SAP Fiori Apps for SAP Customer Activity Repository

Perform common setup steps that are required for the apps in SAP Customer Activity Repository. For example, check that the prerequisites are installed and prepare the system landscape. Then set up the apps that you want to use in your scenario.

Context

For a list of the apps included in SAP Customer Activity Repository, see the [SAP Fiori for SAP Customer Activity Repository](#) section of the application help.

i Note

Depending on your scenario, some of the following prerequisites might already be available in your system landscape. If so, you can skip the corresponding step.

General Prerequisites

- **Front-end server:** You have installed the required version of `SAP_FIORI_FRONT-END_SERVER`. For the minimum version, see [Install the Prerequisites \[page 17\]](#) and consult the information under [Common Prerequisites > SAP Fiori](#).

→ Tip

For a helpful graphical overview, see [SAP Fiori: App Implementation - UI Content and Authorization Concept](#) and consult the *Dependencies between SAP Fiori UI Entities, OData Services, and Authorizations* section.

- **SAP Fiori launchpad:** You have set up the launchpad as described in [Configure SAP Fiori Launchpad \[page 108\]](#).
- **SAP Fiori launchpad designer:** You have set up the designer as described in section [Initial Setup of the Launchpad Designer](#) in the product documentation of SAP Fiori launchpad. Depending on your front-end system, select a different version at the top.

→ Tip

There is a quick way how you can check the SAPUI5 version currently installed in your system. See SAP Note [2282103](#) (How to check the version of SAPUI5 you have installed).

- **SAP Gateway:** You have done the general SAP Gateway configuration and you have activated the common OData services and Internet Communication Framework (ICF) services. For instructions, see the following:
 - Section [Configure SAP Gateway \[page 99\]](#), including the subsections
 - SAP Note [1560585](#) (SAP Gateway 2.0 Release Note)

Prerequisites Specific to SAP Customer Activity Repository applications bundle

1. You have installed the correct SAP RTL AFL FOR SAP HANA revision for the current release. See [Download and Install the Application Function Library \(SAP RTL AFL FOR SAP HANA\) \[page 51\]](#).
2. You have installed the back-end system. See [Install ABAP Back-End Server \[page 50\]](#).
3. You have installed the front-end system. See [Install ABAP Front-End Server \[page 60\]](#).
4. You have implemented all the mandatory SAP Notes for the apps that you wish to set up. See [Implement SAP Notes for the Installation \[page 28\]](#) and consult the release information notes (RINs) mentioned there and also the table for SAP Customer Activity Repository.
5. You have performed all mandatory setup steps for SAP Customer Activity Repository. For example, this includes activating the OData services for the apps or calculating the SAPUI5 application index. For instructions, see [Core \(Mandatory for All Applications\) \[page 76\]](#).
6. You have set up the system connections:
 - You have set up dedicated RFC connections between your front-end system and your back-end system, and between your front-end system and your source master data system.
 - You have defined a system alias for your back-end system.

⚠ Caution

You must set the back-end system client to the **same value** for the SAP Gateway OData services (via the system alias and the RFC connection) and the SAP HANA services (via the `bk-client` parameter in the SAP Fiori launchpad designer). Otherwise, the apps will not work correctly.

7. (Optional) The following prerequisite applies if you wish to set up any of the apps for demand forecasting (*Analyze Forecast*, *Adjust Forecast*, and *Manage Demand Influencing Factors*):
 - You have set up the Unified Demand Forecast (UDF) module. UDF is the common forecasting engine in the back-end. You must at least do the mandatory setup steps for UDF. See [Complete UDF Setup \[page 124\]](#).
8. To set up the apps included in OAA, see *Configure Omnichannel Article Availability and Sourcing for Use with SAP Customer Activity Repository* in this guide.

Result

After you have prepared the system landscape in this way, you can now set up the apps that you wish to use.

→ Tip

If you encounter issues during the setup, see the [Troubleshooting SAP Fiori Apps](#) section in the *SAP Fiori: Operations* documentation.

[Set Up the Analyze Forecast App \[page 134\]](#)

Perform several tasks on the front-end server and the back-end server to set up the *Analyze Forecast* app.

[Set Up the Adjust Forecast App \[page 142\]](#)

Perform several tasks on the front-end server and the back-end server to set up the *Adjust Forecast* app and the associated tiles *Forecast Correction Classification* and *Forecast Correction Overlapping Rules*.

[Set Up the Manage Demand Influencing Factors App \[page 149\]](#)

Perform several tasks on the front-end server and the back-end server to set up the *Manage Demand Influencing Factors* app and the accompanying tile *Demand Influencing Factors Library*.

[Set Up the Demand Data Foundation \(DDF\) Apps \[page 156\]](#)

Do this procedure to set up the DDF apps for standalone scenarios. The DDF apps are: *Configure Distribution Curves*, *Manage Location Clusters*, *Manage Product Attributes*, *Manage Product Groups*, *Manage Promotional Offers*. To access any of these apps, you need to assign the required role(s) to your front-end user. This gives you access to the relevant business catalogs and business catalog groups so that you can then open the apps in SAP Fiori launchpad.

[Set Up the Manage Product Attributes App \[page 157\]](#)

Perform several tasks on the front-end server and the back-end server to set up the transactional app *Manage Product Attributes*. This is one of the Demand Data Foundation (DDF) apps included in SAP Customer Activity Repository.

6.1.2.8.1 Set Up the Analyze Forecast App

Perform several tasks on the front-end server and the back-end server to set up the *Analyze Forecast* app.

Context

This app is one of the “apps for demand forecasting”, a group of forecast-related apps delivered with SAP Customer Activity Repository. All apps for demand forecasting have the following in common:

- The forecasting engine in the back-end is Unified Demand Forecast (UDF). The UDF application function library (delivered as part of the `SAP RTL AFL FOR SAP HANA` component) runs directly in the SAP HANA database.
- Cross-navigation is supported. For example, users can navigate directly from *Analyze Forecast* to *Adjust Forecast* and *Manage Demand Influencing Factors*.

Prerequisites

- You have set up Unified Demand Forecast as described in [Complete UDF Setup \[page 124\]](#).
- You have verified the prerequisites and prepared the system landscape as described in [Set Up SAP Fiori Apps for SAP Customer Activity Repository \[page 131\]](#).
- You know where to find additional information on the *Analyze Forecast* app if necessary:
 - Technical details for each delivery of the app are available in the SAP Fiori apps reference library. For the latest delivery (latest wave), see <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/index.html?appId=F1773A>.
 - If you need information on the app features, the supported time series, and the app history, see SAP Help Portal at <https://help.sap.com/viewer/p/CARAB>. Select your version at the top, open the application help for SAP Customer Activity Repository, and search for section *Analyze Forecast*.

Procedure

To set up the *Analyze Forecast* app, follow these steps:

→ Tip

If you encounter issues during the setup, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

1. **Only in an interoperability scenario: Configure user access to the SAP HANA data for the app.**

⚠ Caution

This step is only required in interoperability scenarios. Here you would use the current front-end product version (that is, the current support package stack of `SAP FIORI FOR SAP CARAB 4.0`) in combination with an older back-end product version (that is, an older support package stack of `SAP CARAB 4.0`).

Even though interoperability scenarios are technically possible, we do not recommend them. Instead, you should always install the back-end product version and the front-end product version from the same release of SAP Customer Activity Repository applications bundle. This ensures that you get a seamless integration between the features in the back-end and the app UIs in the front-end.

For information on the supported interoperability scenarios, see SAP Note [2815026](#) (Back-end and front-end interoperability in SAP Customer Activity Repository applications bundle 4.0).

If you have such a scenario, please set up the app as described in the *Common Installation Guide* for the **back-end product version**. For example, if your back-end product version is SAP CARAB 4.0 SPS05, use the *Common Installation Guide* for SAP Customer Activity Repository applications bundle 4.0 SPS05.

You can find the general SAP Fiori Help for the next steps at [App Implementation for Analytical Apps](#) under [▶ Configuring Access to SAP HANA Data ▶](#). Use this section as your starting point. However, to configure the app, you only need to do some of the steps:

1. Synchronize the SAP HANA database users. Each user of the app requires a front-end user on the ABAP front-end server (to enable navigation in the SAP Fiori launchpad) **and** a back-end user in the SAP HANA database (to enable access to the relevant SAP HANA views).
Follow the steps in [▶ Configuring Access to SAP HANA Data ▶ Synchronizing SAP HANA Database Users ▶](#).
2. Assign the app-specific SAP HANA role `sap.hba.t.rtl.udf.afc.roles::AnalyzeForecast.hdbrole` to the back-end users of the app. The role gives them access to the app-specific SAP HANA data so they can view this data in the app (for example, historical sales, modeling results, forecast results).
Follow the steps in [▶ Configuring Access to SAP HANA Data ▶ Assigning Roles for Accessing SAP HANA Data ▶](#).
3. Create the analytic privileges to give the users read-only access to the SAP HANA views for the app (SAP HANA content package `sap.hba.t.rtl.udf.afc.v`).
Follow the steps in [▶ Configuring Access to SAP HANA Data ▶ Creating Analytic Privileges ▶](#).
If you need more information about analytic privileges, see SAP Help Portal at https://help.sap.com/viewer/p/SAP_HANA_PLATFORM. Select your version at the top and search for section *Create Classical XML-based Analytic Privileges*.

2. Customize the navigation target for the app in the SAP Fiori launchpad on the front-end server.

i Note

If you need information about navigation targets, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Customizing Navigation Targets in LPD_CUST*.

Execute transaction `LPD_CUST` (*Launchpad Customizing*) and display the role `UICAR001` in instance `TRANSACTIONAL`.

From the list of applications, select the entry with *AnalyzeForecast* in the *Params* column and make the following settings:

- *Link Text*: **AnalyzeForecast**
- *Application Type*: **URL**
- *URL*: **/sap/bc/ui5_ui5/sap/analyzfcst_v2**
- *Application Alias*: **AnalyzeForecast**

- *Additional Information:* `SAPUI5.Component=retail.udf.analyzeforecastv2`
- *Portal Parameters* area: Leave the default settings.
- *Switch Support* area: Leave the default settings.

Save your changes.

3. Configure the SAP Fiori launchpad designer for the app.

1. Launch the designer in one of the following modes:
 - The `CUST` mode is for client-specific configurations. Use the following URL and replace `<client>` with the client of your customer system:
`https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html?sap-client=<client>#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_ISR_CAR_TC_A`
 - The `CONF` mode is for global configurations across all clients. It additionally includes the `<CONF>` parameter. Use the following URL, again replacing the `<client>`:
`https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html?sap-client=<client>&scope=<CONF>#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_ISR_CAR_TC_A`
2. Configure the app tile in the SAP Fiori launchpad designer.

i Note

You can configure tiles only in catalogs. By default, the tiles for the apps for demand forecasting are in the technical catalog `SAP_DPL_TC_T`. This catalog is delivered with the launchpad configuration.

If you need information on how to configure tiles, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Adding or Removing Tiles or Target Mappings, Configuring Tiles, and Static App Launcher Tiles*.

If the app tile has not yet been created, create it as a static tile using the following settings:

- *Title:* `Analyze Forecast`
- *Icon:* `sap-icon://Fiori5/F0812`
- *Use semantic object navigation:* Select this option.
- *Semantic Object:* `ForecastDemand`
- *Action:* `showUDFAnalyzeForecast`
- *Parameters:* `bk-client=<backend client>`

⚠ Caution

In the SAP Fiori launchpad designer, you specify the back-end system client using the `bk-client` parameter. You must specify the **same** back-end system client for the SAP Gateway OData services (system alias and RFC connection) **and** for the SAP HANA services. Otherwise, the app will not work correctly.

- Leave the other options empty.
3. Configure the target mapping in the SAP Fiori launchpad designer.

i Note

If you need information about target mappings, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Configuring Target Mappings*.

If the target mapping has not yet been created, choose [Target Mappings](#) and create a new entry with the following settings:

- *Semantic Object:* **ForecastDemand**
- *Action:* **showUDFAnalyzeForecast**
- *Application Type:* **SAP Fiori App using LPD_CUST**
- *Launchpad Role:* **UICAR001**
- *Launchpad Instance:* **TRANSACTIONAL**
- *Application Alias:* **AnalyzeForecast**
- *Device Types:* Select *Desktop*.
- *Allow additional parameters:* Select this option.

4. Complete the app setup on the front-end server.

i Note

You can find the general SAP Fiori Help for the next steps at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 4.0) or at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 5.0 and higher). Follow the link that is right for you and select your version at the top. Search for [Implementation Tasks on Front-End Server](#). Use this section as your starting point. However, you only need to do some of the steps described there.

1. Verify that the SAP Gateway OData services for Unified Demand Forecast and the apps for demand forecasting are active. If a service is not active, activate it. Follow the steps in [Activate OData Services \[page 103\]](#).

⚠ Caution

In the SAP Fiori launchpad designer, you specify the back-end system client using the `bk-client` parameter. You must specify the **same** back-end system client for the SAP Gateway OData services (system alias and RFC connection) **and** for the SAP HANA services. Otherwise, the app will not work correctly.

2. Activate the Internet Communication Framework (ICF) services for the app:

i Note

If you need more information, see [Implementation Tasks on Front-End Server](#) > [Front-End Server: Activate ICF Services of SAPUI5 Application](#).

Execute transaction `LPD_CUST` ([Launchpad Customizing](#)) and display the role `UICAR001` in instance `TRANSACTIONAL`.

Select [AnalyzeForecast](#) from the list of applications and verify that the following ICF services are active:

ICF Service (Service Path with Service Name)	Service Path	Service Name
/sap/bc/bsp/sap/ analyzfcst_v2	/sap/bc/bsp/sap/	analyzfcst_v2
/sap/bc/lrep	/sap/bc/	lrep

ICF Service (Service Path with Service Name)	Service Path	Service Name
/sap/bc/ui5_ui5/sap/ analyzfcst_v2	/sap/bc/ui5_ui5/sap/	analyzfcst_v2
/sap/bc/bsp/sap/udfreuse	/sap/bc/bsp/sap/	udfreuse
/sap/bc/ui5_ui5/sap/ udfreuse	/sap/bc/ui5_ui5/sap/	udfreuse

If a service is not active, activate it as follows:

1. Execute transaction `SICF` (*Define Services*).
2. For each ICF service from the table above, do the following:
 1. As *Hierarchy Type*, select *SERVICE*.
 2. Enter the *Service Path*.
 3. Enter the *Service Name*.
 4. Execute the search (`F8`).
3. In the *Virtual Hosts/Services* column, select the `analyzfcst_v2` entry and choose **► Service/Host ► Activate ►**.
3. Create your custom copy of the `SAP_CAR_TCR_A` standard role on the front-end server:

i Note

`SAP_CAR_TCR_A` is the front-end server authorization role delivered for analytical apps in SAP Customer Activity Repository. The role contains the catalogs, groups, and start authorizations for the OData services required to access the app.

⚠ Caution

Standard roles are delivered as templates. They begin with the prefix `SAP_*`. Never change the standard roles, but only your custom copies of these roles (`Z_*`). Otherwise, any standard roles that you have changed will be overwritten by newly delivered standard roles in a later upgrade or release change.

If you need more information on copying standard roles and adjusting custom roles, see the [Changing Standard Roles](#) section in the *User and Role Administration of Application Server ABAP*. Select your version at the top.

1. Execute transaction `PFCG` to open the *Role Maintenance* screen.
2. Search for the `SAP_CAR_TCR_A` role.
3. Choose **► Role ► Copy ►** and enter a name from the customer namespace for your copied role.
4. Switch to change mode and adjust the copied role as needed for your scenario.
5. Assign the required launchpad catalogs and groups.

i Note

If you need more information, see **► [Implementation Tasks on Front-End Server](#) ► [Creating PFCG Role on Front-End and Assigning Launchpad Catalogs and Groups](#) ►**.

6. Save your changes.
4. Create your custom copy of the `SAP_DPL_TCR_T` standard role on the front-end server (this step is similar to the previous one):

i Note

`SAP_DPL_TCR_T` is the front-end server authorization role for the apps for demand forecasting. It contains the catalogs, groups, and start authorizations for the OData services required to access the apps.

1. Execute transaction `PFCG` to open the *Role Maintenance* screen.
2. Search for the `SAP_DPL_TCR_T` role.
3. Choose **▶ Role ▶ Copy ▶** and enter a name from the customer namespace for your copied role.
4. Switch to change mode and adjust the copied role as needed for your scenario.
5. Assign the required launchpad catalogs and groups.
6. Save your changes.

→ Tip

If you already have an SAP Fiori launchpad open, clear your browser cache to apply all the changes.

5. Maintain the catalogs, groups, and roles in the SAP Fiori launchpad.

i Note

If you need more information, see **▶ [Implementation Tasks on Front-End Server](#) ▶ [Maintaining Business Catalogs and Business Groups](#) ▶**.

6. **Assign the two custom copies (which you created from the two standard roles) to the users of the app.**

i Note

If you need more information, see **▶ [Implementation Tasks on Front-End Server](#) ▶ [Front-End Server: Assign Roles to Users](#) ▶** (depending on the documentation version of SAP Fiori front-end server, this section might also be called *Assigning Roles to Users on Front End*).

7. **Complete the setup on the back-end server.**

i Note

You can find the general SAP Fiori Help for the next steps at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 4.0) or at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 5.0 and higher). Follow the link that is right for you and select your version at the top. Search for [Implementation Tasks on Back-End Server](#). Use this section as your starting point. However, you only need to do some of the steps described there.

1. Log on to the back-end server.

2. Create your custom copy of the `/DMF/DPL` (*Demand Planner (Retail)*) standard role:

i Note

`/DMF/DPL` is the back-end authorization role for the apps for demand forecasting.

⚠ Caution

Standard roles are delivered as templates. They begin with the prefix `SAP_*`. Never change the standard roles, but only your custom copies of these roles (`Z_*`). Otherwise, any standard roles that you have changed will be overwritten by newly delivered standard roles in a later upgrade or release change.

If you need more information on copying standard roles and adjusting custom roles, see the [Changing Standard Roles](#) section in the *User and Role Administration of Application Server ABAP*. Select your version at the top.

1. Execute transaction `PFCG` to open the *Role Maintenance* screen.
2. Search for the `/DMF/DPL` role.
3. Choose **▶ Role ▶ Copy ▶** and enter a name from the customer namespace for your copied role.
4. Switch to change mode and adjust the copied role as needed for your scenario. For example, assign users to the role.
5. Assign the required launchpad catalogs and groups.

i Note

If you need more information, see **▶ [Implementation Tasks on Back-End Server ▶ Assigning Roles to Users on Back End ▶](#)**.

6. Assign the required launchpad catalogs and groups.

i Note

If you need more information, see **▶ [Implementation Tasks on Back-End Server ▶ Creating PFCG Role on Back End for Launchpad Catalogs ▶](#)** and .

7. Save your changes. You have now completed the mandatory setup steps on the front-end server and the back-end server.

→ Tip

If you already have an SAP Fiori launchpad open, clear your browser cache to apply all the changes.

Optional Setup Steps

If relevant for your scenario, implement any of the following options:

- **Single Sign-On (SSO):** If you haven't already done so, set up SSO between the front-end server and the back-end server.

The available SSO mechanisms can differ depending on the system landscape. For more information, see the following:

- See [SAP Fiori: Security](#), select your version at the top, and search for section *User Authentication and Single Sign-On (SSO)*.
- See https://help.sap.com/viewer/p/SAP_HANA_PLATFORM, select your version at the top, and search for section *SAP HANA Authentication and Single Sign-On*.
- **Area of Responsibility (AOR):** Assign an AOR to each user of the app.
This step is mandatory if you wish to use the *Product Hierarchy* filter in the app. The product hierarchy type must be an article hierarchy or a merchandise category hierarchy. Otherwise, no hierarchy data will be displayed in the app. To be able to use the filter, each front-end user of the app must have a user in the ABAP back-end system. You assign the AOR to this ABAP back-end user. The front-end user can then see the assigned hierarchies or nodes in the app.
To assign an AOR, use the *Maintain Area of Responsibility* service in transaction `NWBC`.
For instructions, see the [Maintain Area of Responsibility](#) section in the application help for SAP Customer Activity Repository.
- **Set Up Other Apps for Demand Forecasting:**
See [Set Up the Adjust Forecast App \[page 142\]](#) and [Set Up the Manage Demand Influencing Factors App \[page 149\]](#).
- **Enable Display of Future Prices:**
If you wish to display future prices in *Analyze Forecast*, you must first enable **forecast tracing** in Unified Demand Forecast (UDF). This is because the app requires the price information from the tracing results table (`/DMF/UFC_TRC`). Forecast tracing is available for all supported time series.

Note

Be aware that forecast tracing can have an impact on performance (sizing, runtime).

You can enable forecast tracing in Customizing:

1. In transaction `SPRO`, choose [Cross-Application Components](#) [Demand Data Foundation](#) [Modeling and Forecasting](#) [Define Forecasting Control Settings](#).
 2. Choose *New Entries*.
 3. Add an entry with the following settings:
 - *Configuration Type Code*: `FC_OUTPUT_TRACE`
 - *Configuration Value*: **x** (= ON)
 4. Save your changes.
 5. Run forecasting.
- **Enable Demand Decomposition for Specific Analyses:**
In the *Decomposition Chart* in the app, you can view the decomposition time series for modeling jobs and forecast jobs. However, to view this data, you must first enable the demand decomposition for the corresponding jobs.
For more information, see the [Configure Demand Decomposition](#) section in the *SAP Customer Activity Repository Administration Guide*.

Caution

The demand decomposition can have a considerable impact on performance. Enable it only for specific jobs that require further analysis or troubleshooting. Do not enable it for production modeling or production forecasting.

- **App Extensibility:** Extend the app with custom content.
For information on the available extension points and controller hooks, see the SAP Fiori apps reference library at <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/index.html?appId=F1773A>. Choose *IMPLEMENTATION INFORMATION*, select the delivery, and consult the information under *Extensibility*.
For general extensibility information for SAP Fiori, see [Extend and Develop SAP Fiori Apps](#).

Result

You have successfully set up the *Analyze Forecast* app.

6.1.2.8.2 Set Up the Adjust Forecast App

Perform several tasks on the front-end server and the back-end server to set up the *Adjust Forecast* app and the associated tiles *Forecast Correction Classification* and *Forecast Correction Overlapping Rules*.

Context

This app is one of the “apps for demand forecasting”, a group of forecast-related apps delivered with SAP Customer Activity Repository. All apps for demand forecasting have the following in common:

- The forecasting engine in the back-end is Unified Demand Forecast (UDF). The UDF application function library (delivered as part of the *SAP RTL AFL FOR SAP HANA* component) runs directly in the SAP HANA database.
- Cross-navigation is supported. For example, users can navigate directly from *Analyze Forecast* to *Adjust Forecast* and *Manage Demand Influencing Factors*.

Prerequisites

- You have set up Unified Demand Forecast as described in [Complete UDF Setup \[page 124\]](#).
- You have verified the prerequisites and prepared the system landscape as described in [Set Up SAP Fiori Apps for SAP Customer Activity Repository \[page 131\]](#).
- You have set up *Analyze Forecast* as described in [Set Up the Analyze Forecast App \[page 134\]](#).
- You know where to find additional information on the *Adjust Forecast* app if necessary:
 - Technical details for each delivery of the app are available in the SAP Fiori apps reference library. For the latest delivery (latest wave), see <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/index.html?appId=F3479>.
 - If you need information on the app features and the app history, see SAP Help Portal at <https://help.sap.com/viewer/p/CARAB>. Choose your version at the top, open the application help for SAP Customer Activity Repository, and search for section *Adjust Forecast*.

Procedure

Follow these steps to set up the *Adjust Forecast* app and the associated tiles *Forecast Correction Classification* and *Forecast Correction Overlapping Rules*:

→ Tip

If you encounter issues during the setup, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

1. Log on to your front-end server.
2. Customize the navigation target for the app in the SAP Fiori launchpad on the front-end server.

i Note

If you need information about navigation targets, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Customizing Navigation Targets in LPD_CUST*.

In transaction LPD_CUST (*Launchpad Customizing*), choose UIDPL001 TRANSACTIONAL (*Apps for Demand Forecasting*) and make the following settings:

For *Adjust Forecast*:

- *Link Text*: AdjustForecast
- *Application Type*: URL
- *URL*: /sap/bc/ui5_ui5/sap/adjustforecast
- *Application Alias*: AdjustForecast
- *Additional Information*: SAPUI5.Component=retail.dpl.adjustforecast
- *Portal Parameters*: Leave the default settings.
- *Switch Support*: Leave the default settings.

For *Forecast Correction Overlapping Rules*:

- *Link Text*: Forecast Correction Overlapping Rules
- *Application Type*: TRA Transaction
- *Transaction Code*: /DMF/FCC_MAINT_RULES
- *System Alias*: Enter the HTTP connection to the back-end client in the format SYSID_CLNT_HTTPS.
- *Application Alias*: ForecastCorrOverlapRules
- *GUI Type*: WEB_GUI_SAP GUI for HTML
- *Entries Once Started*: S Initial Screen
- *Portal Parameters*: Leave the default settings.
- *Switch Support*: Leave the default settings.

For *Forecast Correction Classification*:

- *Link Text*: Forecast Correction Classification
- *Application Type*: TRA Transaction
- *Transaction Code*: /DMF/FCC_MAINT_CLSCF
- *System Alias*: Enter the HTTP connection to the back-end client in the format SYSID_CLNT_HTTPS.
- *Application Alias*: ForecastCorrClassification
- *GUI Type*: WEB_GUI_SAP GUI for HTML
- *Entries Once Started*: S Initial Screen

- *Portal Parameters*: Leave the default settings.
 - *Switch Support*: Leave the default settings.
3. Configure the SAP Fiori launchpad designer for the app:
 1. Launch the SAP Fiori launchpad designer in one of the following modes:
 - The `CUST` mode is for client-specific configurations. Use the following URL and replace `<client>` with the client of your customer system:
`https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html?sap-client=<client>#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_DPL_TC_T`
 - The `CONF` mode is for global configurations across all clients. It additionally includes the `<CONF>` parameter. Use the following URL, again replacing the `<client>`:
`https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html?sap-client=<client>&scope=CONF#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_DPL_TC_T`
 2. Configure the tiles in the SAP Fiori launchpad designer.

Note

You can configure tiles only in catalogs. By default, the tiles for the apps for demand forecasting are in the technical catalog `SAP_DPL_TC_T`. This catalog is delivered with the launchpad configuration.

For information on how to configure tiles, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Adding or Removing Tiles or Target Mappings*, *Configuring Tiles*, and *Static App Launcher Tiles*.

If the tiles have not yet been created, create them as static tiles using the following settings:

For *Adjust Forecast*:

- *Title*: **Adjust Forecast**
- *Icon*: **sap-icon://Fiori5/F0819**
- *Use semantic object navigation*: Select this option.
- *Semantic Object*: **ForecastDemand**
- *Action*: **editUDFAdjustForecast**
- Leave the other options empty.

For *Forecast Correction Classification*:

- *Title*: **Forecast Correction Classification**
- *Icon*: **sap-icon://group-2**
- *Information*: **/DMF/FCC_MAINT_CLSCF**
- *Use semantic object navigation*: Select this option.
- *Semantic Object*: **DemandPlanConfiguration**
- *Action*: **create**
- Leave the other options empty.

For *Forecast Correction Overlapping Rules*:

- *Title*: **Forecast Correction Overlapping Rules**
- *Icon*: **sap-icon://Fiori2/F0306**
- *Information*: **/DMF/FCC_MAINT_RULES**
- *Use semantic object navigation*: Select this option.
- *Semantic Object*: **DemandPlanConfiguration**
- *Action*: **manage**
- Leave the other options empty.

3. Configure the target mapping in the SAP Fiori launchpad designer.

i Note

If you need information on target mappings, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Configuring Target Mappings*.

If the target mapping has not yet been created, choose *Target Mappings* and create entries with the following settings:

For *Adjust Forecast*:

- *Semantic Object*: **ForecastDemand**
- *Action*: **editUDFAdjustForecast**
- *Application Type*: **SAP Fiori App using LPD_CUST**
- *Launchpad Role*: **UIDPL001**
- *Launchpad Instance*: **TRANSACTIONAL**
- *Application Alias*: **AdjustForecast**
- *Device Types*: Select *Desktop*.
- *Allow additional parameters*: Select this option.

For *Forecast Correction Classification*:

- *Semantic Object*: **DemandPlanConfiguration**
- *Action*: **create**
- *Application Type*: **SAP Fiori App using LPD_CUST**
- *Launchpad Role*: **UIDPL001**
- *Launchpad Instance*: **TRANSACTIONAL**
- *Application Alias*: **ForecastCorrClassification**
- *Information*: **/DMF/FCC_MAINT_CLSCE**
- *Device Types*: Select *Desktop*.
- *Allow additional parameters*: Select this option.

For *Forecast Correction Overlapping Rules*:

- *Semantic Object*: **DemandPlanConfiguration**
- *Action*: **manage**
- *Application Type*: **SAP Fiori App using LPD_CUST**
- *Launchpad Role*: **UIDPL001**
- *Launchpad Instance*: **TRANSACTIONAL**
- *Application Alias*: **ForecastCorrOverlapRules**
- *Information*: **/DMF/FCC_MAINT_RULES**
- *Device Types*: Select *Desktop*.
- *Allow additional parameters*: Select this option.

4. Complete the app setup on the front-end server.

i Note

You can find the general SAP Fiori Help for the next steps at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 4.0) or at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 5.0 and higher). Follow the link that is right for you and select your version at the top. Search for

Implementation Tasks on Front-End Server. Use this section as your starting point. However, you only need to perform some of the steps described there.

1. Check that the Internet Communication Framework service for the app is active.

i Note

For more information, see ► [Implementation Tasks on Front-End Server](#) ► [Front-End Server: Activate ICF Services of SAPUI5 Application](#) ►.

The ICF service is called *AdjustForecast* (/sap/bc/ui5_ui5/sap/adjustforecast) is active. If the service is not active, activate it as follows:

1. Execute transaction SICF.
 2. As *Service Path*, specify the **<service path/service name>** and execute the search.
 3. As *Virtual Hosts / Services*, select ADJUSTFORECAST and choose ► [Service/Host](#) ► [Activate](#) ►.
2. Check and activate the OData services.

i Note

For more information, see ► [Implementation Tasks on Front-End Server](#) ► [Activating OData Services](#) ►.

Execute transaction /IWFND/MAINT_SERVICE (*Activate and Maintain Services*) and check if the following three services are listed in the service catalog:

- **Adjust Forecast OData Service:**

- *Type*: BEP
- *Technical Service Name*: ZOD_ADJUST_FORECAST_SRV
- *Service Description*: DPL Fiori Adjust Forecast App OData Service
- *External Service Name*: OD_ADJUST_FORECAST_SRV
- *Namespace*: /DPL/

If the service is not available, choose *Add Service*, enter the back-end system alias, and choose *Get Services*. Search for /DPL/OD_ADJUST_FORECAST_SRV, select the entry, and choose *Add Selected Services*. Take over the provided data and enter the local package assignment.

- **Time Series OData Service:**

- *Type*: BEP
- *Technical Service Name*: ZOD_FC_TIME_SERIES_VIZ_SRV
- *Service Description*: OData Srv. for Forecast-Related Time Series Visualization
- *External Service Name*: OD_FC_TIME_SERIES_VIZ_SRV
- *Namespace*: /DMF/

If the service is not available, choose *Add Service*, enter the back-end system alias, and choose *Get Services*. Search for /DMF/OD_FC_TIME_SERIES_VIZ_SRV, select the entry, and choose *Add Selected Services*. Take over the provided data and enter the local package assignment.

- **Demand Plan OData Service for Reuse:**

- *Type*: BEP
- *Technical Service Name*: ZDEMAND_PLAN_UTILITIES_SRV
- *Service Description*: Demand Plan OData Service for Reuse
- *External Service Name*: DEMAND_PLAN_UTILITIES_SRV

- *Namespace*: /DMF/

If the service is not available, choose [Add Service](#), enter the back-end system alias, and choose [Get Services](#). Search for /DMF/DEMAND_PLAN_UTILITIES_SRV, select the entry, and choose [Add Selected Services](#). Take over the provided data and enter the local package assignment.

3. Create your custom copy of the SAP_DPL_TCR_T standard role on the front-end server:

i Note

SAP_DPL_TCR_T is the front-end server authorization role for the apps for demand forecasting. It contains the catalogs, groups, and start authorizations for the OData services required to access the apps.

⚠ Caution

Standard roles are delivered as templates. They begin with the prefix SAP_*. Never change the standard roles, but only your custom copies of these roles (Z_*). Otherwise, any standard roles that you have changed will be overwritten by newly delivered standard roles in a later upgrade or release change.

If you need more information on copying standard roles and adjusting custom roles, see the [Changing Standard Roles](#) section in the *User and Role Administration of Application Server ABAP*. Select your version at the top.

1. Execute transaction PFCG to open the [Role Maintenance](#) screen.
2. Search for the SAP_DPL_TCR_T role.
3. Choose [▶ Role ▶ Copy ▶](#) and enter a name from the customer namespace for your copied role.
4. Switch to change mode and adjust the copied role as needed for your scenario.
5. Assign the required launchpad catalogs and groups.

i Note

For more information, see [▶ Implementation Tasks on Front-End Server ▶ Creating PFCG Role on Front-End and Assigning Launchpad Catalogs and Groups ▶](#).

6. Save your changes.

→ Tip

If you already have an SAP Fiori launchpad open, clear your browser cache to see your changes on the user interface.

4. Maintain the catalogs, groups, and roles in the SAP Fiori launchpad.
Follow the steps in [▶ Implementation Tasks on Front-End Server ▶ Maintaining Business Catalogs and Business Groups ▶](#).
5. Take the front-end PFCG role that you created before and assign it to the users of the app. The role contains the catalogs, groups, and start authorizations for the OData service that the users need to access the app.
Follow the steps in [▶ Implementation Tasks on Front-End Server ▶ Front-End Server: Assign Roles to Users ▶](#) (depending on the documentation version of SAP Fiori front-end server, this section might also be called [Assigning Roles to Users on Front End](#)).

5. Complete the setup on the back-end server.

i Note

You can find the general SAP Fiori Help for the next steps at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 4.0) or at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 5.0 and higher). Follow the link that is right for you and select your version at the top. Search for [Implementation Tasks on Back-End Server](#). Use this section as your starting point. However, you only need to perform some of the steps described there.

1. Log on to the back-end server.
2. Create your custom copy of the `/DMF/DPL` (*Demand Planner (Retail)*) standard role:

i Note

`/DMF/DPL` is the back-end authorization role for the apps for demand forecasting.

⚠ Caution

Standard roles are delivered as templates. They begin with the prefix `SAP_*`. Never change the standard roles, but only your custom copies of these roles (`Z_*`). Otherwise, any standard roles that you have changed will be overwritten by newly delivered standard roles in a later upgrade or release change.

If you need more information on copying standard roles and adjusting custom roles, see the [Changing Standard Roles](#) section in the *User and Role Administration of Application Server ABAP*. Select your version at the top.

1. Execute transaction `PFCG` to open the *Role Maintenance* screen.
2. Search for the `/DMF/DPL` role.
3. Choose **▶ Role ▶ Copy ▶** and enter a name from the customer namespace for your copied role.
4. Switch to change mode and adjust the copied role as needed for your scenario. For example, assign users to the role.
5. Assign the required launchpad catalogs and groups.

i Note

For more information, see **▶ [Implementation Tasks on Front-End Server](#) ▶** and *Assigning Roles to Users on Back End*.

6. Assign the required launchpad catalogs and groups.

i Note

For more information on the relationship between catalogs and roles, see **▶ [Implementation Tasks on Front-End Server](#) ▶** and *Creating PFCG Role on Back End for Launchpad Catalogs*.

7. Save your changes. You have now completed the mandatory setup steps on the front-end server and the back-end server.
6. Perform the optional setup steps.

i Note

We recommend that you choose the same optional steps as for *Analyze Forecast*. In *Set Up the Analyze Forecast App* [page 134], see under *Optional Setup Steps*.

Result

You have successfully set up the *Adjust Forecast* app and the *Forecast Correction Classification* and *Forecast Correction Overlapping Rules* tiles.

→ Tip

After this general setup, you can now configure the app for your customer scenario. For example, you can do the following:

- Define the overlapping rules for percentage, additive, and absolute forecast corrections. For more information, see the *Settings for Forecast Corrections* section in the application help for SAP Customer Activity Repository.
- Schedule the `/DPL/REORG_DRAFT_TABLES` report as a periodic task to delete obsolete forecast correction drafts. For more information, see the *Autosave of Drafts in the Adjust Forecast and Manage Demand Influencing Factors Apps* section in the *SAP Customer Activity Repository Administration Guide*.

6.1.2.8.3 Set Up the Manage Demand Influencing Factors App

Perform several tasks on the front-end server and the back-end server to set up the *Manage Demand Influencing Factors* app and the accompanying tile *Demand Influencing Factors Library*.

Context

This app is one of the “apps for demand forecasting”, a group of forecast-related apps delivered with SAP Customer Activity Repository. All apps for demand forecasting have the following in common:

- The forecasting engine in the back-end is Unified Demand Forecast (UDF). The UDF application function library (delivered as part of the `SAP RTL AFL FOR SAP HANA` component) runs directly in the SAP HANA database.
- Cross-navigation is supported. For example, users can navigate directly from *Analyze Forecast* to *Adjust Forecast* and *Manage Demand Influencing Factors*.

Prerequisites

- You have set up Unified Demand Forecast as described in [Complete UDF Setup \[page 124\]](#).
- You have verified the prerequisites and prepared the system landscape as described in [Set Up SAP Fiori Apps for SAP Customer Activity Repository \[page 131\]](#).
- You know where to find additional information on the *Manage Demand Influencing Factors* app if needed:
 - Technical details for each delivery of the app are available in the SAP Fiori apps reference library. For the latest delivery (latest wave), see <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/index.html?appld=F3885>.
 - If you need information on the app features and the app history, see <https://help.sap.com/viewer/p/CARAB>. Choose your version at the top, open the application help for SAP Customer Activity Repository, and search for section *Manage Demand Influencing Factors*.

Procedure

To set up the *Manage Demand Influencing Factors* app and the *Demand Influencing Factors Library* tile, follow these steps:

→ Tip

If you encounter issues during the setup, see the [Troubleshooting \[page 188\]](#) section for possible solutions.

1. Log on to your front-end server.
2. Customize the navigation targets in the SAP Fiori launchpad on the front-end server.

i Note

If you need information about navigation targets, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Customizing Navigation Targets in LPD_CUST*.

In transaction LPD_CUST (*Launchpad Customizing*), choose UIDPL001 TRANSACTIONAL (*Apps for Demand Forecasting*) and make the following settings:

For *Manage Demand Influencing Factors*:

- *Link Text*: Manage Demand Influencing Factors
- *Application Type*: URL
- *URL*: /sap/bc/ui5_ui5/sap/managedifs
- *Application Alias*: DIFManagement
- *Additional Information*: SAPUI5.Component=retail.dpl.managedif
- *Portal Parameters*: Leave the default settings.
- *Switch Support*: Leave the default settings.

For *Demand Influencing Factors Library*:

- *Link Text*: Demand Influencing Factors Library
- *Application Type*: TRA Transaction
- *Transaction Code*: /DMF/DIF_LIBRARY

- *System Alias*: Enter the HTTP connection to the back-end client in the format `SYSID_CLNT_HTTPS`
 - *Application Alias*: `DIFLibrary`
 - *GUI Type*: `WEB_GUI_SAP` GUI for HTML
 - *Entries Once Started*: `S` Initial Screen
 - *Portal Parameters*: Leave the default settings.
 - *Switch Support*: Leave the default settings.
3. Configure the SAP Fiori launchpad designer:
 1. Launch the SAP Fiori launchpad designer in one of the following modes:
 - The `CUST` mode is for client-specific configurations. Use the following URL and replace `<client>` with the client of your customer system:
`https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html?sap-client=<client>#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_DPL_TC_T`
 - The `CONF` mode is for global configurations across all clients. It additionally includes the `<CONF>` parameter. Use the following URL, again replacing the `<client>`:
`https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrv_upb_admn/main.html?sap-client=<client>&scope=CONF#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_DPL_TC_T`
 2. Configure the tiles in the SAP Fiori launchpad designer.

Note

You can configure tiles only in catalogs. By default, the tiles for the apps for demand forecasting are in the technical catalog `SAP_DPL_TC_T`. This catalog is delivered with the launchpad configuration.

For information on how to configure tiles, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Adding or Removing Tiles or Target Mappings*, *Configuring Tiles*, and *Static App Launcher Tiles*.

If the app tiles have not yet been created, create them as static tiles using the following settings:

For *Manage Demand Influencing Factors*:

- *Title*: **Manage Demand Influencing Factors**
- *Icon*: `sap-icon://create-entry-time`
- *Use semantic object navigation*: Select this option.
- *Semantic Object*:
- *Action*: **manage**
- Leave the other options empty.

For *Demand Influencing Factors Library*:

- *Title*: **Demand Influencing Factors Library**
- *Icon*: `sap-icon://FioriInAppIcons/Hierarchical Tree`
- *Information*: `/DMF/DIF_LIBRARY`
- *Use semantic object navigation*: Select this option.
- *Semantic Object*: **ForecastDemand**
- *Action*: **change**
- Leave the other options empty.

3. Configure the target mapping in the SAP Fiori launchpad designer.

i Note

If you need information about target mappings, see https://help.sap.com/viewer/p/SAP_NETWEAVER and choose your platform. Select your version at the top and search for *Configuring Target Mappings*.

If the target mapping has not yet been created, choose *Target Mappings* and create entries with the following settings:

For *Manage Demand Influencing Factors*:

- *Semantic Object*: **ForecastDemand**
- *Action*: **manage**
- *Application Type*: **SAP Fiori App using LPD_CUST**
- *Launchpad Role*: **UIDPL001**
- *Launchpad Instance*: **TRANSACTIONAL**
- *Application Alias*: **DIFManagement**
- *Device Types*: Select *Desktop*.
- *Allow additional parameters*: Select this option.

For *Demand Influencing Factors Library*:

- *Semantic Object*: **ForecastDemand**
- *Action*: **change**
- *Application Type*: **SAP Fiori App using LPD_CUST**
- *Launchpad Role*: **UIDPL001**
- *Launchpad Instance*: **TRANSACTIONAL**
- *Application Alias*: **DIFLibrary**
- *Device Types*: Select *Desktop*
- *Allow additional parameters*: Select this option.

4. Complete the app setup on the front-end server.

i Note

You can find the general SAP Fiori Help for the next steps at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 4.0) or at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 5.0 and higher). Follow the link that is right for you and select your version at the top. Search for *Implementation Tasks on Front-End Server*. Use this section as your starting point. However, you only need to perform some of the steps described there.

1. Check that the Internet Communication Framework service for the app is active.

i Note

For more information, see ► [Implementation Tasks on Front-End Server](#) ► [Front-End Server: Activate ICF Services of SAPUI5 Application](#) ▾.

The ICF service for the app is called *Manage Demand Influencing Factors* (`/sap/bc/ui5_ui5/sap/managedifs`). If the service is not active, activate it as follows:

1. Execute transaction `SICF`.
2. As *Service Path*, specify the `<service path/service name>` and execute the search.

3. As *Virtual Hosts / Services*, select `MANAGEDIFS` and choose **▶ Service/Host ▶ Activate ▶**.
2. Check and activate the OData services.

Note

For more information, see **▶ Implementation Tasks on Front-End Server ▶ Activating OData Services ▶**.

Execute transaction `/IWFND/MAINT_SERVICE` (*Activate and Maintain Services*) and check if the following two services are listed in the service catalog:

- **Demand Plan OData Service:**
 - *Type:* BEP
 - *Technical Service Name:* ZOD_DEMAND_PLANNING_SRV
 - *Service Description:* Demand Plan OData Service
 - *External Service Name:* OD_DEMAND_PLANNING_SRV
 - *Namespace:* /DMF/
- **Demand Plan OData Service for Reuse:**
 - *Type:* BEP
 - *Technical Service Name:* ZDEMAND_PLAN_UTILITIES_SRV
 - *Service Description:* Demand Plan OData Service for Reuse
 - *External Service Name:* DEMAND_PLAN_UTILITIES_SRV
 - *Namespace:* /DMF/

If a service is not available, choose *Add Service*, enter the back-end system alias, and choose *Get Services*. Search for the external service name listed above, select the entry, and choose *Add Selected Services*. Take over the provided data and enter the local package assignment.

3. Create your custom copy of the `SAP_DPL_TCR_T` standard role on the front-end server:

Note

`SAP_DPL_TCR_T` is the front-end server authorization role for the apps for demand forecasting. It contains the catalogs, groups, and start authorizations for the OData services required to access the apps.

Caution

Standard roles are delivered as templates. They begin with the prefix `SAP_*`. Never change the standard roles, but only your custom copies of these roles (`Z_*`). Otherwise, any standard roles that you have changed will be overwritten by newly delivered standard roles in a later upgrade or release change.

If you need more information on copying standard roles and adjusting custom roles, see the [Changing Standard Roles](#) section in the *User and Role Administration of Application Server ABAP*. Select your version at the top.

1. Execute transaction `PFCG` to open the *Role Maintenance* screen.
2. Search for the `SAP_DPL_TCR_T` role.
3. Choose **▶ Role ▶ Copy ▶** and enter a name from the customer namespace for your copied role.
4. Switch to change mode and adjust the copied role as needed for your scenario.

5. Assign the required launchpad catalogs and groups.

i Note

For more information, see ► [Implementation Tasks on Front-End Server](#) ► [Creating PFCG Role on Front-End and Assigning Launchpad Catalogs and Groups](#) ►.

6. Save your changes.

→ Tip

If you already have an SAP Fiori launchpad open, clear your browser cache to see your changes on the user interface.

4. Maintain the catalogs, groups, and roles in the SAP Fiori launchpad.

Follow the steps in ► [Implementation Tasks on Front-End Server](#) ► [Maintaining Business Catalogs and Business Groups](#) ►.

5. Take the front-end PFCG role that you created before and assign it to the users of the app. The role contains the catalogs, groups, and start authorizations for the OData services that the users need to access the app.

Follow the steps in ► [Implementation Tasks on Front-End Server](#) ► [Front-End Server: Assign Roles to Users](#) ► (depending on the documentation version of SAP Fiori front-end server, this section might also be called [Assigning Roles to Users on Front End](#)).

5. Complete the setup on the back-end server.

i Note

You can find the general SAP Fiori Help for the next steps at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 4.0) or at [SAP Fiori: App Implementation](#) (for SAP Fiori front-end server 5.0 and higher). Follow the link that is right for you and select your version at the top. Search for [Implementation Tasks on Back-End Server](#). Use this section as your starting point. However, you only need to perform some of the steps described there.

1. Log on to the back-end server.
2. Create your custom copy of the `/DMF/DPL` ([Demand Planner \(Retail\)](#)) standard role:

i Note

`/DMF/DPL` is the back-end authorization role for the apps for demand forecasting.

⚠ Caution

Standard roles are delivered as templates. They begin with the prefix `SAP_*`. Never change the standard roles, but only your custom copies of these roles (`Z_*`). Otherwise, any standard roles that you have changed will be overwritten by newly delivered standard roles in a later upgrade or release change.

If you need more information on copying standard roles and adjusting custom roles, see the [Changing Standard Roles](#) section in the *User and Role Administration of Application Server ABAP*. Select your version at the top.

1. Execute transaction PFCG to open the *Role Maintenance* screen.
2. Search for the /DMF/DPL role.
3. Choose ► *Role* ► *Copy* ► and enter a name from the customer namespace for your copied role.
4. Switch to change mode and adjust the copied role as needed for your scenario. For example, assign users to the role.

i Note

For more information, see ► *Implementation Tasks on Front-End Server* ► and *Assigning Roles to Users on Back End*.

5. Assign the required launchpad catalogs and groups.

i Note

For more information on the relationship between catalogs and roles, see ► *Implementation Tasks on Front-End Server* ► and *Creating PFCG Role on Back End for Launchpad Catalogs*.

6. Save your changes. You have now completed the mandatory setup steps on the front-end server and the back-end server.
6. Perform the optional setup steps.

i Note

We recommend that you choose the same steps as for *Analyze Forecast*. In *Set Up the Analyze Forecast App* [page 134], see under *Optional Setup Steps*.

Result

You have successfully set up the *Manage Demand Influencing Factors* app and the *Demand Influencing Factors Library* tile.

→ Tip

After this general setup, you can now configure the app for your customer scenario. For example, you can do the following:

- Configure technical user DIFs for modeling and forecasting so that you can start working with the DIF Library. For more information, see the following:
 - Section *Working with the DIF Library* in the application help for SAP Customer Activity Repository
 - Section *Configure User DIFs* in the *SAP Customer Activity Repository Administration Guide*
- Prepare simulation runs, so that you can simulate the effects of new DIF assignments for modeling and forecasting, and display the results in the app. In Customizing (transaction SPRO), configure the following activities and see the accompanying documentation for instructions:
 - Configure a diagnostic ID for simulations. Navigate to ► *Cross-Application Components* ► *Demand Data Foundation* ► *Modeling and Forecasting* ► *Define Diagnostic IDs* ►. Define a diagnostic ID (DIAG ID) for simulations.
 - Configure the parameters for modeling and forecasting, so that you can display the simulation results in the decomposition chart. Navigate to ► *Cross-Application Components* ► *Demand Data*

Foundation > *Modeling and Forecasting* > *Define Modeling Control Settings* > and *Define Forecasting Control Settings*, respectively. In each activity, configure the parameters that you need for your scenario, and select the diagnostic ID for simulations.

For more information, see sections *Configure Parameters for Modeling* and *Configure Parameters for Forecasting* in the *SAP Customer Activity Repository Administration Guide*.

- Schedule the `/DPL/REORG_DIF_DRAFT_TABS` report as a periodic task to delete obsolete DIF assignment drafts. For more information, see the *Autosave of Drafts in the Adjust Forecast and Manage Demand Influencing Factors Apps* section in the *SAP Customer Activity Repository Administration Guide*.

6.1.2.8.4 Set Up the Demand Data Foundation (DDF) Apps

Do this procedure to set up the DDF apps for standalone scenarios. The DDF apps are: *Configure Distribution Curves*, *Manage Location Clusters*, *Manage Product Attributes*, *Manage Product Groups*, *Manage Promotional Offers*. To access any of these apps, you need to assign the required role(s) to your front-end user. This gives you access to the relevant business catalogs and business catalog groups so that you can then open the apps in SAP Fiori launchpad.

Context

The DDF apps are available as part of SAP Customer Activity Repository. They support different scenarios and consuming applications.

Different Scenarios for DDF Apps

- **Standalone scenarios:** You can use the apps standalone, that is, to support generic scenarios in SAP Customer Activity Repository.
- **Integrated scenarios:** Or you can integrate the apps with the consuming application installed on top of SAP Customer Activity Repository (for example, SAP Assortment Planning, SAP Allocation Management, or SAP Promotion Management).

i Note

Some apps support only specific consuming applications. For an up-to-date list, see SAP Help Portal at <https://help.sap.com/viewer/p/CARAB> and choose ► *SAP Fiori Apps for SAP CARAB* >.

Procedure

i Note

The steps are always the same, regardless of how many of the DDF apps you wish to use.

1. Determine the scenario for which you want to use the apps. Follow the instructions for your scenario:

Scenario	Instructions
Standalone — SAP Customer Activity Repository	Continue with step 2 below.
Integrated — SAP Assortment Planning	Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad [page 279]
Integrated — SAP Allocation Management	Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad [page 297]
Integrated — SAP Promotion Management	Activate Internet Communication Framework (ICF) Services [page 285]

2. Log on to your front-end system.
3. Execute transaction `SU01` to open the *User Maintenance* screen.
4. Enter your front-end user name in the *User* field and choose *Change*.
5. On the *Roles* tab, assign the *Demand Data Foundation Administrator* (`SAP_ISR_BR_DDF_ADMIN`) role to your user.
6. Save your changes.
7. Execute transaction `LPD_CUST` to open the *Overview of Launchpads*.
8. Verify that the following two roles are listed:
 - `UIPMR001`
 - `UIRAP001`
9. Open SAP Fiori launchpad and verify that you can see and access the tiles for the apps.

→ Tip

If you already have an SAP Fiori launchpad open, clear your browser cache to see the changes.

10. If your app is *Manage Product Attributes*, continue with the [Set Up the Manage Product Attributes App \[page 157\]](#) section and do any steps not covered here.

6.1.2.8.5 Set Up the Manage Product Attributes App

Perform several tasks on the front-end server and the back-end server to set up the transactional app *Manage Product Attributes*. This is one of the Demand Data Foundation (DDF) apps included in SAP Customer Activity Repository.

Use

The *Manage Product Attributes* app enables planning administrators to create, configure, assign, and maintain product attributes for a selected product hierarchy. The app supports different scenarios and consuming applications. For example, this includes SAP Allocation Management, SAP Assortment Planning, the similar products search, or the calculation of distribution curves.

Prerequisites

- You are aware of the technical implementation information for the app in the SAP Fiori apps reference library:
For the latest delivery (latest wave), see: <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/index.html?appld=F0829A>
- You have performed all setup tasks under *Core (Mandatory for All Applications)* in this guide.
- You have checked whether there are any corrections for the app in the current release:
See section [Implement SAP Notes for the Installation \[page 28\]](#). Implement any corrections relevant for the app.
- You have done the general setup for the DDF apps. See [Set Up the Demand Data Foundation \(DDF\) Apps \[page 156\]](#).

i Note

To set up the app, do the steps in the following sections.

If your scenario includes SAP Allocation Management or SAP Assortment Planning, some steps might already have been performed in your system landscape. If so, skip the step and continue with the next one.

Activate ICF Services

Context

For security reasons, the Internet Communication Framework (ICF) services are delivered in an inactive state. You must activate the services that are required for the app.

Procedure

1. Log on to your front-end server.
2. Execute transaction `SICF`.
3. In the *Define Services* screen, make the following selections:
 - *Hierarchy Type*: **SERVICE**
 - *Virtual Host*: **DEFAULT_HOST**
 - *Service Path*: `/sap/bc/ui5_ui5/sap/attribmgmt_v2/`
4. Choose *Execute* (`F8`).
5. Under *Virtual Hosts / Services*, double-click the `attribmgmt_v2/` service to open the *Create/Change a Service* screen.
6. To activate a service, choose `▶ Service/Host ▶ Activate ▶`.

i Note

You can check the activation status by selecting the service and opening the context menu. If the *Activate Service* option is grayed out, this means the service is already active.

7. Repeat steps 3 to 6, this time using `/sap/bc/ui5_ui5/sap/ddfreuse_v2/` as the service path.

Activate OData Services

1. See section [Activate OData Services \[page 103\]](#) and consult the table for SAP Customer Activity Repository.
2. Make sure that all mandatory OData services for the app are active.

Enable the App for SAP Fiori Launchpad

Context

To be able to access the app from the SAP Fiori launchpad, your front-end system user must have the necessary role(s) assigned. This allows you to access the business catalogs and business catalog groups required for the app.

The app requires the following business role: *Demand Data Foundation Administrator* (SAP_ISR_BR_DDF_ADMIN)

i Note

Should you wish to use the app for SAP Allocation Management or SAP Assortment Planning, use the *Planning Administrator* (SAP_RAP_BCR_PLANNING_ADMIN) business role instead.

Procedure

1. Log on to your front-end system.
2. Execute transaction SU01 to open the *User Maintenance* screen.
3. Enter your front-end user name in the *User* field and choose *Change*.
4. On the *Roles* tab, assign the *Demand Data Foundation Administrator* (SAP_ISR_BR_DDF_ADMIN) role to your user.
5. Save your changes.

→ Tip

If you already have an SAP Fiori launchpad open, clear your browser cache or you won't be able to see the changes.

6. Verify role settings for SAP Fiori launchpad.
 1. Execute transaction LPD_CUST to open the *Overview of Launchpads*.
 2. Double-click the role UIRAP001 to view the role details.
 3. Expand the role *Planning Administrator* and select the *Manage Product Attributes* app.
 4. Display the advanced parameters and check that the app has all the mandatory settings listed below. You do not need to make any additional settings.
 - *Link Text*: *Manage Product Attributes*
 - *Application Type*: URL
 - *URL*: /sap/bc/ui5_ui5/sap/attribmgmt_v2
 - *Application Alias*: AssignProductAttribute
 - *Additional Information*: SAPUI5.Component=retail.ddf.attributemgmtv2

- *Navigation Mode*: EXT_HEAD Leaderless Portal Window
- *History Mode*: 1 Navigation Entry can Occur Once in History
- *Parameter Forwarding*: G Get Parameters

If you have updated any settings, save your changes.

Assign Area of Responsibility (AOR) to ABAP Back-End User

You can only display and select product hierarchies in the app that have been assigned as AOR to your ABAP back-end user.

1. Log on to your ABAP back-end system.
2. Execute transaction `NWBC` to open the SAP NetWeaver Business Client.
3. Choose ► *Services* ► *Maintain Area of Responsibility* ► *Product Hierarchy* ►.
4. Select your ABAP back-end user, choose *Continue*, and define the AOR.

→ Tip

For step-by-step instructions, see the application help for SAP Customer Activity Repository at <https://help.sap.com/viewer/p/CARAB>. Search for section *Maintain Area of Responsibility* and follow the instructions.

6.1.2.9 Configure Omnichannel Article Availability and Sourcing for Use with SAP Customer Activity Repository

To set up the OAA module, you need to integrate the source master data system (SAP S/4HANA or SAP Retail), SAP Customer Activity Repository, SAP Commerce, and SAP Commerce, integration package for SAP for Retail. You also need to set up asynchronous order management and the data replication between SAP S/4HANA or SAP Retail, SAP Commerce, and SAP Customer Activity Repository.

6.1.2.9.1 Set up Data Replication Between SAP S/4HANA or SAP Retail, and SAP Commerce

In SAP S/4HANA or SAP Retail, and SAP Commerce, set up the **asynchronous order management scenario** as follows:

1. Set up **asynchronous replication of articles** via the Data Hub from SAP S/4HANA or SAP Retail to SAP Commerce.
For more information, see the documentation for SAP Commerce at <https://help.sap.com/viewer/50c996852b32456c96d3161a95544cdb/latest/en-US/8bc6b884866910148532f2e1e500f95f.html> *Getting Started with SAP S/4HANA or SAP ERP Integration*. Follow the steps for the asynchronous order management scenario.

2. Set up **asynchronous replication of orders** via the Data Hub from SAP Commerce to SAP S/4HANA or SAP Retail (see link above).
3. Configure asynchronous order management.
For more information, see the documentation for SAP Commerce at <https://help.sap.com/viewer/50c996852b32456c96d3161a95544cdb/latest/en-US/e2be57a501da41cc9ebdf7cf7d3aa229.html> *Configuring Order Management for SAP Commerce with One or More SAP Back Ends*.

6.1.2.9.2 Set Up Data Replication Between SAP Commerce and SAP Customer Activity Repository

1. In SAP Commerce, in the Backoffice application under ► *SAP Integration* ► *HTTP Destination* ►, create the HTTP destination of SAP Customer Activity Repository that is used for availability calculation and sourcing.
2. In SAP Commerce, in the Backoffice application under ► *SAP Integration* ► *SAP Global Configuration* ► *Backend Connectivity* ►, enter the HTTP destination of SAP Customer Activity Repository created before.

i Note

In the standard Solr configuration for products in SAP Commerce, `ProductStoreStockValueProvider` is used to replicate the store availability situation from the SAP Commerce database into the Solr index.

If you use OAA, availability information is provided through synchronous calls into SAP Customer Activity Repository for every article/store combination instead. If your product catalog is rather large, this is why indexing the complete product catalog can take very long. In this case, we recommend to either deactivate the value provider or to create a custom one. If you deactivate the value provider, faceted search according to store availability is not possible in the product catalog. OAA functionality is not affected.

6.1.2.9.3 Set Up Live Connection Between SAP Customer Activity Repository and SAP Analytics Cloud

This step is optional. You only need to execute it if you want to use the set of OAA analyses that has been predefined in SAP Analytics Cloud and that is part of the standard delivery of SAP Analytics Cloud. If you are using a different analytics tool, or if you do not run analytics at all, you may skip this step.

Context

Procedure

1. Configure SAP Customer Activity Repository to support cross-origin resource sharing (CORS), for cross-domain communication from the browser.

For more information, see [Live Data Connection to SAP BW Using a Direct Connection and Password Authentication](#), steps 1 and 2 of the procedure.

2. In SAP Analytics Cloud, navigate to ► [Home](#) ► [Connection](#) and select live connection `SAPRTOAA` (*SAP Retail Omnichannel Article Availability and Sourcing*). This connection is part of the standard delivery.
3. Click [Edit Connection](#) and enter your custom details for *Host*, *HTTPS Port*, and *Client*.

6.1.2.9.4 Activate OData Services for Omnichannel Article Availability and Sourcing

A number of OData services are required to run the SAP Fiori apps for omnichannel article availability and sourcing (OAA).

Context

Make sure that you have activated the OData services required for OAA, as described and listed in [Activate OData Services \[page 103\]](#). Depending on your back end, different services are required.

6.1.2.9.5 Trigger Initial Full Run of ATP Snapshot Replication (SAP S/4HANA 1909 Only, Sales Channel Mode Only)

Sales channel mode only; SAP S/4HANA 1909 only: With SAP Customer Activity Repository 4.0 FPS02, the delta mode of the ATP snapshot replication was changed.

Context

The delta mode of the ATP snapshot replication works correctly only after an initial full run of the replication.

Trigger a full run of report `/OAA/ATP_SNP_CALC` (*Generation and Replication of ATP Snapshot*).

6.1.2.10 Configure Omnichannel Promotion Pricing for Use with SAP Customer Activity Repository

To use the OPP module, you need to activate the functionality in Customizing and configure it for your specific scenario.

→ Tip

For information on how to configure the promotion pricing service in SAP Commerce, see the *Administrator Guide* of SAP Commerce, integration package for SAP for Retail on SAP Help Portal under <https://help.sap.com/viewer/p/IPR> ► <Version> ► Administration ► Omnichannel Promotion Pricing ► Configuration ►.

Related Information

[Activate Omnichannel Promotion Pricing \(OPP\) \[page 163\]](#)

[Activate the Data Replication Framework \(DRF\) \[page 165\]](#)

[Configure the Transformation of Offers into OPP Promotions \[page 163\]](#)

[Configure the Local Deployment of the Promotion Pricing Service \[page 165\]](#)

[Configure the Central Deployment of the Promotion Pricing Service \[page 179\]](#)

[Update the PPS SAP HANA XSA Application](#)

6.1.2.10.1 Activate Omnichannel Promotion Pricing (OPP)

To use omnichannel promotion pricing for the calculation of the effective sales price, you have to activate the functionality.

In Customizing for SAP Customer Activity Repository, choose ► *Omnichannel Promotion Pricing* ► *Configure Omnichannel Promotion Pricing* ► *Activate OPP* ►.

6.1.2.10.2 Configure the Transformation of Offers into OPP Promotions

Related Information

[Enforce the Compatibility to Transform Offers into OPP Promotions \[page 164\]](#)

[Enable Offers with Enhanced Product Groups \[page 164\]](#)

[Enable Offers with Zero Discount \[page 164\]](#)

6.1.2.10.2.1 Enforce the Compatibility to Transform Offers into OPP Promotions

To transform offers into OPP promotions, it is recommended to enforce the compatibility to make sure that an offer can only be set to an operative status, for example *Approved*, if the transformation into an OPP promotion was successful.

In Customizing for SAP Customer Activity Repository under [▶ Omnichannel Promotion Pricing \(OPP\) ▶ Configure Omnichannel Promotion Pricing ▶ Enforce Compatibility ▶](#).

6.1.2.10.2.2 Enable Offers with Enhanced Product Groups

If you want to include or exclude product groups from your offers or use them in mix-and-match offers, you have to enable enhanced product groups.

In Customizing for SAP Customer Activity Repository under [▶ Omnichannel Promotion Pricing \(OPP\) ▶ Configure Omnichannel Promotion Pricing ▶ Enable Product Groups ▶](#).

Additionally, you have to enable product groups for the promotion pricing service. For more information about the configuration of product groups, see the *Development and Extension Guide for OPP* on SAP Help Portal at <https://help.sap.com/viewer/p/CARAB> [▶ <Version> ▶ Development ▶ Development and Extension Guide for Omnichannel Promotion Pricing ▶](#) under [▶ ▶ Promotion Pricing Service ▶ PPS Module calcengine-gk ▶ Default Settings and Properties ▶](#).

6.1.2.10.2.3 Enable Offers with Zero Discount

By default offers with discount type *Everyday Low Price (EDLP)* are transformed into OPP promotions like offers with discount type *Regular Price*. If a monetary discount of zero should be applied to the previous price, you can enable the discount type *Zero Discount*. In this case, a retail price modifier is returned in the calculation response, but the previous price does not change.

You can enable this discount type in Customizing for SAP Customer Activity Repository under [▶ Omnichannel Promotion Pricing \(OPP\) ▶ Configure Omnichannel Promotion Pricing ▶ Enable Zero Discount ▶](#).

6.1.2.10.3 Configure the Local Deployment of the Promotion Pricing Service

For a local deployment scenario, you have to replicate regular prices and OPP promotions from the central price and promotion repository (SAP Customer Activity Repository) to an external system to create a local storage for prices and promotions. This replication can be done via IDocs. For that, you have to configure application link enabling (ALE) and Data Replication Framework (DRF). For OPP promotions, there are two options to configure this replication: the promotion-centric outbound processing and the location-specific outbound processing.

Prerequisites

- You have defined receiving systems and clients in the system landscape directory (SLD).

Procedure

1. Activate OPP functionality as described in [Activate Omnichannel Promotion Pricing \(OPP\) \[page 163\]](#).
2. Activate DRF functionality, as described in [Activate the Data Replication Framework \(DRF\) \[page 165\]](#).
3. Define number ranges, as described in [Define Number Ranges \[page 166\]](#).
4. Configure the Application Link Enabling for the outbound processing of regular prices and OPP promotions (promotion-centric or location-specific outbound processing):
 - [Configure Application Link Enabling for the outbound processing of regular prices and promotion-centric OPP promotions. \[page 166\]](#)
 - [Configure Application Link Enabling for the location-specific outbound processing of OPP promotions \[page 174\]](#)
5. Configure the Data Replication Framework for the outbound processing of regular prices and OPP promotions (promotions-centric or location-specific outbound processing):
 - [Configure the data replication for the outbound processing of regular prices and OPP promotions \(promotion-centric outbound processing\) \[page 169\]](#)
 - [Configure the data replication for OPP promotions \(location-specific outbound processing\) \[page 177\]](#)

6.1.2.10.3.1 Activate the Data Replication Framework (DRF)

To send regular prices and OPP promotion to an external system via IDocs, you have to activate the Data Replication Framework (DRF) functionality.

In transaction **SPFW5**, activate business function `DRF_FOUNDATION`.

6.1.2.10.3.2 Define Number Ranges

To send OPP promotions to an external system via IDocs, you can define number ranges to generate unique identifiers for all promotion-related entities.

In Customizing for SAP Customer Activity Repository, choose [▶ Omnichannel Promotion Pricing \(OPP\) ▶ Define Number Ranges ▶](#).

6.1.2.10.3.3 Configure the Outbound Processing for Regular Prices and OPP Promotions

Configuration of the outbound processing of regular prices and promotion-centric OPP promotions.

Application Link Enabling

In Customizing for *SAP NetWeaver*, under [▶ Application Server ▶ IDoc Interface / Application Link Enabling \(ALE\) ▶](#), see the system documentation to check the settings for distributing data between application systems based on Application Link Enabling and IDoc interface technology. With omnichannel promotion pricing, this functionality is used to distribute OPP promotions and regular prices from SAP Customer Activity Repository to an external system, for example an SAP Commerce system. You need to perform the following steps:

Transaction **BD54**: Defining a Logical System

With ALE IDoc distribution, you can exchange data between logical systems. You use the logical system name to identify a system uniquely within the network. If you already use ALE IDoc distribution, the logical system for the sending system has already been defined. In this case, you only need to define a logical system for the receiving system. In SAP Customer Activity Repository, do the following:

In *Display View "Logical System": Overview*, create a new logical system. Enter the following values:

Field Name	Value
<i>Log. System</i>	<receiving system>
<i>Name</i>	<receiving system>

Transaction **SM59**: Defining an RFC Destination

1. Create the RFC destination in the *HTTP Connections to External Server* folder and enter the following values:

Field Name	Value
<i>RFC Destination</i>	<name of the RFC destination>
<i>Connection Type</i>	Enter connection type <i>G HTTP Connection to External Server</i> .
<i>Description</i>	Enter at least <i>Description 1</i> in the description section.

2. In *Technical Settings*, enter the following values for *Target System Settings*:

Field Name	Value
<i>Target Host</i>	<name of the target host>
<i>Path Prefix</i>	<i>/sappspricing/idocinbound</i>
<i>Port</i>	<service number for https or http connection>

i Note
With OPP, an https connection is recommended.

3. In *Logon and Security*, select *Basic Authentication* for *Logon with User*, and enter the following values:

Field Name	Value
<i>User</i>	<user name that you have created in SAP Commerce Backoffice >
<i>Password</i>	<password that you have created in SAP Commerce Backoffice >

In *Security Options* select *SSLActive* to send your data via https connection and enter an appropriate certificate.

i Note

We strongly recommend to use Secure protocols (SSL, SCN) whenever possible.

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

Transaction WE21: Defining a Port

1. Create this ALE port in the *XML HTTP* folder and enter the following values:

Field Name	Value
<i>Port</i>	<name of port>
<i>Description</i>	<description of port>
<i>RFC destination</i>	<name of the RFC destination created in the previous step>

2. Select *Text/XML* for Content Type.

Transaction WE20: Defining a Partner Profile

A partner profile contains parameters that define the electronic interchange of data between systems using the IDoc interface. There is only one partner profile required for the receiving system and it needs to contain all the parameters that your scenario requires for sending OPP promotions and regular prices to that receiving system.

Basic Partner Profile Information

To set up the basic partner profile information, do the following:

1. In *Partner Profiles*, create a logical system partner. Enter the following values:

Field Name	Value
<i>Partner No.</i>	<partner number>, which must be the same as the receiving system that you defined in section <i>Defining a Logical System</i>
<i>Partner Type</i>	LS for regular prices and OPP promotions sent via promotion-centric outbound processing

2. In the *Post processing: permitted agent* tab, enter the following values:

Field Name	Value
<i>Ty.</i>	US (for User)
<i>Agent</i>	<users to be notified> should be an agent who can process IDocs with errors
<i>Lang.</i>	<notification language>

Outbound Parameters

Field Name	Value
Message Type	<ul style="list-style-type: none"> • /ROP/BASE_PRICE for regular prices • /ROP/PROMOTION for OPP promotions
<i>Outbound Options tab</i>	
Receiver port	<receiver port> as defined in section <i>Defining a Port</i>
Output Mode	<ul style="list-style-type: none"> • <i>Pass IDoc Immediately</i> <ul style="list-style-type: none"> ○ Select this option to transfer IDocs directly after creation for a better integration to the DRF transfer log. ○ Select this option to make sure that IDocs are sent in the same order in which they have been created. • <i>Collect IDocs</i> <ul style="list-style-type: none"> ○ Select this option to collect IDocs and transfer them sequentially with transaction WE14.
IDoc Type	<ul style="list-style-type: none"> • /ROP/BASE_PRICE01 for regular prices • Depending on the receiving system /ROP/PROMOTION01 or /ROP/PROMOTION02 for OPP promotions
Cancel Processing After Syntax Error	Ensure that this field is selected to avoid sending erroneous IDocs.

Data Replication Framework

In Customizing for *Cross-Application Components* under [► Processes and Tools for Enterprise Applications](#) [► Master Data Governance, Central Governance](#) [► General Settings](#) [► Data Replication](#) [► Overall Information](#), see the system documentation to check how data is sent to one or more target systems. With OPP, the Data Replication Framework functionality is used to send regular prices and OPP promotions from an SAP Customer Activity Repository system to external systems. You need to perform the following steps:

Transaction **DRFIMG**: Defining Custom Settings for Data Replication

In Customizing, you have to perform the following configuration steps under [► Data Replication](#) [► Define Custom Settings for Data Replication](#):

1. In Customizing activity *Define Technical Settings for Business Systems*, define a business system and a logical system for the receiving systems. The following business object types are available to send OPP promotions and regular prices, and can be assigned to the business system:

Business Object Type	Description	Communication Channel
ROP_PROMO	OPP promotion	Replication via IDoc

Business Object Type	Description	Communication Channel
ROP_PRICE	Regular price	Replication via IDoc

2. In Customizing activity *Define Replication Models*, specify the content of the replication model (regular prices or OPP promotions), the outbound implementation that is to be used, and the business system to which this object is to be sent. You can specify a different destination system for each outbound implementation that contains business object, filter object, and business logic. You can also add an expiration time for the log. The following predefined outbound implementations exist:

Outbound Implementation	Description	Supported Replication Model	Filter Object
ROP_PRICE	Outbound implementation for regular prices	Initialization, Change, and Manual	ROP_PRICE
ROP_PROMO	Outbound implementation for OPP promotions sent via promotion-centric outbound processing	Initialization, Change, and Manual	ROP_PROMO

i Note

For this outbound implementation, the filter application time needs to be set to *Filter Before Change Analysis*.

Outbound Parameters

The following outbound parameters must be assigned to each replication model:

Outbound Parameter for Regular Prices	Description	Typical Value*
/ROP/PACK_SIZE_BULK	This parameter sets the maximum number of regular prices that are processed per IDoc. This is an approximate value because regular prices are assigned to different IDocs for each group of business unit with items and prices.	20,000-100,000

i Note

If this parameter is set to 0, restricting regular prices is not possible and it is only the number of products that determines the IDoc size.

Outbound Parameter for Regular Prices	Description	Typical Value*
PACK_SIZE_BULK	<p>This parameter controls the number of products for which regular prices can be stored in a compressed format at the same time, and sets the maximum number of products that are processed per IDoc.</p> <div style="background-color: #f0f0f0; padding: 5px;"> <p>i Note</p> <p>If this parameter is not set, the default is 1. If you increase this value, performance at runtime is improved since fewer IDocs need to be processed.</p> </div>	200-1,000
TASK_SIZE_PROCMMSG	<p>This parameter is only relevant if you execute the data replication using parallel processing . This parameter sets the maximum number of products that are processed per parallel package. It must be greater or equal to the PACK_SIZE_BULK parameter.</p> <div style="background-color: #f0f0f0; padding: 5px;"> <p>i Note</p> <p>This parameter value does not define the number of regular prices per package. If this parameter is set to 0, all products are processed in one package. This means that parallel processing is not possible.</p> </div>	400-2,000
/ROP/SEQ_READ_SIZE	<p>This parameter sets the maximum number of products for which the regular prices are read in one select statement. In this way you can limit memory consumption for products with a large number of regular prices.</p> <div style="background-color: #f0f0f0; padding: 5px;"> <p>i Note</p> <p>If this parameter is set to 0, all products of the corresponding package are read within one call.</p> </div>	100-200

Outbound Parameter for Regular Prices	Description	Typical Value*
/ROP/DAY_OFFSET_PAST	<p>This parameter is only used, if the selection of prices in the past is restricted with the validity end date as a filter criteria and if the validity end date is not too far in the past.</p> <p>During a delta replication, this parameter defines a time range in days that lies before the date of the last replication run. The system subtracts this value from the last replication date and uses the resulting date to construct the select-option for the validity end date.</p> <p>During an initial replication the system calculates a date (current date minus the time range in days defined in this parameter). If the date that you entered for the validity end is earlier than the calculated date, the calculated date is used automatically.</p> <p>In this way you ensure that also regular prices with a validity end date in the specified past time range are transferred.</p>	30
<p>i Note</p> <p>If this parameter is not set, relevant regular prices might not be transferred. See SAP Note 2338714. In this case the default is set to 30 days.</p>		

Outbound Parameter for OPP Promotions	Description	Typical Value*
PACK_SIZE_BULK	<p>This parameter sets the maximum number of OPP promotions that are processed per IDoc. It must be smaller than the TASK_SIZE_PROCMMSG parameter and is relevant for both, the sequential and the parallel execution of DRF outbound.</p>	100-1,000
<p>i Note</p> <p>If this parameter is not set, the default is 1. If you increase this value, performance at runtime is improved since fewer IDocs need to be processed.</p>		

Outbound Parameter for OPP Promotions	Description	Typical Value*
TASK_SIZE_PROCMMSG	This parameter is only relevant with parallel processing . It sets the maximum number of OPP promotions that are processed per parallel package. It must be greater or equal to the PACK_SIZE_BULK parameter.	100-5,000
<div style="background-color: #f0f0f0; padding: 5px;"> <p>i Note</p> <p>This parameter value does not define the number of OPP promotions per package. If this parameter is set to 0, independently of the value that you enter in transaction DRFOUT, parallel processing is not possible.</p> </div>		
/ROP/Generic_ENH_MAP	This parameter activates the automatic mapping of customer-specific fields that are stored in the CI-Includes of promotional entities to the corresponding extension segments in the OPP promotion IDocs.	x
<div style="background-color: #f0f0f0; padding: 5px;"> <p>i Note</p> <p>Internal tables, structures, and so on, are not supported.</p> </div>		

*This value gives you an idea of usable values for the replication of regular prices and OPP promotions, it is not a recommendation.

- Optional: In Customizing activity *Define Business Object Settings*, specify the application link enabling (ALE) message type that is to be used for each business object. In this way, you can determine the retention period for change pointers that are related to the business object. For the outbound processing of regular prices, no change pointers are used and the retention period is not relevant. The following message types are relevant for the outbound processing of regular prices and OPP promotions from the central price and promotion repository:

Business Object Type	Message Type
ROP_PRICE	/ROP/BASE_PRICE
ROP_PROMO	/ROP/PROMOTION

For more information, see Customizing for *Cross Application Components* under [Processes and Tools for Enterprise Applications](#) > [Master Data Governance, Central Governance](#) > [General Settings](#) > [Data Replication](#) > [Overall Information](#).

Transaction **DRFF**: Defining Filter Criteria

In *Define Filter Criteria*, specify your data selection for each replication model and business object. The filter criteria are valid for *Initial* replication and *Change* replication.

Parallel Processing for Regular Prices and OPP Promotions

DRF enables outbound implementations to be executed by using parallel tasks. This feature is supported for both, the outbound implementation for regular prices and the outbound implementation for OPP promotions. You can transfer the different tasks to different servers by defining and choosing server groups. Before replicating the data, you can define the maximum number of work processes that can run in parallel. These parameters combined with the outbound parameters mentioned above provide a flexible configuration.

6.1.2.10.3.4 Configure the Location-Specific Outbound Processing of OPP Promotions

The location-specific outbound processing of OPP promotions enables you to distribute a location-specific view of OPP promotions. With this outbound option OPP promotions are sent from the central price and promotion repository to its assigned locations. You can use this option if you, for example, want to send OPP promotions to POS systems in your physical stores. This section describes how to configure the Application Link Enabling (ALE) layer and Data Replication Framework (DRF) for the sending of IDocs.

Application Link Enabling

In Customizing for *SAP NetWeaver*, under **Application Server > IDoc Interface / Application Link Enabling (ALE)**, see the system documentation to check the settings for distributing data between application systems based on Application Link Enabling and IDoc interface technology. With omnichannel promotion pricing, this functionality is used to distribute OPP promotions and regular prices from SAP Customer Activity Repository to an external system, for example an SAP Commerce system. You need to perform the following steps:

Transaction **SM59**: Defining an RFC Destination

For each receiving system that initially receives the created IDocs, you have to create an RFC destination. If you use a middleware, this RFC destination refers to the host in which the middleware is running. If you use a 1:1 connection, all receiving systems require a separate RFC destination. The attributes of the RFC destination are determined by the receiving system. In the following we assume that we want to setup a location-specific outbound processing to a local promotion pricing service in a SAP Commerce system that is directly connected to the SAP Customer Activity Repository.

1. In *Technical Settings*, enter the following values for *Target System Settings*:

Field Name	Value
<i>Target Host</i>	<name of the target host>
<i>Path Prefix</i>	/sappspricing/idocinbound

Field Name	Value
<i>Port</i>	<service number for https or http connection>

i Note
With OPP, an https connection is recommended.

- In *Logon and Security*, select *Basic Authentication* for *Logon with User*, and enter the following values:

Field Name	Value
<i>User</i>	<user name that you have created in SAP Commerce Backoffice >
<i>Password</i>	<password that you have created in SAP Commerce Backoffice >

In *Security Options* select *SSLActive* to send your data via https connection and enter an appropriate certificate.

i Note

We strongly recommend to use Secure protocols (SSL, SCN) whenever possible.

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

Transaction WE21: Defining a Port

- Create this ALE port in the *XML HTTP* folder and enter the following values:

Field Name	Value
<i>Port</i>	<name of port>
<i>Description</i>	<description of port>
<i>RFC destination</i>	

- Text/XML*.

Transaction WE20: Defining a Partner Profile

A partner profile contains parameters that define the electronic interchange of data between systems using the IDoc interface. There is only one partner profile required for the receiving system and it needs to contain all the parameters that your scenario requires for sending OPP promotions and regular prices to that receiving system.<name of the RFC destination created in the previous step>

Basic Partner Profile Information

To set up the basic partner profile information, do the following:

1. In *Partner Profiles*, create a logical system partner. Enter the following values:

Field Name	Value
<i>Partner No.</i>	External ID of the receiving DDF location
<i>Partner Type</i>	LO for OPP promotions replicated via location-specific outbound processing

Note

For this partner type, only the first 10 characters of the DDF location ID are taken into account, the location type and logical system are ignored. If you want to use a different logic, use transaction **WE44** to define a different partner type or to change the validation logic.

Select a content type supported with the receiving system. If you configure a local If you need a different implementation of BAdI `/ROP/PROMO_STORE_OUTBOUND`, see Customizing for SAP Customer Activity Repository and choose **► Omnichannel Promotion Pricing (OPP) ► Business Add-Ins (BAdIs) ► Outbound Processing of OPP Promotions ► BAdI: Location-Specific Outbound Processing ►**.

2. In the *Post processing: permitted agent* tab, enter the following values:

Field Name	Value
<i>Ty.</i>	US (for User)
<i>Agent</i>	<users to be notified> , which should be an agent who can process IDocs with errors.
<i>Lang.</i>	<notification language>

Outbound Parameters

Field Name	Value
<i>Message Type</i>	<code>/ROP/PROMOTION</code> for OPP promotions
<i>Outbound Options tab</i>	
<i>Receiver port</i>	<receiver port> as defined in section <i>Defining a Port</i>

Field Name	Value
<i>Output Mode</i>	<ul style="list-style-type: none"> • <i>Pass IDoc Immediately</i> <ul style="list-style-type: none"> ○ Select this option to transfer IDocs directly after creation for a better integration to the DRF transfer log. ○ Select this option to make sure that IDocs are sent in the same order in which they have been created. • <i>Collect IDocs</i> <ul style="list-style-type: none"> ○ Select this option to collect IDocs and transfer them sequentially with transaction WE14.
<i>IDoc Type</i>	Depending on the receiving system <code>/ROP/PROMOTION01</code> or <code>/ROP/PROMOTION02</code> for OPP promotions
<i>Cancel Processing After Syntax Error</i>	Ensure that this field is selected to avoid sending erroneous IDocs.

Data Replication Framework

In Customizing for *Cross-Application Components* under [► Processes and Tools for Enterprise Applications](#) [► Master Data Governance, Central Governance](#) [► General Settings](#) [► Data Replication](#) [► Overall Information](#) [►](#), see the system documentation to check how data is replicated to one or more target systems. With OPP, the Data Replication Framework functionality is used to send regular prices and OPP promotions from an SAP Customer Activity Repository system to external systems. You need to perform the following steps:

Transaction **DRFIMG**: Defining Custom Settings for Data Replication

In Customizing, you have to perform the following configuration steps under [► Data Replication](#) [► Define Custom Settings for Data Replication](#) [►](#):

1. In Customizing activity *Define Technical Settings for Business Systems*, define a business system and a logical system for the receiving systems. The following business object types are available to replicate OPP promotions and regular prices, and can be assigned to the business system:

Business Object Type	Description	Communication Channel
ROP_PRO_ST	Location-specific outbound processing of OPP promotions	Replication via IDoc

2. In Customizing activity *Define Replication Models*, specify the content of the replication model (regular prices or OPP promotions), the outbound implementation that is to be used, and the business system to which this object is to be sent. You can specify a different destination system for each outbound

implementation that contains business object, filter object, and business logic. You can also add an expiration time for the log. The following predefined outbound implementations exist:

Outbound Implementation	Description	Supported Replication Model	Filter Object
ROP_PRO_ST	Outbound implementation for OPP promotions sent via location-specific outbound processing	Initialization, Change, and Manual	ROP_PRO_ST

Outbound Parameters

The following outbound parameters must be assigned to each replication model:

Outbound Parameter for OPP Promotions	Description	Typical Value*
PACK_SIZE_BULK	<p>This parameter sets the maximum number of OPP promotions that are processed per IDoc. It must be smaller than the TASK_SIZE_PROCMMSG parameter and is relevant for both, the sequential and the parallel execution of DRF outbound.</p> <p>i Note If this parameter is not set, the default is 1. If you increase this value, performance at runtime is improved since fewer IDocs need to be processed.</p>	100-1,000
TASK_SIZE_PROCMMSG	<p>This parameter is only relevant with parallel processing . It sets the maximum number of OPP promotions that are processed per parallel package. It must be greater or equal to the PACK_SIZE_BULK parameter.</p> <p>i Note This parameter value does not define the number of OPP promotions per package. If this parameter is set to 0, independently of the value that you enter in transaction DRFOUT, parallel processing is not possible.</p>	100-5,000
/ROP/Generic_ENH_MAP	<p>This parameter activates the automatic mapping of customer-specific fields that are stored in the CI-Includes of promotional entities to the corresponding extension segments in the OPP promotion IDocs.</p> <p>i Note Internal tables, structures, and so on, are not supported.</p>	x

*This value gives you an idea of usable values for the replication of regular prices and OPP promotions, it is not a recommendation.

- Optional: In Customizing activity [Define Business Object Settings](#), specify the application link enabling (ALE) message type that is to be used for each business object. In this way, you can determine the retention period for change pointers that are related to the business object. For the outbound processing of regular prices, no change pointers are used and the retention period is not relevant. The following message types are relevant for the outbound processing of regular prices and OPP promotions from the central price and promotion repository:

Business Object Type	Message Type
ROP_PRICE	/ROP/BASE_PRICE
ROP_PROMO	/ROP/PROMOTION

For more information, see Customizing for [Cross Application Components](#) under [Processes and Tools for Enterprise Applications](#) > [Master Data Governance, Central Governance](#) > [General Settings](#) > [Data Replication](#) > [Overall Information](#).

Transaction **DRFF**: Defining Filter Criteria

In [Define Filter Criteria](#), specify your data selection for each replication model and business object. The filter criteria are valid for [Initial](#) replication and [Change](#) replication.

6.1.2.10.4 Configure the Central Deployment of the Promotion Pricing Service

The promotion pricing service (PPS) is an SAP HANA XS advanced (XSA) application. Therefore the configuration of, for example, database services and back-end connection information, is done before or during the deploy time. The needed configuration settings are provided via command line interface, or in an extension descriptor file. Authentication configuration and authorization configuration is done after deploy time.

Prerequisites

- You have installed SAP HANA XSA version 1.0.88 or higher.
- You have access to the XSA command-line tool version 1.0.82 or higher.
- You have an XSA user with the following role collections:
 - XS_CONTROLLER_ADMIN
 - XS_USER_ADMIN
 - XS_USER_PUBLIC
 - XS_AUTHORIZATION_ADMIN

i Note

In the following documentation this user will be referred to as **XSA PPS admin user**.

- You have an XSA user with the business role `XS_USER_PUBLIC`.

i Note

In the following documentation this user will be referred to as **XSA PPS business user**.

- You have a database user that can access the standard schema of your SAP Customer Activity Repository system via the SQL port, in which the database tables of the PPS are located.
- You have created and configured the organization and the space in which you want to install the promotion pricing service application.
- You have downloaded the SCV file `XSACOPPPPS00_<patch level>-80004642.ZIP` (for example patch level `0` for the initial delivery) for the PPS from the SAP Support Portal at <https://support.sap.com>.

Used XSA Services

The PPS application uses the following XSA services:

Service Instance	Service	Plan	Resource Type	Description
ppeHANA	User-defined	n/a	org.cloudfoundry.existing-service	Service to access the database.
ppServiceUaa	xsuaa	space	com.sap.xs.uaa-space	Service for authentication and authorization services. Plan space allows the installation of the PPS app in different XSA spaces.
ppServiceAuditLog	auditlog	free	com.sap.xs.auditlog	Audit log broker on the XSA platform.

i Note

The services `ppServiceUaa` and `ppServiceAuditLog` are created and bound automatically during the installation of the PPS application.

Procedure

1. [Create the ppeHana Database Service \[page 181\]](#)

2. [Create the Extension Descriptor File \[page 183\]](#)
3. [Configure Authentication and Authorization Settings \[page 185\]](#)
4. [Advanced Configuration Settings \(Optional\) \[page 187\]](#)

Related Information

- For more technical information about SAP HANA XS advanced, see the *SAP HANA Developer Guide for SAP HANA XS Advanced Model* on SAP Help Portal at [https://help.sap.com/viewer/product/SAP_HANA_PLATFORM/<Version>Development/SAP HANA Developer Guide](https://help.sap.com/viewer/product/SAP_HANA_PLATFORM/<Version>Development/SAP_HANA_Developer_Guide).
- For more information about the installation of SAP HANA XS advanced, see the *SAP HANA Server Installation and Update Guide* on SAP Help Portal at [https://help.sap.com/viewer/product/SAP_HANA_PLATFORM/2.0.04/en-US<Version>Installation and Upgrade/SAP HANA Server Installation and Upgrade Guide/Installing an SAP HANA System/Installing XS Advanced Runtime](https://help.sap.com/viewer/product/SAP_HANA_PLATFORM/2.0.04/en-US<Version>Installation_and_Upgrade/SAP_HANA_Server_Installation_and_Upgrade_Guide/Installing_an_SAP_HANA_System/Installing_XS_Advanced_Runtime).
- For more administration information about SAP HANA XS advanced, see the *SAP HANA Administration Guide for SAP HANA Platform* on SAP Help Portal at [https://help.sap.com/viewer/product/SAP_HANA_PLATFORM/2.0.04/en-US<Version>Administration/SAP HANA Administration Guide for SAP HANA Platform/Application Run-Time Services/Maintaining the SAP HANA XS Advanced Model Run Time](https://help.sap.com/viewer/product/SAP_HANA_PLATFORM/2.0.04/en-US<Version>Administration/SAP_HANA_Administration_Guide_for_SAP_HANA_Platform/Application_Run-Time_Services/Maintaining_the_SAP_HANA_XS_Advanced_Model_Run_Time).

6.1.2.10.4.1 Create the ppeHana Database Service

To make the PPS run, you have to create the database service *ppeHana*. How to create this service depends on your SSL (Secure Socket Layer) configuration settings in your SAP HANA database.

SSL Not Activated in SAP HANA

If SSL is not activated in SAP HANA, proceed as follows:

1. Execute the following xs command to create the database service:

Source Code

```
xs create-user-provided-service ppeHana -p "{\"user\":\"<DB_USER>\",
  \"password\":\"<DB_USER_PASSWORD>\", \"url\":\"jdbc:sap://<HOSTNAME>:<PORT>
  \", \"driver\":\"com.sap.db.jdbc.Driver\", \"port\":\"<PORT>\", \"host\":
  \"<HOSTNAME>\"}"
```

2. Adjust the following entries in angle brackets (<...>) in the command line:

Entry	Comment
<DB_USER>	Replace this entry with a valid database user of your SAP Customer Activity Repository system. With this user, you must be able to access the standard schema of your SAP Customer Activity Repository system via the SQL port, in which the database tables of the PPS are located.
<DB_USER_PASSWORD>	Replace this entry with the password of your database user (in clear text) in your SAP Customer Activity Repository system.
<HOSTNAME>	Replace this entry with the database host name of your SAP Customer Activity Repository system.
<PORT>	Replace this entry with the database SQL port of your SAP Customer Activity Repository system.

Note

If your password policy forces a password change after the first login, it must be changed before you create ppeHana.

→ Tip

When you have created the database service, clear the command history to prevent unauthorized disclosure of the password.

SSL Activated in SAP HANA

If SSL is activated in SAP HANA proceed as follows:

1. Execute the following xs command to create the database service and add `encrypt=true` to the database URL to use an encrypted database connection:

Source Code

```
xs create-user-provided-service ppeHana -p "{\"user\":\"<DB_USER>\",  
  \"password\":\"<DB_USER_PASSWORD>\", \"url\":\"jdbc:sap://  
  <HOSTNAME>:<PORT>/?encrypt=true^^&validateCertificate=<VALUE>\", \"driver  
  \": \"com.sap.db.jdbc.Driver\", \"port\":\"<PORT>\", \"host\":\"<HOSTNAME>\"}"
```

- If you want to validate the server certificate, set `<VALUE>` of `validateCertificate` to `true`. In this case, you either have to ensure that your Java VM trusts the server certificate, or you must set the parameter `certificate` as shown in the following example of a ppeHana service instance:

Sample Code

```
{
  "name" : "ppeHana",
  "credentials" : {
    "password" : "<DB_USER_PASSWORD>",
    "driver" : "com.sap.db.jdbc.Driver",
    "port" : "<PORT>",
    "host" : "<HOSTNAME>",
    "user" : "<DB_USER>",
    "url" : "jdbc:sap://<HOSTNAME>:<PORT>/?
encrypt=true&validateCertificate=true",
    "certificate" : "-----BEGIN CERTIFICATE-----\nMIIFpzCww[...]-----END
CERTIFICATE-----\n"
  }
}
```

→ Tip

When you have created the database service, clear the command history to prevent unauthorized disclosure of the password.

6.1.2.10.4.2 Create the Extension Descriptor File

To store the PPS-specific configuration settings, you must create an extension descriptor file.

- Create a text file with suffix `.mtaext`, for example `config-op.mtaext`.
- To create the extension descriptor file, copy the following content to the new file that you have created in step 1:

i Note

This content includes the minimum settings that are necessary to create the extension descriptor file. Further configuration settings, for example settings for caching, can be added to this file as required.

Source Code

```
_schema-version: "2.0.0"
ID: com.sap.retail.ppsservice.XSAC_OPP_PPS
extends: com.sap.retail.ppsservice.XSAC_OPP_PPS
modules:
  - name: ppsservice-approuter
    parameters:
      memory: 128M
  - name: ppsservice-webapp-central
    parameters:
      memory: 1024M
    properties:
      DISABLE_SUCCESSFUL_LOGIN_AUDIT_LOG: "<AUDIT_LOG_FLAG>"
      JBP_CONFIG_RESOURCE_CONFIGURATION: "[ 'tomcat/webapps/ROOT/WEB-INF/
classes/pps-schema-orm.xml' : { 'sap.dataaccess-
```

```

common.schema': '<DB_SCHEMA>'}, 'tomcat/webapps/ROOT/META-INF/context.xml':
{'ppeHana-service-name': 'ppeHana'}}]
  JBP_CONFIG_JAVA_OPTS: 'java_opts: -Dsap.dataaccess-
common.db.client="<DB_CLIENT>" -Dsap.dataaccess-common.logSys=<LOGSYS>'
  provides:
  - name: java

```

Note

This configuration is written in YAML format. Make sure that you copy the format of the code block correctly.

- Adjust the following entries in angle brackets (<...>) in the file:

Entry	Comment
<AUDIT_LOG_FLAG>	If you set this flag to true, the system creates audit log messages only for failed login attempts. If you set this flag to false, every login is recorded. This is of limited use for an A2A communication. To achieve optimal performance, SAP recommends to set this flag to true.
<DB_SCHEMA>	Replace this entry with the standard database schema of your SAP Customer Activity Repository system.
<DB_CLIENT>	Replace this entry with the client of your SAP Customer Activity Repository system.
<LOGSYS>	<p>Replace this entry with the logical system ID of your master data system that is connected to your SAP Customer Activity Repository client.</p> <p>If you want to support multiple master data systems in your SAP Customer Activity Repository client, you need one promotion pricing service for each system (in different spaces).</p>

→ Tip

If you need higher values for default memory settings, especially for `ppservice-webapp-central`, you can choose larger cache sizes.

- Assuming that your extension descriptor file is called `config-op.mtaext` and that the command is called from the directory in which your extension descriptor file is stored, execute the following command to install the application:

Source Code

```

xs install <pathToScvFile>/XSACOPPPPS<software_component_version>.ZIP -e
config-op.mtaext

```

- Save the extension descriptor file for later update or patch activities.

i Note

If you want to reinstall the same software component version, add the following parameter to the install command `-o ALLOW_SC_SAME_VERSION`.

For more information about possible additional parameters, see the documentation of this install command.

6.1.2.10.4.3 Configure Authentication and Authorization Settings

To use the central promotion pricing service, you must have the necessary roles created and assigned.

Creating and Assigning a PPS Role Collection

Execute the following steps with your XSA PPS admin user.

1. Create a role collection for the PPS with the following `xs` command:

Source Code

```
xs create-role-collection <NAME> [<DESCRIPTION>]
e.g., xs create-role-collection PPE_ROLE_COLLECTION "PPE ROLE COLLECTION"
```

2. Navigate to the organisation and space in which the PPS has been installed.

→ Tip

You can change organisations and spaces with the `xs` command `xs target -o <ORG_NAME> -s <SPACE_NAME>`.

3. Check if the role template `ppservice-webapp-central` is listed in the space.

i Note

If the installation has been successful, this role template must be listed in this space. You can verify this by listing all role templates with `xs` command `xs role-templates`.

4. Create a role with the PPS role template:

Source Code

```
xs create-role <APP> <ROLE_TEMPLATE> <ROLE_NAME> <DESCRIPTION>
e.g., xs create-role ppservice-webapp-central PPE_ROLE_TEMPLATE
PPE_ROLE_XYZ "PPE role for xyz"
```

5. Add the new role to the new role collection:

Source Code

```
xs update-role-collection <ROLE_COLLECTION> --add-role <ROLE>
e.g., xs update-role-collection PPE_ROLE_COLLECTION --add-role PPE_ROLE_XYZ
```

- Assign the new role collection to the XSA PPS business user:

Source Code

```
xs assign-role-collection <ROLE_COLLECTION> <USER>
e.g., xs assign-role-collection PPE_ROLE_COLLECTION PPSUSER
```

Tip

You can call `xs help -a` to get an overview of other `xs` commands regarding role management.

- Verify that the PPS user that you have created in the prior step is working. For this, you have to enter the following request details in your REST Client (like Postman for Chrome) to send a calculation request:

Request Details	Value
HTTP Request Method	<code>POST</code>
Authorization	<code>Type = Basic Authentication</code> <code>User name = <name of the XSA PPS business user></code> <code>Password = <password of the XSA PPS business user></code>
Headers	<code>Accept = application/xml</code> <code>Content-Type = application/xml</code>
URL	<ol style="list-style-type: none">Call the command <code>xs apps</code> and check for the URL of the <code>ppservice-approuter</code> app.Append <code>/restapi/</code> to the URL and enter this information in your REST Client.
Body	<code><PriceCalculate xmlns="http://www.sap.com/IXRetail/namespace/" /></code>

Note

If your password policy prompts users to change their password when they log on to the system for the first time, this needs to be done before a request is sent via Rest Client.

Note

If you send this request, you get HTTP response code `400 (Bad Request)` because you send an empty request body.

If you receive HTTP response code *401 (Unauthorized)* or *403 (Forbidden)*, there is something wrong with your service user, or application. Double-check all steps that you have performed in this chapter.

6.1.2.10.4.4 Advanced Configuration Settings (Optional)

The following settings are not mandatory in a default setup but help you to adapt the PPS to your specific needs.

Configuration of Caches

By default, all database accesses to OPP promotion and regular price entities are cached. You can use the following two types of caches:

- Object cache based on JPA
In this case, OPP promotions and their child entities (price derivation rules, texts, and so on) are stored in the L2 object cache of the JPA provider.
- Query result cache based on Spring Framework
In this case, regular prices and the results of search queries for IDs of price derivation rule eligibilities are stored in a cache. This cache is used via Spring cache abstraction. The cache provider determines the settings for the query result cache (regular prices, eligibility IDs). Google Guava is the default cache provider and allows the configuration of the cache via a cache specification string per cache region.

Query Result Caches for OPP Promotions and Regular Prices

The following example shows the setting of the query caches for OPP promotions and regular prices:

Source Code

```
# Use Spring caching for promotions and regular prices - true is the default
setting
sap.dataaccess-common.cachenamedqueries=true
# Spring cache for promotions
sap.dataaccess-
common.promocachespec=maximumSize=10000,expireAfterAccess=10m,expireAfterWrite
=20m
# Spring cache for regular prices
sap.dataaccess-
common.basepricecachespec=maximumSize=10000,expireAfterAccess=10m,expireAfterW
rite=20m
```

To apply these settings, they have to be part of the extension descriptor in the `JBP_CONFIG_JAVA_OPTS` property.

```
...
JBP_CONFIG_JAVA_OPTS: 'java_opts: -Dsap.dataaccess-
common.db.client=<DB_CLIENT> -Dsap.dataaccess-common.logSys=<LOGSYS>' -
Dsap.dataaccess-common.cachenamedqueries=true -Dsap.dataaccess-
common.promocachespec=maximumSize=10000,expireAfterAccess=10m,expireAfterWrite=20
m -Dsap.dataaccess-
common.basepricecachespec=maximumSize=10000,expireAfterAccess=10m,expireAfterWrit
e=20m
```

...

Related Information

- For more information about optional properties that can be set via the extension descriptor, see the module descriptions and the corresponding property files in the *Development and Extension Guide for Omnichannel Promotion Pricing* on SAP Help Portal at <https://help.sap.com/viewer/p/CARAB> >> <Version> > > *Development* > *Development and Extension Guide* >.
- For more information about caching options, see the *Development and Extension Guide for Omnichannel Promotion Pricing* on SAP Help Portal at <https://help.sap.com/viewer/p/CARAB> >> <Version> > > *Development* > under >> *Promotion Pricing Service* > *PPS Module dataaccess-common* >.

6.1.3 Troubleshooting

Diagnose and resolve issues that may arise when you install, upgrade, and set up your scenario. If you need to report a customer incident, see the information at the end of this section.

→ Tip



For quick access to support information, log in to the SAP ONE Support Launchpad at <https://launchpad.support.sap.com/#/productsearch>. Search for SAP CARAB (back-end product version) or SAP FIORI FOR SAP CARAB (front-end product version). Find related SAP Knowledge Base articles, documentation, guided answers, questions & blogs, and download information — all on one page.

Troubleshoot Installation, Upgrade, and Implementation Issues

Installation, Upgrade, and Implementation Issues


Area	Symptom	Cause	Possible Solutions
Installation / Upgrade	You want to upgrade the on-shelf availability dispatcher (transaction /OSA/ DISPATCH). However, you get the error SQL Error Code 274 : inserted value too large for column .	Local temporary tables (LOCAL_EXCL_PRODUCT, LOCAL_LISTED_PRODUCT, and LOCAL_PS_CONF), which are created and used by OSA for internal dispatcher processing, are not dropped automatically during runtime. As a result, new tables (such as any containing CHAR40 fields) cannot be created. This causes an SQL error when a CHAR40 material is supplied. If the tables already exist, subsequent structural changes to their definition require a manual intervention.	SAP Note 2576497
Installation / Upgrade	You want to download a revision of software component SAP RTL AFL FOR SAP HANA.	You need the exact download path on the SAP Support Portal at http://support.sap.com .	See section Download and Install the Application Function Library (SAP RTL AFL FOR SAP HANA) [page 51] .
Installation / Upgrade	You want to know which revision of the SAP RTL AFL FOR SAP HANA component is currently installed.	You are looking for an easy way to look up the revision information.	<ol style="list-style-type: none"> Execute transaction <code>db02</code> to open the Diagnostics: Missing Tables and Indexes screen. Choose Current Status > Overview > Installed Plug-Ins and click on RTL.

Area	Symptom	Cause	Possible Solutions
Installation / Upgrade	You get an error indicating that software component SAP RTL AFL FOR SAP HANA is not compatible.	You must install compatible releases ("revisions") of the following: <ul style="list-style-type: none"> SAP RTL AFL FOR SAP HANA SAP HANA DATABASE SAP HANA AFL 	<ul style="list-style-type: none"> Section Download and Install the Application Function Library (SAP RTL AFL FOR SAP HANA) [page 51]. SAP Note 2818378 (Which releases of SAP HANA Platform are supported for which releases of SAP Customer Activity Repository applications bundle (SAP CARAB)?)
Installation / Upgrade	You want to know what AFLs (application function libraries) are installed and active in your SAP HANA database.	For example, you want to check if an AFL was installed or upgraded correctly.	SAP Note 2188129
Installation / Upgrade	You want to verify if your revision of SAP HANA Platform is compatible with your version of SAP HANA studio.	For example, you might be experiencing compatibility issues following an upgrade.	SAP Note 2375176
Installation / Upgrade	You have installed compatible revisions of the following components but are still experiencing issues: SAP RTL AFL FOR SAP HANA, SAP HANA AFL, SAP HANA DATABASE	Something went wrong during the installation.	Revisit SAP Note 2377894 and make sure that you have carefully followed all the steps for your scenario.
Installation / Upgrade	You want to install or upgrade an application function library (such as SAP RTL AFL FOR SAP HANA) and are experiencing issues with the SAP HANA Lifecycle Management tool (hdb1cm, hdb1cmgui).	You need information on possible causes and solutions.	<ul style="list-style-type: none"> SAP Note 2078425 SAP Note 2082466 SAP HANA Server Installation and Update Guide for your SAP HANA Platform version under https://help.sap.com/viewer/p/SAP_HANA_PLATFORM > <i><Version></i> > <i>Installation and Upgrade</i> >

Area	Symptom	Cause	Possible Solutions
Installation / Upgrade	You want to know whether you need to activate any business functions for either Unified Demand Forecast (UDF) or Demand Data Foundation (DDF).	The activation of business functions might have been necessary in older releases. You want to make sure that you set up UDF or DDF correctly.	You don't need to take action and you don't need to activate any business functions for UDF or DDF. While business functions might still exist as objects in the systems, they are not needed for the setup any longer.
Installation / Upgrade	You get an import error when installing the <code>RTLAPPS</code> software component of the SAP CARAB back-end product version.	A program error must be fixed.	SAP Note 2377525 
Installation / Upgrade	You get the error <i>CAR RETAIL APPLSAP DBTech JDBC: [258]: insufficient privilege: Not authorized.</i>	You are using the SAP HANA AFL software component and have performed an upgrade of your SAP HANA Platform. Previously assigned privileges might have been lost during the upgrade.	SAP Note 2022080 
Installation / Upgrade	In an upgrade, you get the following error when running program <code>RUTDDLSCREATE</code> : <i>3 ETW678Xstart export of R3TRDDLSCDS view name> ...</i> <i>3WETW000 DDLS <CDS view name> is not activated.</i> <i>2EETW190 "DDLS" <CDS view name> has no active version.</i> <i>4 ETW679 end export of R3TRDDLSCDS view name>.</i>	An issue with CDS views must be fixed.	SAP Note 2340418 
Installation / Upgrade	You need information about the Software Provisioning Manager.	For example, you have a question regarding the installation, copy, transformation, or deletion of a system based on SAP NetWeaver ABAP on SAP HANA.	SAP Note 2568783  (Release Note for Software Provisioning Manager 2.0 (recommended: SWPM 2.0 SP05))

Area	Symptom	Cause	Possible Solutions
Installation / Upgrade	You have implemented an SAP Note with a correction for the SAPUI5 application or for the calculation of the application index. The SAPUI5 application index is not recalculated automatically.	You need to start the recalculation manually.	SAP Note 2227577
Installation / Upgrade	<p>You want to install or upgrade to a release of SAP Customer Activity Repository applications bundle using the Software Update Manager (transaction SUM). During the SAP HANA deployment phase, you get errors such as the following:</p> <ul style="list-style-type: none"> <i>Datatype string(1333) of JOIN \$ATTRIBUTE_VALUE \$IMAGE_ID does not match to datatype raw(16) of attribute IMAGE_ID in node CLTT</i> 	As of SAP HANA Platform 2.0 SPS04, a message that was considered a "warning" in older releases is now considered an "error". This error prevents the SUM process from completing.	<ul style="list-style-type: none"> Workaround: SAP Note 2789289 (<i>Activation of Calculation View Fails With Error "column store error: [34011] Inconsistent calculation model"</i>) Alternative: Convert the SAP HANA error message back into a warning, then rerun SUM: <ol style="list-style-type: none"> Execute the following SQL statement: <pre>ALTER SYSTEM ALTER CONFIGURATION ('indexserver .ini', 'SYSTEM') SET ('calcengine' , 'enable_depre cated_compone nt_flags') = '8192' WITH RECONFIGURE;</pre> Restart transaction SUM and repeat the installation or upgrade step.

Area	Symptom	Cause	Possible Solutions
Installation / Upgrade	<p>You want to install or upgrade to a release of SAP Customer Activity Repository applications bundle using the Software Update Manager (transaction SUM). You get the following error:</p> <ul style="list-style-type: none"> • <i>Could not create catalog object: invalid name of function or procedure; no procedure with name UDFCORE_AREA_FORE CAST_15_PROC.</i> 	<p>The software component SAP RTL AFL FOR SAP HANA that is currently installed in your back-end system is not up to date.</p>	<p>You must install a higher revision of SAP RTL AFL FOR SAP HANA. For the minimum revision required for this release, see the <i>Common Prerequisites</i> in Install the Prerequisites [page 17]. Consult the requirements for SAP HANA Platform 2.0 and for SAP RTL AFL FOR SAP HANA.</p>
SAP HANA content	<p>You have run the /CAR/ACTIVATE_HTA activation report but the selected SAP HANA content is not activated.</p>	<p>You want to know which objects have not been activated correctly and what errors have occurred.</p>	<ul style="list-style-type: none"> • Execute transaction SLG1 to display the report log: Towards the bottom of the log you will generally find a section that lists the objects with activation errors. Keep in mind, though, that those objects might not have any issues themselves but that the root cause can also be in dependent objects. • In transaction SCTS_HTA_DEPLOY, try to reproduce the errors by manually re-deploying the objects.

Area	Symptom	Cause	Possible Solutions
SAP HANA content	You want to perform schema mapping in SAP HANA studio. That is, you want to map the authoring schemas of this release to the physical schemas of your customer system landscape. However, you are encountering issues and the mapping doesn't work.	Different causes are possible that can lead to mapping issues in SAP HANA studio.	<ul style="list-style-type: none"> • Check that you have entered the correct schema names. • In particular, make sure that there are no leading or trailing spaces before or after the schema names. Space characters cause issues during schema mapping. • For step-by-step instructions, see Verify Correct Schema Mapping [page 41].
SAP HANA content	You have run the <code>/CAR/ACTIVATE_HTA</code> activation report but get the error <i>Insufficient privilege: Not authorized</i> .	The SAP HANA user needs additional authorizations (privileges).	SAP Note 2586850 
SAP HANA content	You have run the <code>/CAR/ACTIVATE_HTA</code> activation report but the selected SAP HANA content is not activated.	You might have an authorization issue.	<ul style="list-style-type: none"> • Check if SAP HANA database user <code>_SYS_REPO</code> has been assigned privilege <code>SELECT</code> with option <i>Grantable to others</i>. If not, you can grant the missing privilege using the following example SQL statement: <pre>GRANT SELECT ON SCHEMA <your schema name> TO _SYS_REPO WITH GRANT OPTION;</pre> • Check that other required authorizations have been set up correctly. For more information, see section Verify Back-End Users and Roles [page 77].

Area	Symptom	Cause	Possible Solutions
SAP HANA content	You have run the /CAR/ACTIVATE_HTA activation report but the selected SAP HANA content is not activated.	You might have a circular dependency issue. In particular, you get an error that a SQLScript procedure (such as SP_SR_GET_PROD_HR_XR_BY_DATE) cannot be activated.	SAP Note 2404872
SAP HANA content	You have run the /CAR/ACTIVATE_HTA activation report but the selected SAP HANA content is not activated.	You might have a deployment error in SAP HANA Transport for ABAP (HTA).	<ul style="list-style-type: none"> SAP Note 2109690 (<i>Error in SAP HANA repository deployment import step</i>) SAP Note 2321486 (<i>Troubleshooting for SAP HANA Transport for ABAP (HTA) deployment</i>)
SAP HANA content	You want to activate SAP HANA content for scenarios of SAP Customer Activity Repository applications bundle using the /CAR/ACTIVATE_HTA report in transaction SE38. However, you are getting errors.	<p>Several causes are possible. Open the error log file and search for udf.cor. For example, the following errors can occur:</p> <ul style="list-style-type: none"> <i>Could not create catalog object</i> <i>Invalid name of function or procedure</i> <i>No procedure with name UDFCORE_AREA_MODAL_POS_XX_PRO</i> 	<p>Check that you have done the following tasks as described in this guide:</p> <ul style="list-style-type: none"> Have you installed compatible revisions of the SAP HANA database and the AFL components (SAP HANA AFL, SAP RTL AFL FOR SAP HANA)? See the <i>Common Prerequisites</i> in section Install the Prerequisites [page 17]. See also section Download and Install the Application Function Library (SAP RTL AFL FOR SAP HANA) [page 51]. Have you done the schema mapping as described in this guide? See Verify Correct Schema Mapping [page 41].

Area	Symptom	Cause	Possible Solutions
SAP HANA content	You want to activate SAP HANA content for scenarios of SAP Customer Activity Repository applications bundle using the /CAR/ACTIVATE_HTA report in transaction SE38. However, you are getting errors.	Several causes are possible. Open the error log file and search for udf.cor . For example, the following errors can occur: <ul style="list-style-type: none"> <i>There is neither a default value nor a data input mapping for ..."</i> <i>A2EESCTS_HOT 532</i> 	<ul style="list-style-type: none"> Workaround and list of affected SAP HANA database revisions: SAP Note 2525644 (Input Variables are set to an Empty String When not Mapped in Top-Level Calculation Scenario) If possible for your scenario, consider upgrading to an SAP HANA database revision not affected by the issue.
SAP HANA content	After running the /CAR/ACTIVATE_HTA activation report, you get two conflicting messages: <ul style="list-style-type: none"> <i>The following scenario was deployed successfully...</i> <i>But returned error/warning/information message(s)...</i> 	You want to know whether the activation was successful and whether any additional action is required.	SAP Note 2467113
SAP HANA content	You want to generate pre-season sales projections in SAP Assortment Planning but get an error.	You might not have activated all the required SAP HANA content.	When you run the /CAR/ACTIVATE_HTA activation report, make sure to select the required options. See Activate SAP HANA Content [page 89] .
SAP HANA content	You want to check the dependencies of a specific view.	You might need this information to solve a dependency or activation issue for SAP HANA views.	<ul style="list-style-type: none"> In SAP HANA studio: Select the view and choose <i>Auto Documentation</i> from the context menu. This generates a file with detailed information on the view. Consult the <i>Cross References</i> section. If you are using the SAP HANA Live View Browser app: Select the view and choose <i>Cross References</i>.

Area	Symptom	Cause	Possible Solutions
SAP HANA content	You have a question regarding users or schemas in SAP HANA.	For example, you want to know what the names of the standard SAP HANA users and schemas are.	<ul style="list-style-type: none"> In this guide, search for <i>schema mapping</i>. SAP Note 2535951 (FAQ: SAP HANA Users and Schemas)
SAP HANA content	You get an error indicating that you are attempting to access inactive or invalid SAP HANA content.	You have not installed software component SAP RTL AFL FOR SAP HANA. The component contains back-end functionality for the Unified Demand Forecast module and the On-Shelf Availability module in SAP Customer Activity Repository. If you don't intend to use those modules, you don't need to configure them. However, you must always install the software component.	See section Download and Install the Application Function Library (SAP RTL AFL FOR SAP HANA) [page 51].
SAP HANA content	You get the error <i>Table ABAP:/DMF_ORG_ASSIGN not found</i> .	A program error must be fixed.	<ul style="list-style-type: none"> SAP Note 2218875 SAP Note 2224582
SAP HANA content	You get the error <i>Object DDF_ORG_ASSIGN (Calculation View), package sap.is.ddf.udf.data_validation, was processed with errors</i> .	A program error must be fixed.	SAP Note 2224582
SAP HANA content	You get the error <i>SQLScript: Could not derive table type for variable "UDF_FC_HORIZON"</i> .	A program error must be fixed.	SAP Note 2125672
SAP HANA content	SAP HANA views in the sap.is.ddf.fms package do not activate properly.	A program error must be fixed.	SAP Note 2203930

Area	Symptom	Cause	Possible Solutions
SAP HANA content	You need to manually deploy SAP HANA objects and packages.	The automatic deployment to the SAP HANA repository of the target system has failed.	<ul style="list-style-type: none"> Search for the following sections in the product documentation of your SAP NetWeaver platform at https://help.sap.com/viewer/p/SAP_NETWEAVER: SAP HANA Transport for ABAP and Manually Deploying SAP HANA Objects and Packages. Follow the instructions. Execute transaction SCTS_HTA_DEPLOY for the manual deployment of SAP HANA content and consult the accompanying system documentation.
SAP HANA content	<p>You get any of the following errors:</p> <ul style="list-style-type: none"> <i>View "/AMR/..." does not exist in data base</i> <i>"DDL Source" "/AMR/..." could not be activated</i> <i>"DDL Source" "/DMF/DIST_..." could not be activated</i> 	The root cause is the usage of CDS (Core Data Services) on top of external views.	You can ignore the error messages and continue with the installation or upgrade process. For explanations, see SAP Note 2330184 .
SAP HANA content	You get the error <i>SQL Script message: invalid table name: Could not find table/view /AMR/V.</i>	The root cause is the usage of CDS (Core Data Services) on top of external views.	You can ignore the error messages and continue with the installation or upgrade process. For explanations, see SAP Note 2441184 .


Area	Symptom	Cause	Possible Solutions
SAP HANA content	You get the error <i>View with par. <CDS view name>: data element <data element> par. & does not exist or not active.</i>	A data element that is new or has been redefined is used in the new definition in a Core Data Services (CDS) view with parameters for the definition of a parameter. The system does not consider the dependency between data elements and the type definition of the parameters for views with parameters.	SAP Note 2289913
SAP HANA content	When doing ATC (ABAP Test Cockpit) checks of database objects or runtime objects, you get errors related to reference tables and reference fields: <ul style="list-style-type: none"> • Priority 1 error: <i>View <view_name> is not consistent</i> • Priority 1 error: <i><view_name-field> is not consistent</i> • Inconsistencies in fields related to reference tables and reference fields 	The system does not consider base information of the AMDP table function entity.	SAP Note 2374190
SAP HANA Platform	You cannot install the SAP HANA XS advanced (XSA) runtime. For example, you need XSA to use the Omnichannel Promotion Pricing (OPP) module in SAP Customer Activity Repository.	You cannot install XSA as long as SAP HANA dynamic tiering is active on the same host.	SAP Note 2388443

Area	Symptom	Cause	Possible Solutions
SAP HANA Platform	You are experiencing performance issues in the SAP HANA Platform.	Several causes are possible.	<ul style="list-style-type: none"> SAP Note 2600030 (Parameter Recommendations in SAP HANA Environments) SAP Note 2100040 (FAQ: SAP HANA CPU) SAP HANA Troubleshooting and Performance Analysis Guide for your SAP HANA Platform version under https://help.sap.com/viewer/p/SAP_HANA_PLATFORM
SAP HANA Platform	You want to perform an SAP HANA database analysis to investigate a complex issue. The information that you want to retrieve is not or is only partially available in standard tools (such as SAP HANA studio).	You need information on special SQL statements for such an analysis.	<p>SAP Note 1969700 (SQL Statement Collection for SAP HANA)</p> <div style="border: 1px solid #ccc; background-color: #f9f9f9; padding: 10px; margin-top: 10px;"> <p>i Note</p> <p>For additional troubleshooting and performance tips, see the FAQ: ... notes under References.</p> </div>
SAP HANA Platform	You are not sure if the installed SAP HANA revision is compatible with the installed SAP HANA studio version.	You need a list of the compatible revisions.	SAP Note 2375176 (SAP HANA Revisions and Compatible SAP HANA Studio Versions)

Area	Symptom	Cause	Possible Solutions
Hierarchies	You get errors when creating or updating location hierarchies and/or product hierarchies.	The system does not generate the flat structures for the hierarchies. You need to do some configuration steps so that the hierarchies get flattened automatically.	<ul style="list-style-type: none"> Follow the steps in Configure Automatic Flattening of Hierarchies [page 97]. See the following sections of the <i>SAP Customer Activity Repository Administration Guide</i> at https://help.sap.com/viewer/p/CARAB: <ul style="list-style-type: none"> Configure Demand Data Foundation (DDF) Configure Data Replication from SAP ERP to DDF
Hierarchies	You get errors when importing article hierarchies (product hierarchies) from your master data system.	A program error must be fixed.	<ul style="list-style-type: none"> SAP Note 2244521 SAP Note 2245134
Hierarchies	You want to know which locations are included in each version of an offer.	You can implement an easy enhancement for table <code>/DMF/OFR_LG_LOC</code> .	SAP Note 2208619
Hierarchies	An error occurs for a DDL SQL view when you execute the <code>CREATE VIEW</code> statement.	A program error must be fixed.	SAP Note 2377525
DRF data replication framework (transaction DRFOUT)	You have deleted a vendor from the <code>/DMF/D_VENDOR</code> table but this deletion is not replicated to the master data system.	A program error must be fixed.	SAP Note 1872136

Area	Symptom	Cause	Possible Solutions
DRF data replication framework (transaction DRFOUT)	You get an error when using the DRF with the PMPD SAP ERP outbound implementation.	A program error must be fixed.	<ul style="list-style-type: none"> SAP Note 1904782 SAP Note 2167629 See the application help for SAP Customer Activity Repository at https://help.sap.com/viewer/p/CARAB ▶ <Version> ▶ Application Help ▶ SAP Customer Activity Repository ▶ Demand Data Foundation ▶ Integration Information ▶ Master Data Replication from SAP ERP to Demand Data Foundation ▶
DRF data replication framework (transaction DRFOUT)	You get the error <i>Product &1, location &2: The Valid From time for &3 must be 00:00:00</i> (message 364 in message class /DMF/MSG_HL).	A program error must be fixed.	SAP Note 2163602
DRF data replication framework (transaction DRFOUT)	You have changed the listing information in your source master data system and replicated the changes to your SAP Customer Activity Repository system. However, the listing information there is not updated correctly.	A program error must be fixed.	SAP Note 1932525
Performance	You are experiencing performance issues in your SAP HANA database.	You need information on how to troubleshoot and resolve those issues and how to enhance performance in general.	See the <i>SAP HANA Troubleshooting and Performance Analysis Guide</i> under https://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ <Version> ▶ Administration ▶

Area	Symptom	Cause	Possible Solutions
Performance	You get a runtime error or exit message and need information about possible causes and solutions.	Different causes are possible.	Use the ABAP dump analysis (transaction ST22) to search for short dumps and call up detailed error information.
Performance	You are using the <i>Update Sales Projection</i> function in SAP Assortment Planning (workbooks <i>Product Planning</i> and <i>Size Planning</i>). You are experiencing performance issues when using the function with large data volumes.	You can enhance the performance by implementing an SAP Note.	SAP Note 2080423
OData	During the execution of an OData service based on SADL with CDS, an assertion fails in class <code>CL_SADL_SQL_STATEMENT</code> , method <code>EXECUTE_PREPARED_STATEMENT</code> . The OData request uses the system query option <code>\$count</code> .	The Core Data Services (CDS) view uses a table function that is not active in the database. The trigger that is supposed to activate it fails because of missing parameters if only <code>\$count</code> is queried.	SAP Note 238998
Support	You have a customer incident and need to set up a service connection to SAP.	You need information on how to set up the service connection.	<ul style="list-style-type: none"> SAP Note 35010 (overview) SAP Note 1634848 (service connection for SAP HANA database) SAP Note 1592925 (service connection for SAP HANA studio)
Source Master Data Systems	You get the error <i>SYSTEM_ABAP_ACCESS_DENIED</i> .	The error is caused by the "Blacklist Monitor" in SAP S/4HANA.	SAP Note 2249880
SAP Fiori	<ul style="list-style-type: none"> You want to start an SAP Fiori app for a key user and get the error <i>Application is not configured. Find details in SAP Note 2283716</i>. You want to activate extensibility for key users. 	You must set up the adaptation transport organizer (ATO) to be able to transport key user extensions.	SAP Note 2283716

Area	Symptom	Cause	Possible Solutions
SAP Fiori	You want to check the SAP Fiori version installed in your system.	There are several methods how you can check the version.	SAP Note 2282103 

Area	Symptom	Cause	Possible Solutions
SAP Fiori	You cannot open the <i>Analyze Forecast</i> app.	Several reasons are possible. See the checklist at the right and verify that the app is set up correctly.	<p>Use section Set Up the Analyze Forecast App [page 134] for reference and check the following:</p> <ol style="list-style-type: none"> 1. In transaction SE80, navigate to package UICAR001, subpackage UISCAR01. Check that the BSP Applications for the app (ANALYZFCST_V2) and the reuse library (UDFREUSE) are deployed. 2. In <i>Launchpad Customizing</i> (transaction LPD_CUST), check that the Internet Communication Framework (ICF) services for ANALYZFCST_V2 and for UDFREUSE are active. 3. Clear the cache on the server side by running the following reports in transaction SE38: <ul style="list-style-type: none"> ○ /UI5/ APP_INDEX_CALCULATE: Select <i>Single SAPUI5 Repository Only</i> and run the report once for ANALYZFCST_V2 and once for UDFREUSE. ○ /UI2/ INVALIDATE_GLOBAL_CACHES: Run this report in execution mode. ○ /UI2/ INVALIDATE_CLIENT_CACHES: Run

Area	Symptom	Cause	Possible Solutions
			<p>this report for all users.</p> <ol style="list-style-type: none"> 4. Clear the browser cache. 5. Check if you can now access the app.
Support	You have an issue that involves modeling and forecasting with the Unified Demand Forecast (UDF) module in SAP Customer Activity Repository. You cannot debug the issue yourself. You need assistance from SAP via a remote support session.	Various causes are possible. For example, the issue might be in the ABAP layer, the foundation component (ABAP foundation or SAP S/4HANA foundation), or in SAP HANA.	<p>For a successful remote support session, make sure that the required authorizations and debugging privileges for UDF are all set up. Otherwise, the support team cannot access your UDF system environment.</p> <p>See SAP Note 2920776.</p>

Troubleshoot Operation Issues

You also may experience issues during the day-to-day running of your application. For troubleshooting information, see the application-specific *Administration Guides* at <https://help.sap.com/viewer/p/CARAB>:

- *SAP Customer Activity Repository Administration Guide*: section *Troubleshooting for SAP Customer Activity Repository Modules*
- *SAP Allocation Management Administration Guide*: section *Troubleshooting*
- *SAP Assortment Planning Administration Guide*: section *Troubleshooting*
- *SAP Merchandise Planning Administration Guide*: section *Troubleshooting*
- *SAP Promotion Management Administration Guide*: section *Management of SAP Promotion Management*

Report a Customer Incident

- If you experience an issue with your back-end or front-end system, we recommend that you first search for existing solutions in the SAP Support Portal at <http://support.sap.com/>. There you can find SAP Notes (corrections), SAP Knowledge Base articles, and a wealth of information in the SAP Community.
- To view or report an incident, see again <http://support.sap.com/> and choose **My Support** > **Product Support** > **Report an Incident**.
- For more information on reporting incidents for SAP Customer Activity Repository, see the *Support Desk Management* section of the *SAP Customer Activity Repository Administration Guide*.

6.2 SAP Merchandise Planning

Post-installation of SAP Merchandise Planning .

i Note

Some of the activities in this section may have already been performed in the corresponding section under SAP Customer Activity Repository. Such activities do not need to be repeated during the setup and installation of consuming applications.

6.2.1 Perform Core Steps for SAP Customer Activity Repository

To set up this application, you must first perform the **Core (Mandatory)** steps for SAP Customer Activity Repository. The core steps are mandatory for all the consuming applications.

Procedure

Perform all steps listed under [Core \(Mandatory for All Applications\) \[page 76\]](#).

6.2.2 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 *Configure 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/ MPOC_CALC_SALES_KP I	▶ Cross-Application Components ▶ Merchandise Planning ▶ Enhancements Using Business Add-Ins ▶ BAdI: Calculate Sales KPIs for Retail and E-Comm Channel ▶	You use this BAdI to overwrite the logic and calculate the sales-related KPIs in case the default implementation is not suitable for the intended planning scenario.
/RAP/ MPOC_SALES_ORDER_K PIS	▶ Cross-Application Components ▶ Merchandise Planning ▶ Enhancements Using Business Add-Ins ▶ BAdI:	You use this BAdI to overwrite the logic to calculate the sales order and shipment related KPIs like sales-type revenue, cost, and unit. The KPIs that are related to the rejected and returned sales orders are calculated in case default implementation is not suitable for the intended planning scenario.

Technical Name	Customizing Path	Description
	<i>Calculation Sales Order and Shipment Related KPIs</i> >	
/RAP/ MPOC_PLANNABLE_L OCAT	► <i>Cross-Application</i> <i>Components</i> > <i>Merchandise</i> <i>Planning</i> > <i>Enhancements Using</i> <i>Business Add-Ins</i> > <i>BAdI:</i> <i>Calculate Inventory KPIs like BOP</i> <i>Units / Cost</i> >	You use this BAdI to overwrite logic to calculate the Beginning of Period inventory KPIs in case default implementation is not suitable for the intended planning scenario.
/RAP/ MPR_CALCULATE_ECC_ KPI	► <i>Cross-Application</i> <i>Components</i> > <i>Merchandise</i> <i>Planning</i> > <i>Enhancements Using</i> <i>Business Add-Ins</i> > <i>BAdI: ECC</i> <i>Calculate Open Qty, Goods</i> <i>Receipt and Returns KPI</i> >	You use this BAdI to overwrite logic in case default implementation is not suitable for the intended planning scenario.
/RAP/ MPR_CALCULATE_FMS_ KPI	► <i>Cross-Application</i> <i>Components</i> > <i>Merchandise</i> <i>Planning</i> > <i>Enhancements Using</i> <i>Business Add-Ins</i> > <i>BAdI: FMS</i> <i>Calculate Open Qty, Goods</i> <i>Receipt and Returns KPI</i> >	You use this BAdI to overwrite logic in case default implementation is not suitable for the intended planning scenario.
/RAP/ MPR_CALCULATE_S4H_ KPI	► <i>Cross-Application</i> <i>Components</i> > <i>Merchandise</i> <i>Planning</i> > <i>Enhancements Using</i> <i>Business Add-Ins</i> > <i>BAdI: S4H</i> <i>Calculate Open Qty, Goods</i> <i>Receipt and Returns KPI</i> >	You use this BAdI to overwrite logic in case default implementation is not suitable for the intended planning scenario.
/RAP/ MPR_COST_PRC_DETE RM	► <i>Cross-Application</i> <i>Components</i> > <i>Merchandise</i> <i>Planning</i> > <i>Enhancements Using</i> <i>Business Add-Ins</i> > <i>BAdI: Cost</i> <i>Determination for Receipt, Open</i> <i>Qty and Returns</i> >	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	► <i>Cross-Application</i> <i>Components</i> > <i>Merchandise</i>	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
	Planning > Enhancements Using 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_STORE_COMP_ DATA	Cross-Application Components > Merchandise Planning > Enhancements Using Business Add-Ins > BAdI: Extension to Store Comparability by Fiscal Period	You use this BAdI to calculate Location (Store Only) comparability by fiscal periods.
/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:

- ○ Working Version - M51

- Simulated Version - M52
- Released Version - M5R
- Final Version - M5F
- 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.

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.) in case the version is not being passed as part of the API call.
- 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 merchandise 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* ►.

6.2.3 Verify the Connection Between the SAP Merchandise Planning System and SAP Analysis for Microsoft Office

The SAP Merchandise Planning application includes several SAP Analysis for Microsoft Office workbooks. These workbooks, which are installed on your back-end system as part of the local BI Content, can only be opened using SAP Analysis for Microsoft Office.

In this step, you verify that you can open the SAP Merchandise Planning workbooks from SAP Analysis for Microsoft Office.

1. Open SAP Analysis for Microsoft Office from **Start > All Programs > SAP Business Intelligence > SAP BusinessObjects Analysis > Analysis for Microsoft Excel**.
2. From the *File* menu, select **Analysis > Open Workbook (Open Workbook from SAP NetWeaver)**.
3. Select your back-end system.
Tip: The list of systems corresponds to the systems available in your SAP Logon.
4. If single sign-on is not configured provide your user information.
5. Search for `/RAP/MP*` on the *Search* tab.
6. Open any of the workbooks from the list of SAP Merchandise Planning workbooks.
The opening of the workbook indicates that there are no issues with the connection between your back-end system and SAP Analysis for Microsoft Office.

6.2.4 Activate SAP Merchandise Planning Omnichannel BI Planning Framework Content

The planning framework used by SAP Merchandise Planning consists of the following elements:

- **Business Intelligence Content (BI Content) Objects:** A collection of local BI Content objects is used as the basis for the SAP Analysis for Microsoft Office workbooks.
SAP Analysis for Microsoft Office workbooks are designed to consume data from BI Content objects. The local BI Content objects that are provided with the SAP Merchandise Planning application use the integrated planning engine in SAP Business Warehouse (SAP BW). These local BI Content objects are used as an interface between the SAP HANA views and the SAP Analysis for Microsoft Office workbooks.

i Note

The local BI Content provided with the SAP Merchandise Planning application is entirely independent of the SAP Business Warehouse BI Content and BI Content Extensions add-on.

- **SAP Analysis for Microsoft Office Workbooks:** Microsoft Excel-based spreadsheets that you use to plan assortments for the different locations in your retail business.

This section of the guide provides information on the SAP HANA content activation, BI Content activation and configuration, and data upload activities required to set up the SAP Merchandise Planning planning framework.

6.2.4.1 Verify SAP HANA Content for SAP Merchandise Planning

Verify all SAP HANA Transport for ABAP (HTA) objects that are required for SAP Merchandise Planning application.

Prerequisites

As a mandatory prerequisite for a successful activation of SAP HANA content for SAP Merchandise Planning, you must have successfully completed all of the procedures listed in the previous sections of this guide as pertains to [▶ SAP Customer Activity Repository ▶ Core \(Mandatory for All Applications\) ▶](#). In particular, you must have created all the necessary tables, as described in [Create/Replicate Source Master Data System Tables \[page 84\]](#).

You must also have mapped all the necessary schemas, as described in [Verify Correct Schema Mapping \[page 41\]](#).

Context

In this procedure you perform the final activation of SAP HANA content (views and stored procedures) required by the SAP Merchandise Planning application. This final activation results in a **full** activation of the SAP HANA content for SAP Merchandise Planning. Several SAP HANA views depend on local BI Content objects. The SAP HANA views must be in active state before activating the BI Content objects as described in [Activate Application BI Content \[page 215\]](#).

For more information, see https://help.sap.com/viewer/p/SAP_HANA_PLATFORM, choose the *SAP HANA Developer Guide* and search for section *Activating Objects*.

Procedure

1. Log on to SAP HANA studio.
2. Open the *Modeler* and use the *Navigator* to access your back-end system.
3. Expand the *Content* folder located under your system name in the *Navigator*.
4. Expand the listed packages to verify the underlying folders listed below are active.

Based on the selected *ECC Mode* in the above report the following packages should exist:

- *SAP ERP*:
 - `sap.is.ddf.ecc`
- *Fashion Management*:
 - `sap.is.ddf.ecc`
 - `sap.is.ddf.fms`

- *S/4HANA*:
 - `sap.is.ddf.fms_s4h`
- 5. The following packages should exist resulting from the standard installation:
 - `sap.is.ddf.ddf`
 - `sap.is.retail.rap.ap`
 - `sap.is.retail.rap.common_bw`
 - `sap.is.retail.rap.mpr`
 - `sap.is.retail.rap.mpr_oc`

If any of these packages are missing, you must activate those relative to the order above due to dependencies. Use transaction `SCTS_HTA_DEPLOY` to activate each missing package, don't include sub-packages in case you decide to activate the above mentioned packages using this transaction .

6.2.4.2 Activate SAP Merchandise Planning Technical BI Content

Procedure

1. On your back-end system, open the Data Warehousing Workbench (transaction `RSA1`).
2. In the *Replicate Metadata* dialog box, choose *Only Activate*.
3. If a message appears that you are only authorized to work in client. (Brain 009), then refer to SAP Note [316923](#) (do not import the support package, but use the description under section *Workaround*).
4. Select *Do not show this question Again* in the dialog that appears.
5. Choose *Yes*.

Make sure that the current job has finished before you proceed with the next step. Check the status of the background job using transaction `SM37` or `SLG1`. If there are problems, you must first solve them.

You can use transaction `RSTCO_ADMIN` to restart the activation of the technical content and to verify the status of the activation.

i Note

In the case that you get the short-dump "RAISE_EXCEPTION" when installing InfoObjects from the BI content, see SAP Note [1637935](#) for a possible solution.

Also, see SAP Note [2090845](#) for important information on technical content activation.

Following activation, you can locate the technical content in the Data Warehousing Workbench as follows:

1. Selecting *Modeling* in the left-hand frame.
2. Expand *InfoObjects*.
3. In the right-hand frame, locate *Technical Content*.

6.2.4.3 Activate Application BI Content

Use

⚠ Caution

Proper authorization is required to complete these steps.

These instructions are to activate content for the InfoArea *Merchandise Planning Omni Channel* (/RAP/MPOC). This will activate the following object types:

- InfoObjects
- Advanced DataStore Objects (aDSO)
- Composite Providers
- Aggregation Levels
- Planning Sequences
- Queries
- Workbooks

After completing the activate sections, see the last section of this topic, *Verify Installed Objects* to insure all objects have been installed and activated.

Roles/Authorization

1. The application user running the activation/deployment should have the following roles:
 - SAP_ISR_DDF_MASTER
 - SAP_ISR_AP_MASTER
 - /RAP/BW_AP_WORKBOOKS
 - /RAP/BW_MPR_WORKBOOKS
2. The database user should have the following privileges/roles:
 - Privilege ROLE ADMIN
 - Privilege STRUCTUREDPRIVILEGE ADMIN
 - Privilege EXECUTE on procedure TRUNCATE_PROCEDURE_OBJECTS
 - Privilege EXECUTE on procedure GET_PROCEDURE_OBJECTS
 - Role CONTENT_ADMIN
 - Role USER
 - Privilege EXECUTE on procedure TRUNCATE_PROCEDURE_OBJECTS
 - Privilege EXECUTE on procedure GET_PROCEDURE_OBJECTS
3. Ensure that each SAP BW/HANA application user have at least the following set of privileges to activate BI contents:
 - 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 are created automatically when activating BI content

See [Perform Core Steps for SAP Customer Activity Repository \[page 207\]](#) to ensure all core mandatory steps are performed.

Activate Advanced DataStore Objects

i Note

A window being referenced, may be hidden. Use the *Data Warehousing Workbench* menu in the main window title bar to hide/unhide the following windows: *Navigation*, *All Objects*, and *Collected Objects*.

- Use transaction RSOR to launch the BW workbench BI Content.
- In the navigation window, locate and select *Object Types*. In the window *All Objects According to Types*, expand node *DataStore Objects (advanced)* and double click *Select Objects*. In the popup window, select the following objects and select button *Transfer Selections*.

DataStore Object (advanced)

aDSO Description	aDSO
Market Hierarchy CR based on Planning Configuration Set	/RAP/MHDS1
Market Hierarchy CR aDSO for LY and LLY	/RAP/MHDS2
aDSO for actuals of LY and LLY KPIs	/RAP/MPDS0
MP - Regional Month Sales Target for Omni Channel	/RAP/MPDS1
MP - Local Month Sales Inventory Targets for Retail and E-Co	/RAP/MPDS2
MP - Local Month Sales and Inventroy Targets for Wholesale	/RAP/MPDS3
Product Hierarchy CR based on Planning Configuration Set	/RAP/PHDS1
Product Hierarchy CR aDSO for LY and LLY	/RAP/PHDS2
Merchandise Plan YSCT Characteristic Relationship	/RAP/SCTDS

- Select *Yes* to the system prompt *Do you want to add the objects to the personal list*.
- When prompted for *Source System*, do not choose any and select *OK*.
- For each aDSO, right click on the object and select option *Install All Below*.
- *Install* and *Activate* each aDSO.

Activate Analysis Office Excel Workbooks 2.0

In this section you will continue from the above step and activate the workbooks. :

- From the left navigation panel for *BI Content* locate and expand folder *More Types*. Expand *Analysis Office Excel Workbook* and double click *Select Objects*. Use the filter in the popup window to define a filter on column *Object Name* having values of */RAP/MP_**.
In the pop up window, select the following objects and select button *Transfer Selections*.

Workbooks

Object Name
/RAP/MP_ECOM_PHN5_WB_01
/RAP/MP_OTB_OTS_PHN5_WB_01
/RAP/MP_OTB_OTS_PHN5_WB_02
/RAP/MP_RTL_PHN5_WB_01
/RAP/MP_RT_PHN5_M_WB_01
/RAP/MP_RT_PHN7_WB_01
/RAP/MP_RT_SSN_PHN5
/RAP/MP_WHS_PHN5_M_WB_01

- Select *Yes* to the system prompt *Do you want to add the objects to the personal list*.
- For each workbook, right click and select option *Install All Below*.
- *Install* and *Activate* each workbook.

Activate Planning Sequence

In this section you will activate the Planning Sequence, Planning Function used for loading last year actual data, From the left navigation panel for *BI Content* locate and select *Object Types*. In the *All Objects According to Type* window, perform the following:

- Locate and expand *Planning, Planning Sequence*.
 1. Planning Sequences that begin with the value */RAP/C15A* belong to the Merchandise Planning 4.0 application and should be activated.
 2. Double click *Select Objects* and use the filter in the popup window to define a filter on column *Object Name* having values of */RAP/MPDS** **or** */RAP/MHDS**. In the results, use the *Transfer Selections* button to transfer the planning sequences listed in the table below to the *Collected Objects*, then Install.

Planning Sequence

Planning Sequence
/RAP/MHDS2_A3_PS01

Planning Sequence

/RAP/MHDS2_A3_PS02

/RAP/MPDS0_A0_PS01

/RAP/MPDS0_A0_PS02

/RAP/MPDS0_A0_PS03

/RAP/MPDS0_A2_PS01

/RAP/MPDS1_A1_PS01

/RAP/MPDS1_A1_PS02

Verify Installed Objects

Verify the installed objects exist using the associated tables below.

DataStore Object (advanced)

aDSO Description	aDSO
Market Hierarchy CR based on Planning Configuration Set	/RAP/MHDS1
Market Hierarchy CR aDSO for LY and LLY	/RAP/MHDS2
aDSO for actuals of LY and LLY KPIs	/RAP/MPDS0
MP - Regional Month Sales Target for Omni Channel	/RAP/MPDS1
MP - Local Month Sales Inventory Targets for Retail and E-Co	/RAP/MPDS2
MP - Local Month Sales and Inventroy Targets for Wholsale	/RAP/MPDS3
Product Hierarchy CR based on Planning Configuration Set	/RAP/PHDS1
Product Hierarchy CR aDSO for LY and LLY	/RAP/PHDS2
Merchandise Plan YSCT Characteristic Relationship	/RAP/SCTDS

InfoObject Catalog (RAP)

Catalog Description	Catalog Name
RAP Character InfoObject Catalog	/RAP/CHAR_CAT
RAP Key Figure InfoObject Catalog	/RAP/KYF_CAT

InfoObjects Characteristics

InfoObject Description	InfoObject Name
Logical System ID	/RAP/LOGSYS
Planning Configuration Node	/RAP/PLCND
Planning Configuration Set	/RAP/PLCSET
Market Hierarchy Node on Level 1	/RAP/PLNHN1
Market Hierarchy Node on Level 2	/RAP/PLNHN2
Market Hierarchy Node on Level 3	/RAP/PLNHN3
Market Hierarchy Node on Level 4	/RAP/PLNHN4
Market Hierarchy Node on Level 5	/RAP/PLNHN5
Market Hierarchy Node on Level 6	/RAP/PLNHN6
Market Hierarchy Node on Level 7	/RAP/PLNHN7
Market Hierarchy Node on Level 8	/RAP/PLNHN8
Market Hierarchy Node on Level 9	/RAP/PLNHN9
Market Hierarchy	/RAP/PLNHR
Planning Process Level	/RAP/PLPLVL
Markdown Sales Revenue	/RAP/MRKDRV
Markdown Sales Units	/RAP/MRKDSU
Product Hierarchy Node on Level 1	/RAP/PRDHN1
Product Hierarchy Node on Level 2	/RAP/PRDHN2
Product Hierarchy Node on Level 3	/RAP/PRDHN3
Product Hierarchy Node on Level 4	/RAP/PRDHN4
Product Hierarchy Node on Level 5	/RAP/PRDHN5
Product Hierarchy Node on Level 6	/RAP/PRDHN6
Product Hierarchy Node on Level 7	/RAP/PRDHN7
Product Hierarchy Node on Level 8	/RAP/PRDHN8
Product Hierarchy Node on Level 9	/RAP/PRDHN9
Product Hierarchy	/RAP/PRDHR
Promotion Sales Revenue	/RAP/PROMRV
Promotion Sales Units	/RAP/PROMSU
Returns Revenue Loss	/RAP/RETRRV
Regular Sales Revenue	/RAP/RSLSRV
Regular Sales Units	/RAP/RSLSUN
Collection	/RAP/SCOLL
Sales Cost	/RAP/SLSCV
Sales Revenue	/RAP/SLSRV

InfoObject Description	InfoObject Name
Sales Units	/RAP/SLSUN
Season	/RAP/SSEAS
Season Year	/RAP/SSYR
Theme	/RAP/STHEME
Version	/RAP/VERSN

InfoObjects Key Figures

InfoObject Description	InfoObject Name
BOP DC Excess Stock at Cost	/RAP/BDEXCV
BOP DC Stock at Cost	/RAP/BDCCV
BOP Store Stock at Cost	/RAP/BSTCV
Channel Count	/RAP/CHCNT
End of Period Stock DC Cost Value	/RAP/EDCCV
EOP DC Excess Stock at Cost	/RAP/EDEXCV
EOP Store Stock at Cost	/RAP/ESTCV
Inventory Adjustment at Cost	/RAP/IADCV
Markdown Budget	/RAP/MRKBUD
Markdown Sales Revenue	/RAP/MRKDRV
Markdown Sales Units	/RAP/MRKDSU
Month Of Supply Store	/RAP/MOSUP
Month Of Supply at DC	/RAP/MOSUPD
On Order Cost DC	/RAP/DCOCV
On Order Units DC	/RAP/DCOUN
On Order Units Store	/RAP/ONOUN
On Order Cost Store	/RAP/ONOCV
Open Sales Order Cost	/RAP/SOOCV
Open Sales Order Units	/RAP/SOOUN
Open to Sale at Cost	/RAP/OTSC

InfoObject Description	InfoObject Name
OTB at Cost	/RAP/OTBC
Promotion Budget	/RAP/PROBUD
Promotion Sales Revenue	/RAP/PROMRV
Promotion Sales Units	/RAP/PROMSU
Receipt DC at Cost	/RAP/RDCCV
Receipt Store at Cost	/RAP/RDTCV
Receipt Units DC	/RAP/RCPUND
Receipt Units Store	/RAP/RCPUNS
Regular Sales Revenue	/RAP/RSLSRV
Regular Sales Units	/RAP/RSLSUN
Return Units DC	/RAP/DCREUN
Return Units Store	/RAP/RETRUN
Returns at Cost DC	/RAP/DCRECV
Returns at Cost Store	/RAP/RETRCV
Returns Revenue Loss	/RAP/RETRRV
Sales at Cost	/RAP/SLSCV
Sales Order Intake Revenue	/RAP/SOIRV
Sales Order Rejection Cost	/RAP./SORCV
Sales Order Rejection Units	/RAP/SORUN
Sales Revenue	/RAP/SLSRV
Sales Store Fulfilled at Cost	/RAP/STSCV
Sales Units	/RAP/SLSUN
Shipment Fulfilled at Cost	/RAP/SHPCV
Write Off Adjustment at Cos	/RAP/WOFFAD

Composite Providers

Composite Provider Description	Composite Provider
Merchandise Financial Plan Omni Channel	/RAP/CP15

Aggregation Levels

Aggregation Description	Aggregation Name
MP Regional Targets Sales Mix - PHN 5	/RAP/C15A01
MP Regional Targets SSN Sales Mix - PHN 5	/RAP/C15A02
MP Regional Targets SSN Sales Mix - PHN 7	/RAP/C15A03
MP Local Targets - ECommerce - Sales Mix - PHN 5	/RAP/C15A11
MP Local Targets - ECommerce - Sales Mix - PHN 5 - PF	RAP/C15A12
MP Local Targets - Retail - Sales Mix - PHN 5	/RAP/C15A21
MP Local Targets - Retail - Sales Mix - PHN 5 - PF	/RAP/C15A22
MP Local Targets - WHS - Sales Mix - PHN 5	/RAP/C15A31
MP Local Targets - WHS - Sales Mix - PHN 5 - PF	/RAP/C15A32
MP - OTB - Retail - ECom - WHS	/RAP/C15A41
AL for Market Hier CR for LY and LLY	/RAP/MHDSA2
Product Hierarchy CR based on Planning Configuration Set	/RAP/PHDSA1
SCT CR based on Planning Configuration Set	/RAP/SCTDA1
AL for Product Hier CR for LY and LLY	/RAP/PHDSA2
Market Hierarchy Aggregation Level	/RAP/MHDSA1
AL for Actuals of LY and LLY KPIs	/RAP/MPDSA0

Planning Sequence

Workbook	Function	Planning Sequence
1.1 Regional Monthly Plan	Planning sequence for Ribbon in AO	/RAP/C15A01_PS00
1.1 Regional Monthly Plan	Delete	/RAP/C15A01_PS01
1.1 Regional Monthly Plan	Release	/RAP/C15A01_PS02
1.1 Regional Monthly Plan	Copy	/RAP/C15A01_PS03
1.1 Regional Monthly Plan	Bottom Up	/RAP/C15A01_PS04

Workbook	Function	Planning Sequence
1.2 Regional Seasonal Plan	Planning sequence for Ribbon in AO	/RAP/C15A02_PS00
1.2 Regional Seasonal Plan	Delete	/RAP/C15A02_PS01
1.2 Regional Seasonal Plan	Release	/RAP/C15A02_PS02
1.2 Regional Seasonal Plan	Top Down	/RAP/C15A02_PS03
1.2 Regional Seasonal Plan	Copy	/RAP/C15A02_PS04
1.2 Regional Seasonal Plan	Bottom Up	/RAP/C15A02_PS05
1.3 Regional Seasonal Plan	Planning sequence for Ribbon in AO	/RAP/C15A03_PS00
1.3 Regional Seasonal Plan	Delete	/RAP/C15A03_PS01
1.3 Regional Seasonal Plan	Release	/RAP/C15A03_PS02
1.3 Regional Seasonal Plan	Top Down	/RAP/C15A03_PS03
1.3 Regional Seasonal Plan	Copy	/RAP/C15A03_PS04
4.1 Ecommerce Monthly Plan	Planning sequence for Ribbon in AO	/RAP/C15A12_PS00
4.1 Ecommerce Monthly Plan	Delete	/RAP/C15A12_PS01
4.1 Ecommerce Monthly Plan	Release	/RAP/C15A12_PS02
4.1 Ecommerce Monthly Plan	Copy	/RAP/C15A12_PS03
4.1 Ecommerce Monthly Plan	Top Down	/RAP/C15A12_PS04
4.1 Ecommerce Monthly Plan	Initialize BOP - M	/RAP/C15A12_PS05
4.1 Ecommerce Monthly Plan	Re-calculate BOP	/RAP/C15A12_PS06
4.1 Ecommerce Monthly Plan	Initialize BOP - T	/RAP/C15A12_PS07
4.1 Ecommerce Monthly Plan	Initialize BOP - P	/RAP/C15A12_PS08
2.1 Retail Monthly Plan	Planning sequence for Ribbon in AO	/RAP/C15A22_PS00
2.1 Retail Monthly Plan	Delete	/RAP/C15A22_PS01
2.1 Retail Monthly Plan	Release	/RAP/C15A22_PS02
2.1 Retail Monthly Plan	Copy	/RAP/C15A22_PS03
2.1 Retail Monthly Plan	Initialize BOP - M	/RAP/C15A22_PS04
2.1 Retail Monthly Plan	Top Down	/RAP/C15A22_PS05

Workbook	Function	Planning Sequence
2.1 Retail Monthly Plan	Initialize BOP - T	/RAP/C15A22_PS06
2.1 Retail Monthly Plan	Initialize BOP - P	/RAP/C15A22_PS07
2.1 Retail Monthly Plan	Re-calculate BOP	/RAP/C15A08_PS08
3.1 Wholesale Monthly Plan	Planning sequence for Ribbon in AO	/RAP/C15A32_PS00
3.1 Wholesale Monthly Plan	Delete	/RAP/C15A32_PS01
3.1 Wholesale Monthly Plan	Release	/RAP/C15A32_PS02
3.1 Wholesale Monthly Plan	Copy	/RAP/C15A32_PS03
3.1 Wholesale Monthly Plan	Top Down	/RAP/C15A32_PS04
3.1 Wholesale Monthly Plan	Initialize BOP - M	/RAP/C15A32_PS05
3.1 Wholesale Monthly Plan	Initialize BOP - T	/RAP/C15A32_PS06
3.1 Wholesale Monthly Plan	Initialize BOP - P	/RAP/C15A32_PS07
3.1 Wholesale Monthly Plan	Re-calculate BOP	/RAP/C15A32_PS08
5.1 OTB & OTS Reconciliation	Planning sequence for Ribbon in AO	/RAP/C15A41_PS00
5.1 OTB & OTS Reconciliation	MP - OTB - Reconciliation	/RAP/C15A41_PS01
5.1 OTB & OTS Reconciliation	MP - OTB - Reconciliation - Finalize	/RAP/C15A41_PS02
5.2 OTB & OTS Reconciliation - Season	Planning sequence for Ribbon in AO	/RAP/C15A42_PS00
5.2 OTB & OTS Reconciliation - Season	MP - OTB - Reconciliation	/RAP/C15A42_PS01
5.2 OTB & OTS Reconciliation - Season Final	MP - OTB - Reconciliation - Finalize	/RAP/C15A42_PS02

Queries

Query Name	Technical Name
MP - Regional Targets - Prompt Query - PHN5	/RAP/CP15A01_Q01
MP - Regional Targets - Sales Mix - PHN5	/RAP/CP15A01_IRQ01
MP - Regional Targets - Season Prompt Query - PHN5	/RAP/CP15A02_Q01
MP - Regional Targets - Season Flow - PHN5	/RAP/CP15A02_IRQ00
MP - Regional Targets - Season Sales Mix - PHN5	/RAP/CP15A02_IRQ01

Query Name	Technical Name
MP - Regional Targets - Season Flow Chart - PHN5	/RAP/CP15A02_Q00
MP - Regional Targets - Season Flow - PHN7	/RAP/CP15A03_IRQ00
MP - Regional Targets - Season Sales Mix - PHN7	/RAP/CP15A03_IRQ01
MP - Regional Targets - Season Flow Chart - PHN7	/RAP/CP15A03_Q00
MP - Regional Targets - Prompt Query - PHN7	/RAP/CP15A03_Q01
MP - Local Targets - ECom - Sales Mix - PHN5	/RAP/CP15A11_IRQ01
MP - Local Targets - ECom - Inventory Mix - PHN5	/RAP/CP15A11_IRQ02
MP - Local Targets - ECom - Prompt Query - PHN5	/RAP/CP15A11_Q01
MP - Local Targets - Rtl - Sales Mix - PHN5	/RAP/CP15A21_IRQ01
MP - Local Targets - Rtl - Inventory Mix - PHN5	/RAP/CP15A21_IRQ02
MP - Local Targets - Rtl - Prompt Query - PHN5	/RAP/CP15A21_Q01
MP - Local Targets - WHS - Sales Mix - PHN5	/RAP/CP15A31_IRQ01
MP - Local Targets - WHS - Inventory Mix - PHN5	/RAP/CP15A31_IRQ02
MP - Local Targets - WHS - Prompt Query - PHN5	/RAP/CP15A31_Q01
MP - OTB Reconciliation Report - Prompt Query	/RAP/CP15_Q001
MP - OTB Reconciliation Report	/RAP/CP15_Q01
MP - OTB Reconciliation Season Prompt Query	/RAP/CP15_Q002
MP - OTB Reconciliation Report - Season	/RAP/CP15_Q02

Workbooks

Workbook Description	Workbook Technical Name
1.1 Regional Monthly Plan	/RAP/MP_RT_PHN5_M_WB_01
1.2 Regional Seasonal Plan	/RAP/MP_RT_SSN_PHN5
1.3 Regional Seasonal Plan	/RAP/MP_RT_PHN7_WB_01
2.1 Retail Monthly Plan	/RAP/MP_RTL_PHN5_WB_01
3.1 Wholesale Monthly Plan	/RAP/MP_WHL_PHN5_M_WB_01
4.1 Ecommerce Monthly Plan	/RAP/MP_ECOM_PHN5_WB_01

Workbook Description	Workbook Technical Name
5.1 OTB & OTS Reconciliation	/RAP/MP_OTB_OTS_PHN5_WB_01
5.2 OTB & OTS Seasonal Reconciliation	/RAP/MP_OTB_OTS_PHN5_WB_02

Change aDSO Behavior

You must change the loading behavior for each aDSO. Select the InfoProvider node under Modeling. Locate the central InfoProvider column and expand the ► *Merchandise Planning Omni Channel* ► change the loading behavior for each aDSO. To change the loading the behavior, locate each object in the DataStore (advanced) table above and then right click to select ► *Planning-Specific Properties* ► *Change Real-Time Load Behavior*. ► Select radio button *Real-Time Target Can Be Planned; Data Loading Not Allowed*.


6.2.4.4 Configure SAP Merchandise Planning Local BI Content

6.2.4.4.1 Enable the Planning Application Kit (PAK)

Use

To be able to use the SAP Analysis for Microsoft Office workbooks provided as part of the SAP Assortment Planning planning framework content, you must enable the Planning Application Kit.

Procedure

1. Read SAP Note [1637199](#) .
2. In your back-end system, launch table/view maintenance (transaction SM30).
3. Enter `RSPLS_HDB_ACT` in the *Table/View* field and choose *Maintain*.
4. Choose *New Entries*.
5. In the *HANA Integration Active* column select **Deep HANA Integration Active** and in the *Function Active* column, enable the checkbox.

6.2.4.4.2 Maintain RSADMIN Parameter for Input Cells

In this procedure, you maintain the `RSADMIN` parameter for Input Cells in the SAP BW application to suppress zero values for actual data versions.

1. Log on to your back-end system.
2. Open the *ABAP Editor* (transaction SE38).
3. Run program **SAP_RSADMIN_MAINTAIN**
4. In RSAD Table Maintenance, insert ZERO_SUPPRESSION_ON_INPUTCELLS in OBJECT and Execute.

i Posting Instructions

Refer to [1126478](#) 

for further information.

6.2.4.4.3 Generate Missing Data Reports

Use

There are two reports required to populate supporting tables for *SAP Merchandise Planning for Omnichannel 2.0* and above.

Procedure

The first report will generate entries for /RAP/RS_VARCUSTS table.

- Use transaction code. SE38 and enter /RAP/SEED_BW_CUSTOMIZING_DATA in the *Program* field. Use the Execute button to run the report.

6.2.4.4.4 Maintain Fiscal Year Variants

Use

In this section you maintain the required fiscal year variant values for the Retail Month (RM) and the Retail Week (RW). These instructions are for SAP Merchandise Planning 1.0 FP2 or later. In addition, the years used in the examples are to depict the relationship between the years. You will need to create the range of years applicable for your implementation.

Caution

SAP Merchandise Planning uses activated time objects OFISCPER (fiscal year period) and OFISCVARNT (fiscal year variant), provided as part of the technical BI Content. If you are supporting both Retail Week and Month Variants, begin with the RW procedure and then RM thereafter.

i Note

SAP Merchandise Planning 1.0 Workbooks supports time hierarchy YR/MON. For more information please see [Maintain Time Hierarchy \[page 236\]](#).

Related Information

[Retail Weekly \[page 228\]](#)

[Retail Monthly \[page 230\]](#)

6.2.4.4.1 Retail Weekly

In this procedure you maintain the required fiscal year variant (`0FISCVARNT 'RW'`).

The steps provided in this procedure allow you to maintain `0FISCVARNT 'RW'` using the standard 4-5-4 calendar entries. If you are using alternative fiscal periods in your retail business, for example, each week starting on a Sunday instead of Saturday, you can provide your own entries instead of the ones suggested in this guide.

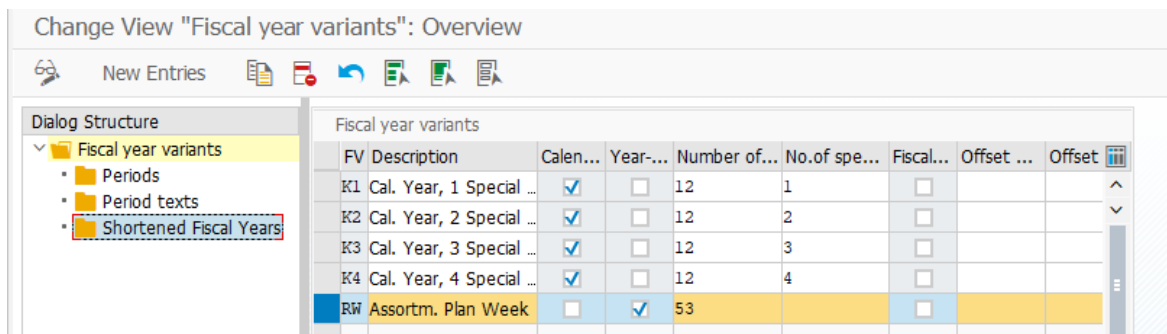
Procedure

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose *New Entries*.
4. On the *New Entries: Overview of Added Entries* screen make the following sets of entries:

Fiscal year variants						
FV	Description	Year-depen...	Calendar yr	Number of postin...	No.of special peri	
RW	Assort. Plan Week	<input checked="" type="checkbox"/>	<input type="checkbox"/>	53		

Create New Fiscal Year Variant

5. Choose *Enter*.
An information message is displayed about creating more than 16 periods, choose *Continue*.
6. Choose *Back*.
You can see the newly created entry.
7. Mark the entry *RW* and select *Shortened Fiscal Years* from the *Dialog Structure*.



Shortened Fiscal Years in Dialog Structure

8. In the *Fiscal year* dialog, enter the year (for example, **2015**) in the *Fiscal year* field and choose *Continue*.
9. On the *Change View "Shortened Fiscal Years": Overview* screen, choose *New Entries*.
10. In the *Shortened Fiscal Years* table, enter **52** in the *No. of posting periods* field.
11. Choose *Back* twice.
12. On the *Change View "Fiscal Year variants": Overview* screen, mark the entry *RW* and select *Periods* from the *Dialog Structure*.
13. In the *Calendar yr* dialog, enter the year (for example, **2015**) in the *Calendar yr* field and choose *Continue*. Data for the previous year must be maintained.
14. On the *Change View "Periods": Overview* screen, choose *New Entries*.
15. In the *Periods* table, enter the data (month, day, period, year shift) for each period according to your fiscal calendar. For an example, see the following table. For more examples, see SAP Note [2112634](#). If you want to copy data from this note, locate the required year and enter the data by copy-and-paste.

2015 Weekly Calendar

Month	Day	Period	Year Shift
1	3	48	-1
1	10	49	-1
1	17	50	-1
1	24	51	-1
1	31	52	-1
2	7	1	0
2	14	2	0
...

16. Repeat steps 7-15 to maintain the weekly fiscal year variant for all of the required years, entering each year as shortened fiscal year. The corresponding tables are available in SAP Note [2112634](#).
17. Choose *Save*.
18. Launch transaction `RSRHIERARCHYVIRT` and ensure that the dates specified in the *From* and *To* fields under *Time Interval* cover the years maintained for the fiscal year variant in the previous steps.

6.2.4.4.2 Retail Monthly

In this section, you maintain the required fiscal year variant values for the fiscal month, 'RM'.

Procedure

Fiscal Variant Retail Month

You must maintain `OFISCVARNT 'RM'` using the standard 12 month calendar entries. If you are using alternative fiscal periods in your business, you can provide your own entries instead of the ones suggested in this guide.

1. Log on to your back-end system.
2. Launch the fiscal year variant maintenance (transaction `GVAR`). Choose [New Entries](#).
3. In the [Fiscal Year Variants](#) view, choose [New Entries](#).
4. On the [New Entries: Overview of Added Entries](#) screen make the following sets of entries:

Field Name	User Entry
FV	RM
Description	Planning month
Calendar yr	Do not select
Year-dependent	Select
Number of period postings	12
No.of special periods	

5. Choose [Enter](#).
6. Choose [Back](#).
You can see the newly created entry.
7. Mark the entry **RM** and select [Periods](#) from the [Dialog Structure](#) and double click to open the [Calendar year](#) dialog.
8. Enter the year, for example **2014**, in the [Calendar yr](#) field and choose [Continue](#).
9. Choose [New Entries](#). For the year selected to enter the information that will define each period.
10. Enter the last valid calendar date of the period being added in the [Month and Day](#) fields.
11. Enter the relevant [Period](#) number.
12. In the [Year Shift](#) field, enter +1 if the fiscal year is later than the calendar year enter. Enter -1 if the fiscal year is before the calendar year.

13. Press *Enter* to accept the first row.
14. Continue adding each period to complete the fiscal year. Choose *Save* after you have finished the entries for a year.
15. Continue adding the fiscal year variants for each year required by your scenario by repeating steps 2-13.
16. For more information about setting up the calendar for additional years, see SAP Note [2112634](#). Note that this SAP Note is applicable for both SAP Merchandise Planning and SAP Assortment Planning.
17. Choose *Save* after you have finished the maintenance for the last year.

Example: If the current year is 2020, you can maintain fiscal year variant values for the previous three years and future three years.

Past fiscal year variant values for Retail Month

2017				2018				2019			
Month	Day	Period	Year Shift	Month	Day	Period	Year Shift	Month	Day	Period	Year Shift
12	31	11	-1	1	6	11	-1	1	5	11	-1
1	4	12	-1	1	3	12	-1	2	2	12	-1
2	4	1	0	3	3	1	0	2	2	1	0
4	8	2	0	4	7	2	0	4	6	2	0
5	6	3	0	5	5	3	0	5	4	3	0
6	3	4	0	6	2	4	0	6	1	4	0
7	8	5	0	7	7	5	0	7	6	5	0
8	5	6	0	8	4	6	0	8	3	6	0
9	2	7	0	9	1	7	0	8	31	7	0
10	7	8	0	10	6	8	0	10	5	8	0
11	4	9	0	11	3	9	0	11	2	9	0
12	31	10	0	12	1	10	0	11	30	10	0
12	31	11	-1	12	31	11	0				

Future fiscal year variant values for Retail Month

2021				2022				2023			
Month	Day	Period	Year Shift	Month	Day	Period	Year Shift	Month	Day	Period	Year Shift
1	2	11	-1	1	1	11	-1	1	1	11	-1
1	30	12	-1	1	29	12	-1	1	29	12	-1
2	27	1	0	2	26	1	0	2	26	1	0
4	3	2	0	4	2	2	0	3	26	2	0
5	1	3	0	4	30	3	0	4	30	3	0
5	29	4	0	5	28	4	0	5	28	4	0
7	3	5	0	7	2	5	0	6	25	5	0
7	31	6	0	7	30	6	0	7	30	6	0
8	28	7	0	8	27	7	0	8	27	7	0
10	2	8	0	10	1	8	0	9	24	8	0
10	30	9	0	10	29	9	0	10	29	9	0
11	27	10	0	11	26	10	0	11	26	10	0
12	31	11	0	12	31	11	0	12	31	11	0

6.2.4.4.5 Generate Time Relations Data for Planning based on the Fiscal Calendar

Use

Execution of the `RSR_TIME_RELATION_HDB` report is required to populate supporting tables for the time relations data for planning based on the fiscal calendar.

Prerequisite

This report requires that fiscal calendars are currently maintained for the fiscal variants that are expected to be used for planning.

Procedure

The report will generate entries for the `RSR_REL_TIME_FIS` table and the `RSR_TIME_REL_FIS` table.

Use transaction code **SE38** and enter `RSR_TIME_RELATION_HDB` in the program field. Use the *Execute* button to run the report.

6.2.4.4.6 Maintain Versions

In this step, you maintain the master data for the InfoObject `/RAP/VERSN` to support versions in workbooks.

1. Launch HANA Studio, and open perspective BW Modeler. Open your BW Project and expand *BW Repository*. Navigate to `/RAP/MPOC > Aggregation Level`. Expand any object built on `/RAP/C15A*` and navigate to a query. Open the query and navigate to the *InfoProvider* tab.
2. Expand `InfoProvider Fields > General`. Open field `/RAP/VERSN`. In the *Properties* tab select the *Master Data* link.
3. You are on the *Change Master Data of InfoObject /RAP/VERSN* maintenance screen.
4. Select the section below matching the scenario of workbooks you will be using to enter the correct information.
Be sure to save your entries and close the window.

Merchandise Planning 2.0 and Above

The default workbooks are planned at product hierarchy node levels 5 and 7. Entries for those are listed in the table below. For more information about versions see <https://help.sap.com/viewer/p/CARAB> `<Version>` `>` *Administration* `>` *SAP Merchandise Planning Administration Guide* `>` *Configuration Information* `>` *Configure SAP Merchandise Planning* `>` *Implementation Tasks* `>`.

Merchandise Planning Versions 2.0

Version	Text
M51	Working Version
M52	Simulation Version
M5F	Finalized Version
M5R	Reporting Version
M71	Working Version
M72	Simulation Version
M7F	Finalized Version
M7R	Reporting Version
0	Actuals

6.2.4.4.7 Activate Internet Communication Framework (ICF) Services

For security reasons, all Internet Communication Framework (ICF) services relevant to your SAP Merchandise Planning application are made available in an inactive state.

In this procedure, you activate the ICF service.

1. Log on to your back-end system.
2. Open the *HTTP Service Hierarchy Maintenance* screen (transaction `SICF`).
3. Enter the following data:

Field name	User action and values
Hierarchy Type	SERVICE

4. Choose *Execute*.
5. On the *Maintain Service* screen, expand the hierarchy of `Default_host`.
6. Expand SAP.
7. Select the **BW** entry.
8. From the context menu choose *Activate* service.
9. In the confirmation dialog box, choose *Yes* to activate all sub-nodes below the **BW** node in the hierarchy.
10. Choose Back.

6.2.4.4.8 Connect File System in SAP BW (Optional)

In this procedure, you perform the settings that are necessary for the connectivity for an external system - PC files on the Workstation (for example Excel files) or files on the application server in SAP BW.

1. Log on to your back-end system.
2. Open the *Data Warehouse Workbench: Modeling* screen (transaction `RSA1`).
3. Choose *Modeling*.
4. Choose *Source Systems*.
5. In the right-hand frame, mark the entry *File*.
6. Right-click the folder of *File*.
7. Choose *Create*.
8. Enter the following data:

Field name	User action and values
Logical system name	FILE
Source system name	FILE

9. Choose Continue.

10. Right-click the **FILE** Source System.
11. Follow the context menu path *Activate*.

6.2.4.4.9 SAP Merchandise Planning for Retail 1.0 Workbooks

These steps are for users who are choosing to continue using the SAP Merchandise Planning for Retail 1.0 workbooks.

6.2.4.4.9.1 Retail Version 1.0 Workbooks

You may choose to use the original retail workbooks contained in this configuration.

The following topics are not used in SAP Merchandise Planning 2.0 FP2. If you are configuring for the 1.0 workbooks you must complete these next topics.

[Create Geographical Location Hierarchies \[page 236\]](#)

[Maintain Article and Geographical Hierarchy \[page 242\]](#)

[Reporting Currency for Geo Hierarchy Level 2 \[page 242\]](#)

6.2.4.4.9.1.1 Maintain BEX Variables

In this step, you maintain the variables `/RAP/HIEID_MSM_01` and `/RAP/UNIT_MSM_01`. To do this launch the *Query Designer* and follow the steps below.

1. Log in to the system desired and select the *Open query* icon. In the prompt, search the *InfoAreas* for *Merchandise, Financial Planning for Retail* and select.
2. Open query *Channel Mix - query/PF* (`/RAP/CP11A02_IRQ01`).
3. In the *Filter* panel, *Characteristic Restrictions* and select *Hierarchy ID* and expand. Choose the variable *Hierarchy ID* beneath to focus the value in the *Properties* panel.
4. Select the *Default Values* tab and enter the same hierarchy id used in the Customizing activity.
5. Return to the *Filter* panel, *Characteristic Restrictions* and select *Unit of Measure* and expand. Choose the variable *Unit of Measure* beneath to focus the value in the *Properties* panel.
6. Select the *Default Values* tab and enter the value 'PC' to represent the default unit of measure value for pieces.
7. Save the Query and exit.

6.2.4.4.9.1.2 Create Geographical Location Hierarchies

i Note

This step is relevant to *SAP Merchandise Planning for Retail* versions prior to SAP Merchandise Planning 2.0 FP2.

SAP Merchandise Planning for Retail supports up to 2 levels of geographical location hierarchies. For example, you create the first level for the world regions, the second level for countries, and then the location hierarchy. The location hierarchy node assigned to a geographical location hierarchy must be a distribution chain hierarchy (DC), which is a type 04 or a promotion location hierarchy which is a type 05.

Do the following steps to create a geographical location hierarchy:

1. Log in to the application server using SAP GUI and execute transaction code NWBC.
2. Select the *Services* menu.
3. In the left navigation menu select ► *Location Services* ► *Location Hierarchy* ►. In the POWL menu on the right, select the *Create* button, then *Market Hierarchy* in the dropdown.
4. Enter the location hierarchy name, description and the master data system for your new geographical location hierarchy.
5. Select the *Editor* tab.

i Note

- The *Location* and *Import* tabs are disabled.

Enter or search for the distribution chain location hierarchy or promotion location hierarchy that you want to add to your geographical location hierarchy.

6. Add the desired DC location hierarchy or promotion location hierarchy to your geographical location hierarchy. You may have either or both types of hierarchies added to the same geographical location hierarchy node.
7. Save your entries.

In the example below you have two level 2 hierarchies. The level 3 hierarchies are the actual distribution chain location hierarchies and/or promotion location hierarchies that were selected (created in a previous activity).

- GLOBAL (GEOLEVEL1)
 - NORTH_AMERICA (GEOLEVEL2)
 - DC Hierarchy for Sales Org/Dist. Channel XYZ (GEOLEVEL3)
This will assign all locations for the sales org / distribution channel XYZ to North America's node.
 - Promotion location hierarchy PL123 (GEOLEVEL3)
This will assign all locations for the promotion location hierarchy PL123 to North America's node.
 - SOUTH_AMERICA (GEOLEVEL2)
 - DC Hierarchy for Sales Org/Dist. Channel ABC (GEOLEVEL3)
This will assign all locations for the sales org / distribution channel ABC to South America's node.

6.2.4.4.9.1.3 Maintain Time Hierarchy

The time hierarchy is used to summarize the fiscal periods for planning. In this step, you create 2 time hierarchies: YR/MON and YR/SEASON/MON/WK. Use transaction RSH1 to create the hierarchies for the

InfoObject 0FISCPER. The instructions are an example of the required steps that will be repeated for each year and time period

InfoObject	Time hierarchy example
0FISCPER	<ul style="list-style-type: none"> • Create the ORP_FISCHIER02 hierarchy name with the entry YR/SEASON in the <i>Short Description</i> field. • Create the Year hierarchy node with Year in the <i>Short Description</i>. • Choose the Year hierarchy node, and create the Spring hierarchy node with the Spring in the <i>Short Description</i> field under the Year hierarchy node. Click continue • Choose the Spring hierarchy node, use the <i>Characteristic Nodes Button</i> to insert the Fiscal Year/Period value for each period for that season. • Continue the process for each year, season and period. Save and activate the hierarchy when completed. • Create the ORP_FISCHIER01 hierarchy name with the entry YR/SEASON/MON/WK in the <i>Short Description</i> field. • Create the Year hierarchy node with Year value in the <i>Short Description</i> field. • Choose the Year hierarchy node, and create the Spring hierarchy node with Spring in the <i>Short Description</i> field under the Year hierarchy node. • Choose the Spring hierarchy node, and create the February hierarchy node with February in the <i>Short Description</i> field under the Spring hierarchy node. • Choose the February hierarchy node, use the <i>Characteristic Nodes Button</i> to insert the Fiscal Year/Period value for each period for that month. • Continue the process for each year, season and period as desired. Save and activate the hierarchy when completed.

Merchandise Planning for Retail 1x

Merchandise Planning for Retail

Version	Text
MO1	MO Working Version
MO2	MO Simulation Version
MOR	MO Reporting Version
MOP	MO In Season Version
MD1	MD Working Version
MD2	MD Simulation Version
MDR	MD Reporting Version

Version	Text
MDP	MD In Season Version
MP1	MP Working Version
MP2	MP Simulation Version
MPR	MP Reporting Version
MPP	MP In Season Version
MM1	MM Working Version
MM2	MM Simulation Version
MMR	MM Reporting Version
MMP	MM In Season Version
MMF	MM Final Version
FO1	FO Working Version
FO2	FO Simulation Version
FOR	FO Reporting Version
FOP	FO In Season Version
FD1	FD Working Version
FD2	FD Simulation Version
FDR	FD Reporting Version
FDP	FD In Season Version
FM1	FM Working Version
FM2	FM Simulation Versio
FMR	FM Reporting Version
FMP	FM In Season Version
FL1	FL Working Version
FL2	FL Simulation Versio
FLR	FL Reporting Version
FLP	FL In Season Version

Version	Text
SAP	Store Area Plan

6.2.4.4.9.1.4 Maintain Fiscal Year Variants

Use

In this section you maintain the required fiscal year variant values for week and month; `0FISCVARNT 'RW'` and `'RM'`.

⚠ Caution

SAP Merchandise Planning for Retail uses activated time objects `0FISCPER` (fiscal year period) and `0FISCVARNT` (fiscal year variant), provided as part of the technical `BI Content`.

If you are also using the SAP Assortment Planning application, you use the same fiscal year variant that was created for this application.

Procedure

Fiscal Variant RW

The steps provided in this procedure allow you to maintain `0FISCVARNT 'RW'` using the standard 4-5-4 calendar entries. If you are using alternative fiscal periods in your retail business, for example, each week starting on a Sunday instead of Saturday, you can provide your own entries instead of the ones suggested in this guide.

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose [New Entries](#).
4. On the [New Entries: Overview of Added Entries](#) screen make the following sets of entries:

Field Name	User Entry
FV	RW
Description	Planning week
Year-dependent	Select
Calendar yr	Do not select

Field Name	User Entry
Number of period postings	53
No. of special periods	

5. Choose *Enter*.
An information message is displayed about creating more than 16 periods, choose *Continue*.
6. Choose *Back*.
You can see the newly created entry.
7. Mark the entry *RW* and select *Periods* from the *Dialog Structure*.
8. Enter **2012** in the *Calendar yr* field and choose *Continue*.
Data for the previous year must be maintained.
9. Choose *New Entries*.
10. Open SAP Note [2112634](#), locate the entries for year 2012, and enter the data by copy-and-paste. Note that this SAP Note is applicable for both SAP Merchandise Planning and SAP Assortment Planning.
11. Choose *Enter* to finish your input.
While making the fiscal year entries, an information message might be displayed stating that there are *Gaps in financial year variant periods RW*. This is an information message only, and the entered fiscal year data is saved.
12. Maintain the weekly fiscal year variant in the same way for the year 2017. The entries for year 2017 are also available in SAP Note [2112634](#).
13. Select *Shortened Fiscal Years* from the *Dialog Structure*.
14. Enter **2013** in the *Fiscal year* field and choose *Continue*.
15. Choose *New Entries*.
16. Enter **52** in the *No. of posting periods* field.
17. Choose *Back* twice.
18. Maintain the weekly fiscal year variant in the same way for the shortened fiscal years, that is, years 2013, 2014, 2015, 2016, and 2017. The corresponding tables are available in SAP Note [2112634](#).
19. Choose *Save* after you have finished the maintenance for year 2018.

Fiscal Variant RM

The next steps allow you to maintain `0FISCVARNT 'RM'` using the standard 12 month calendar entries. If you are using alternative fiscal periods in your retail business, you can provide your own entries instead of the ones suggested in this guide. These month entries must align with the week values used in the prior step.

1. In the *Fiscal Year Variants* view, choose *New Entries*.
2. On the *New Entries: Overview of Added Entries* screen make the following sets of entries:

Field Name	User Entry
FV	RM

Field Name	User Entry
Description	Planning month
Year-dependent	Select
Calendar yr	Do not select
Number of period postings	12
No. of special periods	

3. Choose *Enter*.

4. Choose *Back*.

You can see the newly created entry.

To get the information to enter in the next step, open SAP Note [2112634](#). Note that this SAP Note is applicable for both SAP Merchandise Planning and SAP Assortment Planning. If you have used these dates for your weekly calendar, then align the month end dates to match. An example is contained in the table below using the 2015 calendar entries from the SAP Note.

5. Mark the entry *RM* and select *Periods* from the *Dialog Structure* and double click to open the *Calendar year* dialog.

6. Enter **2012** in the *Calendar yr* field and choose *Continue*.

7. Choose *New Entries*. For the year selected to enter the information that will define each period.

8. Enter the last valid calendar date of the period being added in the *Month and Day* fields.

9. Enter the relevant *Period* number.

10. In the *Year Shift* field, enter +1 if the fiscal year is later than the calendar year enter. Enter -1 if the fiscal year is before the calendar year.

11. Press *Enter* to accept the first row.

12. Continue adding each period to complete the fiscal year.

Maintain the monthly fiscal year variant in the same way for the remaining years.

13. Choose *Save* after you have finished the maintenance for year 2018.

Choose *Save* after you have finished the maintenance for the last year.

2015 Monthly Calendar (sample)

Month	Day	Period	Year Shift
1	31	12	-1
2	28	1	0
3	28	2	0
5	2	3	0

Month	Day	Period	Year Shift
5	30	4	0
6	27	5	0
8	1	6	0
8	29	7	0
9	26	8	0
10	31	9	0
11	28	10	0
12	26	11	0
12	31	12	0

6.2.4.4.9.1.5 Maintain Article and Geographical Hierarchy

Use

This information is relevant to versions prior to SAP Merchandise Planning 2.0 FP2. There are two types of hierarchies used in **SAP Merchandise Planning for Retail**, the geographical and the article hierarchy.

Procedure

There is a Customizing activity to define the required hierarchies. Use transaction code `SPRO` and in the Dialog Structure navigate to **Cross-Application Components > Demand Data Foundation > Basic Settings** and choose *Define Default Values*.

- In the *Hierarchy ID* field use the prompt to select the applicable article hierarchy id.
- In the *Geo Hierarchy ID* field, use the prompt to select the applicable geo hierarchy ID.

6.2.4.4.9.1.5.1 Reporting Currency for Geo Hierarchy Level 2

This information is relevant to versions prior to SAP Merchandise Planning 2.0 FP2. The geographical hierarchy level 2 requires a reporting currency. Do the following steps to create a geographical location hierarchy currency:

1. In your back-end system, launch table/view maintenance transaction code `SM30`.

2. In the *Maintain Table Views: Initial Screen* enter `/RAP/GEOLVL_CUST` in the *Table/view field* and select the *Maintain* button
3. Choose *New Entries* .
4. Use the *F4* help to select the *Geographical Level 02* desired.
5. Use the *F4* help to select the *Reporting Currency* associated with the *Geographical Level 02* selected.
6. Repeat for each *Geographical Level 02* required.
7. Save your entries.

6.2.4.4.9.1.5.1.1 Maintain Process Chain Related

Maintain BW process chain variants relevant for SAP Merchandise Planning for Retail.

Context

In this optional procedure, you activate the following infoobjects and maintain the BW process chain variants .

Planning: Characteristic Relationships

InfoObject Description	InfoObject Name
Characteristic Rel. for Financial Merchandise Planning	Plan /RAP/MPRC01
Characteristic Rel. for Channel Planning	Plan /RAP/MPRC02

Planning: Data Slices

InfoObject Description	InfoObject Name
Data Slices for Financial Merchandise Planning, Plan	/RAP/MPRC01
Data Slices for Channel Planning, Plan	/RAP/MPRC02

Process Chain Doc Process Chain

InfoObject Name
/RAP/MPPC01_01

Process Chain Starter

InfoObject Name
/RAP/MPPC01_01

Procedure

In this process you will create variants and activate the BW process chains.

1. Planning Sequence Data Slice Activation
 1. Go to transaction RSPLAN
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A02_PS08 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **Data Slice Activation** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction RSA1.
 12. In the navigation panel, select the *Modeling* button, then *Process Chain*.
 13. In the process chain panel, right click on **Merchandise Planning - Actualization** and choose *Edit*.
 14. In the right tree, right click on **Execute Planning Sequence Data Slice Activation (/RAP/MPPC01_10)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
2. Planning Sequence Deactivation of Data Slice
 1. Go to transaction RSPLAN
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A02_PS09 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **Data Slice Deactivation** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction RSA1.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.
 13. In the process chain panel, right click on **Merchandise Planning - Actualization** and choose *Edit*.
 14. In the right tree, right click on **Execute Planning Sequence Data Slice Deactivation (/RAP/MPPC01_11)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
3. Planning Sequence Channel Mix - Actualization
 1. Go to transaction RSPLAN
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A02_PS07 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.

7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **Channel Mix - Actualization** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction `RSA1`.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.
 13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
 14. In the right tree, right click on **Execute Planning Sequence Channel Mix - Actualization (/RAP/MPPC01_02)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
4. Planning Sequence Financial Merchandise Plan - Division - Actualization
 1. Go to transaction `RSPLAN`
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter `/RAP/C11A07_PS11` and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **MP - Division - Actualization** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction `RSA1`.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.
 13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
 14. In the right tree, right click on **Execute Planning Sequence Financial Merchandise Plan - Division - Actualization(/RAP/MPPC01_03)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
 5. Planning Sequence Financial Merchandise Plan - Department - Actualization
 1. Go to transaction `RSPLAN`
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter `/RAP/C11A03_PS10` and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **MP - Department - Actualization** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction `RSA1`.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.

13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
 14. In the right tree, right click on **Execute Planning Sequence Financial Merchandise Plan - Department - Actualization(/RAP/MPPC01_04)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
6. Planning Sequence Financial Merchandise Plan - Class - Actualization
 1. Go to transaction RSPLAN
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A08_PS10 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **MP - Class - Actualization** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction RSA1.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.
 13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
 14. In the right tree, right click on **Execute Planning Sequence Financial Merchandise Plan - Class - Actualization(/RAP/MPPC01_05)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
 7. Planning Sequence Financial Merchandise Plan - Subclass - Actualization
 1. Go to transaction RSPLAN
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A09_PS13 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **MP - Subclass - Actualization** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction RSA1.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.
 13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
 14. In the right tree, right click on **Execute Planning Sequence Financial Merchandise Plan - Subclass - Actualization(/RAP/MPPC01_06)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
 8. Planning Sequence Channel Plan - Store Comp - Actualization
 1. Go to transaction RSPLAN

2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A19_PS04 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **CP - Store Comp - Actualization** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction RSA1.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.
 13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
 14. In the right tree, right click on **Execute Planning Sequence Channel Plan - Store Comp - Actualization(/RAP/MPPC01_07)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
9. Planning Sequence Channel Plan - Multi Store - Actualization
1. Go to transaction RSPLAN
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A18_PS05 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.
 8. Enter a variant name. For description enter **CP - Multi Store - Actualization** and select the Cross-User Variant check box.
 9. Select the *Continue* button.
 10. Select the *Continue* button in the variables screen.
 11. Go to transaction RSA1.
 12. In the navigation panel, select the *Modeling* button, then Process Chain.
 13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
 14. In the right tree, right click on **Execute Planning Sequence Channel Plan - Multi Store - Actualization(/RAP/MPPC01_08)** and choose *Maintain Variant*.
 15. Load the variant created in step h (if not already loaded).
 16. Select the *Transfer* button and save.
10. Planning Sequence Channel Plan - Single Store - Actualization
1. Go to transaction RSPLAN
 2. Select the *Planning Sequence* button.
 3. In the planning sequence field, enter /RAP/C11A16_PS08 and choose *Edit* button.
 4. Select the *Variables* button.
 5. Select the *Geographical Level 1 Input* help and select a value.
 6. Select the *Save As* Button.
 7. In the Variables prompt, choose *F9* to turn Cross User-variant on.

8. Enter a variant name. For description enter **CP - Single Store - Actualization** and select the Cross-User Variant check box.
9. Select the *Continue* button.
10. Select the *Continue* button in the variables screen.
11. Go to transaction RSA1.
12. In the navigation panel, select the *Modeling* button, then Process Chain.
13. In the process chain panel, right click on Merchandise Planning - Actualization and choose edit.
14. In the right tree, right click on **Execute Planning Sequence Channel Plan - Single Store - Actualization(/RAP/MPPC01_09)** and choose *Maintain Variant*.
15. Load the variant created in step h (if not already loaded).
16. Select the *Transfer* button and save.

6.2.5 Configure Data Replication Steps

6.2.5.1 Initial Load of Data to DDF Using DRFOUT

Use

SAP Merchandise Planning uses master data, such as product, location, and product hierarchy, that is replicated from SAP ERP to the DDF module in SAP Customer Activity Repository using the DRFOUT data replication framework.

i Note

Not all of the master data is replicated into DDF using DRFOUT. Some data must be replicated separately using SLT replication.

Additionally, DRFOUT integration and DDF do not support leading zeros in the product IDs.

SAP Merchandise Planning requires that the following master data is replicated from a connected SAP ERP system using DRFOUT:

Sequence	Master Data	Technical Details	For more information, see:
1	Product Hierarchy	<ul style="list-style-type: none"> • SAP ERP Description: Material Group Hierarchy • DRFOUT Outbound Implementation: PMCH • DDF Inbound Interface: /DMF/ MDIF_PROD_HIER_INBOUND 	http://help.sap.com/cars >> <your release> > Application Help > <> > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Product Hierarchy Master Data >
2	Product	<ul style="list-style-type: none"> • SAP ERP Description: Material • DRFOUT Outbound Implementation: PMAT • DDF Inbound Interface: /DMF/ MDIF_PRODUCT_INBOUND 	http://help.sap.com/cars >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Product Master Data >
3	Location	<ul style="list-style-type: none"> • SAP ERP Description: Plant • DRFOUT Outbound Implementation: PPLT • DDF Inbound Interface: /DMF/ MDIF_LOCATION_INBOUND 	http://help.sap.com/cars >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Product Location Master Data >
4	Product Location	<ul style="list-style-type: none"> • SAP ERP Description: Material/Plant • DRFOUT Outbound Implementation: PMPL • DDF Inbound Interface: /DMF/ MDIF_PROD_LOC_INBOUND 	http://help.sap.com/cars >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Product Location Master Data >
5	Product Location	<ul style="list-style-type: none"> • SAP ERP Description: Sales Price • DRFOUT Outbound Implementation: PSPR • DDF Inbound Interface: /DMF/ MDIF_PROD_LOC_INBOUND 	http://help.sap.com/cars >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Product Location Master Data >

Sequence	Master Data	Technical Details	For more information, see:
6	Inventory	<ul style="list-style-type: none"> • SAP ERP Description: Inventory • DRFOUT Outbound Implementation: PINV • DDF Inbound Interface: /DMF/ OPIF_INVENTORY_INBOUND 	http://help.sap.com/car >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Inventory Master Data >
7	Product Location	<ul style="list-style-type: none"> • SAP ERP Description: Moving Average Price • DRFOUT Outbound Implementation: PMAP • DDF Inbound Interface: /DMF/ MDIF_PROD_LOC_INBOUND 	http://help.sap.com/car >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Product Location Master Data >
9	Location	<ul style="list-style-type: none"> • SAP ERP Description: Vendor • DRFOUT Outbound Implementation: EVEN • DDF Inbound Interface: /DMF/ MDIF_LOCATION_INBOUND 	http://help.sap.com/car >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Location Master Data >
10	Product Hierarchy	<ul style="list-style-type: none"> • SAP ERP Description: Article Hierarchy • DRFOUT Outbound Implementation: PAHY • DDF Inbound Interface: /DMF/ MDIF_PROD_HIER_INBOUND 	http://help.sap.com/car >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Product Hierarchy Master Data >
11	Sales Order and Shipment	<ul style="list-style-type: none"> • SAP ERP Description: Sales Orders • DRFOUT Outbound Implementation: SALES_ORDR • DDF Inbound Interface: /DMF/ OPIF_DOCUMENT_INBOUND 	http://help.sap.com/car >> <your release> > Application Help > Demand Data Foundation > Integration Information > Inbound Interfaces For Remote Function Call (RFC) Communication > Sales Order and Shipment Master Data >

i Note

This data is only required if Wholesale or E-Commerce planning scenarios are used productively.

Prerequisites

Before replicating data from SAP ERP to DDF using DRFOUT, the following prerequisites must be fulfilled:

- The following business functions are activated in SAP ERP:
 - ISR_APPL_OUTBOUND_DMF
 - ISR_RETAIL_OUTBOUND_DMF
- You have noted the different terms for the following objects:

SAP ERP	SAP Retail	DDF / SAP Merchandise Planning for Retail
Material	Article	Product
Plant	Site	Location

6.2.5.2 Initial Load of Sales Data from BW

Use

If you have accumulated large amounts of historical sales data using SAP POS Data Management or SAP Customer Activity Repository, it is possible that you are storing these large data sets in a connected SAP BW system. In such a case, you can perform the initial load of the sales time series (historical POS data) data into DDF using the *BI Interface for Time Series* report.

i Note

These instructions extract historical sales data from an Infocube in BW. If you are using BW/4HANA, additional project work will be required to re-implement the BAdI `/DMF/BI_IF_READ_BI`. For technical details, see [2764634](#).

Procedure

1. Log on to your back-end system.
2. Execute transaction SE38.
3. Specify `/DMF/BI_IF_TS` in the *Program* field and choose *Execute*.
4. Read the documentation associated with the report, carry out the described customizing, and run the report accordingly.

More Information

<http://help.sap.com/car> ► [Application Help](#) ► [Demand Data Foundation](#) ► [Integration Information](#) ► [Inbound Interfaces For Remote Function Call \(RFC\) Communication](#) ► [Sales Time Series](#) ►.

6.2.5.3 Initial Load of Goods Movement KPIs

Load goods movement Key Performance Indicators (KPI) for returns, receipts, and open quantity.

Context

The goods movement data is stored in the SLT replicated tables `EKPO`, `EKET`, and `EKBE` in the Customer Activity Repository. You perform the initial load of this data into Demand Data Foundation (DDF) using the report `/RAP/MPR_ECC_KPI_CALC`. When run in initial mode, this report will load 2 years of data from the current date. Further information is available in the documentation attached to the report.

Master Data	SAP ERP Table
Purchasing Document Header	EKKO
Purchasing Document Item	EKPO
History per Purchasing Document	EKBE
Scheduling Agreement Schedule Lines	EKET

In addition there are some prerequisite steps to follow.

- You have maintained fiscal year variants using `SPRO`. Navigate to ► [SAP Customizing Implementation Guide](#) ► [Cross-Application Components](#) ► [Demand Data Foundation](#) ► [Basic Settings](#) ► [Define Default Values](#) ►.

Procedure

1. Log on to your back-end system.
2. Verify your user has the role `/RAP/BW_MPR_WORKBOOKS` assigned.
3. You have maintained fiscal year variants using `SPRO`. Navigate to ► [SAP Customizing Implementation Guide](#) ► [Cross-Application Components](#) ► [Demand Data Foundation](#) ► [Basic Settings](#) ► [Define Default Values](#) ►.
4. Execute transaction `SE38`.

5. Specify `/RAP/MPR_ECC_KPI_CALC` in the *Program* field, select radio button *Initial* and select *Execute*.
6. Refer Documentation for report `/RAP/MPR_ECC_KPI_CALC` and `/RAP/MPR_BOP_KPI` table for details, uses, and descriptions.

Next Steps

It is recommended you run this report weekly to update the aggregated KPIs with the ongoing ERP activity

6.2.5.4 Delta Load of Data to DDF Using DRFOUT

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.

6.2.5.5 Delta Load of Sales Data in SAP Customer Activity Repository

Use

Once the initial load of historical sales data is completed or, if you are working on a brand new system implementation and do not have to perform an initial sales data load, you need to configure the periodic delta load of sales data in SAP Customer Activity Repository.

Procedure

1. Ensure that you have properly configured the POS Sales Transfer and Audit functionality in SAP Customer Activity Repository to receive transaction data from your connected POS systems.
For more information, see <https://help.sap.com/viewer/p/CARAB> <Version> > *Application Help* > *SAP Customer Activity Repository* > *POS Data Transfer and Audit*.
2. Ensure that you have configured the *Supply - DMF-Based Applications* outbound tasks to load sales data from POS Sales Transfer and Audit to DDF.
For more information, see <https://help.sap.com/viewer/p/CARAB> <Version> > *Application Help* > *SAP Customer Activity Repository* > *POS Data Transfer and Audit* > *Task Processing* > *Tasks for Sending Data to Follow-On Applications*.

→ Recommendation

If you are not storing aggregated sales data in an SAP BW system, and have historical sales data that you would like to load into DDF from POS Sales Transfer and Audit, you can configure the [Supply - DMF-Based Applications](#) outbound tasks to perform this initial load.

3. Monitor the transfer of sales time series data as described in <https://help.sap.com/viewer/p/CARAB>
▶ <Version> ▶ [Application Help](#) ▶ [SAP Customer Activity Repository](#) ▶ [Demand Data Foundation](#) ▶ [Integration Information](#) ▶ [Inbound Processing](#) .

More Information

<https://help.sap.com/viewer/p/CARAB> ▶ <Version> ▶ [Application Help](#) ▶ [SAP Customer Activity Repository](#) ▶ [Demand Data Foundation](#) ▶ [Integration Information](#) ▶ [Inbound Interfaces For Remote Function Call \(RFC\) Communication](#) ▶ [Sales Time Series](#) .

6.2.5.6 Delta Load of Goods Movement KPIs

Once the initial load of historical goods movement KPIs data is completed you should continue to update your data on a recurring basis. As data is replicated from SAP ERP activity, the values for goods movement KPIs can only be added to the Demand Data Foundation when you execute the report [/RAP/MPR_ECC_KPI_CALC](#) . The delta load sets the timeframe to start one month (30 days) prior to the current date and one year in the future from the current date.

To execute the report, log on to your back-end system and execute transaction SE38. Specify [/RAP/MPR_ECC_KPI_CALC](#) in the *Program* field and use the *Execute* button. Select radio button *Delta* and select *Execute*. For further information see the documentation attached to the report by selecting [Documentation](#), [Display](#) on the *ABAP Editor: Initial Screen*.

6.2.5.7 Replicate SAP ERP Tables for SAP Merchandise Planning

Use

Verify that all SAP ERP or SAP S/4HANA tables that are relevant for SAP Merchandise Planning KPIs have not only been created but have also been filled with data.

i Note

You have already replicated all of the relevant tables in a prior step, [Create/Replicate Source Master Data System Tables \[page 84\]](#).

In particular, SAP Merchandise Planning requires that the following master data table are replicated in order to calculate KPIs:

Master Data	SAP ERP Table
Purchasing Document Header	EKKO
Purchasing Document Item	EKPO
History per Purchasing Document	EKBE
Scheduling Agreement Schedule Lines	EKET

6.2.6 Create Market Hierarchy

SAP Merchandise Planning supports market hierarchies, a logical structuring of selling locations (stores, wholesale customers, digital customers) that align with your goals for planning.

The market hierarchy allows you to group locations by markets or across multiple sales organizations. In addition, your Area of Responsibility (AOR) must be aligned with your market hierarchy before using the planning applications. Do the following steps to create a market hierarchy:

1. Log in to the application server using SAP GUI and execute transaction code NWBC.
2. Select the *Services* menu.
3. In the left navigation menu select **Location Services > Location Hierarchy**.
In the POWL menu on the right, select the *Create* button, then *Market Hierarchy* in the dropdown.
4. Enter the location hierarchy name, description and the master data system for your new hierarchy.
5. Select the *Editor* tab. Enter or search for the locations that you want to add to your market hierarchy.
6. Add the locations to your market hierarchy by selecting the row or rows and selecting the move arrow.

i Note

The same location ID cannot be used more than once in a market hierarchy. For example location ID ABC can exist as multiple location types. It can exist as a distribution chain (DC) type, a store type, and a customer type. You may not have the type of DC and store in the same hierarchy

7. Save your entries.

More Information

For more information regarding location and market hierarchies, see *Maintain Location Hierarchies* located at [https://help.sap.com/viewer/p/CARAB<version>>Application Help > SAP Customer Activity Repository applications bundle > Demand Data Foundation > General Services > Maintenance Services](https://help.sap.com/viewer/p/CARAB<version>>Application%20Help%20SAP%20Customer%20Activity%20Repository%20applications%20bundle%20Demand%20Data%20Foundation%20General%20Services%20Maintenance%20Services)

For more information about AOR see *Maintain Area of Responsibility* located at [https://help.sap.com/viewer/p/CARAB<version>>Application Help > SAP Customer Activity Repository applications bundle > Demand Data Foundation > General Services](https://help.sap.com/viewer/p/CARAB<version>>Application%20Help%20SAP%20Customer%20Activity%20Repository%20applications%20bundle%20Demand%20Data%20Foundation%20General%20Services)

6.2.7 Specify Analysis Workbook Settings

6.2.7.1 Enable Macros

Use

In this procedure, you enable your SAP Analysis for Microsoft Office workbooks to use macros.

Procedure

1. Open the SAP Analysis for Microsoft Office from ► *Start* ► *All Programs* ► *SAP Business Intelligence* ► *Analysis for Microsoft Excel* ▾.
2. Choose ► *File* ► *Options* ► *Customize Ribbon* ▾.
3. Under *Customize the Ribbon*, select *Main Tabs*.
4. Enable the entry *Developer* and confirm by choosing *OK*.
5. Now you will see the new *Developer* tab in your SAP Analysis for Microsoft Office.
6. Select the *Developer Tab* and choose *Macro Security*.
7. Choose *Enable all macros*.

6.2.7.2 General Workbook Settings

Use

You use SAP Analysis for Microsoft Office to launch the planning workbooks.

Procedure

If you are unable to see the *Analysis*, *MP Selection*, and *MP Info* options on the menu of *Analysis for Microsoft Excel*, perform the following steps in the *Options, Add-Ins* of the Excel options:

1. Enter **COM** in the *Manage* field and choose *Go*.

2. In the **COM Add-Ins** box, select the *Analysis* and *Planning* options and choose *Go*. If you do not find them in the list, Enter **Disabled** in the *Manage* field and choose *Go*.

Now you are able to view the *Analysis* , *MP Selection* and *MP Info* options.

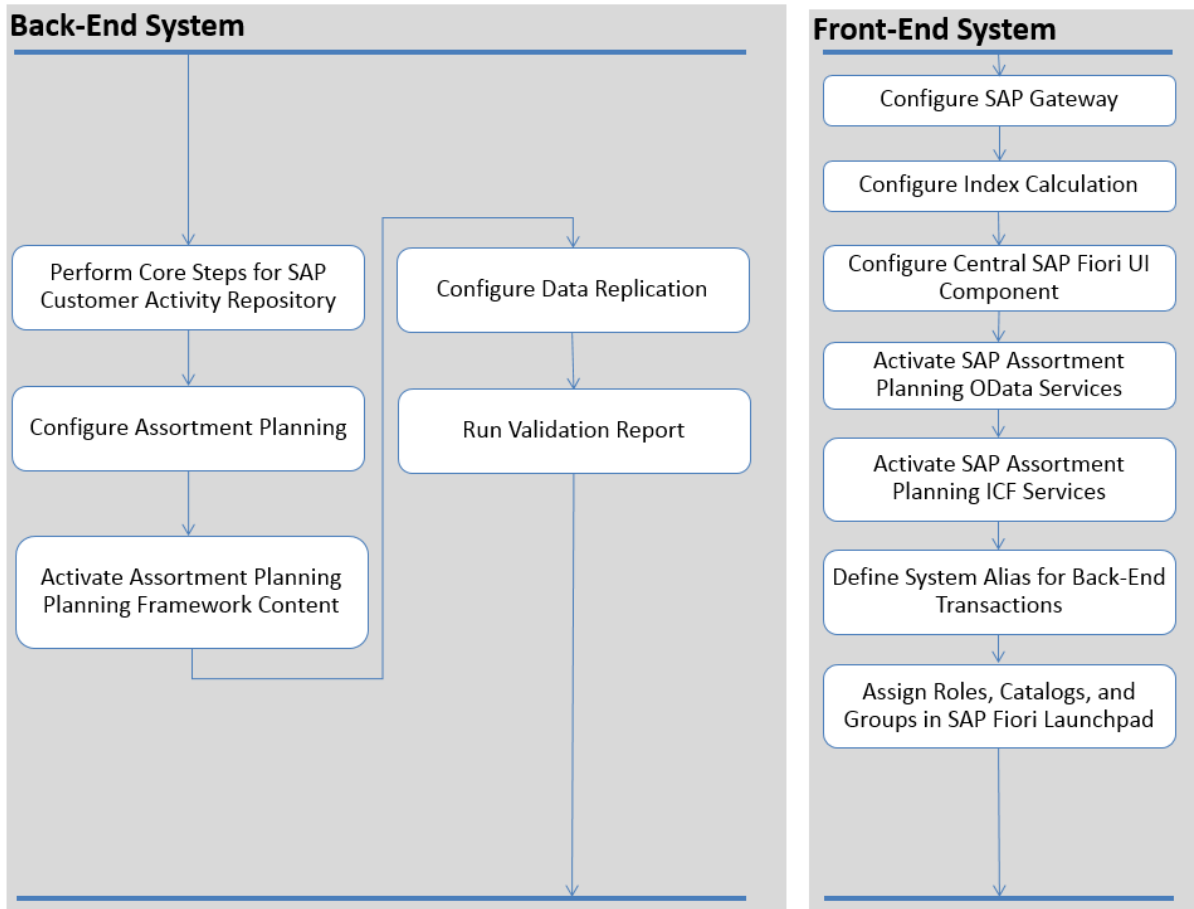
6.3 SAP Assortment Planning

i Note

Some of the activities in this section may have already been performed in the corresponding section under SAP Customer Activity Repository. Such activities do not need to be repeated during the setup and installation of consuming applications.

The following diagram depicts the main steps of the post-installation process for SAP Assortment Planning and contains links to the descriptions of these steps. There are two further steps in the back-end system following [Configure Assortment Planning \[page 259\]](#):

- [Maintain Fiscal Year Variant for Retail Week \[page 260\]](#)
- [Generate Time Data - Fiscal Calendar \[page 264\]](#)



- [Perform Core Steps for SAP Customer Activity Repository \[page 207\]](#)
- [Configure Assortment Planning \[page 259\]](#)
- [Activate Planning Framework Content \(SAP Assortment Planning\) \[page 265\]](#)
- [Configure Data Replication \[page 274\]](#)
- [Run the Validation Report \[page 274\]](#)
- [Perform General SAP Gateway Configuration \[page 100\]](#)
- [Configure SAP Fiori Launchpad \[page 108\]](#)
- [Activate OData Services \[page 103\]](#)
- [Activate SAP Assortment Planning ICF Services \[page 276\]](#)
- [Define System Alias for Back-End Transactions \[page 277\]](#)
- [Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad \[page 279\]](#)
- [Configure Index Calculation \[page 276\]](#)

6.3.1 Perform Core Steps for SAP Customer Activity Repository

To set up this application, you must first perform the **Core (Mandatory)** steps for SAP Customer Activity Repository. The core steps are mandatory for all the consuming applications.

Procedure

Perform all steps listed under [Core \(Mandatory for All Applications\) \[page 76\]](#).

6.3.2 Configure Assortment Planning

Use

To use SAP Assortment Planning, you must define several application-specific settings in Customizing.

Procedure

1. Specify assortment list settings.
In the *Assortment List Settings* Customizing activity, found under [▶ Cross-Application Components ▶ Assortment Planning ▶ Assortment Lists ▶](#), you can specify general settings for assortment lists. For example, you can define whether you can assign an assortment list product to more than one module.
2. Verify settings under [▶ Cross-Application Components ▶ Assortment Planning ▶ Imported Demand Data Foundation Settings ▶](#)
Although you might have specified most of these settings when configuring DDF, the activities under *Imported Demand Data Foundation Settings* are particularly important for the SAP Assortment Planning application.
3. Define the required number ranges.
You must set all of the number ranges under [▶ SAP Customizing Implementation Guide ▶ Cross-Application Components ▶ Assortment Planning ▶ Number Range ▶](#)
4. Define the business week (using transaction SPRO) under [▶ Cross-Application Components ▶ Demand Data Foundation ▶ Basic Settings ▶ Define Business Week ▶](#)
5. Verify the default implementations of BADIs under [▶ SAP Customizing Implementation Guide ▶ Cross-Application Components ▶ Assortment Planning ▶ Enhancements Using Business Add-Ins ▶](#) and if necessary, provide custom implementations.

i Note

We recommend that you activate BAdI implementations that enable the use of the Omnichannel SAP BW Structure. For more information, see [Activate Planning Framework Content \(SAP Assortment Planning\) \[page 265\]](#).

6. To use forecasted values in the *Sales & Inventory Analysis* view within the *My Assortment Lists* app, configure Unified Demand Forecast (UDF). For more information, see the *SAP Customer Activity Repository Administration Guide*, section *Configure Unified Demand Forecast (UDF)*.

Related Information

[Configuration Information](#)

6.3.3 Maintain Fiscal Year Variant for Retail Week

Use

In this procedure you maintain the required fiscal year variant (`0FISCVARNT 'RW'`). SAP Assortment Planning uses time objects `0FISCPER` (fiscal year period) and `0FISCVARNT` (fiscal year variant), provided as part of the technical BI Content, and activated in the [Activate Technical Content \[page 265\]](#) procedure.

⚠ Caution

You must maintain fiscal year variants for a period far enough into the past and into the future to cover the full range required for your planning activities. For example, two years into the past and five years into the future.

The steps provided in this procedure allow you to maintain `0FISCVARNT 'RW'` using the standard 4-5-4 calendar entries. If you are using alternative fiscal periods in your retail business, for example, each week starting on a Sunday instead of Saturday, you can provide your own entries instead of the ones suggested in this guide.

Procedure

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose [New Entries](#).

- On the *New Entries: Overview of Added Entries* screen make the following sets of entries:

Fiscal year variants					
FV	Description	Year-depen...	Calendar yr	Number of postin...	No.of special peri
RW	Assort. Plan Week	<input checked="" type="checkbox"/>	<input type="checkbox"/>	53	

Create New Fiscal Year Variant

- Choose *Enter*.
An information message is displayed about creating more than 16 periods, choose *Continue*.
- Choose *Back*.
You can see the newly created entry.
- Mark the entry *RW* and select *Shortened Fiscal Years* from the *Dialog Structure*.

Change View "Fiscal year variants": Overview

New Entries

Dialog Structure

- Fiscal year variants
 - Periods
 - Period texts
 - Shortened Fiscal Years

Fiscal year variants								
FV	Description	Calen...	Year...	Number of...	No.of spe...	Fiscal...	Offset ...	Offset
K1	Cal. Year, 1 Special ...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12	1	<input type="checkbox"/>		
K2	Cal. Year, 2 Special ...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12	2	<input type="checkbox"/>		
K3	Cal. Year, 3 Special ...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12	3	<input type="checkbox"/>		
K4	Cal. Year, 4 Special ...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12	4	<input type="checkbox"/>		
RW	Assortm. Plan Week	<input type="checkbox"/>	<input checked="" type="checkbox"/>	53		<input type="checkbox"/>		

Shortened Fiscal Years in Dialog Structure

- In the *Fiscal year* dialog, enter the year (for example, **2015**) in the *Fiscal year* field and choose *Continue*.
- On the *Change View "Shortened Fiscal Years": Overview* screen, choose *New Entries*.
- In the *Shortened Fiscal Years* table, enter **52** in the *No. of posting periods* field.
- Choose *Back* twice.
- On the *Change View "Fiscal Year variants": Overview* screen, mark the entry *RW* and select *Periods* from the *Dialog Structure*.
- In the *Calendar yr* dialog, enter the year (for example, **2015**) in the *Calendar yr* field and choose *Continue*.
Data for the previous year must be maintained.
- On the *Change View "Periods": Overview* screen, choose *New Entries*.
- In the *Periods* table, enter the data (month, day, period, year shift) for each period according to your fiscal calendar. For an example, see the following table. For more examples, see SAP Note [2112634](#). If you want to copy data from this note, locate the required year and enter the data by copy-and-paste.

2015 Weekly Calendar

Month	Day	Period	Year Shift
1	3	48	-1
1	10	49	-1
1	17	50	-1
1	24	51	-1
1	31	52	-1

Month	Day	Period	Year Shift
2	7	1	0
2	14	2	0
...

16. Repeat steps 7-15 to maintain the weekly fiscal year variant for all of the required years, entering each year as shortened fiscal year. The corresponding tables are available in SAP Note [2112634](#).
17. Choose *Save*.
18. Launch transaction `RSRHIERARCHYVIRT` and ensure that the dates specified in the *From* and *To* fields under *Time Interval* cover the years maintained for the fiscal year variant in the previous steps.

6.3.4 Maintain Fiscal Year Variant for Month

Context

In this section, you maintain the required fiscal year variant values for the fiscal month, 'RM'. This is especially required for using the *Sales & Inventory Analysis* view in the *My Assortment Lists* app.

Caution

You must maintain fiscal year variants for a period far enough into the past and into the future to cover the full range required for your planning activities. For example, two years into the past and five years into the future.

If you are using alternative fiscal periods in your retail business, you can provide your own entries instead of the ones suggested in this guide.

Procedure

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose *New Entries*.
4. On the *New Entries: Overview of Added Entries* screen make the following sets of entries:

Field Name	User Entry
FV	RM

Field Name	User Entry
Description	Planning month
Calendar year	Do not select
Year-dependent	Select
Number of posting periods	12
No. of special periods	

5. Choose *Enter*.
6. Choose *Back*.

You can see the newly created entry.

To get the information to enter in the next step, open SAP Note [2112634](#).

7. Mark the entry *RM* and select *Periods* from the *Dialog Structure* and double click to open the *Calendar year* dialog.
8. Enter the year (for example, **2015**) in the *Calendar yr* field and choose *Continue*.
9. On the *Change View "Periods": Overview* screen, choose *New Entries*.
10. In the *Periods* table, enter the data (month, day, period, year shift) for each period according to your fiscal calendar. For an example, see the following table.

2015 Monthly Calendar (sample)

Month	Day	Period	Year Shift
1	31	12	-1
2	28	1	0
3	28	2	0
5	2	3	0
5	30	4	0
6	27	5	0
8	1	6	0
8	29	7	0
9	26	8	0
10	31	9	0
11	28	10	0
12	26	11	0

Month	Day	Period	Year Shift
12	31	12	0

11. Enter the last valid calendar date of the period being added in the *Month and Day* fields.
12. Enter the relevant *Period* number.
13. In the *Year Shift* field, enter +1 if the fiscal year is later than the calendar year enter. Enter -1 if the fiscal year is before the calendar year.
14. Press *Enter* to accept the first row.
15. Continue adding each period to complete the fiscal year. Choose *Save* after you have finished the entries for a year.
16. Continue adding the fiscal year variants for each year required by your scenario by repeating steps 3 to 15.
17. Choose *Save* after you have finished the maintenance for the last year.

6.3.5 Generate Time Data - Fiscal Calendar

In this procedure, you generate time data (Fiscal calendar) required for SAP Assortment Planning.

Use

Execute this procedure to generate time data (**Fiscal calendar**). This is especially required for using the *Sales & Inventory Analysis* view in the *My Assortment Lists* app.

Procedure

1. Log on to SAP HANA studio.
2. In the *Modeler* perspective, on the *Quick Launch* tab, select your SAP Customer Activity Repository applications bundle system and choose *Generate Time Data*.
3. Select *Fiscal* as the *Calendar Type*.
4. Enter the same range of years as defined in the previous procedure, [Maintain Fiscal Year Variant for Retail Week \[page 260\]](#).
5. In the *Variant Schema* field, enter the name of the database schema that contains the tables holding the fiscal year variant data.
For SAP Assortment Planning, these are tables T009 and T009B, which you filled with data in the previous procedure, [Maintain Fiscal Year Variant for Retail Week \[page 260\]](#).
6. Select the **RW** fiscal year variant, defined in the previous procedure, [Maintain Fiscal Year Variant for Retail Week \[page 260\]](#).
7. Choose *Generate*.

For more information, see:

- https://help.sap.com/viewer/p/SAP_HANA_LIVE ► *Installation and Upgrade* ► *Administrator's Guide* ► *Configuration Steps* ► *Generate Time Data* ►
- https://help.sap.com/viewer/p/SAP_HANA_PLATFORM ► *Development* ► *SAP HANA Modeling Guide (for SAP HANA studio)* ► *Creating Information Views and Previewing its Output* ► *Generate Time Data* ►

6.3.6 Activate Planning Framework Content (SAP Assortment Planning)

In a new installation, only the **Omnichannel SAP BW structure** is supported in SAP Assortment Planning. The **Retail SAP BW Structure** is supported in an existing installation with maintenance, however no new functionality will be developed for this structure.

Prerequisite

To use the Omnichannel SAP BW structure, the following prerequisites must be met:

- Enable the usage of planning configurations under ► *Cross-Application Components* ► *Assortment Planning* ► *Imported Demand Data Foundation Settings* ► *Basic Settings* ► *Define Default Values* ►. The Omnichannel SAP BW structure only works when planning configurations are used.
- If you are integrating with SAP Merchandise Planning, enable the implementation of *BAdI: Read Merchandise Planning KPI Data* under ► *Cross-Application Components* ► *Demand Data Foundation* ► *Data Maintenance* ► *Planning Configuration* ► *Enhancements Using Business Add-Ins* ►.

The Omnichannel SAP BW structure consists of local BI Content only. To create workbooks on top of the Omnichannel SAP BW structure, contact SAP Digital Business Services for a custom implementation project.

The following subsections describe the activation steps.

6.3.6.1 Activate Technical BI Content

Use

The first time you enter the Data Warehousing Workbench, the system runs a background job to activate **technical content**. Technical content consists of technical information that is generated by the system, for example, data required for the general operation of BI Content, or time data.

Procedure

1. On your back-end system, open the Data Warehousing Workbench (transaction `RSA1`).
2. If prompted, in the *Replicate Metadata* dialog box, choose *Only Activate*.

3. If a message appears that you are only authorized to work in client ... (Brain 009), then refer to SAP Note [316923](#) (do not import the support package, but use the description under section *Workaround*).
4. Select *Do not show this question Again* in the dialog that appears.
5. Choose *Yes*.
Make sure that the current job has finished before you proceed with the next step. Check the status of the background job using transaction SM37 or SLG1. If there are problems, you must first solve them.

i Note

If you get the short dump "RAISE_EXCEPTION" when installing InfoObjects from the BI content, see SAP Note [1637935](#) for a possible solution.

Also, see SAP Notes [2090845](#) and [2056106](#) for important information on technical content activation.

Following activation, you can locate the technical content in the Data Warehousing Workbench as follows:

1. Selecting *Modeling* in the left-hand frame.
2. Expand *InfoObjects*.
3. In the right-hand frame, locate *Technical Content*.
6. You can use transaction RSTCO_ADMIN to restart the activation of the technical content and to verify the status of the activation.

6.3.6.2 Enable Optimized In-Memory Planning Capabilities of SAP BW Integrated Planning

Use

To be able to use the SAP Analysis for Microsoft Office workbooks built on top of the SAP Assortment Planning planning framework content, you must enable the optimized in-memory planning capabilities of the integrated planning engine in SAP Business Warehouse (SAP BW Integrated Planning). This includes the enabling of the Planning Application Kit (PAK).

Procedure

1. Read SAP Note [1919631](#).
2. In your back-end system, launch table/view maintenance (transaction SM30).
3. Enter RSPLS_HDB_ACT in the *Table/View* field and choose *Maintain*.
4. Choose *New Entries*.
5. In the *HANA Integratn. Active* column select **Deep HANA Integration Active** and in the *Functn. Active* column, enable the checkbox.
6. In the *HANA Integratn. Active* column select **BPC Embedded Model Active** and in the *Functn. Active* column, enable the checkbox.

6.3.6.3 Activate Application BI Content (Omnichannel SAP BW Structure)

Context

In this procedure, you perform a sequential, step-by-step activation of the local BI Content objects delivered in the **Omnichannel SAP BW structure** of the SAP Assortment Planning application. SAP Assortment Planning uses this application BI Content to consume data stored in the back-end system

i Note

To ensure correct activation of the BI Content objects, carry out the activation sequentially, as specified in the following procedures. Resolve any activation warnings, except for the ones listed under [Result \[page 274\]](#), which can be ignored.

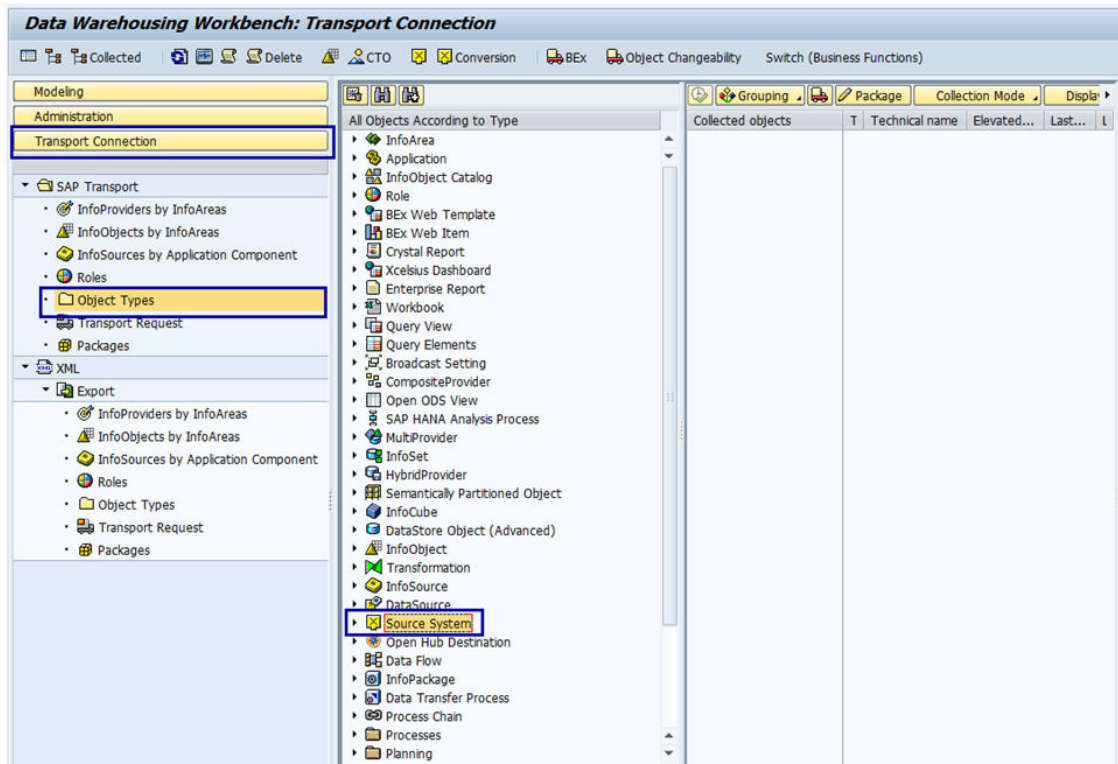
Also, do not disable the default BI setting to collect and activate all dependencies. The instructions below activate a minimum subset of objects, and it is assumed that all their dependencies are collected and activated.

The consumed data from the back-end system can be created by the SAP Assortment Planning application, or be replicated from a source master data system. In both cases, beware of limitations with regard to the characters allowed by SAP BW. For more information, see:

- *SAP Assortment Planning Administration Guide* under *Initial Load of Data to DDF Using DRFOUT*
- [173241](#)
- Customizing activity *Maintain permitted extra characters* under ► *SAP NetWeaver* ► *Business Warehouse* ► *General Settings* ►.

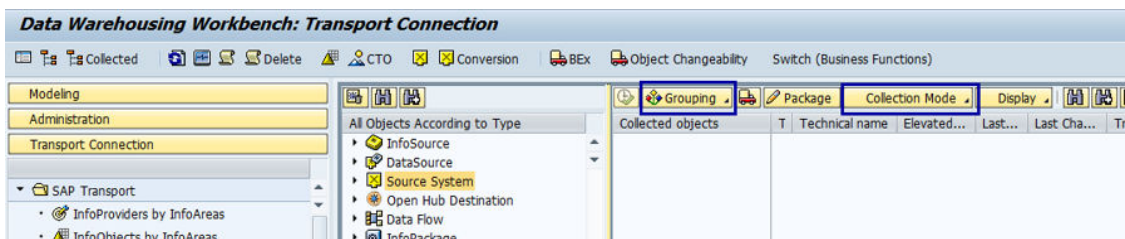
Procedure

1. On your back-end SAP Assortment Planning system, open the Data Warehousing Workbench (transaction RSA1).
2. Verify transport connections.
 1. Select *Transport Connection* in the left-hand frame.
 2. Select *Object Types*.
 3. Expand *Source System*.



Selecting Source Systems

4. Use *Select Objects* to ensure that the back-end system is selected as the source system.
5. Choose *Transfer Selections*.
6. At the top of the right-hand frame, above the list of *Collected objects*, choose *Grouping* and select *Only Necessary Objects*.
7. At the top of the right-hand frame, choose *Collection Mode* and select *Collect Automatically*.



Grouping and Collection Settings

3. Determine if you need to enable to *Match (X) or copy* option for the BI Content, which you will activate in the subsequent steps.

Match(X) or copy Selection

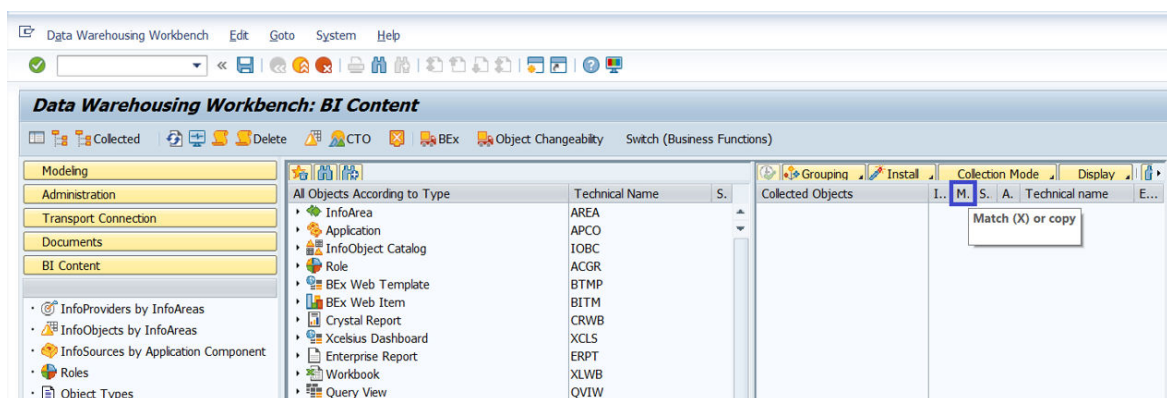
Installation Type	Selection
New Installation	Do not enable the <i>Match (X) or copy</i> option for any of the BI Content objects.

Installation Type	Selection	
Upgrade (Previously installed/activated any of the /RAP/* BI Content)	Standard /RAP/* BI Content objects have not been modified in your local environment¹ Do not enable the <i>Match (X) or copy</i> option for any of the BI Content objects.	Standard /RAP/* BI Content objects have been modified in your local environment¹ Enable the <i>Match (X) or copy</i> option. During the activation of each BI Content object type, you will be asked to carry out an additional <i>Transfer selections</i> step. In this step, select to install the <i>Active Version</i> (that is, your modified version) or the <i>Content Version</i> (that is, the SAP delivered, and possibly updated version of the object). The project implementation team should advise you on which option is required for each object.

⚠ Caution

When you choose to install the *Content Version*, the SAP delivered objects included in the current release will be installed regardless of any modifications made to the currently existing BI Content objects.

¹ As a system administrator, you may need to contact the SAP Assortment Planning project implementation team to learn if standard, SAP-delivered, BI Content objects have been modified in your local environment.



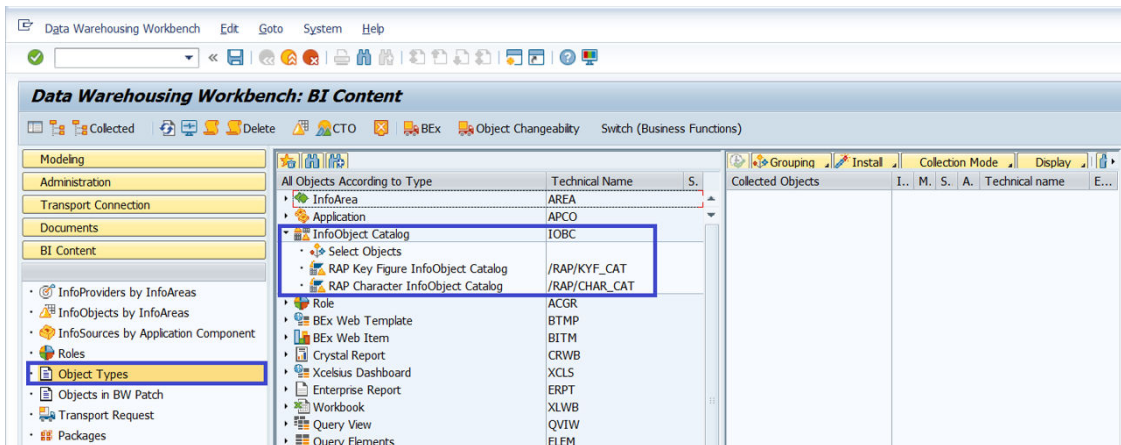
4. Activate InfoObject catalogs.

If at any point during the installation of BI Content objects you are presented with a dialog asking you to add objects to a personal list, we recommend that you select **No**.

→ Remember

You can ignore activation warnings listed under [Result \[page 274\]](#).

1. Select *BI Content* in the left-hand frame.
2. Select *Object Types* and expand *InfoObject Catalog*.



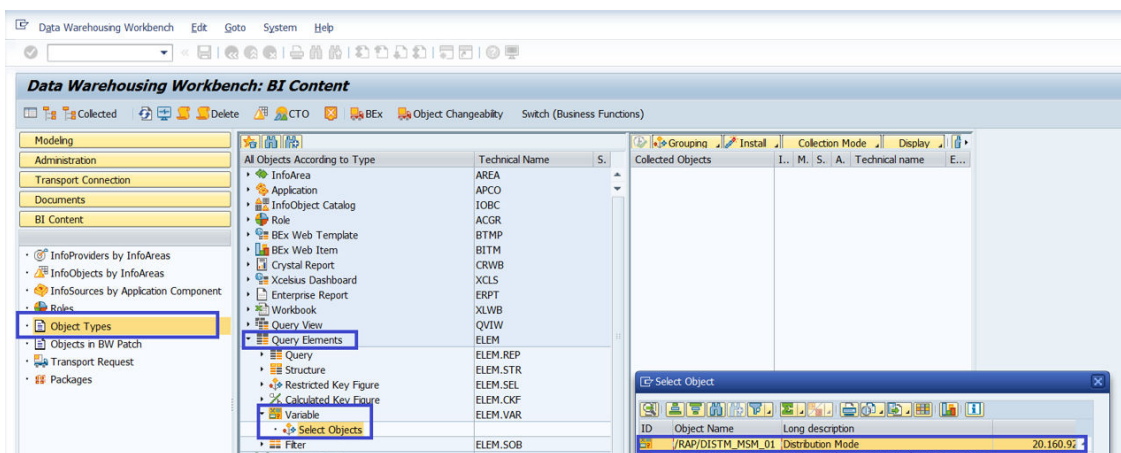
3. Use *Select Objects* to select the /RAP/CHAR_CAT and the /RAP/KYF_CAT catalogs.
4. Choose *Transfer Selections*.
5. In the right-hand frame, in the list of *Collected objects*, verify that both InfoObject catalogs are listed.
6. Right-click on each of the InfoObject catalogs, and choose *Install all Below*.
7. Choose *Install*.
If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.



5. Activate *Variables*.

→ Remember

You can ignore activation warnings listed under [Result \[page 274\]](#).

1. Select *BI Content* in the left-hand frame.
2. Select *Object Types* and expand *Query Elements* followed by *Variable*.
3. Use *Select Objects* to select the following variables:
 - /RAP/PLCND_ESM_02
 - /RAP/PLCSET_ESM_02
 - /RAP/PCYCLE_EMM_01
 - /RAP/PLNHR_MSO_01
 - /RAP/PLNHN1_MSO_01 to /RAP/PLNHN9_MSO_01 (inclusive)
 - /RAP/PRDHN1_MMO_01 to /RAP/PRDHN9_MMO_01 (inclusive)



4. Choose *Transfer Selections*.
 5. In the right-hand frame, in the list of *Collected objects*, verify that all of the selected variables are listed and that the option in the *Install* column is enabled .
 6. Choose *Install*.
If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.
6. Maintain version master data.
1. In the left-hand frame, select **► Modeling ► InfoObjects** .
 2. In the right-hand frame under **► Assortment Planning for Retail ► RAP Character InfoObject Catalog** , search in the object list for the InfoObject `/RAP/VERSN`.
 3. Right-click the InfoObject `/RAP/VERSN`, choose *Maintain Master Data* from the context menu, and maintain the following entries on the *Time Independent* tab:

Version	Short description
#	An empty version value that you must maintain
ALV	Assortment List Vsn
APF	Vsn of final plan

i Note


Save your changes and activate them.

7. Activate Advanced DataStore Objects.

If during the installation, you are presented with a message stating that your source system is not active, navigate to the *Modeling* tab, locate your source system under *Source Systems*, and activate it by right-clicking and selecting *Activate*. If prompted, choose *Only Activate* .

→ Remember

You can ignore activation warnings listed under [Result \[page 274\]](#).

1. Select *BI Content* in the left-hand frame.
 2. Select *Object Types* and expand *DataStore Object (advanced)*.
 3. Use *Select Objects* to select all DataStore Objects starting with `/RAP/DS*`.
 4. Choose *Transfer Selections*.
 5. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
 6. Choose **► Display ► List** .
 7. Right-click the tree node *DataStore Object (advanced)* and choose *Install all Below*.
 8. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.
8. Activate CompositeProviders.

→ Remember

You can ignore activation warnings listed under [Result \[page 274\]](#).

1. Select *BI Content* in the left-hand frame.
 2. Select *Object Types* and expand *CompositeProvider*.
 3. Use *Select Objects* to select all CompositeProviders from /RAP/CP40 to /RAP/CP46 (inclusive).
 4. Choose *Transfer Selections*.
 5. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
 6. Choose **▶ Display ▶ List ▶**.
 7. Right-click the tree node *DataStore Object (advanced)* and choose *Install all Below*.
 8. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.
9. Activate Aggregation Levels.

→ Remember

You can ignore activation warnings listed under [Result \[page 274\]](#).

1. Select *BI Content* in the left-hand frame.
2. Select *Object Types* and expand **▶ Planning ▶ Aggregation Level ▶**.
3. Use *Select Objects* to select the following Aggregation Level:

Aggregation Levels

Aggregation Levels

/RAP/C44A01

/RAP/C44A02

/RAP/C44A03

/RAP/C44A04

/RAP/C46A02

4. Choose *Transfer Selections*.
 5. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
 6. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.
10. Activate Planning Sequence Objects.

→ Remember

You can ignore activation warnings listed under [Result \[page 274\]](#).

1. Select *BI Content* in the left-hand frame.

2. Select *Object Types* and expand ► *Planning* ► *Planning Sequence* ►.
3. Use *Select Objects* to select the following Planning Sequences:

Planning Sequences

Planning Sequences

/RAP/D50A01_PS01

/RAP/D57A01_PS01

/RAP/C40A01_PS01

/RAP/C40A05_PS01

/RAP/C46A01_PS01

/RAP/C46A03_PS01

/RAP/C46A04_PS01

/RAP/C46A04_PS02

4. Choose *Transfer Selections*.
5. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
6. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.

11. Activate Planning Function Type Objects.

→ Remember

You can ignore activation warnings listed under [Result \[page 274\]](#).

1. Select *BI Content* in the left-hand frame.
2. Select *Object Types* and expand ► *Planning* ► *Function Type for Planning* ►.
3. Use *Select Objects* to select the following Planning Function:

Planning Functions

Planning Functions

/RAP/OP_BUFFER_DATA

4. Choose *Transfer Selections*.
5. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
6. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.

12. Choose *Exit* to leave the transaction.

Results

If activation warnings similar to the ones displayed below appear, you can ignore them.

- CMP problem occurred in characteristic <CHAR> for InfoProvider <INFO_PROV>
- Rounding inaccuracies occur with data type FLOAT for AMOUNT and QUANTITY
- Characteristic <CHAR>: Lower case makes selection of char. values difficult
- Data type of char. <CHAR> (<TYPE1>) is not equal to data type of attribute <ATTR> (<TYPE2>)
- Length of characteristic <TEXT CHAR> (<LENGTH1>) and assigned attribute <ATTR> (<LENGTH2>) not same
- The short text of DataSource <SOURCE> is not maintained in language <LANG>
- Skip key figure <KYF>: aggregation type NO2 not supported
- Attribute <ATTR>: Conversion routine <CONV> ignored
- Attribute <ATTR>: Compounding ignored
- Datatype FLTP for datafield <FIELD> of the DSO is not allowed
- Conversion problems possible for source field <FIELD1> / target field <FIELD2>

6.3.7 Configure Data Replication

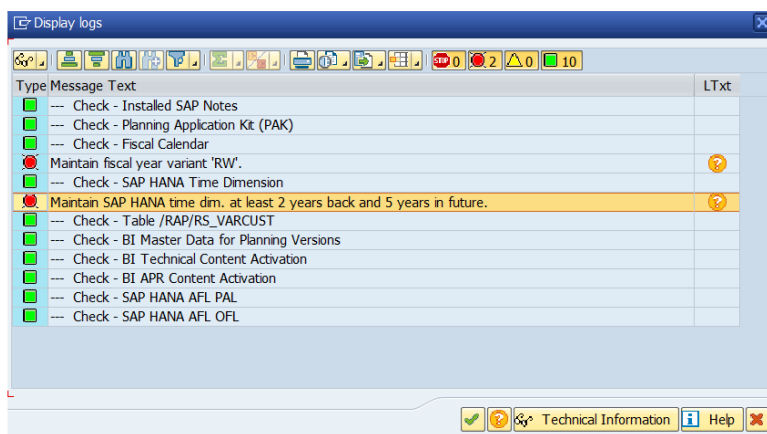
SAP Assortment Planning uses master data, sales history data, inventory data, and merchandise planning data originating from connected systems, such as SAP Retail (SAP ERP) or SAP BW.

For more information, see *SAP Assortment Planning Administration Guide* under *Configure Data Replication*.

6.3.8 Run the Validation Report

1. Run transaction /DMF/VAL_CAR_INSTALL.
Alternatively, run transaction SE38 and execute the /DMF/VALIDATE_CAR_INSTALLATION report.
2. Select the *Assortment Planning* scenario and select *Execute*.
In the dialog that appears, select whether to validate the Retail SAP BW structure, the Omnichannel SAP BW structure, or both. The SAP BW structure to validate depends on the structure that you have selected to activate during the previous step [Activate Planning Framework Content \(SAP Assortment Planning\)](#) [page 265].

Running this report allows you to verify the success of the installation, providing a log of potential issues. For example, you may be presented with the following results:



Validation Report Results

View the long text associated with each message to see the link to the documentation describing the procedure you have to troubleshoot.

Related Information

[Activate Planning Framework Content \(SAP Assortment Planning\) \[page 265\]](#)

6.3.9 Configure Front-End

6.3.9.1 Configure SAP Gateway

For information about the configuration and activation of SAP Gateway as well as the activation of all the common OData services for SAP Fiori, see [Configure SAP Gateway \[page 99\]](#).

6.3.9.2 Configure Index Calculation

We recommend that you schedule the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report (/UI5/APP_INDEX_CALCULATE) to run as a background job on your front-end server.

This is one of the mandatory tasks under ► *SAP Customer Activity Repository* ► *Core (Mandatory for All Applications)* ► that you have most likely performed already. If not, see [Calculate SAPUI5 Application Index for SAP Fiori Apps \[page 109\]](#).

6.3.9.3 Activate SAP Assortment Planning ICF Services

Use

For security reasons, all Internet Communication Framework (ICF) services relevant to your SAP Assortment Planning application are made available in an inactive state.

You have activated the central ICF services as described in [Perform General SAP Gateway Configuration \[page 100\]](#) and [Configure SAP Fiori Launchpad \[page 108\]](#). This procedure provides the instructions to activate ICF services required for the SAP Assortment Planning SAP Fiori apps.

Procedure

1. Log on to your front-end server.
2. Open service maintenance (transaction SICF).
3. In the *Define Services* screen, select the Location Clustering service by specifying the following:
 - Hierarchy Type: **SERVICE**
 - Virtual Host: **DEFAULT_HOST**
 - Service Path: **/sap/bc/ui5_ui5/sap/locclsts_v2/**
4. Choose *Execute*.
5. To activate the service, choose *Service/host Activate*.
6. Repeat steps 3 to 5 to ensure that **all** of the following services are activated:
 - /sap/bc/ui5_ui5/sap/attribmgmt_v2/
 - /sap/bc/ui5_ui5/sap/assortlist/
 - /sap/bc/ui5_ui5/sap/ddfreuse_v2/
 - /sap/bc/ui5_ui5/sap/locclsts_v2/
 - /sap/bc/ui5_ui5/sap/modulemgmt_v2/
 - /sap/bc/ui5_ui5/sap/optionplan_v2/
 - /sap/bc/ui5_ui5/sap/phpmatch_v2/
 - /sap/bc/ui5_ui5/sap/plnconfig/
 - /sap/bc/ui5_ui5/sap/optionplanning
 - /sap/bc/ui5_ui5/sap/styleplan

6.3.9.4 Define System Alias for Back-End Transactions

Use

A number of SAP Fiori apps, installed on your front-end system, launch transactions directly on the back-end system. For example, the *Manage Products* tile actually launches the Demand Data Foundation (DDF) POWL_EASY WebDynpro application.

To enable this behavior, you need to create a dedicated RFC connection between the front-end system and the back-end system.

Procedure

1. Log on to your front-end system, that is, the system where you have installed the user interface (UI) components of your application.
2. Launch *Configuration of RFC Connections* (transaction SM59).
3. Create an RFC connection with the following settings:
 - *RFC Destination*: SAP_ISR_CARAB
 - *Connection Type*: H (HTTP connection)Ensure to maintain all of the settings required to connect to your back-end system, in particular, the *Target Host* entry on the *Technical Settings* tab.
4. Save your changes.
5. Create another RFC connection with the following settings:
 - *RFC Destination*: SAP_ERP_ISR_CARAB
 - *Connection Type*: H (HTTP connection)Ensure to maintain all of the settings required to connect your front-end system to the source master data system, in particular, the *Target Host* entry on the *Technical Settings* tab.
6. Save your changes.
7. Open *Launchpad Customizing* (transaction LPD_CUST).
8. Select the SAP Assortment Planning role (UIRAP001), and choose *Display*. The two catalogs, *Assortment Planner* and *Planning Administrator*, are displayed.
9. In each of the catalogs, selecting one app at a time, make the following settings:

Catalog	App	System Alias	Description
<i>Assortment Planner</i>	<i>View Log</i>	SAP_ISR_CARAB	This setting allows the <i>My Assortment Lists</i> app to launch transaction SLG1 on the back-end system.

i Note

This application is only used to configure a link to the back-end system, you do not need to add this app to your SAP Fiori launchpad.

Catalog	App	System Alias	Description
	View ExtAssort Listing Conditions	SAP_ERP_ISR_CAR AB	<p>This setting allows the My Assortment Lists app to launch transaction WSL10 on the connected SAP Retail or SAP S/4HANA system.</p> <div style="border: 1px solid #ccc; background-color: #f9f9f9; padding: 10px; margin-top: 10px;"> <p>i Note</p> <p>This application is only used to configure a link to the SAP Retail or SAP S/4HANA system, you do not need to add this app to your SAP Fiori launchpad.</p> </div>
	View External Assortments	SAP_ERP_ISR_CAR AB	<p>This setting allows the My Assortment Lists app to launch:</p> <p>Transaction WRF_WS0A3 on the connected SAP Retail system</p> <p>Transaction WS0A3 on the connected SAP S4HANA system.</p> <div style="border: 1px solid #ccc; background-color: #f9f9f9; padding: 10px; margin-top: 10px;"> <p>i Note</p> <p>This application is only used to configure a link to the SAP Retail or SAP S/4HANA system, you do not need to add this app to your SAP Fiori launchpad.</p> </div>
Planning Administrator	Manage Category responsibilities	SAP_ISR_CARAB	This setting allows the Manage Category Responsibilities app to launch the corresponding DDF WebDynpro application.
	Manage Market responsibilities	SAP_ISR_CARAB	This setting allows the Manage Market Responsibilities app to launch the corresponding DDF WebDynpro application.
	Manage Products	SAP_ISR_CARAB	This setting allows the Manage Products app to launch the corresponding DDF WebDynpro application.
	Manage Locations	SAP_ISR_CARAB	This setting allows the Manage Locations app to launch the corresponding DDF WebDynpro application.

6.3.9.5 Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad

Use

To be able to access SAP Fiori apps that constitute the SAP Assortment Planning user interface from the SAP Fiori launchpad, your front-end system user must have the necessary roles assigned. Based on the role(s) assigned to your user, you can access certain business catalogs and business catalog groups.

Your SAP Assortment Planning application is delivered with two predefined roles, catalogs, and groups. These include technical content as well as business content:

Front-End Server Business Content			Front-End Technical Content	
Business Role	Business Catalog	Business Catalog Group	Technical Role	Technical Catalog
SAP_RAP_BCR_AP_PLANNER	SAP_RAP_BC_AP_PLANNER	SAP_RAP_BCG_AP_PLANNER	SAP_RAP_TCR_T	SAP_RAP_TC_T
SAP_RAP_BCR_PLANNING_ADMIN	SAP_RAP_BC_PLANNING_ADMIN	SAP_RAP_BCG_PLANNING_ADMIN		

To test the installation of SAP Assortment Planning from the SAP Fiori launchpad, you need to assign the roles above to your user on the front-end system.

Procedure

1. Log on to your front-end system.
2. Launch *User Maintenance* (transaction SU01).
3. Enter your user name in the *User* field and choose *Change*.
4. On the *Roles* tab, assign the roles SAP_RAP_BCR_AP_PLANNER and SAP_RAP_BCR_PLANNING_ADMIN to your user.

⚠ Caution

If you already have an SAP Fiori launchpad open, you must clear your browser cache to apply any modifications made to your user roles. Otherwise, your changes will not be reflected in the SAP Fiori user interface.

More Information

Security Information section of the *SAP Assortment Planning Administrator's Guide*.

6.3.10 Additional Information for Retail SAP BW Structure

6.3.10.1 Specify Analysis Workbooks Settings

The Retail SAP BW Structure of SAP Assortment Planning is delivered with some SAP Analysis for Microsoft Office workbooks. These are template workbooks that you can adapt to use in your retail business. However, you should not use the Retail SAP BW Structure in a new installation but the Omnichannel SAP BW Structure.

For an example of how to create customized versions of the workbooks, see [Workbook Design Example \[page 283\]](#).

6.3.10.1.1 Enable Macros

Use

In this procedure, you enable your SAP Analysis for Microsoft Office workbooks to use macros.

Procedure

1. Open SAP Analysis for Microsoft Office from **Start > All Programs > SAP Business Intelligence > SAP BusinessObjects Analysis > Analysis for Microsoft Excel**.
2. Choose **File > Options > Customize Ribbon**.
3. Under *Customize the Ribbon*, select *Main Tabs*.
4. Enable the entry *Developer* and confirm by choosing *OK*.
5. Now you will see the new *Developer* tab in your SAP Analysis for Microsoft Office.
6. Select the *Developer Tab* and choose *Macro Security*.
7. Choose *Enable all macros*.

6.3.10.1.2 Set Language for Ribbons and Buttons in Workbooks

Use

In this procedure, you can set the desired language of the following user interface objects that are specific to the workbooks of SAP Assortment Planning:


- Ribbons *Planning Functions*, *Refinement Functions*, and *Extended Features*
- Tooltips for planning functions

- Message texts
- Buttons.

The content of the workbooks consists of multiple parts:

- The language of the standard menus and standard ribbons depends on the language set for Microsoft Excel.
- The language of the contents in the cells (mainly KPIs) depends on the user-selected system language of the back-end system.
- The language of the user interface objects that are specific to the workbooks of SAP Assortment Planning, is not set by the selected system language of the back-end system, but you can change it for each workbook according to the following procedure. The default language is English.

Procedure

1. Unhide the worksheet [SAP_TEXT_CUSTOMIZING](#) using standard functionality of Microsoft Excel.
2. On the worksheet [SAP_TEXT_CUSTOMIZING](#), copy the column of the desired language to column [B - Custom Text](#).
3. Hide the worksheet [SAP_TEXT_CUSTOMIZING](#).
4. Save your changes in the worksheet on the SAP NetWeaver Server by choosing **File** > **Analysis** > **Save Workbook to SAP NetWeaver** .

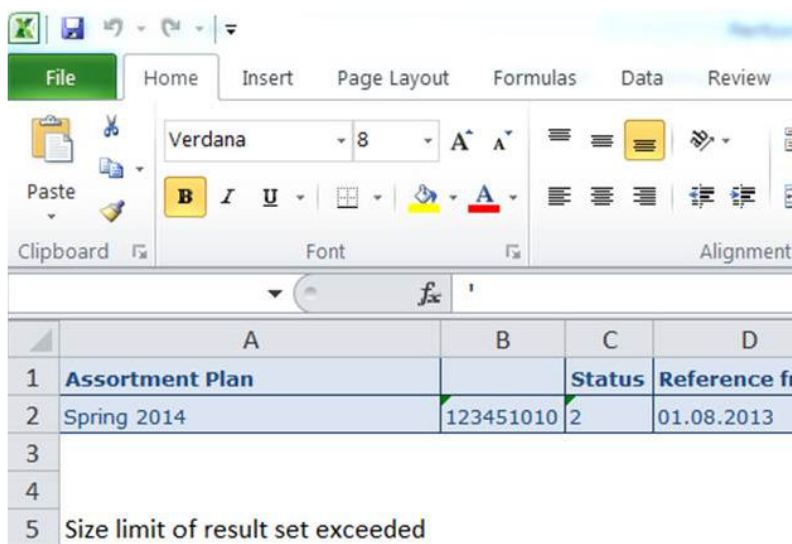
i Note

To allow for correct interpretation of the texts by screen readers, make sure that the language for all parts of the workbooks is set to the same desired one. Set the language as described in this section.

6.3.10.1.3 Set ResultsetSizeLimit Registry Setting

Use

By default, SAP Analysis for Microsoft Office workbooks are set to display 500,000 cells. This setting might not be sufficient for the productive use of SAP Assortment Planning. For example, if you have more than 300 products in your assortment plan, you might encounter the following error message:



Size Limit Error

To resolve this issue, you need to increase the default setting of the `ResultsetSizeLimit` registry setting.

Procedure

Read and implement SAP Note [1662968](#).

i Note

As the administrator overseeing the installation of SAP Assortment Planning, you need to carry out the steps listed in this procedure on the workstation of each SAP Assortment Planning user.

6.3.10.2 Workbook Design Example

Use

In this procedure, you walk through an example of creating an SAP Analysis for Microsoft Office workbook. You can use steps of this procedure to create customized versions of the SAP-delivered assortment planning workbooks.

Prerequisites

The necessary BI queries must exist in the back-end system.

Procedure

1. Open SAP Analysis for Microsoft Office from **Start > All Programs > SAP Business Intelligence > SAP BusinessObjects Analysis > Analysis for Microsoft Excel**.
2. Select the cell in the worksheet where the crosstab with the data from the selected data source should be inserted.
3. From the menu, choose **Analysis > Insert > Select Data Source**.
4. Choose *Skip* on the popup window *Logon to SAP BusinessObjects BI Platform*.
5. In the *Select Data Source* dialog box, select the source system, then choose *Next*.
6. In the *Logon to system <Your System Name>* dialog box, enter your logon data, then choose *OK*.
7. In the *Select Data Source* dialog box, choose tab *Search*.
8. In the *Search* tab, you can search for the description or technical name of a data source, that is, the name of the BI query that will provide the data for your workbook.
For example, search for */RAP/M01A01_IRQ02* or */RAP/M01A01_IRQ01*. In general, you can search for */RAP** to find any SAP Assortment Planning query.
9. Select the required data source, and then choose *OK*.
10. On the *Prompts* screen, make the relevant entries base on the selected query in the *Specify Value for Prompts* area.
11. Choose *OK*, and then you will see the table is inserted in the sheet. You can now analyze the data and change the displayed data set according to your needs. You can also add other components to your analysis, for example charts.
12. Choose menu **Analysis > Display** to open the design panel.
13. Choose the *Components* tab in the bottom right corner, and right-click *Book1* and choose *Use Planning Sequence*.
14. In the *Search For* field of the *Open Planning Sequence* dialog box enter your planning sequence and choose *Search*.
15. Select the required planning sequence, and then choose *OK*. The planning sequence will be displayed under **Book1 > Planning Objects** in the design panel.

16. Select the cell in the worksheet where a button should be inserted.
17. From the menu, choose **Developer > Insert > Button (Form Control)**, and insert the button using drag and drop.
18. In the *Assign Macro* dialog box, choose *New*.
19. In the VB edit, maintain the relevant code in the *Sub ButtonX_Click* area.
20. Choose *Close*.
21. Right-click the button, and choose *Edit Text*. Replace the button name with a meaningful name.
22. Position your cursor where the condition will be defined, and make the relevant entries.
23. Select the sheet and position the cursor where the variable list will be inserted, for example cell H1 in sheet1.
24. Choose menu **Analysis > Info > Field > Variables**, and the variables will be inserted into the relevant sheet.
25. Maintain the relevant entries in the sheet.
26. Choose your *Planning Sequence* in the design panel.
27. In the section of *Variables of Planning Sequence*, make the relevant entries.
28. Choose *Save Button*.
29. Provide a file name and save the workbook as type *Excel Macro-Enabled Workbook (*.xlsm)*.
30. Choose *Save*.

Result

The customized workbook is created.

6.4 SAP Promotion Management

Using SAP Promotion Management functions

For full use of the SAP Promotion Management application, you must have a license for use of SAP Promotion Management.

i Note

Limited functionality is available to users without an SAP Promotion Management license.

To use the FIORI-based user interface, implement the `/DMF/IMPL_FIORI_PMR_SW` BAdI from **Customizing > Cross-Application Components > Demand Data Foundation > Data Maintenance > Offer Implementation: Fiori Offers Switch**.

6.4.1 Perform Core Steps for SAP Customer Activity Repository

To set up this application, you must first perform the **Core (Mandatory)** steps for SAP Customer Activity Repository. The core steps are mandatory for all the consuming applications.

Procedure

Perform all steps listed under [Core \(Mandatory for All Applications\) \[page 76\]](#).

6.4.2 Activate Internet Communication Framework (ICF) Services

For security reasons, all Internet Communication Framework (ICF) services relevant to your SAP Promotion Management application are made available in an inactive state. In this procedure, you activate an ICF service required for the SAP Manage Promotional Offers Fiori app.

1. Log on to your front-end system.
2. Open service maintenance (transaction SICF).
3. In the *Maintain Service* screen, select the service by specifying the following:
 - Hierarchy Type: SERVICE
 - Virtual Host: DEFAULT_HOST
 - Service Path: /sap/bc/bsp/sap/
4. Choose *Execute*
5. To activate the service, choose *Service/host Activate*
6. Repeat steps 3 to 5 to ensure that all of the following services are activated:
 - pmroffers
 - pmrcontent
 - prodgrps
 - locsubgrp
 - eventprv

6.5 SAP Allocation Management

Post-installation setup for SAP Allocation Management

1. [Perform Core Steps for SAP Customer Activity Repository \[page 207\]](#)
2. [Activate SAP HANA Content for SAP Allocation Management \[page 286\]](#)
3. [Check Procedure Associated with Function GENIOS_SOLVE Is Active \[page 290\]](#)

4. [Preselect Product Data \[page 291\]](#)
5. [Configure SAP Allocation Management \[page 291\]](#)
6. [Configure Data Replication \[page 292\]](#)
7. [Configure Front End \[page 296\]](#)

6.5.1 Perform Core Steps for SAP Customer Activity Repository

To set up this application, you must first perform the **Core (Mandatory)** steps for SAP Customer Activity Repository. The core steps are mandatory for all the consuming applications.

Procedure

Perform all steps listed under [Core \(Mandatory for All Applications\) \[page 76\]](#).

6.5.2 Activate SAP HANA Content for SAP Allocation Management

Once all previous steps are successfully completed, you can activate SAP HANA content for SAP Allocation Management .

Prerequisites

Before starting with the activation of the SAP HANA content for SAP Allocation Management, you must do the following:

- Ensure that you have at least one of the `SAP_ECC` or `SAP_S4H` schemas in the SAP HANA database. Based on your source system for all SAP ERP data, you have either an `SAP_ECC` schema or an `SAP_S4H` schema (either physical schemas with these names, or at least authoring schemas). If you have both these systems, you must have two schemas.
- Ensure that all tables listed for SLT replication are available in the relevant schemas. The spreadsheet with tables that are relevant for replication and SAP HANA content activation is available on SAP Help Portal at <https://help.sap.com/viewer/p/CARAB>. Select the relevant version of SAP Customer Activity Repository at the top and choose *Implement*. Download the *SLT Tables for SAP Customer Activity Repository applications bundle 4.0 (all versions)* archive and extract the spreadsheet. Ensure that you have successfully set up the SLT tables in the schemas.

SAP HANA Content Activation Steps

1. Run the report `/AMR/INSERT_SLT_TABLES_TO_DB` (*Insert SLT Table Entries to Database*) in insert mode (by deselecting the simulation setting).
2. Deploy SAP Allocation Management delivered procedures, functions, and views.
SAP Allocation Management delivers several native HANA objects as a part of the application. These objects are delivered via HANA transport for ABAP (HTA) and must be explicitly deployed into the SAP HANA database. Without this deployment, you do not see these objects in the SAP HANA database. Once deployed, you can find the content via the path `sap.is.retail.rap.amr.db`.
3. Activate SAP Customer Activity Repository and Demand Data Foundation (DDF) SAP HANA content.

Note

If the SAP Customer Activity Repository and DDF SAP HANA content is already active, you can skip this step.

SAP Allocation Management depends on active SAP HANA content for SAP Customer Activity Repository and DDF. Therefore, it is recommended that you first activate the SAP Customer Activity Repository and DDF SAP HANA content.

Run the program *Activate SAP HANA Content for SAP CARAB* (`/CAR/ACTIVATE_HTA`) and select the *ECC Mode* relevant to your installation. Under *Business Scenario Activation*, select the *Customer Activity Repository* and *Demand Data Foundation* options.

Run the activation report. As a result, you have successfully activated and deployed the SAP HANA content for SAP Customer Activity Repository and DDF.

Caution

Do not select *Allocation Management* in this activation run for a simultaneous activation of SAP Allocation Management SAP HANA content. Simultaneous activation leads to activation problems.

4. Check and maintain schema mapping.
Check the names you use for your physical schema. If you are using the default names below, no further action is required:
 - `SAP_S4H`, for your S/4HANA schema
 - `SAP_ECC`, for your ECC or FMS schemaIf the names you have chosen for your physical schema are **different from the names above**, you must do the following:

Maintain a schema mapping in your SAP HANA database, where your customer-specific names are used as authoring schemas for the physical schema.
5. Run the dummy schema and dummy table creation reports.
The reports check for a missing physical schema and create this physical schema and the corresponding dummy tables in the schema if necessary. The successful completion of this step is a prerequisite for a successful SAP HANA content activation for SAP Allocation Management.

Note

The running of the report requires a database user in the ABAP system with the authorization to create the dummy schema. Check the application log for the report if there were errors.

In your back-end system, start transaction `SE38` and execute the following two reports, in the **sequence** in which they are listed:

- /DMF/CREATE_SLT_TABLES (*Create SLT Tables*)
 1. Select your source system. For *S/4HANA*, enter the release.
 2. Enter the physical source and dummy schema names. For the *Physical Source Schema*, enter the physical schema name into which your SLT tables are replicating. For the *Physical Dummy Schema*, enter the name for the schema to be created. If the physical source schema already exists in the SAP HANA database, then only the dummy tables in this schema are created when you execute the report.
 3. Select the simulation mode for a test run. After the simulation run, you can check for errors in the application log.
 4. Run the report again, this time without simulation mode.
 5. If you have chosen a dummy schema name that is neither `SAP_ECC` nor `SAP_S4H`, maintain schema mapping for the dummy schema. Follow the guidelines mentioned in Step 4.
 - /AMR/CREATE_DYNAMIC_SLT_TABLES (*Create SLT Tables Dynamically*)
 1. Select your source system. For *S/4HANA*, enter the release.
 2. Enter the physical source and dummy schema names. For the *Physical Source Schema*, enter the physical schema name into which your SLT tables are replicating. For the *Physical Dummy Schema*, enter the name for the schema to be created. If the physical source schema already exists in the SAP HANA database, then only the dummy tables in this schema are created when you execute the report.
 3. Select the simulation mode for a test run. After the simulation run, you can check for errors in the application log.
 4. Run the report again, this time without simulation mode.
 5. If you have chosen a dummy schema name that is neither `SAP_ECC` nor `SAP_S4H`, maintain schema mapping for the dummy schema. Follow the guidelines mentioned in Step 4.
6. Activate relevant inactive SAP HANA content for DDF.
Based on your scenario, there may be inactive packages in DDF, even though you have activated the content earlier via the report /CAR/ACTIVATE_HTA (*Activate SAP HANA Content for SAP CARAB*).
For the following packages in DDF, perform these actions:
- In the table `CTS_HOT_PREWORK`, set the `PREWORK_DONE` indicator to **X** for these packages.
 - Call up transaction `SCTS_HTA_DEPLOY` (*SAP HANA Transport for ABAP - Deployment*) to check and to deploy (if not already deployed) these packages, **strictly in the sequence** they are listed. Do **not** select the option to *Include subpackages*:
 - `sap.is.ddf.ecc`
 - `sap.is.ddf.fms`
 - `sap.is.ddf.fms_s4h`
 - `sap.is.ddf.cross.ecc`
 - `sap.is.ddf.cross.fms`
 - `sap.is.ddf.cross.fms_s4h`
 - `sap.is.ddf.cross`

i Note

The package names are case-sensitive.

If your SAP Retail release has tables that do not contain any FMS fields, some views might not be activated successfully in the `fms` and `fms_s4h` packages. You can nevertheless continue with further activation steps.

7. Grant authorization.

The two SLT table creation reports use the database user maintained in the ABAP system to create the dummy schemas. The `_SYS_REPO` user needs the exact same authorizations on the newly created dummy schema that this user already has on the physical source schema. In addition, to display the schema in the navigator, a `SELECT` authorization on the schema (with `GRANT` option) must be provided to the database user for the content activation.

Note

This step must be performed by the SAP HANA database administrator who has the authorization for these activities.

8. Set *Prework Done* for SAP Allocation Management packages.

A precondition for SAP HANA Transport for ABAP (HTA) activation is that the `PREWORK_DONE` indicator is set for all packages with activation mode `P - prework needed`. You can check this setting in the table `CTS_HOT_PACKAGE` in field `HOT_ACTIVATION_MODE`.

You can set the `PREWORK_DONE` indicator for all packages relevant for SAP Allocation Management manually or by implementing an SAP Note. To make the setting manually, follow the additional steps listed in this step. Alternatively, implement SAP Note [2861929](#) (Setting the `PREWORK_DONE` flag in table `CTS_HOT_PREWORK` for AMR HANA Content packages) instead of setting the indicator manually.

The manual steps are as follows:

1. Set the `PREWORK_DONE` indicator to **X** for all packages in the `CTS_HOT_PREWORK` table. The indicator shows that the SAP HANA content in all packages relevant for SAP Allocation Management is ready for deployment.
 2. Call transaction `SE16` (*Data Browser*) and display the content of table `CTS_HOT_PACKAGE`. Search for package names `sap.is.retail.rap.amr*` in the field `HANA_PACKAGE_ID`. Please note that the package names are case-sensitive. You should find 163 entries that match the search criterion. Copy the package names from the result list of your search.
 3. Run the program *Activate SAP HANA Content for SAP CARAB* (`/CAR/ACTIVATE_HTA`) with the following settings:
 - Select the relevant setting under *ECC Mode*.
 - Under *Business Scenario Activation*, select the *Allocation Management* option.
 - Under *Processing Control*, select *Perform Prerequisite Check*.
 4. Display the selection screen of table `CTS_HOT_PREWORK`. Enter the `HANA_PACKAGE_ID` for all packages from the result list of your search in table `CTS_HOT_PACKAGE`.
9. Once you have successfully deployed all content as described in the previous steps, call up transaction *SAP HANA Transport for ABAP - Deployment* (`SCTS_HTA_DEPLOY`). To deploy the SAP Allocation Management packages, enter package name `sap.is.retail.rap.amr*` and choose *Execute*.

Note

With this step, the SAP HANA content for SAP Allocation Management is finally deployed. This is the last and most critical activation step.

Checking for Missing Views

If content activation errors occur, check for missing views in the database. For more information, see [Troubleshooting: Missing Views in Database \[page 290\]](#).

Related Information

[Create/Replicate Source Master Data System Tables \[page 84\]](#)

[Activate SAP HANA Content \[page 89\]](#)

6.5.2.1 Troubleshooting: Missing Views in Database

After the SAP HANA content activation, you can check for missing views in transaction `DB02`.

Check if SAP Allocation Management views are highlighted as objects missing in the database. There could be some missing objects, despite having received success messages from the previous step of activating SAP Allocation Management SAP HANA content.

1. Call up transaction *Diagnostics: Missing Tables and Indexes* (`DB02`)
2. Select **► Diagnostics ► Tables/Views ►** and enter the technical name.
3. Check if any SAP Allocation Management views are displayed as missing in the database.
4. If there are views missing in the database, raise a support ticket.

6.5.3 Check Procedure Associated with Function GENIOS_SOLVE Is Active

For SAP Allocation Management, confirm that the procedure associated with function `GENIOS_SOLVE` is active in the `_SYS_AFL` catalog.

Prerequisites

You have configured the AFL usage and confirmed that the OFL algorithm was installed successfully as described in section [Check the OFL Installation \[page 48\]](#).

Context

Procedure

1. Go to `SAP HANA Systems` view in the `SAP HANA Development Perspective`.
2. In your system, filter for catalog `_SYS_AFL`.

3. In the `_SYS_AFL` catalog, filter on procedures to search for `OFL_AREA_GENIOS_DOLVE_PROC`
4. Confirm that this procedure `OFL_AREA_GENIOS_SOLVE_PROC` is available.

6.5.4 Preselect Product Data

To make product data available in SAP Allocation Management applications, this data must be preselected.

To do this, you must run the report `/AMR/PRECALCULATE_PRODUCT` (*Precalculation of Products*) as part of system set-up. The report requires no additional data selection and can be executed either directly or as a scheduled job in the background, depending on the volume of product master data in the system.

i Note

You must run this report only once. Any other changes in the data are handled by the general preselection report (`/AMR/PRECALCULATION - Execute Preselection`).

6.5.5 Configure SAP Allocation Management

To use SAP Allocation Management, you must define several application-specific settings in Customizing.

General Settings

Define the settings under [SAP Implementation Guide](#) > [Cross-Application Components](#) > [Allocation Management](#).

SAP Allocation Management provides optional integration scenarios with:

- UDF (Unified Demand Forecast)
- SAP Assortment Planning

Both scenarios require additional installation steps, which are described in sections [SAP Assortment Planning \[page 257\]](#) and [Complete UDF Setup \[page 124\]](#) of this guide.

Allocation information from allocation plans can be transferred to follow-on systems to create the corresponding **allocation tables**. You set up the transfer of allocation plans with the implementation of SAP Notes in the follow-on systems. For more information, see [Implement SAP Notes for the Installation \[page 28\]](#).

Activation of Notifications

As part of the promotional business scenarios, you can enable the creation of push notifications for users. These notifications inform responsible users about important changes that affect existing allocation plans, for example, the deletion of an offer or product or a change in the offer validity period.

To activate these notifications in your SAP Customer Activity Repository system, proceed as follows:

1. Under [SAP Implementation Guide](#) > [SAP NetWeaver](#) > [Notification Channel](#) > [Notification Channel Provider Enablement](#) > [Administration](#) > [Notification Provider Settings](#), access the [Register Notification Providers](#) Customizing activity.
2. In this activity, make sure that the following information is available:
 - Provider ID: /AMR/NOTIF_PROMO_PUSH
 - Provider class: /AMR/CL_NOTIF_PROVIDER
3. Then activate this provider in the [Manage Notification Providers](#) activity in the [Notification Provider Settings](#) group that you accessed in Step 1.

6.5.6 Configure Data Replication

SAP Allocation Management uses master data such as product, store, and product hierarchy that is imported to the Demand Data Foundation (DDF) and Unified Demand Forecast (UDF) modules using the data replication framework (DRF, transaction DRFOUT).

i Note

Not all of the master data is replicated using the data replication framework. Some data must be replicated separately using SAP Landscape Transformation Replication Server (SLT).

For detailed information about the SLT replication procedure, see [Create/Replicate Source Master Data System Tables \[page 84\]](#).

6.5.6.1 Initial Load of Data to DDF Using DRFOUT

SAP Allocation Management uses master data, such as product, location, and product hierarchy, that is replicated from SAP Retail or SAP S/4HANA to DDF using DRFOUT.

Procedure

SAP Allocation Management specifically requires that the following data is replicated sequentially from a connected SAP ERP system using DRFOUT:

Sequence	Master Data	Technical Details	For more information, see:
1	Product Hierarchy	<ul style="list-style-type: none"> • SAP ERP Description: Material Group Hierarchy • DRFOUT Outbound Implementation: PMCH • DDF Inbound Interface: /DMF/ MDIF_PROD_HIER_INBOUND 	<p>https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository:</p> <p>► Demand Data Foundation ► Integration Information ► Inbound Interfaces For Remote Function Call (RFC) Communication ► Product Hierarchy Master Data ►</p>
2	Product	<ul style="list-style-type: none"> • SAP ERP Description: Material • DRFOUT Outbound Implementation: PMAT • DDF Inbound Interface: /DMF/ MDIF_PRODUCT_INBOUND 	<p>https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository:</p> <p>► Demand Data Foundation ► Integration Information ► Inbound Interfaces For Remote Function Call (RFC) Communication ► Product Master Data ►</p>
3	Location	<ul style="list-style-type: none"> • SAP ERP Description: Plant • DRFOUT Outbound Implementation: PPLT • DDF Inbound Interface: /DMF/ MDIF_LOCATION_INBOUND 	<p>https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository:</p> <p>► Demand Data Foundation ► Integration Information ► Inbound Interfaces For Remote Function Call (RFC) Communication ► Product Location Master Data ►</p>

Sequence	Master Data	Technical Details	For more information, see:
4	Product Location	<ul style="list-style-type: none"> • SAP ERP Description: Material/Plant • DRFOUT Outbound Implementation: PMPL • DDF Inbound Interface: /DMF/ MDIF_PROD_LOC_INBOUND 	<p>https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository:</p> <p>► Demand Data Foundation ► Integration Information ► Inbound Interfaces For Remote Function Call (RFC) Communication ► Product Location Master Data ►</p>
5	Product Location	<ul style="list-style-type: none"> • SAP ERP Description: Sales Price • DRFOUT Outbound Implementation: PSPR • DDF Inbound Interface: /DMF/ MDIF_PROD_LOC_INBOUND 	<p>https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository:</p> <p>► Demand Data Foundation ► Integration Information ► Inbound Interfaces For Remote Function Call (RFC) Communication ► Product Location Master Data ►</p>
6	Inventory	<ul style="list-style-type: none"> • SAP ERP Description: Inventory • DRFOUT Outbound Implementation: PINV • DDF Inbound Interface: /DMF/ OPIF_INVENTORY_INBOUND 	<p>https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository:</p> <p>► Demand Data Foundation ► Integration Information ► Inbound Interfaces For Remote Function Call (RFC) Communication ► Inventory Master Data ►</p>
7	Transportation Lane	<ul style="list-style-type: none"> • SAP ERP Description: Source of Supply • DRFOUT Outbound Implementation: PSOS • DDF Inbound Interface: /DMF/ MDIF_LANE_INBOUND 	<p>https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository:</p> <p>► Demand Data Foundation ► Integration Information ► Inbound Interfaces For Remote Function Call (RFC) Communication ► Transportation Lane Master Data ►</p>

i Note

Before transferring the planned delivery time to DDF, implement a BADl to update the planned delivery time values as described in SAP Note [2357255](#) (img).

Sequence	Master Data	Technical Details	For more information, see:
8	Location	<ul style="list-style-type: none"> • SAP ERP Description: Vendor • DRFOUT Outbound Implementation: EVEN • DDF Inbound Interface: /DMF/ MDIF_LOCATION_INBOUND 	<a href="https://help.sap.com/car <your release>">https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository: ► <i>Demand Data Foundation</i> ► <i>Integration Information</i> ► <i>Inbound Interfaces For Remote Function Call (RFC)</i> <i>Communication</i> ► <i>Location Master Data</i> ►
9	Product Hierarchy	<ul style="list-style-type: none"> • SAP ERP Description: Article Hierarchy • DRFOUT Outbound Implementation: PAHY • DDF Inbound Interface: /DMF/ MDIF_PROD_HIER_INBOUND 	<a href="https://help.sap.com/car <your release>">https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository: ► <i>Demand Data Foundation</i> ► <i>Integration Information</i> ► <i>Inbound Interfaces For Remote Function Call (RFC)</i> <i>Communication</i> ► <i>Product Hierarchy Master Data</i> ►
10	Offer	<ul style="list-style-type: none"> • SAP ERP Description: Offer • DRFOUT Outbound Implementation: POFF • DDF Inbound Interface: /DMF/ OPIF_OFFER_INBOUND 	<a href="https://help.sap.com/car <your release>">https://help.sap.com/car <your release> and then the <i>Use</i> tab, application help for SAP Customer Activity Repository: ► <i>Demand Data Foundation</i> ► <i>Integration Information</i> ► <i>Inbound Interfaces For Remote Function Call (RFC)</i> <i>Communication</i> ► <i>Offer Master Data</i> ►

You can import the data into staging tables, and then transfer this data to production tables using report /DMF/PROCESS_STAGING_TABLES. Alternatively, you can skip the staging tables and import the data directly into the production tables. For more information, see:

- <https://help.sap.com/car <your release>> and then the *Use* tab, application help for SAP Customer Activity Repository: ► *Demand Data Foundation* ► *Integration Information* ► *Inbound Processing* ►
- <https://help.sap.com/car <your release>> and then the *Use* tab, application help for SAP Customer Activity Repository: ► *Demand Data Foundation* ► *General Services* ► *Monitor Imports* ► *Process Inbound Staging Tables* ►

More Information

For more information on monitoring the replication, see:

- <https://help.sap.com/car <your release>> and then the *Use* tab, application help for SAP Customer Activity Repository: ► *Demand Data Foundation* ► *General Services* ► *Monitor Imports* ►

- The *Periodic Tasks* section of the *Administration Guide* for SAP Allocation Management.

Related Information

[Periodic Tasks](#)

6.5.6.2 Delta Load of Data to DDF Using DRFOUT

When performing a delta load of data from the source master data system using the *DRFOUT* framework, you must ensure that the product location data required to enhance the sales records with historical sales cost is loaded prior to the sales data.

Furthermore, we recommend that you schedule a daily periodic task to replicate data from the source system to the SAP Allocation Management system.

6.5.7 Configure Front End

Check if you have performed the SAP Gateway configuration and that you have activated the OData Services for distribution curve and SAP Allocation Management.

[Activate SAP Allocation Management ICF Services \[page 297\]](#)

Perform these steps to activate Internet Communication Framework (ICF) services for SAP Allocation Management.

[Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad \[page 297\]](#)

To be able to access SAP Fiori apps that constitute the SAP Allocation Management user interface from the SAP Fiori launchpad, your front-end system user must have the necessary roles assigned. Based on the roles assigned to your user, you can access certain business catalogs and business catalog groups.

Related Information

[Configure SAP Gateway \[page 99\]](#)

[Activate OData Services \[page 103\]](#)

6.5.7.1 Activate SAP Allocation Management ICF Services

Perform these steps to activate Internet Communication Framework (ICF) services for SAP Allocation Management.

For security reasons, all Internet Communication Framework (ICF) services relevant to your SAP Allocation Management application are made available in an inactive state.

You have activated the central ICF services while configuring the SAP Gateway. This procedure provides the instructions to activate ICF services required for the SAP Allocation Management SAP Fiori apps.

Procedure

1. Log on to your front-end server.
2. Open service maintenance (transaction `SICF`).
3. In the *Maintain Service* screen, select the Location Clustering service by specifying the following:
 - Hierarchy Type: **SERVICE**
 - Virtual Host: **DEFAULT_HOST**
 - Service Path: `/sap/bc/ui5_ui5/sap/amr_alloplan/`
4. Choose *Execute*.
5. To activate the service, choose *Service/host Activate*.
6. Repeat steps 3–5 to ensure that **all** of the following services are activated:
 - `/sap/bc/ui5_ui5/sap/amr_alloplan`
 - `/sap/bc/ui5_ui5/sap/amr_allo_params`
 - `/sap/bc/ui5_ui5/sap/amr_dist_config`
 - `/sap/bc/ui5_ui5/sap/amr_lib_reuse`
 - `/sap/bc/ui5_ui5/sap/amr_marketunit`
 - `/sap/bc/ui5_ui5/sap/amr_workload`
 - `/sap/bc/ui5_ui5/sap/amr_kpicconfig`
 - `/sap/bc/ui5_ui5/sap/amr_result`
 - `/sap/bc/ui5_ui5/sap/amr_capacity`

6.5.7.2 Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad

To be able to access SAP Fiori apps that constitute the SAP Allocation Management user interface from the SAP Fiori launchpad, your front-end system user must have the necessary roles assigned. Based on the roles assigned to your user, you can access certain business catalogs and business catalog groups.

Your SAP Allocation Management application is delivered with a predefined role, catalog, and group. These include technical content as well as business content:

Business Role	Business Catalog	Business Catalog Group	Technical Role	Technical Catalog
SAP_AMR_BCR_ALLOCATOR_T	SAP_AMR_BC_ALLOCA TOR_T	SAP_AMR_BCG_ALLOCATOR_T	SAP_AMR_TCR_T	SAP_AMR_TC _T

To test the installation of SAP Allocation Management from the SAP Fiori launchpad, you need to assign the roles to your user on the front-end system.

Procedure

1. Log on to your front-end system.
2. Launch *User Maintenance* (transaction SU01).
3. Enter your user name in the *User* field and choose *Change*.
4. On the *Roles* tab, assign the roles SAP_AMR_BCR_ALLOCATOR_T and SAP_AMR_TCR_T to your user.

⚠ Caution

If you already have an SAP Fiori launchpad open, you must clear your browser cache to apply any modifications made to your user roles. Otherwise, your changes are not reflected in the SAP Fiori user interface.

More Information

See the *Security Information* section of the *Administration Guide* for SAP Allocation Management.

6.6 Configure Access to Documentation Provided on SAP Help Portal (Optional for All Applications)

In transaction SR13, you can configure your back-end system to access the documentation for your application on SAP Help Portal.

Context

You can configure your back-end system to access the documentation that is provided on SAP Help Portal for SAP Customer Activity Repository applications bundle at <https://help.sap.com/viewer/p/CARAB>.

❁ Example

If your application is SAP Customer Activity Repository, you can configure access to the application help for SAP Customer Activity Repository.

Prerequisites

- The documentation that you want to access must be available on SAP Help Portal.
- The users who access the documentation must have access to the Internet.
- You can configure an ABAP system to connect to only one **combination of product and version**. These are the values that you will specify under *Path* in the procedure below.

i Note

The **product** CARAB is valid for all the applications delivered with SAP Customer Activity Repository applications bundle.

The **version** depends on the release.

❁ Example

The combination CARAB/4.0.6 is valid for all the application versions delivered with **SAP Customer Activity Repository applications bundle 4.0 SPS06**.

If these prerequisites cannot all be fulfilled, you must install the documentation in your local system landscape using the download packages or DVDs/CDs provided.

i Note

For more information about installing the documentation in your local system landscape, see the [User Guides for System Provisioning with Software Provisioning Manager - SAP Library](#). Select your operating system and following the instructions.

If you encounter issues during the following procedure, see the links at the end of this section for possible solutions.

Procedure

1. Open transaction SR13.
2. Select the tab *PlainHtmlHttp*.
3. Choose *New Entries*.

⚠ Caution

When selecting an *Area*, you must create entries for *Documentation* and for *XML Documentation*, for each platform you are using and each language in which you want to provide documentation.

4. To create entries for the *Documentation* area, enter the following values:

Name	Value to be entered
Variant	Enter a name for the variant.
Platform	Select the platform relevant for your implementation from the list of available platforms (for example, WN32).
Area	Select <i>Documentation</i> from the list; this will display as IWBHELP in the table.
Server Names	https://help.sap.com/http.svc/ahp2
Path (<Product/Version>)	CARAB/4.0.6
<div style="background-color: #f0f0f0; padding: 5px;"> <p>i Note</p> <p>Make sure to enter the exact combination of upper-case and lowercase characters.</p> </div>	
Language	Select the language you need from the list.

5. To create entries for the *XML Documentation* area, enter the following values:

Name	Value to be entered
Variant	Enter a name for the variant.
Platform	Select the platform relevant for your implementation from the list of available platforms (for example, WN32).
Area	Select <i>XML Documentation</i> from the list; this will display as XML_DOCU in the table.
Server Names	https://help.sap.com/http.svc/ahp2
Path (<Product/Version>)	CARAB/4.0.6
<div style="background-color: #f0f0f0; padding: 5px;"> <p>i Note</p> <p>Make sure to enter the exact combination of upper-case and lowercase characters.</p> </div>	
Language	Select the language you need from the list.

6. Repeat steps 4 and 5 for each relevant platform and language.
7. Select one entry as the default language for each platform and area.
8. Save your entries.

Results

You have configured your back-end system to point to documentation that is provided on SAP Help Portal.

Related Information

[SAP Note 2149786 Customizing help settings in transaction SR13](#)

[SAP Note 2652009 Connecting the help to the SAP Help Portal](#)



[SAP Note 2572047 SAP provides user assistance \(documentation\) as HTML, PDF, or directly via SAP Help Portal](#)

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