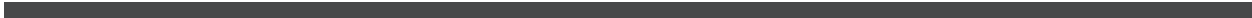


# **Common Installation Guide**

**SAP Customer Activity Repository 2.0 SP01, SAP Assortment Planning for Retail 1.0 SP01, SAP Promotion Management for Retail 8.1 SP01**



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# Content

<b>1</b>	<b>Introduction</b>	<b>5</b>
1.1	About this Document	5
1.2	SAP Notes for the Installation	5
1.3	Information Available on SAP Service Marketplace	7
1.4	Naming Conventions	9
<b>2</b>	<b>Planning</b>	<b>11</b>
2.1	Overall System Planning	11
2.2	System Landscape Variants	13
	SAP Customer Activity Repository	13
	SAP Assortment Planning for Retail	17
<b>3</b>	<b>Prerequisites</b>	<b>21</b>
<b>4</b>	<b>Installation Scenarios</b>	<b>26</b>
4.1	SAP Customer Activity Repository	26
	Installation	26
	Post-Installation	36
4.2	SAP Assortment Planning for Retail	60
	Preparation	60
	Installation	62
	Post-Installation	72
4.3	SAP Promotion Management for Retail	102
	Installation	102
<b>5</b>	<b>Additional Information</b>	<b>105</b>
5.1	SAP ERP Sales Document Fields used by SAP Customer Activity Repository	105
5.2	SAP HANA Live for SAP ERP Views Required by SAP Customer Activity Repository	106
5.3	Workbook Design Example	108
5.4	Referenced SAP Notes	110



# 1 Introduction

## 1.1 About this Document

### Purpose

This guide provides you with information on the installation process of the `CAR RETAIL APPL BUNDLE` add-on, including the following SAP applications:

- SAP Customer Activity Repository 2.0 SP01
- SAP Assortment Planning for Retail 1.0 SP01
- SAP Promotion Management for Retail 8.1 SP01

For more information on these applications and their business scenarios, see SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► *Installation and Upgrade Information* ► *Master Guide* ►.



### Caution

If you have an existing installation of these applications, you must perform a software upgrade rather than a new installation.

Table 1

Application	Upgrade Information
SAP Customer Activity Repository	<ul style="list-style-type: none"><li>• ► <a href="https://help.sap.com/car">help.sap.com/car</a> ► <i>Installation and Upgrade Information</i> ► <i>Upgrade Guide</i> ►</li><li>• SAP Note <a href="#">2116084</a></li></ul>
SAP Assortment Planning for Retail	SAP Note <a href="#">2116084</a>
SAP Promotion Management for Retail	<ul style="list-style-type: none"><li>• ► <a href="https://help.sap.com/retail-pmr810">help.sap.com/retail-pmr810</a> ► <i>System Administration and Maintenance Information</i> ► <i>Administrator's Guide</i> ►</li><li>• SAP Note <a href="#">2116084</a></li></ul>

## 1.2 SAP Notes for the Installation

The following list includes SAP Notes that you must read (and, when appropriate, implement) before you start the installation. For a comprehensive list of all SAP Notes referenced throughout the entire guide, see the [Referenced SAP Notes \[page 110\]](#) section at the end of this guide.

Make sure that you have the up-to-date version of each SAP Note, which you can find on SAP Service Marketplace at [service.sap.com/notes](https://service.sap.com/notes).

Table 2: SAP Notes for SAP Customer Activity Repository

SAP Note Number	Title	Description
<a href="#">1605140</a>	SAP HANA 1.0: Central Note - SAP LT Replication Server	Collective note for all the relevant SAP Notes for LT Replication Server for SAP HANA.
<a href="#">1778607</a>	SAP HANA Live for SAP Business Suite	What to consider when implementing SAP HANA Live for SAP Business Suite.
<a href="#">1791342</a>	Time Zone Support in SAP HANA	How to handle time zone functions <code>UTCTOLOCAL</code> and <code>LOCALTOUTC</code> .

### **i** Note

Demand Data Foundation (DDF) and Unified Demand Forecast (UDF) are optional components depending on your SAP Customer Activity Repository scenario (for more information, see [Installation Scenarios \[page 26\]](#)). The SAP Notes related to DDF and UDF are therefore not included here but referenced in the appropriate sections of this guide. For a comprehensive list, see the [Referenced SAP Notes](#) section.

Table 3: SAP Notes for SAP Assortment Planning for Retail

SAP Note Number	Title	Description
<a href="#">1637199</a>	Using the planning applications KIT	Important information for running the Planning Application Kit (PAK).
<a href="#">2033016</a>	Improved buffering of "unposted" calls in queries	Correction to reduce the number of times the <code>LOAD</code> method in class <code>CL_RSR_RRKO_UNPOSTED_PLAN</code> is called.
<a href="#">2067733</a>	BW-IP: Not all data is filtered	Corrections related to the SAP BW planning buffer.
<a href="#">2022080</a>	Upgrade of PAL AFL and BFL AFL from SAP HANA earlier release to SPS08	Corrections to add privileges removed during upgrade to SAP HANA Platform SPS 08.
<a href="#">1662968</a>	Clarification on setting <code>ResultSetSizeLimit</code> in Analysis Office	Information on changing the default <code>ResultSetSizeLimit</code> registry setting.
<a href="#">2075135</a>	Assortment Planning: Wrong values and incorrect planning functions in option plan	Correction related to option planning.
<a href="#">2075211</a>	Assortment Planning: Errors in Refine Assortment workbook category display and KPIs	Correction to Refine Assortment workbook.

Table 4: SAP Notes for SAP Promotion Management for Retail

SAP Note Number	Title	Description
<a href="#">2026580</a>	Release strategy for the ABAP add-on <code>RTLPRMO</code>	This SAP Note contains information about planning the installation and upgrades of the ABAP add-on [Add-on].



## 1.3 Information Available on SAP Service Marketplace

More information is available as follows on SAP Service Marketplace.

Table 5: Documentation

Description	Internet Address	Title
Information on SAP Customer Activity Repository.	► <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ► <i>Industry Solutions</i> ► <i>Industry Solution Guides</i> ► <i>SAP for Retail</i> ► <i>SAP Customer Activity Repository</i> ►	<i>SAP Customer Activity Repository 2.0</i>
Information on SAP Assortment Planning for Retail.	► <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ► <i>Industry Solutions</i> ► <i>Industry Solution Guides</i> ► <i>SAP for Retail</i> ► <i>SAP Assortment Planning for Retail</i> ►	<i>SAP Assortment Planning for Retail 1.0</i>
Information on SAP Promotion Management for Retail.	► <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ► <i>Industry Solutions</i> ► <i>Industry Solution Guides</i> ► <i>SAP for Retail</i> ► <i>SAP Promotion Management for Retail</i> ►	<i>SAP Promotion Management for Retail 8.1</i>
Information on the Demand Data Foundation and Unified Demand Forecast components in SAP Customer Activity Repository.	► <a href="http://help.sap.com/car">help.sap.com/car</a> ► <i>Integration Information</i> ►	<i>Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA</i>
Information on installing SAP HANA.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► <i>Installation and Upgrade Information</i> ► <i>SAP HANA Server Installation and Update Guide</i> ►	<i>SAP HANA Server Installation and Update Guide (with or without SAP HANA unified installer, based on your SAP HANA SPS)</i>
Information on installing SAP HANA database clients.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► <i>Installation and Upgrade Information</i> ► <i>SAP HANA Client Installation and Update Guide</i> ►	<i>SAP HANA Client Installation and Update Guide</i>
Information on installing SAP HANA Studio.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► <i>Installation and Upgrade Information</i> ► <i>SAP HANA Studio Installation and Update Guide</i> ►	<i>SAP HANA Studio Installation and Update Guide</i>
Information on implementing SAP HANA Live for SAP Business Suite.	► <a href="http://help.sap.com/hba">help.sap.com/hba</a> ► <i>Installation, Security, Configuration, and Operations Information</i> ► <i>Administrator's Guide</i> ►	<i>Administrator's Guide, SAP HANA Live for SAP Business Suite</i>
Information on installing the SAP LT (Landscape Transformation) Replication Server for SAP HANA.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► <i>Installation and Upgrade Information</i> ► <i>Installation Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA</i> ►	<i>Installation Guide - Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA</i>

Description	Internet Address	Title
Information on managing major operational aspects of the SAP LT Replication Server.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► System Administration and Maintenance Information ► Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA ►	<i>Application Operations Guide - Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA</i>
Information on using SAP HANA.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► System Administration and Maintenance Information ► SAP HANA Administration Guides ►	<i>SAP HANA Administration Guide</i>
Information for developers on how to use the SAP HANA development tools to create comprehensive analytical models and to build applications with SAP HANA's interfaces and integrated development.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► Development Information ► SAP HANA Developer Guide ►	<i>SAP HANA Developer Guide</i>
Information for modelers (or business analysts) on how to define data models that will be used in SAP HANA.	► <a href="http://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► Modeling Information ► SAP HANA Modeling Guide ►	<i>SAP HANA Modeling Guide</i>
Information on installing SAP Solution Manager.	► <a href="http://help.sap.com/solutionmanager71">help.sap.com/solutionmanager71</a> ► Installation and Upgrade Information ► Installation Guide ► ► <a href="http://help.sap.com/nw74">help.sap.com/nw74</a> ► Installation and Upgrade Information ► Master Guide ►	<i>Master Guide, SAP NetWeaver 7.4</i>
Information on installing SAP NetWeaver 7.40.	► <a href="http://help.sap.com/nw74">help.sap.com/nw74</a> ► Installation and Upgrade Information ► Installation Guides ► SAP HANA Database ►	<i>Installation Guide, SAP Systems Based on the Application Server &lt;Your Server&gt; of SAP NetWeaver on &lt;Your Operating System&gt;: SAP HANA Database</i>
Information on installing SAP ERP 6.0 Enhancement Package 5.	► <a href="http://help.sap.com/erp605">help.sap.com/erp605</a> ► Installation and Upgrade Information ► Installation Guide ►	<i>Installation Guide, SAP ERP 6.0 Including SAP Enhancement Package 5 - Technical Usage "Central Applications" &lt;Your Server&gt; on &lt;Your Operating System&gt;</i>
Information on installing SAP Enhancement Package 2 for SAP CRM 7.0 or SAP Enhancement Package 2 for SAP CRM 7.0, Version for SAP HANA or higher.	► <a href="http://help.sap.com/crm702">help.sap.com/crm702</a> ► Installation and Upgrade Information ► Installation Guide ► Install ► Installation Guides for SAP EHP 2 for SAP CRM 7.0 ► Installation Guide - SAP enhancement package 2 for CRM 7.0 - ABAP and Java ► ► <a href="http://help.sap.com/crmhana">help.sap.com/crmhana</a> ► Installation and Upgrade Information ► Administrator's Guide ► Administrator's	<i>Installation Guide, SAP Customer Relationship Management 7.0 Including Enhancement Package 2 Java and ABAP Administrator's Guide, SAP Enhancement Package 2 for SAP CRM 7.0, Version for SAP HANA</i>




Description	Internet Address	Title
	<a href="#">Guide SAP CRM 7.0 EHP2, Version for SAP HANA</a> 	

Table 6: General Quick Links

Description	Internet Address
SAP Help Portal	<a href="http://help.sap.com">help.sap.com</a>
SAP Notes	<a href="http://service.sap.com/notes">service.sap.com/notes</a>
SAP Software Download Center	<a href="http://support.sap.com/swdc">support.sap.com/swdc</a>
Released platforms and operating systems	<a href="http://service.sap.com/platforms">service.sap.com/platforms</a>
System sizing	<a href="http://service.sap.com/sizing">service.sap.com/sizing</a>
Security	<a href="http://service.sap.com/security">service.sap.com/security</a>
SAP Solution Manager	<a href="http://support.sap.com/solutionmanager">support.sap.com/solutionmanager</a>


## 1.4 Naming Conventions

Throughout this document the following naming conventions apply.

### Definitions

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

Table 7

Term	Definition
consuming application	<p>An SAP product designed to consume and utilize data obtained from SAP Customer Activity Repository.</p> <div>  <b>Example</b> <ul style="list-style-type: none"> <li>• SAP Assortment Planning for Retail</li> <li>• SAP Promotion Management for Retail</li> </ul> </div>
back-end system	<p>The SAP NetWeaver-based back-end server on which SAP Customer Activity Repository and its consuming applications (such as SAP Assortment Planning for Retail and SAP Promotion Management for Retail) are installed.</p> <p>For a visual representation of the back-end system, see <a href="#">Figure 1</a> in the <a href="#">Overall System Planning [page 11]</a> section.</p>
front-end server	<p>The SAP NetWeaver-based front-end server on which the SAP Gateway, SAP Fiori Launchpad, SAP Fiori Central UI, and SAP Fiori product-specific components are installed.</p> <p>For a visual representation of the front-end system, see <a href="#">Figure 1</a> in the <a href="#">Overall System Planning [page 11]</a> section.</p>

Term	Definition
Common Master Guide	<p>Common Master Guide for SAP Customer Activity Repository 2.0 SP01, SAP Assortment Planning for Retail 1.0 SP01, SAP Promotion Management for Retail 8.1 SP01.</p> <p>You can find this guide on SAP Service Marketplace at <a href="https://service.sap.com/instguides">service.sap.com/instguides</a> &gt; <i>Installation &amp; Upgrade Guides</i> &gt; <i>Industry Solutions</i> &gt; <i>Industry Solution Guides</i> &gt; <i>SAP for Retail</i> &gt; <i>SAP Customer Activity Repository</i> &gt; <i>SAP Customer Activity Repository 2.0 SP01</i> &gt; <i>Master Guide</i> &gt;.</p>

## Naming Differences

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

Table 8

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

## Variables

Table 9

Variables	Description
<SAPSID>	SAP system ID in uppercase letters
<sapsid>	SAP system ID in lowercase letters
<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

## 2 Planning

### 2.1 Overall System Planning

Retail applications described in this guide require a layered system landscape that includes the following:

Table 10

Prerequisite	Mandatory/Optional for Scenario		
	SAP Customer Activity Repository	SAP Assortment Planning for Retail	SAP Promotion Management for Retail
SAP HANA	Mandatory	Mandatory	Mandatory
SAP HANA Live for SAP ERP	Mandatory	Mandatory	Not applicable
SAP NetWeaver Application Server ABAP	Mandatory	Mandatory	Mandatory
SAP Gateway	Optional	Mandatory	Not applicable
SAP Fiori	Optional	Mandatory	Not applicable
SAP BusinessObjects Analysis, edition for Microsoft Office	Not applicable	Mandatory	Not applicable

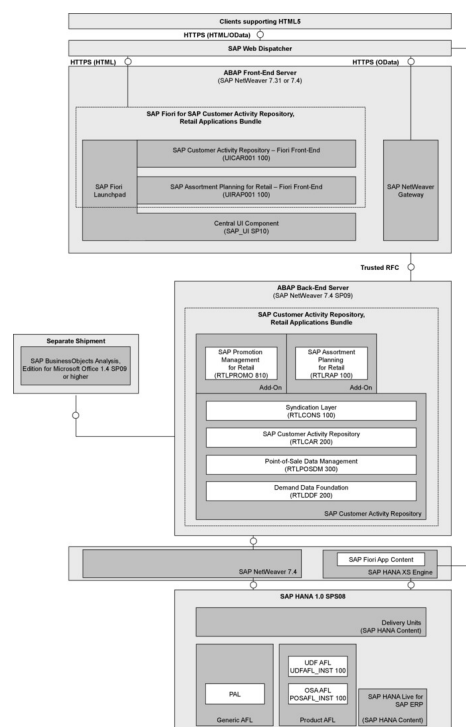


Figure 1

## Product Versions

The installation of SAP Customer Activity Repository and consuming applications is comprised of the installation of two distinct product versions:

- **SAP Customer Activity Repository retail applications bundle** (CAR RETAIL APPL BUNDLE 1.0)

ABAP back-end functionality and the business content (such as SAP HANA views and procedures, local BI Content, and workbooks, where applicable) are delivered in several software components, which are all included in the CAR RETAIL APPL BUNDLE 1.0 product version.

- **SAP Fiori 1.0 for SAP Customer Activity Repository retail applications bundle** (SAP FIORI FOR SAP CARAB 1.0)

The user interface of SAP Assortment Planning for Retail is comprised of several transactional SAP Fiori apps. These apps are delivered in the UIRAP001 software component, which is included in the SAP FIORI FOR SAP CARAB 1.0 product version. Similarly, SAP Smart Business for SAP Customer Activity Repository is delivered in the UISCAR01 software component, also included in the SAP FIORI FOR SAP CARAB 1.0 product version.

For more information about the system landscape for transactional SAP Fiori apps, see ► [help.sap.com/fiori](https://help.sap.com/fiori/bs2013/SAP_Fiori_for_SAP_ERP_1.0/SAP_Library/Central_Implementation_Information/Installation/System_Landscape/Deployment_Options) ► *System Landscape Required for SAP Fiori* ► *Setup of SAP Fiori System Landscape with ABAP Environment* ►.

## Central Hub Deployment

For SAP Customer Activity Repository and SAP Assortment Planning for Retail, we recommend that you use **Central Hub Deployment**, the deployment option recommended by SAP Fiori for SAP Business Suite.

With central hub deployment, the CAR RETAIL APPL BUNDLE 1.0 product version is installed on a back-end server, and the SAP FIORI FOR SAP CARAB 1.0 product version is installed on a separate, front-end server.

The central hub deployment option decouples the lifecycle of the UI Fiori apps from the back-end components, and offers the following advantages:

- Faster iterations for the UI apps
- Changes to the user interface are possible without having development authorizations in the back end
- Single point of maintenance for user interface issues, such as browser support and updated versions of SAP UI5 libraries
- Central place for theming and branding SAP Fiori transactional and SAP Smart Business apps

In general, when an SAP solution includes an SAP Fiori user interface, you could potentially use the embedded deployment option, which allows you to use the same SAP NetWeaver server for back-end and front-end components. Although the advantage of this deployment is that you do not require a separate SAP NetWeaver front-end server, this deployment option is not recommended for the retail applications described in this guide.

As we do not recommend the embedded deployment option, the remainder of this document is entirely based on the central hub deployment option.

For more information on deployment options, see:

- SAP Library for SAP Fiori for SAP Business Suite on SAP Help Portal at ► [help.sap.com/fiori](https://help.sap.com/fiori/bs2013/SAP_Fiori_for_SAP_ERP_1.0/SAP_Library/Central_Implementation_Information/Installation/System_Landscape/Deployment_Options) ► *System Landscape Required for SAP Fiori* ► *Setup of SAP Fiori System Landscape with ABAP Environment* ► *Deployment Options* ►.
- SAP Library for SAP Fiori for SAP ERP 1.0 on SAP Help Portal at ► [help.sap.com/fiori\\_bs2013](https://help.sap.com/fiori/bs2013/SAP_Fiori_for_SAP_ERP_1.0/SAP_Library/Central_Implementation_Information/Installation/System_Landscape/Deployment_Options) ► *SAP Fiori for SAP ERP 1.0* ► *SAP Library* ► *Central Implementation Information* ► *Installation* ► *System Landscape* ► *Deployment Options* ►.

- SAP Library for SAP NetWeaver Gateway 2.0 SP07 on SAP Help Portal at ► [help.sap.com/nwgateway20](https://help.sap.com/nwgateway20) ► *Application Help* ► *SAP NetWeaver Gateway Master Guide* ► *Deployment Options/Embedded Versus Hub Deployment* ►.

## 2.2 System Landscape Variants

### 2.2.1 SAP Customer Activity Repository

#### 2.2.1.1 SAP Customer Activity Repository Standalone

This deployment option has the following key characteristics:

- SAP Customer Activity Repository is deployed alongside an existing installation of SAP ERP for Retail 6.0 EHP5 or higher.
- The repository is installed as an Add-On to SAP NetWeaver Application Server for ABAP 7.40, on an underlying SAP HANA Platform SPS 08 or higher.
- The repository uses SAP HANA content that is:
  - Included in the SAP Customer Activity Repository software components and is automatically installed when installing these software components
  - Included in SAP HANA Live for SAP ERP
- The repository has its own database schema on the SAP HANA Platform (`SAP_CAR DB Schema`). POS transactions processed by the repository are persisted in this schema in the form of transaction logs (`TLOG`).
- SAP ERP data, replicated from a source SAP ERP system into the repository using trigger-based (SLT) replication, is persisted in a separate schema (`SAP_ECC DB Schema`) on the same SAP HANA Platform.
- SAP ERP data required by DDF is imported from an SAP Retail ERP system using the DRF data replication framework (transaction `DRFOUT`). For more information, see the ► *Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA* ► *Introduction to Demand Data Foundation (DDF)* ► *Integrate Master Data* ►. You can find this guide on SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► *Integration Information* ►.
- SAP Customer Activity Repository combines data read from the SAP ERP schema with that of the SAP Customer Activity Repository schema and exposes this combined data to consuming applications.

#### 2.2.1.2 SAP Customer Activity Repository Co-Deployed with SAP ERP

In this deployment option, the SAP HANA Platform is shared by SAP Customer Activity Repository and SAP ERP for Retail 6.0 EHP5 or higher.

This deployment option has the following key characteristics:

- The repository is installed as an Add-On to SAP NetWeaver Application Server for ABAP 7.40, on an underlying SAP HANA Platform SPS 08 or higher.

- SAP ERP for Retail 6.0 EHP5 or higher is installed on a separate SAP NetWeaver instance that accesses the same SAP HANA Platform as the repository. This means that the SAP HANA Platform is *shared* by the repository and SAP ERP for Retail.
- SAP ERP data required by DDF is imported from an SAP Retail ERP system using the DRF data replication framework (transaction `DRFOUT`). For more information, see the ► [Administrator's Guide, Demand Data Foundation \(DDF\) with Unified Demand Forecast \(UDF\) on SAP HANA](#) ► [Introduction to Demand Data Foundation \(DDF\)](#) ► [Integrate Master Data](#) ►. You can find this guide on SAP Help Portal at ► [help.sap.com/car](http://help.sap.com/car) ► [Integration Information](#) ►.
- The repository has its own database schema on the SAP HANA Platform (`SAP_CAR` DB Schema). POS transactions processed by the repository are persisted in this schema in the form of transaction logs (`TLOG`).
- SAP ERP has its own database schema on the SAP HANA Platform (`SAP_ECC` DB Schema).
- SAP Customer Activity Repository reads data from the SAP ERP schema and combines it with data stored in its own, `SAP_CAR`, schema. The combined data is exposed to consuming applications through views included in the SAP HANA content for SAP Customer Activity Repository.
- The repository uses SAP HANA content that is:
  - Included in the SAP Customer Activity Repository software components and is automatically installed when installing these software components
  - Included in SAP HANA Live for SAP ERP

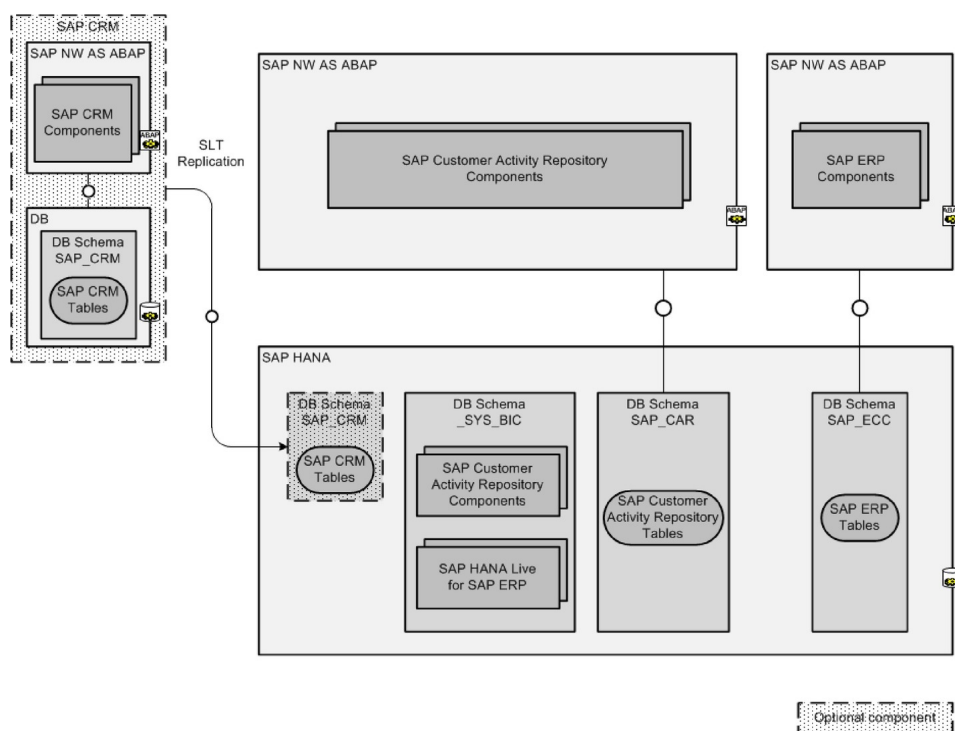


Figure 2: SAP Customer Activity Repository Co-Deployed with SAP ERP

This deployment option provides the following advantages:

- No SLT replication is required from SAP ERP to SAP Customer Activity Repository. The repository uses virtual data models to consume data directly (without SLT replication) from SAP ERP tables stored on the shared SAP HANA Platform.
- There are no technical dependencies or limitations between the individual SAP NetWeaver stacks used by SAP Customer Activity Repository and SAP ERP for Retail.



- Only one single SAP HANA Platform is required.

However, this deployment option has the following disadvantages:

- Because the SAP HANA Platform is shared by two large applications (SAP Customer Activity Repository and SAP ERP for Retail), the size of the required SAP HANA Platform increases substantially.
- Because data is not replicated from SAP ERP to the repository, there is no opportunity to apply transformation rules to correct any potential differences in SAP client numbers. As a result, the SAP client numbers of the source SAP ERP system and of the SAP Customer Activity Repository system must match. For more information, see [Set Up SAP Client \[page 28\]](#).

### 2.2.1.3 SAP Customer Activity Repository Co-Deployed with SAP BW

In this deployment option, the SAP HANA Platform is shared by SAP Customer Activity Repository and SAP Business Warehouse (SAP BW).

#### **i** Note

SAP BW and BI Content are not **required** for the implementation of SAP Customer Activity Repository. This section simply outlines the technical details and the advantages associated with this co-deployment.

This deployment option has the following key characteristics:

- SAP Customer Activity Repository is deployed alongside an existing installation of SAP ERP for Retail 6.0 EHP5 or higher.
- The repository is installed as an Add-On to SAP NetWeaver Application Server for ABAP 7.40, on an underlying SAP HANA Platform SPS 08 or higher.
- SAP BW is installed as a separate instance on the same SAP HANA Platform as the repository. This means that the SAP HANA Platform is *shared* by the repository and SAP BW.
- The default master data access from the repository is always through SAP HANA views to the master data tables replicated from a source SAP ERP system.

When SAP BW and BI Content are available on the same SAP HANA Platform as the repository, and you want to access master data from SAP BW, you will have to re-implement the BADIs that are used for master data access in SAP Customer Activity Repository.

- SAP ERP data required by DDF is imported from an SAP Retail ERP system using the DRF data replication framework (transaction `DRFOUT`). For more information, see the [Administrator's Guide, Demand Data Foundation \(DDF\) with Unified Demand Forecast \(UDF\) on SAP HANA](#) > [Introduction to Demand Data Foundation \(DDF\)](#) > [Integrate Master Data](#) . You can find this guide on SAP Help Portal at [help.sap.com/car](http://help.sap.com/car) > [Integration Information](#) .
- The repository uses SAP HANA content that is:
  - Included in the SAP Customer Activity Repository software components and is automatically installed when installing these software components
  - Included in SAP HANA Live for SAP ERP
- The repository has its own database schema on the SAP HANA Platform (`SAP_CAR_DB` Schema). POS transactions processed by the repository are persisted in this schema in the form of transaction logs (`TLOG`).

- SAP ERP data, replicated from a source SAP ERP system into the repository using trigger-based (SLT) replication, is persisted in a separate schema (SAP\_ECC DB Schema) on the same SAP HANA Platform.
- SAP BW also has its own, separate, database schema.
- SAP Customer Activity Repository combines data read from the SAP ERP schema with that of the SAP Customer Activity Repository schema and exposes this combined data to consuming applications.
- SAP Customer Activity Repository data can be consumed directly from SAP BW (without replication).

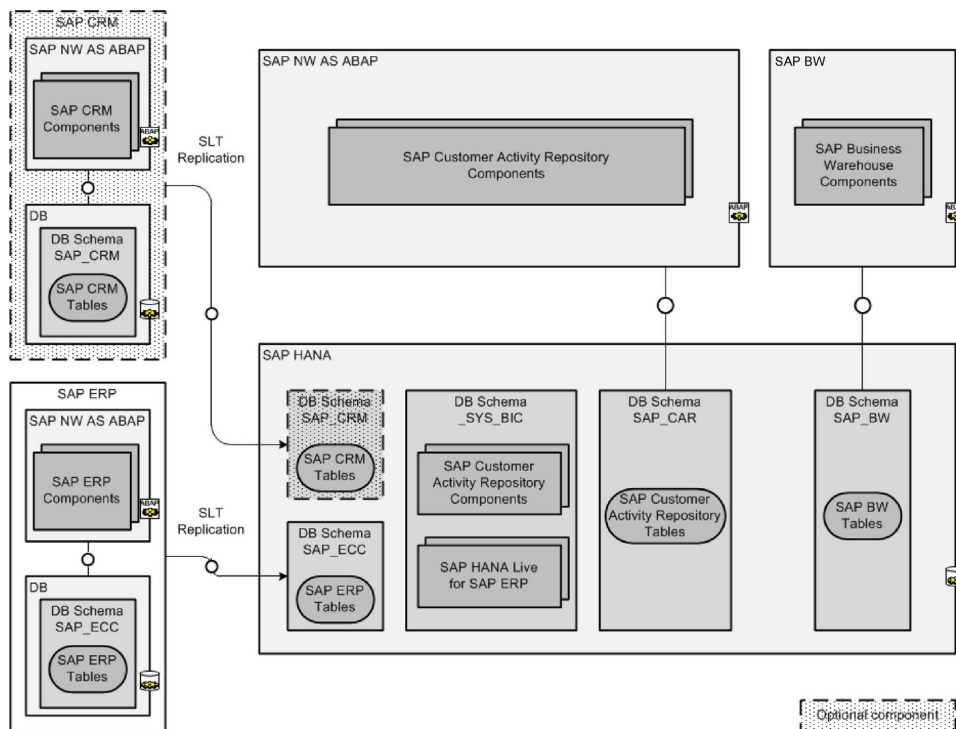


Figure 3: SAP Customer Activity Repository Co-Deployed with SAP BW

This deployment option provides the following advantage:

- You can continue to leverage existing SAP BW assets, for example, by combining data from existing BI Content objects together with data exposed through views of the SAP HANA content for SAP Customer Activity Repository.

However, this deployment option has the following disadvantage:

- The Point of Sale Data Management component within SAP Customer Activity Repository processes the transactions received from the point of sale and stores them in the repository. If this component is unavailable as a result of maintenance that is unrelated to the actual operation of the repository, then mission-critical POS transaction data cannot be processed. This can result in delayed posting of financial figures to SAP ERP.

## 2.2.2 SAP Assortment Planning for Retail

### 2.2.2.1 Common Characteristics of Landscape Variants

All SAP Assortment Planning for Retail landscape variants share the following common characteristics:

- SAP Assortment Planning for Retail is a consuming application of SAP Customer Activity Repository. In turn, SAP Customer Activity Repository is installed as an Add-On to SAP NetWeaver Application Server for ABAP 7.40, on an underlying SAP HANA Platform SPS 08.
- SAP Assortment Planning is installed as part of SAP Customer Activity Repository retail applications bundle (CAR RETAIL APPL BUNDLE 1.0). However, the application is licensed separately, and its usage must be enabled as described in [Activate SAP Assortment Planning for Retail Business Function \[page 73\]](#).
- SAP Assortment Planning for Retail uses SAP HANA content that is automatically installed when installing:
  - SAP Customer Activity Repository retail applications bundle (CAR RETAIL APPL BUNDLE 1.0), including:
    - Demand Data Foundation (RTLDDF software component)
    - SAP Customer Activity Repository (RTLPOSDM and RTLCAR software components)
    - Syndication Layer (RTLCONS software component)
    - SAP Assortment Planning for Retail (RTLRAP software component)
  - SAP HANA Live for SAP ERP
- SAP Assortment Planning for Retail has its own database schema on the SAP HANA Platform (SAP\_RAP\_DB Schema) in addition to the schemas of SAP Customer Activity Repository software components (SAP\_DDF\_DB Schema, SAP\_CAR\_DB Schema).
- SAP Assortment Planning for Retail accesses master data from two different sources:
  - **Demand Data Foundation:** Data is imported to DDF from an SAP ERP for Retail system using the DRFOUT data replication framework. For more information, see [Configure Demand Data Foundation \[page 74\]](#).
  - **SAP HANA Live for SAP ERP:** Data is made available from a connected SAP ERP for Retail system. The import process depends on the corresponding deployment option.
- Released Merchandise Planning data (for example, Open-To-Buy data generated using the SAP Planning for Retail, rapid deployment solution) is imported into the SAP\_DDF\_DB Schema using the standard RFC framework. For more information, see [Configure Demand Data Foundation \[page 74\]](#).

### 2.2.2.2 SAP Assortment Planning for Retail Standalone

This deployment option has the following key characteristics:

- SAP Assortment Planning for Retail is deployed alongside an existing installation of the following:
  - SAP ERP for Retail 6.0 EHP5 or higher
  - [Optional] An SAP Business Warehouse system that contains data generated using SAP Planning for Retail, rapid deployment solution
- Data is imported from SAP ERP into:

- SAP HANA Live for SAP ERP, using SAP LT Replication Server (SLT), and is persisted in `SAP_ECC` Schema, and
- DDF, using the `DRFOUT` data replication framework, and is persisted in `SAP_DDF` Schema (subset of data)

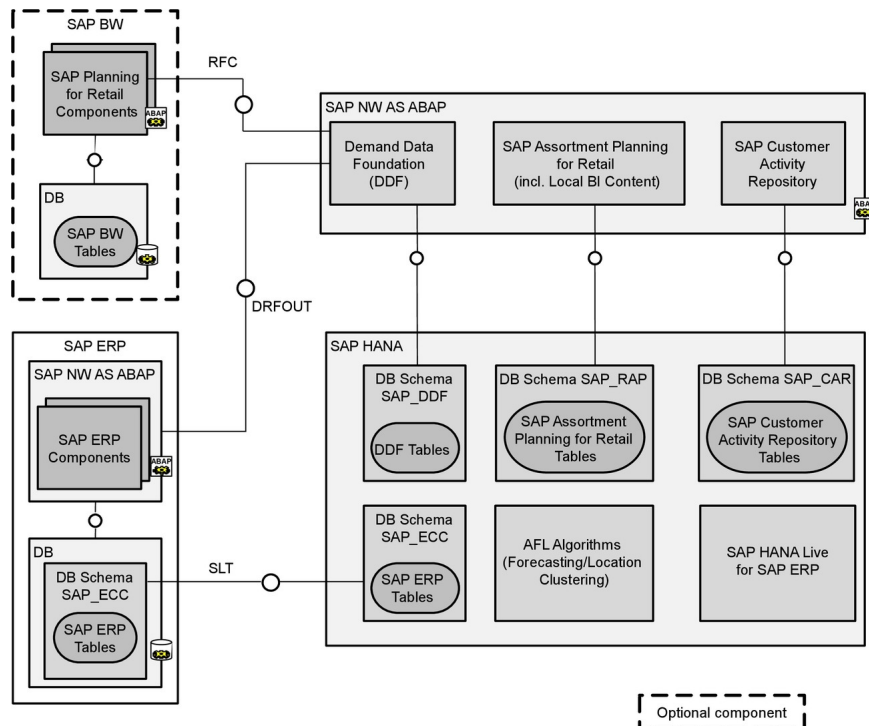


Figure 4: SAP Assortment Planning for Retail Standalone Deployment

### 2.2.2.3 SAP Assortment Planning for Retail Co-Deployed with SAP ERP

This deployment option has the following key characteristics:

- SAP Assortment Planning for Retail is co-deployed with SAP ERP for Retail 6.0 EHP5 or higher on the same SAP HANA Platform but on a different SAP NetWeaver stack.
- Since SAP Assortment Planning for Retail and SAP ERP share the same SAP HANA Platform, SLT replication of data from SAP ERP is not required. SAP Assortment Planning accesses SAP ERP data directly from the SAP ERP database schema (`SAP_ECC` DB Schema).
- Data is imported from SAP ERP into DDF, using the `DRFOUT` data replication framework and is persisted in `SAP_DDF` Schema.

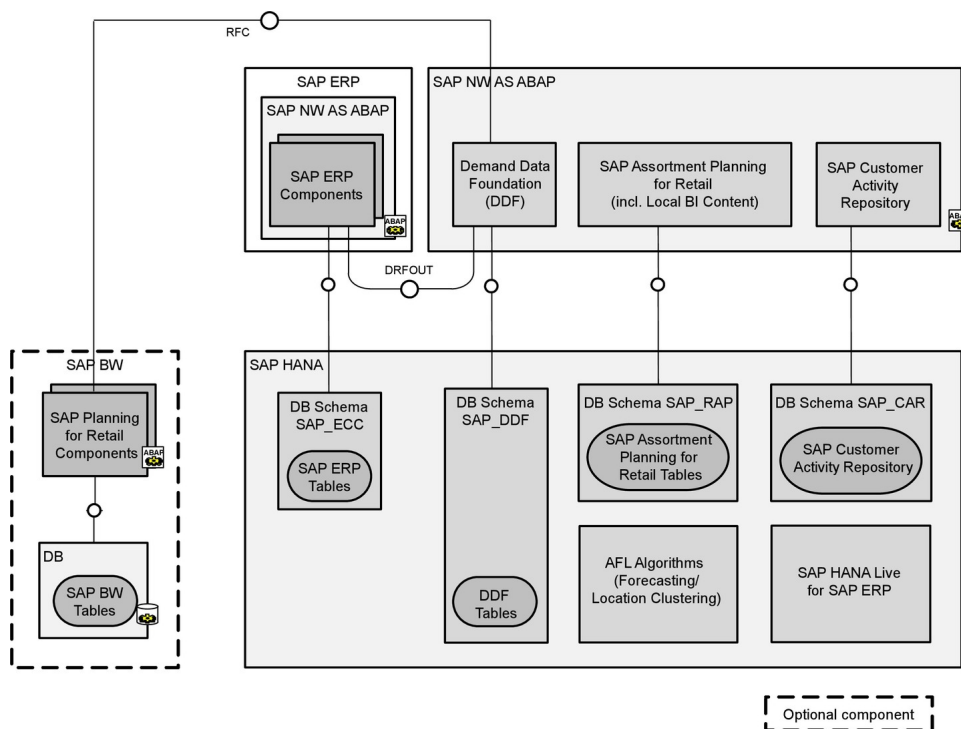


Figure 5: SAP Assortment Planning for Retail Co-Deployed with SAP ERP

## 2.2.2.4 SAP Assortment Planning for Retail Co-Deployed with SAP BW

This deployment option has the following key characteristics:

- SAP Assortment Planning for Retail is co-deployed with SAP BW on the same SAP HANA Platform but on a different SAP NetWeaver stack.
- Data is imported from SAP ERP into:
  - SAP HANA Live for SAP ERP, using SAP LT Replication Server (SLT), and is persisted in `SAP_ECC` Schema, and
  - DDF, using the `DRFOUT` data replication framework. and is persisted in `SAP_DDF` Schema (subset of data)
- If you would like to integrate released Merchandise Planning data (for example, Open-To-Buy data generated using the SAP Planning for Retail, rapid deployment solution), this data needs to be imported into the `SAP_DDF` Schema. For more information, see [Configure Demand Data Foundation \[page 74\]](#).

### 1 Note

InfoProviders and InfoObjects in SAP BW cannot be accessed by SAP Assortment Planning for Retail in the SAP NetWeaver layer. However, direct access to these objects is possible in the SAP HANA layer, since the same SAP HANA Platform is used by both applications.

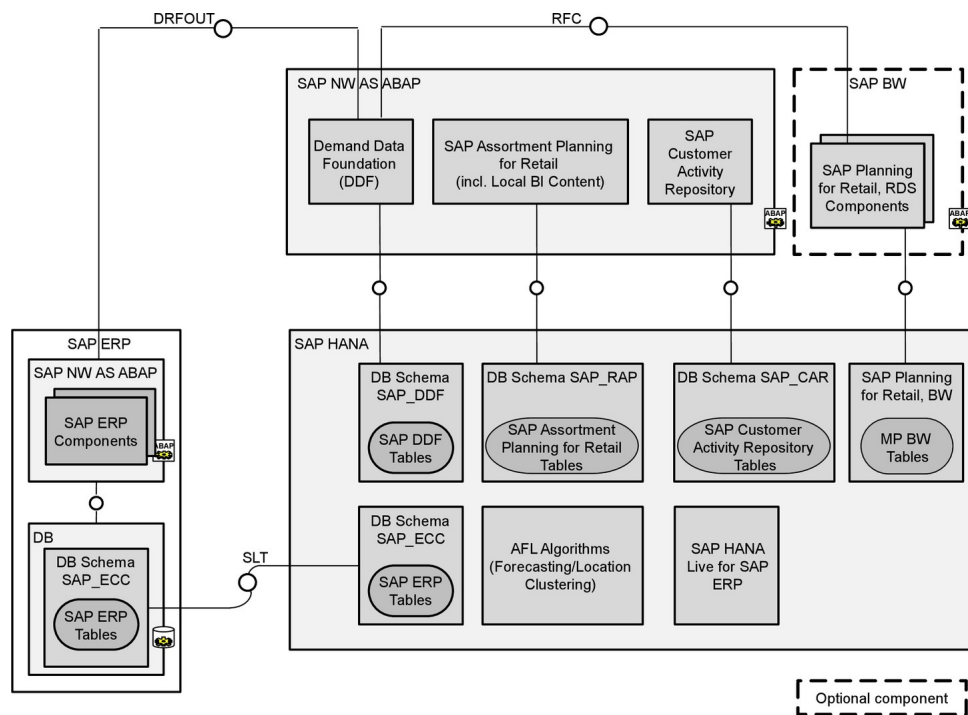


Figure 6: SAP Assortment Planning for Retail Co-Deployed with SAP BW



## 3 Prerequisites

This section contains a list of all the prerequisite platforms, applications, and components that must be installed and configured prior to executing the installation instructions covered in this guide.


### Note


Installation of the following prerequisites should be performed by an experienced SAP Basis administrator. Documentation and support for each prerequisite is available on the SAP Help Portal and the SAP Service Marketplace.

The following table presents the prerequisites for each of the installation scenarios and provides links to the respective installation documentation:


Table 11

Prerequisite	Installation Information	Mandatory/Optional for Scenario		
		SAP Customer Activity Repository	SAP Assortment Planning for Retail	SAP Promotion Management for Retail
<p><b>SAP HANA Platform SPS 08 revision 83 or higher</b></p> <p>The PAL algorithms, used by SAP Assortment Planning for Retail, are implemented and shipped as an application function library (AFL) in the SAP HANA database.</p> <p>You have to ensure that SAP HANA AFL 1.0 (software component version SAP HANA AFL 1.0) has been installed as part of your SAP HANA Platform.</p>	<ul style="list-style-type: none"> <li>▶ <a href="https://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ▶ <i>Installation and Upgrade Information</i> ▶ <i>SAP HANA Server Installation and Update Guide</i> ▶</li> <li>▶ <a href="https://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ▶ <i>Reference Information</i> ▶ <i>SAP HANA Library References</i> ▶ <i>SAP HANA Predictive Analysis Library (PAL)</i> ▶</li> </ul>	Mandatory	Mandatory	Mandatory

 **Caution**  
 If you were previously using SAP HANA Platform SP 07 or lower, and are upgrading to SAP HANA Platform SPS 08 or higher, you need to implement SAP Note [2022080](#).

Prerequisite	Installation Information	Mandatory/Optional for Scenario		
		SAP Customer Activity Repository	SAP Assortment Planning for Retail	SAP Promotion Management for Retail
<b>Demand Data Foundation (DDF) 2.0 SP01</b> A cross-industry reusable data layer supporting different consuming applications. DDF (software component version RTLDDE 200) is a component in SAP Customer Activity Repository and a prerequisite for using Unified Demand Forecast (UDF).	<ul style="list-style-type: none"> <li>SAP Note <a href="#">2001688</a></li> <li>► <a href="https://help.sap.com/car">help.sap.com/car</a> ► <i>Integration Information</i> ► <i>Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA</i> ►</li> </ul>	Optional	Mandatory	Mandatory
<b>UDF AFL revision 83 or higher</b> The Unified Demand Forecast application function library provides the demand modeling and forecasting services in SAP Customer Activity Repository. The UDF AFL (software component version UDFAFL_INST 100) is shipped separately for installation in the SAP HANA database. The releases are called "revisions". The UDF AFL requires Demand Data Foundation (DDF) as a prerequisite.	<ul style="list-style-type: none"> <li>SAP Note <a href="#">2050229</a></li> <li>SAP Note <a href="#">2004952</a></li> </ul> <div>  <b>Caution</b>  There are dependencies between the UDF AFL, the SAP HANA database, and DDF. For more information, see the <i>Component Version Dependencies</i> section in the <i>Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA</i> for this support package. </div>	Optional	Optional	Recommended
<b>POS AFL (OSA) revision 83 or higher</b> The On-Shelf Availability (OSA) algorithms (software component version POSAFL_INST 100) are implemented and shipped as a separate application function library (AFL) for installation in the SAP HANA database.	<ul style="list-style-type: none"> <li>SAP Note <a href="#">2004952</a></li> <li>SAP Note <a href="#">2016825</a></li> </ul>	Optional	Optional	Optional

Prerequisite	Installation Information	Mandatory/Optional for Scenario		
		SAP Customer Activity Repository	SAP Assortment Planning for Retail	SAP Promotion Management for Retail
<b>SAP Smart Business foundation component 1.0 SPS01</b>	SAP Note <a href="#">2018360</a>	Optional	Not Applicable	Not Applicable
<b>SAP LT (Landscape Transformation) Replication Server for SAP HANA 2.0</b>	► <a href="https://help.sap.com/hana_platform">help.sap.com/hana_platform</a> ► <i>Installation and Upgrade Information</i> ► <i>SAP HANA Replication Installation Guides</i> ► <i>Installation Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA</i> ►	Mandatory	Mandatory	Not Applicable
<b>SAP Solution Manager</b> We recommend to always use the latest version of the SAP Solution Manager. Failure to do so may cause problems when using the Maintenance Optimizer (MOPZ) application.	<ul style="list-style-type: none"> <li>► <a href="https://help.sap.com/solutionmanager71">help.sap.com/solutionmanager71</a> ► <i>Installation and Upgrade Information</i> ► <i>Installation Guide</i> ►</li> <li>► <a href="https://help.sap.com/nw74">help.sap.com/nw74</a> ► <i>Installation and Upgrade Information</i> ► <i>Master Guide</i> ►</li> </ul>	Mandatory	Mandatory	Mandatory
<b>SAP NetWeaver 7.40 SP 09</b> If you launch WebDynpro applications from the back-end system, ensure that you have installed the SAP_UI 740 SP 11 component. If you have a lower version, ensure that you analyze and implement SAP Note <a href="#">2038829</a> .	► <a href="https://help.sap.com/nw74">help.sap.com/nw74</a> ► <i>Installation and Upgrade Information</i> ► <i>Installation Guides</i> ►	Mandatory	Mandatory	Mandatory
<b>SAP ERP 6.0</b> See adjacent columns for details regarding Enhancement Package version support.	<ul style="list-style-type: none"> <li>► <a href="https://help.sap.com/erp605">help.sap.com/erp605</a> ► <i>Installation and Upgrade Information</i> ► <i>Installation Guide</i> ►</li> <li>► <a href="https://help.sap.com/erp604">help.sap.com/erp604</a> ► <i>Installation and Upgrade Information</i> ► <i>Installation Guide</i> ►</li> <li>SAP Notes (applicable only for SAP ERP 6.0 EHP5 and higher): <ul style="list-style-type: none"> <li>◦ <a href="#">1983853</a></li> <li>◦ <a href="#">1994823</a></li> <li>◦ <a href="#">2004326</a></li> <li>◦ <a href="#">2032294</a></li> <li>◦ <a href="#">2069483</a></li> </ul> </li> </ul>	Enhancement Package 5 is mandatory when implementing SAP Customer Activity Repository with DDF with UDF.  Otherwise, Enhancement Package 4 is	Enhancement Package 5 is mandatory.	Enhancement Package 5 is mandatory.

Prerequisite	Installation Information	Mandatory/Optional for Scenario		
		SAP Customer Activity Repository	SAP Assortment Planning for Retail	SAP Promotion Management for Retail
	<ul style="list-style-type: none"> <li>◦ <a href="#">2068874</a></li> </ul>	mandatory at a bare minimum if not implementing DDF with UDF.		
<b>SAP Enhancement Package 2 for SAP CRM 7.0 or SAP Enhancement Package 2 for SAP CRM 7.0, Version for SAP HANA or higher</b>	<ul style="list-style-type: none"> <li>▶ <a href="http://help.sap.com/crm702">help.sap.com/crm702</a> ▶ <i>Installation and Upgrade Information</i> ▶ <i>Installation Guide</i> ▶</li> <li>▶ <a href="http://help.sap.com/crmhana">help.sap.com/crmhana</a> ▶ <i>Installation and Upgrade Information</i> ▶ <i>Administrator's Guide</i> ▶</li> </ul>	Optional	Not Applicable	Not Applicable
<b>SAP HANA Live for SAP ERP SP 02 or higher</b> <div>  <b>Caution</b>  SAP Customer Activity Repository retail applications bundle does not require that you execute all of the installation steps exactly as they are described in the <i>Administrator's Guide</i>, <i>SAP HANA Live for SAP Business Suite</i>.  You must read the <i>Install SAP HANA Live for SAP ERP</i> procedure in this guide prior to installing SAP HANA Live for SAP ERP. </div>	▶ <a href="http://help.sap.com/hba">help.sap.com/hba</a> ▶ <i>Installation, Security, Configuration, and Operations Information</i> ▶ <i>Administrator's Guide</i> ▶	Mandatory	Mandatory	Not Applicable
<b>Client</b> To be able to run SAP Fiori apps, the runtime environment (such as the browser) of the client must support HTML5.	Client-specific installation information	Optional	Mandatory	Not Applicable

Prerequisite	Installation Information	Mandatory/Optional for Scenario		
		SAP Customer Activity Repository	SAP Assortment Planning for Retail	SAP Promotion Management for Retail
<b>SAP BusinessObjects Analysis, edition for Microsoft Office 1.4 SP 09 or higher</b>  SAP Assortment Planning for Retail includes a number of SAP BusinessObjects Analysis workbooks. To be able to access assortment planning workbooks, you must ensure that SAP BusinessObjects Analysis, edition for Microsoft Office 1.4 SP 09 or higher is installed on your local system.	► <a href="http://help.sap.com/boao">help.sap.com/boao</a> ► <i>Installation, Security, Configuration, and Operations Information</i> ► <i>Administrator's Guide</i> ►	Not Applicable	Mandatory	Not Applicable
<b>SAP Jam, enterprise edition</b>	► <a href="http://help.sap.com/sapjam">help.sap.com/sapjam</a> ► <i>System Administration and Maintenance Information</i> ► <i>Administrator's Guide</i> ►	Optional	Optional	Not Applicable

## 4 Installation Scenarios

### 4.1 SAP Customer Activity Repository

#### 4.1.1 Installation

The following interactive diagram depicts the installation process for SAP Customer Activity Repository 2.0. If you are reading this document on a device, you can select elements in the diagram to navigate to the corresponding sections.

##### **i** Note

The *Install ABAP Back-End Server*, *Install ABAP Front-End Server*, *Install SAP HANA Live for SAP ERP*, and *Create SAP CRM Table Definitions* installation processes can be executed independently from one another. You may assign separate teams to work on these processes in parallel for a faster and simpler implementation.

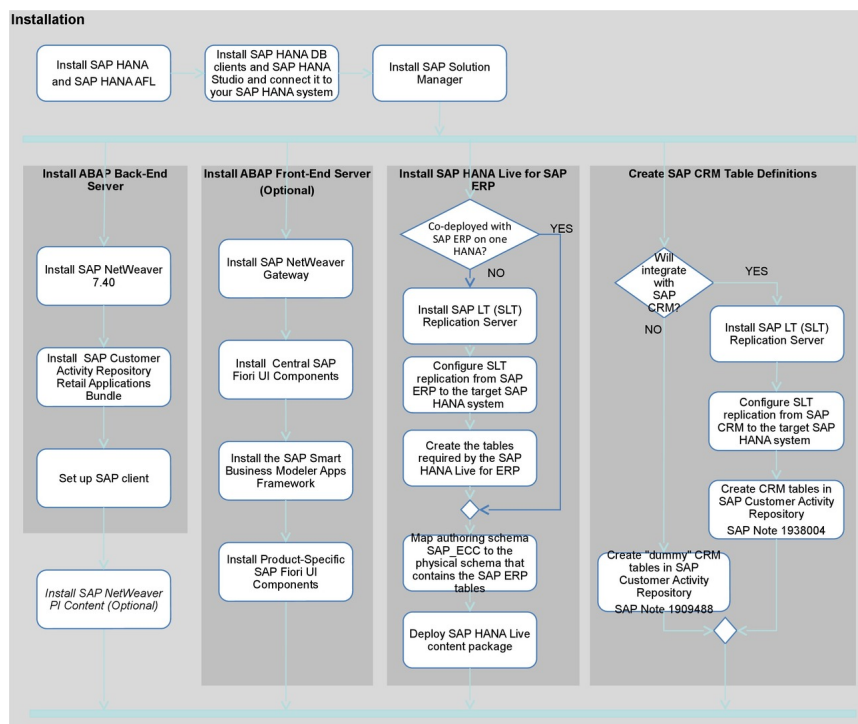


Figure 7: Installation Workflow for SAP Customer Activity Repository

##### 4.1.1.1 Install Prerequisites

Before proceeding with the installation, the following components must be installed and configured:



- SAP HANA
- SAP HANA Application Function Library (AFL)
- SAP HANA Database Clients
- SAP HANA Studio
- SAP Solution Manager

#### **i** Note

The documentation for installing and configuring these components is maintained and published separately from this product. See the [Prerequisites \[page 21\]](#) section for more information on retrieving the related documentation.

## **4.1.1.2 Install ABAP Back-End Server**

### **4.1.1.2.1 Install SAP NetWeaver**

You must install SAP NetWeaver 7.40 SP 09 prior to installing other back-end components.

For more information about how to install SAP NetWeaver, see ► [help.sap.com/nw74](http://help.sap.com/nw74) ► *Installation and Upgrade Information* ► *Installation Guides* ►.

### **4.1.1.2.2 Install SAP Customer Activity Repository Retail Applications Bundle**

We recommend using Maintenance Optimizer in SAP Solution Manager to install and update product versions. SAP Solution Manager calculates the required software components that have to be deployed on each server.

For more information about Maintenance Optimizer, see SAP Help Portal at ► [help.sap.com/solutionmanager71](http://help.sap.com/solutionmanager71) ► *Application Help* ► *SAP Library* ► *SAP Solution Manager* ► *Maintenance Management* ► *Maintenance Optimizer* ►.

Alternatively, you can download the required files directly from SAP Service Marketplace and deploy them manually.

In this procedure, you use Maintenance Optimizer to perform a stack XML installation of SAP Customer Activity Repository retail applications bundle 1.0.

## **Procedure**

1. Log on to SAP Solution Manager and launch Maintenance Optimizer.

For more information on using Maintenance Optimizer, see ► [service.sap.com/mopz](http://service.sap.com/mopz) ►.

## Note

Maintenance Optimizer 3.0 (MOPZ) is the standard for SAP Solution Manager 7.1 SP12. You may experience difficulties installing products if you are running an older version of SAP Solution Manager. We recommend upgrading to the latest version of SAP Solution Manager. If you do not wish to do so, you must implement SAP Note [1940845](#) to render the MOPZ front-end compatible with the back-end.

2. In the Maintenance Optimizer work step that allows you to choose add-on products, select product version CAR RETAIL APPL BUNDLE 1.0 and product instance CARAB ABAP Server.

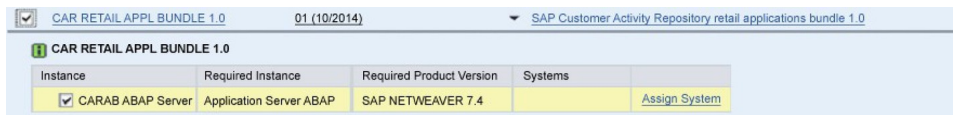


Figure 8: Selection of Product Version and Product Instance

## Caution

Do not deselect any ABAP components from the product instance.

3. Calculate and download the stack XML file.
4. Log on to your back-end server, that is, the ABAP system on which you are installing CAR Retail Appl Bundle - ABAP Instance.
5. Use the SAP Add-On Installation Tool (transaction SAINT) to load and install the stack XML generated using SAP Solution Manager Maintenance Optimizer.

For more information on transaction SAINT, refer to the system documentation available directly in the system when you run transaction SAINT and select the [Online Help](#) icon.

## 4.1.1.2.3 Set Up SAP Client

In this procedure, you set up a client on your back-end system.

### Procedure

1. Verify the client numbers in the source SAP ERP, and, optionally, in the source SAP CRM system(s).  
This installation includes SAP HANA content that provides views on a combination of client-dependent data authored in these source SAP systems. For instance, sales documents are created in a source SAP ERP system and are replicated to the repository. Likewise, customer information can be optionally replicated from a source SAP CRM system.
2. Create the necessary client on your back-end system using client maintenance transaction (SCC4).

## Caution

If you are performing a client copy, you should only perform the client copy after a successful import of all related software components. Also, you should only import or transfer Customizing tables after this client copy is complete, as described in SAP Note [337623](#).

If using the same client number is not possible due to the specifics of your implementation and client setup rules, **you must use SLT transformation rules before replicating data** to transform the source SAP ERP, and optionally, the source SAP CRM, client (s) to match the client on your back-end system.

#### Example

If SAP ERP and SAP CRM are set up on client 100 in your implementation, 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.

Cross-system information is client-dependent. As a result, it is required to use the *SAP Client* (MANDT) attribute as one of the join attributes in the SAP HANA views to combine cross-system sales and master data. All data (whether created or replicated) must be affiliated with the same client number.

## More Information

For more information, see ► [help.sap.com/nw73](https://help.sap.com/nw73) ► *Application Help* ► *Function-Oriented View* ► *Application Server* ► *Application Server ABAP* ► *Other Services* ► *Services for Administrators* ► *Client Concept* ►.

### 4.1.1.2.4 Deploy the SAP NetWeaver PI Content for SAP Customer Activity Repository Software Component (Optional)

This procedure outlines how to install the SAP NetWeaver Process Integration (SAP NetWeaver PI) Content for SAP Customer Activity Repository software component version XI CONTENT RTLPOSDM 300. This optional software component version contains integration content that has been predefined by SAP to be used with SAP Customer Activity Repository.

## Procedure

1. Locate XI CONTENT RTLPOSDM 300 on the SAP Support Portal at ► [support.sap.com/swdc](https://support.sap.com/swdc) ► *SAP Software Download Center* ► *Support Packages and Patches* ► *Browse Our Download Catalog* ► *SAP Content* ► *ESR Content (XI Content)* ►.
2. Follow the instructions for importing SAP NetWeaver PI Content as listed under ► [help.sap.com/nw\\_platform](https://help.sap.com/nw_platform) ► *Application Help* ► *Function-Oriented View* ► *Your Language* ► *Process Integration* ► *Enterprise Services Repository & Registry* ► *Managing Services in the Enterprise Service Repository* ► *Managing Enterprise Services Delivered by SAP* ► *Importing ESR Content* ►.

For more information, see SAP Library for SAP NetWeaver Process Integration on SAP Help Portal at ► [help.sap.com/nw\\_platform](https://help.sap.com/nw_platform) ► *Application Help* ► *SAP NetWeaver Process Integration* ►.

### 4.1.1.3 Install ABAP Front-End Server (Optional)

The following section only requires implementation if you plan on using the *SAP Smart Business for Multichannel Sales Analytics* cockpit.

For more information, see SAP Help Portal at ► [help.sap.com](https://help.sap.com) ► *Application Help* ► *SAP Smart Business for SAP Customer Activity Repository* ►.

#### 4.1.1.3.1 Install SAP NetWeaver Gateway on the ABAP Front-End Server

The complete UI layer consisting of the central UI component, the product-specific UI components and the SAP NetWeaver Gateway is contained in the ABAP front-end server. SAP NetWeaver Gateway handles the communication between the client and the ABAP back-end server. For a visualization of how these components interact, see [Overall System Planning \[page 11\]](#).

When you are implementing the Central Hub deployment option, you use separate servers for the back-end and front-end components in your landscape.

#### Procedure

Ensure that the necessary SAP NetWeaver version is installed on your front-end server. For more information, see SAP Library for SAP Fiori on SAP Help Portal at ► [help.sap.com/fiori\\_bs2013](https://help.sap.com/fiori_bs2013) ► *System Landscape Required for SAP Fiori* ► *Setup of SAP Fiori System Landscape with SAP HANA Database* ► *Installation* ►.

#### 4.1.1.3.2 Install Central SAP Fiori UI Components

The complete UI layer consisting of the central UI component, the product-specific UI components and the SAP NetWeaver Gateway is contained in the ABAP front-end server. The central UI component contains the SAP UI5 control library and the SAP Fiori Launchpad.

When you are implementing the Central Hub deployment option, you use separate servers for the back-end and front-end components in your landscape. Your front-end server must have the required central UI component version.

#### Procedure

Ensure that **SAP\_UI 740 SP11** (which contains SAPUI5 Version 1.24.2 or higher) or equivalent is installed on your front-end server.

Depending on the version of SAP NetWeaver installed on your front-end server, the central UI component is either installed as an add-on (for example, for SAP EhP1 for SAP NetWeaver 7.3 or higher) or is integrated directly in the SAP NetWeaver installation (for example, SAP NetWeaver 7.4 SP04 or higher). In either case, to use the apps delivered as part of SAP Fiori 1.0 for SAP Customer Activity Repository retail applications bundle (SAP\_FIORI

FOR SAP CARAB 1.0), **SAP\_UI 740 SP11** (which contains SAPUI5 Version 1.24.2 or higher) or equivalent must be installed on your front-end server.

For more information, see SAP Library for SAP Fiori on SAP Help Portal at ► [help.sap.com/fiori\\_bs2013](https://help.sap.com/fiori_bs2013) ► *System Landscape Required for SAP Fiori* ► *Setup of SAP Fiori System Landscape with SAP HANA Database* ► *Installation* ► *Setup of Front-End Server* ► *Installation of Central UI Components* ►.

### 4.1.1.3.3 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 ► [help.sap.com/nw74](https://help.sap.com/nw74) ► *Application Help* ► *UI Technologies in SAP NetWeaver* ► *UI Frameworks based on HTML5, JavaScript and CSS* ► *SAPUI5 Application Frameworks* ► *SAP Smart Business* ► *Setting up the SAP Smart Business Modeler Apps Framework* ►.

### 4.1.1.3.4 Install Product-Specific SAP Fiori UI Components

The complete UI layer consisting of the central UI component, the product-specific UI components and the SAP Gateway is contained in the ABAP front-end server. The product-specific UI component contains the SAP Fiori user interface for the SAP Assortment Planning for Retail application and the SAP Smart Business for SAP Customer Activity Repository. This procedure describes the installation of this product-specific UI component.

#### Procedure

1. Log on to SAP Solution Manager and launch Maintenance Optimizer.

For more information about using Maintenance Optimizer, see ► [service.sap.com/mopz](https://service.sap.com/mopz) ►.

#### Note

Maintenance Optimizer 3.0 (MOPZ) is the standard for SAP Solution Manager 7.1 SP12. You may experience difficulties installing products if you are running an older version of SAP Solution Manager.

We recommend upgrading to the latest version of SAP Solution Manager. If you do not wish to do so, you must implement SAP Note [1940845](#) to render the MOPZ front-end compatible with the back-end.

2. In the Maintenance Optimizer work step that allows you to choose add-on products, select product version SAP FIORI FOR SAP CARAB 1.0.
3. Select the product instance based on the SAP NetWeaver version of your front-end server:

- UI for SAP CARAB on NW 740
  - UI for SAP CARAB on NW 731
4. Calculate and download the stack XML file.
  5. Log on to your front-end server.
  6. Use the SAP Add-On Installation Tool (transaction SAINT) to load and install the stack XML generated using SAP Solution Manager Maintenance Optimizer.

For more information on transaction SAINT, refer to the system documentation available directly in the system when you run transaction SAINT and select the [Online Help](#) icon.

## 4.1.1.4 Install SAP HANA Live for SAP ERP

This section describes how to install SAP HANA Live under different implementation conditions:

- If you are implementing a deployment option that requires data to be replicated from a source SAP ERP system, see [Deployment Scenario: SAP Customer Activity Repository Standalone or Co-Deployed with SAP BW](#) [page 32].
- If you are implementing a deployment option in which your source SAP ERP system and SAP Customer Activity Repository are co-deployed on the same SAP HANA database, see [Deployment Scenario: SAP Customer Activity Repository Co-Deployed with SAP ERP](#) [page 34].

For more information, see [System Landscape Variants](#) [page 13].

### 4.1.1.4.1 Deployment Scenario: SAP Customer Activity Repository Standalone or Co-Deployed with SAP BW

SAP Customer Activity Repository requires that SAP HANA Live for SAP ERP is installed, configured and connected to the same SAP HANA database that you plan to use for SAP Customer Activity Repository.

For more information on installing SAP HANA Live for SAP ERP, see ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ►



#### Caution

SAP Customer Activity Repository does not require that you execute all of the installation steps exactly as they are described in the *Administrator's Guide, SAP HANA Live for SAP Business Suite*. Prior to executing steps that describe the creation and replication of SAP ERP tables, be sure to read the additional instructions for SAP Customer Activity Repository provided in this guide.

## Process

1. Ensure that the SAP Landscape Transformation component (SAP LT Replication Server) is installed.



2. Configure access from the SAP LT Replication Server to the source SAP ERP system (RFC connection) and from SAP LT Replication Server to the target SAP HANA database.

For more information, see:

- [help.sap.com/hba](https://help.sap.com/hba) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Installation Steps* 🔗.
- [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *System Administration and Maintenance Information* > *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* > (<*Technical Prerequisites and Authorization Aspects*> and <*Accessing the Configuration and Monitoring Dashboard*>) 🔗.

3. Ensure that your 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. Enter the required information the *Specify System* dialog:
  - Hostname
  - Instance Number
  - System description
4. Specify your system *User Name* and *Password* in the *Connection Properties* dialog.
4. Ensure that a database catalog schema is created on the target SAP HANA database. This is the schema on your SAP HANA database to which the SAP ERP data will be replicated.

For more information, see:

- [help.sap.com/hba](https://help.sap.com/hba) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Installation Steps* 🔗
- [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *System Administration and Maintenance Information* > *SAP HANA Administration Guides* > *Creating Schemas* 🔗.

5. Map the authoring schema of the `sap.hba.ecc` content package to your particular physical database schema, described in the previous step. If the physical database schema to which the SAP ERP data will be replicated is already called `SAP_ECC`, this schema mapping is not required.

Table 12

Authoring Schema	Physical Schema
SAP_ECC	<Name of Your Schema for Storing SAP ERP Data>

For more information, see:

- [help.sap.com/hba](https://help.sap.com/hba) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Installation Steps* 🔗
- [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *Modeling Information* > *SAP HANA Modeling Guide* > *Mapping the Authoring Schema to the Physical Schema* 🔗.

6. Create the tables that are required by SAP HANA Live for ERP views on the target SAP HANA database using the instructions provided in SAP Note [1799313](#). The tables that are required to be created are listed in SAP Notes [1782065](#), [1781992](#), and [1900038](#).

The creation of the tables on the target SAP HANA database is required so that the content package of SAP HANA Live for ERP can be deployed and activated correctly.

### Caution

**You must not replicate any data to these tables at this point. Data replication is performed during post-installation.**

For more information, see *Replicate SAP ERP Tables for <Your Product>* in the *Post-Installation* section specific to your scenario.

7. Deploy the SAP HANA Live for ERP content package on the SAP HANA database.

For more information, see ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ► *Installation Steps* ►.

8. Ensure that the views included in the content package `sap.hba.ecc` have been activated.

The subset of the views required by SAP Customer Activity Repository is listed in [SAP HANA Live for SAP ERP Views Required by SAP Customer Activity Repository \[page 106\]](#).

For more information on activating views, see ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *Development Information* ► *SAP HANA Developer Guide* ► *Setting Up the Analytic Model* ► *Creating Views* ► *Activating Objects* ►.

## 4.1.1.4.2 Deployment Scenario: SAP Customer Activity Repository Co-Deployed with SAP ERP

SAP Customer Activity Repository requires that SAP HANA Live for SAP ERP is installed, configured and connected to the same SAP HANA database that you plan to use for SAP Customer Activity Repository.

For more information on installing SAP HANA Live for SAP ERP, see ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ►.

### Caution

SAP Customer Activity Repository does not require that you execute all of the installation steps exactly as they are described in the *Administrator's Guide, SAP HANA Live for SAP Business Suite*. Be sure to read the additional instructions for SAP Customer Activity Repository provided in this guide.

## Process

1. Ensure that your 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. Enter the required information the *Specify System* dialog:
  - Hostname
  - Instance Number
  - System description
4. Specify your system *User Name* and *Password* in the *Connection Properties* dialog.

2. Map the authoring schema of the `sap.hba.ecc` content package to your particular physical database schema. If the physical database schema is already called `SAP_ECC`, this schema mapping is not required.

Table 13

Authoring Schema	Physical Schema
SAP_ECC	<Name of Your Schema for Storing SAP ERP Data>

For more information, see:

- [help.sap.com/hba](https://help.sap.com/hba) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Installation Steps* .
  - [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *Modeling Information* > *SAP HANA Modeling Guide* > *Mapping the Authoring Schema to the Physical Schema* .
3. Ensure that all the standard SAP ERP tables listed in SAP Notes [1782065](#), [1781992](#), and [1900038](#) are present on your SAP HANA database.

The presence of these tables on the SAP HANA database is required so that the content package of SAP HANA Live for ERP can be deployed and activated correctly.

4. Deploy the SAP HANA Live for ERP content package on the SAP HANA database.

For more information, see [help.sap.com/hba](https://help.sap.com/hba) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Installation Steps* .

5. Ensure that the views included in the content package `sap.hba.ecc` have been activated.

The subset of the views required by SAP Customer Activity Repository is listed in [SAP HANA Live for SAP ERP Views Required by SAP Customer Activity Repository \[page 106\]](#).

For more information on activating views, see [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *Development Information* > *SAP HANA Developer Guide* > *Setting Up the Analytic Model* > *Creating Views* > *Activating Objects* .

### 4.1.1.5 Create SAP CRM Table Definitions

The presence of an SAP CRM system in your landscape is **optional**. If you do not have an SAP CRM system in your landscape, you need to create a set of “dummy” SAP CRM tables. These tables are required for the successful activation of views in the SAP HANA content.

If you have an SAP CRM system in your landscape and you are planning to use the standard SAP implementation of customer identification delivered with SAP Customer Activity Repository, you additionally need to set up the SAP CRM table replication as described in [Replicate SAP CRM Tables for SAP Customer Activity Repository \[page 40\]](#).

#### **i** Note

Before you proceed, identify whether your back-end system will integrate with a source SAP CRM system. For example, if you have an operational SAP CRM system, you could access this system from SAP Customer Activity Repository to retrieve information about customers who use loyalty cards at the point of sale.

If your back-end system **will not integrate** with a source SAP CRM system, read and implement SAP Note [1909488](#).

If your back-end system will integrate with a source SAP CRM system, read and implement the following process.

## Process

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:

- [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *Installation and Upgrade Information* > *SAP HANA Replication Installation Guides* ➤
- [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *System Administration and Maintenance Information* > *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* > *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 [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *Installation and Upgrade Information* > *SAP HANA Replication Installation Guides* > *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 [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *System Administration and Maintenance Information* > *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* > *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 [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *System Administration and Maintenance Information* > *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* > *Important Transactions and Control Tables* ➤.

4. Replicate table definitions from SAP CRM by reading and implementing SAP Note [1938004](#).

## 4.1.2 Post-Installation

The following diagram depicts the post-installation process for SAP Customer Activity Repository 2.0.

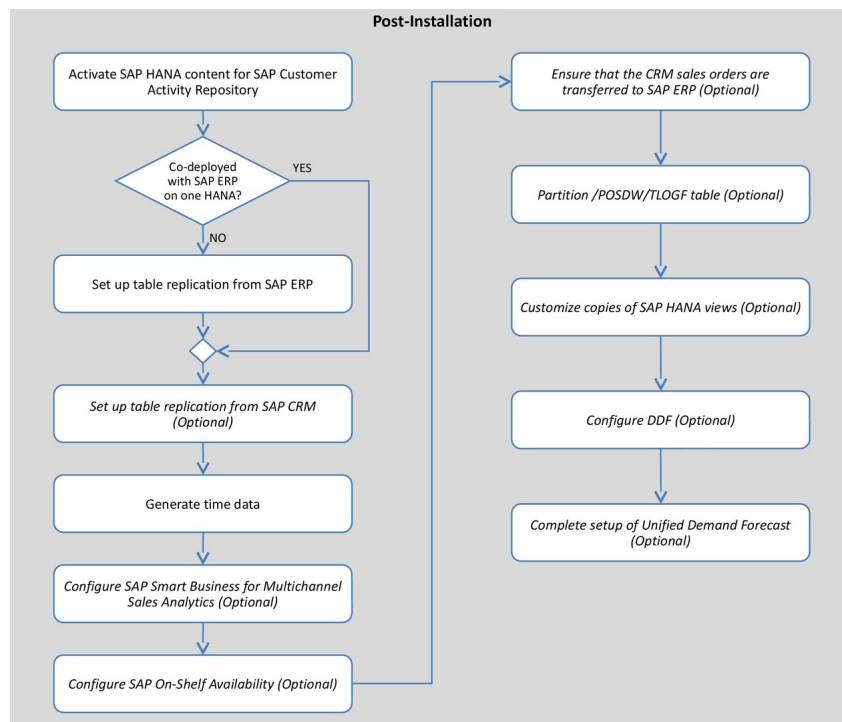


Figure 9

### 4.1.2.1 Activate SAP HANA Content for SAP Customer Activity Repository

In this procedure, you activate all SAP HANA content (SAP HANA views and SQLScript procedures) required by SAP Customer Activity Repository.

For more information about activating SAP HANA content, see SAP Help Portal at ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *Development Information* ► *SAP HANA Developer Guide* ► *Setting Up the Analytic Model* ► *Creating Views* ► *Activating Objects* ►.

## Prerequisites

As a mandatory prerequisite for a successful activation of the SAP HANA content for SAP Customer Activity Repository, you must have successfully completed all of the procedures listed in the previous sections of this guide.

## Procedure

1. Ensure that the `_SYS_REPO` user has the authorizations required to successfully activate SAP HANA content.
  1. Provide user `_SYS_REPO` with object privilege `SELECT`, with option *"Grantable to others"*, on the following physical DB schemas:

- Physical database schema of your back-end system, typically this is called SAP<SID>.
- Physical database schema that contains the SAP ERP tables
- Physical database schema that contains the SAP CRM tables

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

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

2. Assign the required privileges described in ► [help.sap.com/car](https://help.sap.com/car) ► *Integration Information* ► *Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA* ► *Authorization Requirements for Unified Demand Forecast (UDF)* ►.
2. Use transaction **SE38** to run program /CAR/ACTIVATE\_HANA\_CONTENT.  
The program activates all SAP HANA content required by SAP Customer Activity Repository. Note that this includes the SAP HANA content for DDF and UDF.
3. Log on to SAP HANA studio.
4. Open the *Modeler* perspective and use the *Navigator* to access your back-end system.
5. Expand the *Content* folder located under your system name in the *Navigator*.
6. Expand each of the packages listed below and ensure that all the content in the underlying folders is active:
  - sap.is.ddf
  - sap.is.udf
  - sap.is.retail.car
  - sap.is.retail.ecc
  - sap.is.retail.posdm
  - sap.is.retail.syndication

## 4.1.2.2 Replicate SAP ERP Tables for SAP Customer Activity Repository

In this procedure, you ensure that all SAP ERP tables that are relevant for SAP Customer Activity Repository have not only been created but have also been filled with data. More specifically, you replicate the contents of relevant tables from the source SAP ERP system to your back-end system.

The steps outlined in this procedure are required when you are implementing one of the SAP Customer Activity Repository system landscape variants that require data to be replicated from a source SAP ERP system. If your source SAP ERP system and the repository are co-deployed on the same SAP HANA database, proceed to the next procedure. For more information, see [System Landscape Variants \[page 13\]](#).

### Procedure

1. Define client transformation rules for all SAP ERP tables that you plan to replicate.  
In most cases, you need to apply transformation rules to map the client of the source SAP ERP 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 \[page 28\]](#)
- [▶ help.sap.com/hana\\_platform ▶ System Administration and Maintenance Information ▶ Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA ▶ Data Transformation Capabilities within SAP Landscape Transformation Replication Server ▶](#)
- SAP Note [1733714](#)

#### 2. Specify which SAP ERP tables to replicate.

We recommend that you only replicate data for SAP ERP tables that are relevant to SAP Customer Activity Repository. Read SAP Note [1897024](#) and replicate only the tables listed in the file attached to this SAP Note.

However, if you are planning to use all of SAP HANA Live for SAP ERP views, then replicate all the tables listed in the file attached to SAP Note [1781992](#).

For more information, see:

- [▶ help.sap.com/hba ▶ Installation, Security, Configuration, and Operations Information ▶ Administrator's Guide ▶ Administrator's Guide, SAP HANA Live for SAP Business Suite ▶ Configuration Steps ▶ Replicate Data \(Side-by-Side Only\) ▶](#)
- [▶ help.sap.com/hana\\_platform ▶ System Administration and Maintenance Information ▶ Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA ▶ \(<Managing the Replication Process Using the SAP HANA Studio> and <Important Transactions and Control Tables>\) ▶ ▶](#)

### Caution

This procedure includes the replication of tables from your source SAP ERP system. Trigger-based replication includes deletion in source tables by archiving activities (since on the database level it is impossible to distinguish between delete actions caused by archiving and regular deletion of data records). As a result, SAP LT (Landscape Transformation) Replication Server replicates archiving activities as delete actions in the SAP HANA database.

More specifically, when data is archived in your source SAP ERP system, records are deleted from their respective database tables. Therefore, when these tables are replicated to another SAP HANA database, the records that were archived in the source tables are deleted in the target database tables.

For example, sales document data is set up to be replicated from your source SAP ERP system to your target SAP HANA database. You may have set up your SAP ERP system to archive sales documents that are more than a year old. Given the SAP ERP archiving settings, in the SAP Customer Activity Repository system, you will not be able to run analytic reports on multichannel transaction data (which includes replicated SAP ERP sales documents) that is more than a year old.

When deciding on the frequency at which to archive data in the source SAP ERP system, you must consider and balance the performance requirements of your SAP ERP system and the amount of historical data that must be available in the SAP Customer Activity Repository system for analysis. The general recommendation is that 18 to 24 months of historical sales data is available in the repository.

### 4.1.2.3 Replicate SAP CRM Tables for SAP Customer Activity Repository (Optional)

In this optional procedure, you 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. 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 \[page 28\]](#)
  - [help.sap.com/hana\\_platform](#) > *System Administration and Maintenance Information* > *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* > *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 [help.sap.com/hana\\_platform](#) > *System Administration and Maintenance Information* > *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* ▾.

### 4.1.2.4 Generate Time Data

In this procedure, you generate time data that is required by time-dependent views included in SAP HANA content for SAP Customer Activity Repository. In particular, time data is required for all query views that are based on one of the Sales Analysis virtual data models.

#### Caution

If you are not using the time-dependent views provided in SAP HANA content for SAP Customer Activity Repository, you do not need to execute this procedure.

For example, if you are using SAP Assortment Planning for Retail, you use the time objects `0FISCPER` (fiscal year period) and `0FISCVARNT` (fiscal year variant) provided as part of the technical BI Content. For more information, see [Activate Technical Content \[page 80\]](#) and [Maintain Fiscal Year Variant \[page 87\]](#).



## Procedure

1. Log on to SAP HANA studio.
2. In the *Modeler* perspective, on the *Quick Launch* tab, select your SAP Customer Activity Repository system and choose *Generate Time Data*.
3. Select the *Calendar Type*.

SAP HANA views included in SAP HANA content for SAP Customer Activity Repository require the presence of time data in `_SYS_BI.TIME_DIMENSION*` SAP HANA database tables. To populate these tables, select *Gregorian* as the *Calendar Type*.

The *Fiscal Calendar Type* is not recommended. For analytical reports on a particular fiscal period, the SAP HANA views included in SAP HANA content for SAP Customer Activity Repository do not rely on the `_SYS_BI.M_FISCAL_CALENDAR` SAP HANA database tables. Instead, SAP HANA content for SAP Customer Activity Repository uses the `sap.hba.ecc/Fiscal*` views for fiscal period-based reporting.

4. Enter a range of years that includes 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, 2014, enter 2014 as your starting year. But if you plan to access sales documents created in SAP ERP that date from January 2013, you should specify 2013 as your starting year.

5. Define the granularity as *Day*, which is the minimum granularity required by SAP Customer Activity Repository. You can choose a finer level of granularity, for example *Hour*, if necessary.
6. Choose the day that is the first day of the week in your company.
7. Choose *Generate*.

For more information, see:

- [help.sap.com/hba](https://help.sap.com/hba) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Configuration Steps* > *Generate Time Data* >
- [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) > *Development Information* > *SAP HANA Developer Guide* > *Generate Time Data* >

## 4.1.2.5 Configure SAP Smart Business for Multichannel Sales Analytics (Optional)

### 4.1.2.5.1 Activate SAP HANA Content for SAP Smart Business for Multichannel Sales Analytics (Optional)

In this procedure, you activate all SAP HANA content required by the SAP Smart Business for Multichannel Sales Analytics dashboards.

## Prerequisites

You have completed activating all SAP HANA content (SAP HANA views and SQLScript procedures) required by SAP Customer Activity Repository.

For more information, see [Activate SAP HANA Content for SAP Customer Activity Repository \[page 37\]](#).

## Procedure

1. Log on to the ABAP instance of the SAP Customer Activity Repository system.
2. Execute transaction SE38.
3. Specify SNHI\_NH DU\_POST\_PROCESS in the *Program* field and choose *Execute*.
4. If you are running SAP NetWeaver 7.4 SP05 or higher, make the following entries:

Table 14

Parameter	Instruction
<i>Transport Container Name</i>	/CAR/HCO_RTLCAR_MCSA
<i>Activate Delivery Unit Content</i>	Select the checkbox.
<i>Activate HTC</i>	Do not select the checkbox.

5. Choose *Execute*.

All objects belonging to the delivery unit will be activated in the SAP HANA repository. This process can take several minutes. Once the activation process is complete, you are notified whether or not the import and activation of the SAP HANA delivery unit was successful.

## 4.1.2.5.2 Configure SAP NetWeaver Gateway

### 4.1.2.5.2.1 Perform General SAP Gateway Configuration

Prior to connecting the SAP Gateway on your front-end server to your back-end system, you need to perform a series of general SAP Gateway configuration steps. These configuration steps include the setting of profile parameters, ICF (Internet Communication Framework) services, language settings, and so on.

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

## Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Carry out the instructions specific to your SAP NetWeaver version:
  - SAP Gateway for SAP NetWeaver 7.31  
See ► [help.sap.com/nwgateway20](http://help.sap.com/nwgateway20) ► *Application Help* ► *SAP NetWeaver Gateway* ► *SAP NetWeaver Gateway Configuration Guide* ► *Basic Configuration Settings* ►.

- SAP Gateway for SAP NetWeaver 7.40

See ► [help.sap.com/nw74](http://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *Basic Configuration Settings* ►.

## 4.1.2.5.2.2 Connect SAP Gateway to your Back-End System

In this procedure, you configure the OData channel, that is, set up a connection between SAP Gateway on your front-end server and your back-end system.

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

### Procedure

1. Set up the required roles on the front-end server and assign your user to these roles.

For more information, see ► [help.sap.com/nw74](http://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *OData Channel Configuration* ► *User, Developer and Administrator Authorizations* ►.

2. Specify the connection settings on the SAP Gateway hub system, which include:

- Connection from the SAP Gateway to consumer systems

These settings allow the connection between the SAP Gateway host and the consumer systems (clients from which you access the SAP Fiori user interfaces.)

- Connection from the SAP Gateway to SAP back-end system

These settings allow the connection between SAP Gateway to your back-end system.

These settings include:

- 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.
- Configure the necessary system aliases.

### More Information

For SAP NetWeaver 7.31, see SAP Library for SAP NetWeaver Gateway on SAP Help Portal at ► [help.sap.com/nwgateway20](http://help.sap.com/nwgateway20) ► *Application Help* ► *Support Package Stack* ► *SAP NetWeaver Gateway* ► *SAP NetWeaver Gateway Configuration Guide* ► *OData Channel Configuration* ► *Connection Settings on the SAP NetWeaver Gateway Hub System* ►.

For SAP NetWeaver 7.4, see SAP Library for SAP NetWeaver on SAP Help Portal at ► [help.sap.com/nw74](http://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *OData Channel Configuration* ► *Connection Settings on the SAP NetWeaver Gateway Hub System* ►.

### 4.1.2.5.2.3 Activate SAP Gateway

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

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

#### Procedure

1. Determine the SAP NetWeaver version of your front-end server.
2. Carry out the instructions specific to your SAP NetWeaver version:
  - For SAP NetWeaver 7.4, see SAP Help Portal at ► [help.sap.com/nw74](https://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *OData Channel Configuration* ► *Activating SAP NetWeaver Gateway* ►.
  - For SAP NetWeaver 7.31, see SAP Help Portal at ► [help.sap.com/nwgateway20](https://help.sap.com/nwgateway20) ► *Application Help* ► *SAP NetWeaver Gateway Configuration Guide* ► *SAP NetWeaver Gateway Configuration Guide* ► *OData Channel Configuration* ► *Activating SAP NetWeaver Gateway* ►.

### 4.1.2.5.2.4 Activate Common OData Services

A number of OData services are required to run the SAP Fiori Launchpad. These OData services are delivered with the central UI component (SAP\_UI 740 SP11 or equivalent).

For security reasons, all OData services are delivered in an inactive state. To use the SAP Fiori Launchpad, you must activate the common SAP Fiori OData services.

#### Procedure

1. Log on to your front-end system (your SAP Gateway system).
2. Go to Customizing (transaction **SPRO**).
3. Navigate to ► *SAP NetWeaver* ► *Gateway* ► *OData Channel* ► *Administration* ► *General Settings* ► *Activate and Maintain Services* ►.

You are presented with the service catalog. This is a list of all the services that are currently active on your SAP Gateway.

4. Get common SAP Fiori OData services:
  1. Choose *Add Service*.  
The *Add Service* screen is displayed.
  2. Enter the system alias of your local front-end system.  
This is the alias created in the [Connect SAP NetWeaver Gateway to your Back-End System \[page 43\]](#) procedure. For example, LOCAL.
  3. Enter */UI2\** in the *Technical Service Name* field.
  4. Choose *Get Services*.

The *Add Selected Services* screen is displayed.

5. Select the common SAP Fiori OData services that you would like to activate, and choose *Add Selected Services*.

Table 15

Service Name
/UI2/PAGE_BUILDER_CONF
/UI2/PAGE_BUILDER_CUST
/UI2/PAGE_BUILDER_PERS
/UI2/TRANSPORT
/UI2/INTEROP

The selected OData services are now active in your SAP Gateway.

## More Information

- For SAP NetWeaver 7.31, see SAP Library for User Interface Add-On 1.0 on SAP Help Portal at [help.sap.com/nw-uiaddon](https://help.sap.com/nw-uiaddon) > *Application Help* > *User Interface Add-On for SAP NetWeaver* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP NetWeaver Gateway OData Services* .
- For SAP NetWeaver 7.4, see the documentation on SAP Help Portal at [help.sap.com/nw74](https://help.sap.com/nw74) > *Application Help* > *UI Technologies in SAP NetWeaver* > *UI Frameworks based on HTML5, JavaScript and CSS* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP NetWeaver Gateway OData Services* .

### 4.1.2.5.3 Configure the SAP Web Dispatcher

To configure the SAP Web Dispatcher, see SAP Help Portal at [help.sap.com/nw\\_platform](https://help.sap.com/nw_platform) > *Application Help* > *Function-Oriented View* > *Application Server* > *Application Server Infrastructure* > *Components of SAP NetWeaver Application Server* > *SAP Web Dispatcher* > *Administration of the SAP Web Dispatcher* .

If you use any other reverse proxy, see the manufacturer's documentation for more information.

### 4.1.2.5.4 Configure Central UI Component

The central UI component (SAP\_UI 740 SP11 or equivalent) contains the SAP UI5 control library and the SAP Fiori Launchpad. Prior to being able to use the SAP Fiori apps that constitute the user interface of the retail applications described in this guide, you may need to configure the SAP Fiori Launchpad.

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

## Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Carry out the instructions specific to your SAP NetWeaver version:
  - SAP Gateway for SAP NetWeaver 7.31
    - ► [help.sap.com/nw-uiaddon](https://help.sap.com/nw-uiaddon) ► *Application Help* ► *SAP Fiori Launchpad* ►, and
    - ► [help.sap.com/nw-uiaddon](https://help.sap.com/nw-uiaddon) ► *Application Help* ► *Administration Guide* ► *Content Administration* ► *SAP Fiori Launchpage* ► *Setting Up the SAP Fiori Launch Page* ►.
  - SAP Gateway for SAP NetWeaver 7.40
    - ► [help.sap.com/nw74](https://help.sap.com/nw74) ► *Application Help* ► *UI Technologies in SAP NetWeaver* ► *UI Framework based on HTML5, JavaScript and CSS* ► *SAP Fiori Launchpad* ►, and
    - ► [help.sap.com/nw74](https://help.sap.com/nw74) ► *Application Help* ► *UI Technologies in SAP NetWeaver* ► *UI Framework based on HTML5, JavaScript and CSS* ► *SAP NetWeaver User Interface Services* ► *Administration Guide* ► *Content Administration* ► *SAP Fiori Launchpage* ► *Setting Up the SAP Fiori Launch Page* ►.

### 4.1.2.5.5 Configure SAP Jam (Optional)

Your retail application uses collaboration SAPUI5 components to define key ABAP-based SAP business object data that can be consumed by SAP Jam.

If you are using the SAP Jam social collaboration platform in your business, you can configure the integration between your retail application and SAP Jam. The integration, enabled by Social Media Integration, allows you to share, or expose, the pre-defined ABAP-based SAP business object data directly from your retail application with members of your organization, through SAP JAM.

The steps to enable the integration between your retail application and SAP Jam are not specific to this installation guide and are described in the User Interface Add-On 1.0 for SAP NetWeaver product documentation referenced below.

## Prerequisites

To enable the integration of your retail application with SAP Jam, you must have a license for SAP Jam Enterprise edition and your SAP Jam instance must be configured for productive use.

## Procedure

1. Read the documentation for User Interface Add-On available on SAP Help Portal at ► [help.sap.com/netweaver](https://help.sap.com/netweaver) ► *User Interface Add-On for SAP NetWeaver* ► *Application Help* ► *Social Media Integration* ►.  
This documentation provides important information on configuring the integration of your retail application with SAP Jam, including:
  - Understanding the Overall Process for Integrating Collaboration for a Business Object
  - Implementation of ABAP Social Media Integration (ABAP SMI)
  - Implementation of Collaboration SAPUI5 Components

- Connecting SAP Jam with ABAP SMI
- Configuring ABAP SMI for SAP Fiori Apps

## More Information

For the latest updates on SAP Jam, see the SAP Help Portal at [help.sap.com/sapjam](https://help.sap.com/sapjam).

### 4.1.2.6 Install and Configure On-Shelf Availability (Optional)

#### **i** Note

The steps in this section and all subsections are entirely **optional** and depend on your specific implementation requirements.

To use the On-Shelf Availability (OSA) functionality in SAP Customer Activity Repository, perform the following post-installation steps.

#### 4.1.2.6.1 Install the Application Function Library

The On-Shelf Availability (OSA) algorithms are implemented as a separate application function library (AFL) that you install and run in the SAP HANA database. The AFL releases are called “revisions”. The AFL software component version is `POSAFL_INST 100`.

For a list of the available revisions and for installation instructions, see SAP Note [2056102](#).

#### 4.1.2.6.2 Generate Run IDs for OSA Processing Steps

Each scheduled run of an OSA processing step 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:

Table 16

Processing step	Transaction for the Generator
Intraweek Pattern	/OSA/NR_IWP
Estimation	/OSA/NR_EST
Monitoring	/OSA/NR_MON
Analysis	/OSA/NR_ANA

For each of the four transactions, you must define the range of run IDs.

## Procedure

1. Execute transaction `/OSA/NR_<XXX>`. `<XXX>` represents the part of the transaction name that is specific for a processing step.
2. In the first row of the table, enter the following values for the fields *No*, *From No*, and *To Number*:
  - *No*: 01
  - *From No*: 0000000000000001
  - *To Number*: 9999999999999999

### 4.1.2.6.3 Check Field Contents in SAP HANA Content for On-Shelf Availability

There are two OSA-specific SAP HANA views that can be customized:

- `AN_TRANSACTION`
- `PROMOTION_TRANS`

You have to check if the fields in these views contain the mappings or formulas you need.



#### Caution

If you need to modify any of the views, be aware, that new installation will rewrite the modifications. It is therefore recommended to back up the modified views.

## Procedure

If you want to change the mapping or a formula of a field, perform the following steps:

1. Define the data foundation that is the source for the view, that is, the table `/POSDW/TLOGF`.
2. Define filters for the view.
3. Map the fields from source to target.
4. Create measures and calculation fields.

For detailed information, see ► [help.sap.com/hana\\_appliance](https://help.sap.com/hana_appliance) ► *Modeling Information* ►.

### Definitions for a view taking the example of the `AN_TRANSACTION` view

The following definitions are set by default for the `AN_TRANSACTION` view:

- Source of the view is the table `/POSDW/TLOGF`
- Examples of filters for the views:
  - `RECORDQUALIFIER = '5'`: Only sales records are used
  - `DATASTATUS in ('2' , '3')`: Only those records are used which passed the SAP Customer Activity Repository validation
  - `RETAILQUANTITY > 0.0`: Negative quantities are not used by On-Shelf Availability
  - `VOIDEDLINE = ''`: Cancelled transactions are not used by On-Shelf Availability
- Examples of the 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 sold units. 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 "YYYYMMDDhhmmss".
  - DISCOUNT: Total relative discount applied on the item.  
 Calculated as  $(ITEMDISC + DISTDISC) / (RETAILQUANTITY * ACTUALUNITPRICE)$ . If the price is not positive number, 0 is returned.  
 Definitions:
    - DISTDISC: global discount on the whole purchase; currently not used.
    - ITEMDISC: item-specific discount; currently used.

#### 4.1.2.6.4 Activate SAP HANA Content for On-Shelf Availability

In this procedure, you activate all SAP HANA content required by On-Shelf Availability.

##### Procedure

1. Log on to your back-end system.
2. Execute transaction **SE38**.
3. Specify SNHI\_NH DU\_POST\_PROCESS in the *Program* field and choose *Execute*.
4. If you are running SAP NetWeaver 7.4 SP05 or higher, make the following entries:

Table 17

Parameter	Instruction
<i>Transport Container Name</i>	/OSA/HCO_POSDMEXT
<i>Activate Delivery Unit Content</i>	Select the checkbox.
<i>Activate HTC</i>	Do not select the checkbox.

5. Choose *Execute*.

All objects belonging to the delivery unit will be activated in the SAP HANA repository. This process can take several minutes. Once the activation process is complete, you are notified whether or not the import and activation of the SAP HANA delivery unit was successful.

## 4.1.2.6.5 Verify that SAP HANA Content for On-Shelf Availability has been activated

### Procedure

1. Log on to SAP HANA studio.
2. Open the *Modeler* perspective.
3. In the *Navigator* window, expand the database system for which you have activated the views.
4. Expand the *Content* folder.
5. Expand the package hierarchy by choosing ► *sap* ► *is* ► *retail* ► *posdmext* ► *osa* ▾.
6. Verify that the following views have been activated:
  - `sap.is.retail.posdmext.osa.tlog.an_transaction`
  - `sap.is.retail.posdmext.osa.tlog.promotion_trans`
  - `sap.is.retail.posdmext.osa.status_log_view`
  - `sap.is.retail.posdmext.osa.reporting.MON_ANA_VIEW`
  - `sap.is.retail.posdmext.osa.reporting.STATUS_LOG_VIEW`
7. Verify that the following procedures have been activated:
  1. Procedures in the package `sap.is.retail.posdmext.osa.common`:
    - `CREATE_LOG_ENTRY`
    - `PARSE_HOLIDAY_STRING`
    - `PARSE_TYPE_CODE_STRING`
  2. Procedures in the package `sap.is.retail.posdmext.osa.tlog.dao`:
    - `GET_TRX_FOR_PRODUCT`
    - `GET_TRX_FOR_STORE`
    - `GET_TRX_FOR_SUBDEP`
    - `GET_TRX_FOR_SUBDEP_WITH_MIN`
    - `GET_TRX_INFO_FOR_PRODUCT`
    - `GET_TRX_FOR_SUBDEP_CURRENCY`
  3. Procedures in the package `sap.is.retail.posdmext.osa.pattern.dao`:
    - `PERSIST`
    - `GET_INTRA_WEEK_PATTERN_RUNS`
    - `GET_INTRA_WEEK_PATTERN_LATEST`
    - `GET_INTRA_WEEK_PATTERN`
    - `GET_INTRA_WEEK_PATTERN_FOR_PRODUCT`
  4. Procedures in the package `sap.is.retail.posdmext.osa.pattern.runner.internal`:
    - `CALL_FUNCTION`
    - `CALL_ALGO_FOR_STORE`
    - `CALL_ALGO_FOR_SUBDEP`
    - `CALL_ALGO_PRODUCT_IN_SUBDEP`
  5. Procedures in the package `sap.is.retail.posdmext.osa.pattern.runner.public`:

- RUN\_FOR\_PRODUCT\_IN\_SUBDEP
  - RUN\_FOR\_STORE
  - RUN\_FOR\_SUBDEP
6. Procedure in the package `sap.is.retail.posdmext.osa.pattern.test`:
    - TEST\_L\_INTEGRATION
  7. Procedure in the package `sap.is.retail.posdmext.osa.estimation.config`:
    - GET\_CONFIG
  8. Procedures in the package `sap.is.retail.posdmext.osa.estimation.dao`:
    - PERSIST
    - GET\_PARAMETER
    - GET\_PARAMETERS
  9. Procedures in the package `sap.is.retail.posdmext.osa.estimation.runner.internal`:
    - CALL\_FUNCTION
    - CALL\_ALGO\_PRODUCT\_IN\_SUBDEP
  10. Procedure in the package `sap.is.retail.posdmext.osa.estimation.runner.public`:
    - RUN\_FOR\_PRODUCT\_IN\_SUBDEP
  11. Procedure in the package `sap.is.retail.posdmext.osa.estimation.test`:
    - TEST\_L\_INTEGRATION
  12. Procedures in the package `sap.is.retail.posdmext.osa.monitor.dao`:
    - PERSIST
    - CREATE\_STATUS\_LOG\_ENTRIES
    - UPDATE\_STATUS\_TABLE
    - CREATE\_STATUS\_LOG\_ENTRIES\_FOR\_EXCL\_PRODUCTS
    - UPDATE\_STATUS\_TABLE\_FOR\_EXCL\_PRODUCTS
  13. Procedures in the package `sap.is.retail.posdmext.osa.monitor.runner.internal`:
    - CALL\_FUNCTION
    - CALL\_ALGO\_PRODUCT\_IN\_SUBDEP
    - RUN\_FOR\_PRODUCT\_IN\_SUBDEP
  14. Procedures in the package `sap.is.retail.posdmext.osa.monitor.runner.public`:
    - GET\_QUALIFIED\_PRODUCT\_FOR\_RUNNER
    - RUN\_MONITOR
  15. Procedure in the package `sap.is.retail.posdmext.osa.monitor.test`:
    - TEST\_L\_INTEGRATION
  16. Procedure in the package `sap.is.retail.posdmext.osa.analysis.calc`:
    - COMPUTE\_LOST\_SALES
  17. Procedure in the package `sap.is.retail.posdmext.osa.analysis.dao`:
    - PERSIST
  18. Procedures in the package `sap.is.retail.posdmext.osa.analysis.runner.internal`:
    - CALL\_FUNCTION
    - CALL\_ALGO\_PRODUCT\_IN\_SUBDEP

19. Procedure in the package `sap.is.retail.posdmext.osa.analysis.runner.public:`

- `RUN_FOR_PRODUCT_IN_SUBDEP`

### 4.1.2.6.6 Configure SAP NetWeaver Gateway and Activate OData Service

This configuration step is only required if you use separate products or developments on top of SAP Customer Activity Repository that communicate via OData service. After you have installed SAP NetWeaver Gateway, configure the Gateway system and configure the settings for OData service.

#### Procedure

The main steps to do this are as follows:

1. Activate SAP NetWeaver Gateway.
2. Define RFC connections from SAP NetWeaver Gateway to your back-end system.
3. Define settings for OData service for the SAP NetWeaver Gateway.
4. Define settings for Push Functionality (optional).
5. Set up users and Authorizations for SAP NetWeaver Gateway.
6. Activate the OData Service in the SAP NetWeaver Gateway system (transaction `/IWFND/maint_service`) for the requested URI (for example: `/sap/opu/sdata/OSA/ON_SHELF_AVAILABILITY/`).

For detailed information, see SAP Library for SAP NetWeaver Gateway on SAP Help Portal at ► [help.sap.com/nwgateway](https://help.sap.com/nwgateway) ► *Application Help* ► *Support Package 06* ► *SAP NetWeaver Gateway Developer Guide* ► *OData Channel* ►.

### 4.1.2.7 Ensure that Third Party CRM Sales Orders are Transferred to SAP ERP (Optional)

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 *Data Exchange for Sales Orders: CRM Enterprise – ERP System* process. For more information, see SAP Library for SAP CRM on SAP Help Portal at [help.sap.com/crm](https://help.sap.com/crm). Select the applicable version of SAP CRM and 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:

- Includes the information required by SAP Customer Activity Repository

- Has been transferred to SAP ERP prior to being able to access this data from SAP Customer Activity Repository

## Procedure

1. Read section [SAP ERP Sales Document Fields used by SAP Customer Activity Repo \[page 105\]](#) for information on which SAP ERP sales document fields are required by SAP Customer Activity Repository.  
You have to 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.

### 4.1.2.8 Partition /POSDW/TLOGF Table (Optional)

SAP Customer Activity Repository application contains the Point of Sale Data Management software component version `RTLPOSDM 200` which is used to receive a large volume of data from your connected stores. Point of Sale Data Management, or more specifically, its POS Inbound Processing Engine (PIPE), processes the incoming transactions and stores them in the `/POSDW/TLOGF` table.

Since every transaction line item is stored as a separate row in the `/POSDW/TLOGF` table, the table can quickly grow to become very large. To improve standard database operations, such as inserting, updating, deleting and reading and mass operations, such as archiving or index merging, SAP recommends that you partition the `/POSDW/TLOGF` table.

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. Table `/POSDW/TLOGF_EXT` should be partitioned in the same way as the `/POSDW/TLOGF` table.

For more information on extension segments, see the *Appendix* of the *Operations Guide, SAP Customer Activity Repository*.

#### **i** Note

Partitioning is typically used in distributed system, 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*.
2. Plan your **partition specifications** in accordance to the following guidelines:
  - A single partition should not contain more than 1 billion rows.
  - The total amount of partitions of a single table should not exceed 1000.
  - Because the actual act of partitioning a table does use system resources, do not start partitioning the `/POSDW/TLOGF` table until its volume has surpassed 250 million rows.
3. Partition your `/POSDW/TLOGF` (and, optionally the `/POSDW/TLOGF_EXT`) table according to [SAP Note 1719282](#).

## 4.1.2.9 Customize Copies of SAP HANA Views (Optional)

In this optional procedure, you create copies of views included in SAP HANA Live for SAP ERP or in the SAP HANA content for SAP Customer Activity Repository. You then customize these copies to reflect your specific data model extensions.

### Caution

Do not modify standard SAP HANA content.

For example, you would 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 will have to create views that expose these fields.

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. To do so:
  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.

For 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*.

## 4.1.2.10 Install and Set Up Unified Demand Forecast (UDF) (Optional)

UDF is a component in SAP Customer Activity Repository and provides the demand modeling and demand forecasting services. The UDF algorithms are implemented and shipped as a separate application function library (UDF AFL) that you install and run in the SAP HANA database.

### **i** Note

UDF requires the configuration of Demand Data Foundation (DDF), a cross-industry reusable data layer in SAP Customer Activity Repository. In addition to the steps described in the [Configure Demand Data Foundation \(DDF\) \[page 57\]](#) section, please see the *Common Master Guide* for additional configurations and integration information. You can find this guide on SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► *Installation and Upgrade Information* ► *Master Guide* ►.

### 4.1.2.10.1 Install the UDF AFL

In this procedure, you install the Unified Demand Forecast application function library (software component version `UDFAFL_INST 100`). Please note that you cannot do this installation using Maintenance Optimizer in SAP Solution Manager (as you can with other components of SAP Customer Activity Repository). This is because the UDF AFL is released independently and you need to download and install it as described in this section.

### **i** Note

We recommend that you always upgrade to the newest UDF AFL to benefit from all enhancements and corrections.

## Procedure

1. Read the *Component Version Dependencies* section of the *Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA*.  
You can find this guide on SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► *Integration Information* ► *Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA* ►.

You need to be aware of the dependencies and minimum requirements described there to ensure that UDF integrates with your Demand Data Foundation and SAP Customer Activity Repository system.

2. Read the SAP Notes below and follow the instructions. The notes tell you where to download the UDF AFL from SAP Service Marketplace and how to install it.

Table 18

SAP Note Number	Title	Description
<a href="#">2050229</a>	Release and Upgrade Information for Unified Demand Forecast Application Function Library (UDF AFL)	Overview of all independent releases (revisions) of the UDF AFL as of revision 82 on SAP HANA Platform SPS 08 revision 82; instructions for installing or upgrading the UDF AFL using the recommended installation tools, <code>hdb1cm</code> or <code>hdb1cmgui</code> .
<a href="#">2004952</a>	Migration of UDF AFL and POS AFL from SAP HANA AFL as of SAP HANA Platform SPS 08	Instructions for performing a mandatory one-time migration when upgrading from a UDF AFL on SAP HANA Platform SPS 06 or SPS 07; additional installation instructions.
<a href="#">1997526</a>	SAP HANA lifecycle manager with SAP HANA Database SPS 08	<p>Information about SAP HANA tools that you can use to install the UDF AFL. Please note that the recommended tool depends on your edition of the SAP HANA Platform.</p> <div> <p><b>i Note</b></p> <p>To use the recommended installation tools, <code>hdb1cmgui</code> or <code>hdb1cm</code>, you need to do a preparation step as described in the <a href="#">SAP HANA Server Installation and Update Guide</a> &gt; <a href="#">Download Software Components from SAP Service Marketplace</a> &gt; <a href="#">Context</a> .</p> <p>You can find this guide on SAP Help Portal at <a href="#">help.sap.com/hana_platform</a> &gt; <a href="#">Installation and Upgrade Information</a> &gt; <a href="#">SAP HANA Server Installation and Update Guide</a> .</p> <p>The preparation step involves running the <code>hdb1cm_prepare.sh</code> shell script. You must run this script before you start either tool.</p> </div>

## 4.1.2.10.2 Complete UDF Setup

In this procedure, you complete setting up Unified Demand Forecast (UDF) to enable demand modeling and forecasting. Optionally, you can also install a forecast visualization tool.



## Prerequisites

- You have installed the UDF AFL as described in the previous section.
- If you intend to use the optional visualization tool Unified Demand Forecast Launchpad, you are aware that there are additional hardware requirements for it and have planned your system landscape accordingly. For more information about those requirements, see the *UDF Launchpad Installation Guide*, which you can find in SAP Note [1836357](#).

## Procedure

1. Check which business functions you need to activate in your DDF system to be able to use UDF. For more information, see [Configure Demand Data Foundation \(DDF\) \[page 57\]](#).
2. Set up the users, roles, and privileges required for UDF. To do this, follow the instructions in the *Authorization Requirements for Unified Demand Forecast (UDF)* section of the *Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA*. You can find this guide at [help.sap.com/car > Integration Information > Administrator's Guide, Demand Data Foundation \(DDF\) with Unified Demand Forecast \(UDF\) on SAP HANA](#).
3. Analyze and implement the following SAP Notes for UDF:
  - [1898341](#): Updated information on configuration changes for demand modeling and forecasting
  - [1911141](#): Setting UDF-specific performance optimization parameters in the SAP HANA database
4. Optional: Install and configure the visualization tool Unified Demand Forecast Launchpad.

### **i** Note

Using the UDF Launchpad is optional. You can download it from the SAP Store at [store.sap.com](#). Please note that the UDF Launchpad has been designed as a template. There is no product support and the user interface is only available in English.

Please also note that there are additional hardware requirements for using the tool and that you must plan your system landscape accordingly. For more information about those requirements, see the *UDF Launchpad Installation Guide*, which you can find in SAP Note [1836357](#).

More information:

- Installing and configuring the UDF Launchpad: SAP Note [1836357](#) and the SAP Ramp-Up Knowledge Transfer (SAP RKT) content for UDF
- Using the UDF Launchpad: [help.sap.com/car > Application Help > SAP Library > SAP Customer Activity Repository > Demand Data Foundation > General Services > Validate Forecasts with UDF Launchpad](#)

### 4.1.2.11 Configure Demand Data Foundation (DDF)

#### **i** Note

##### Required Configurations

The consuming applications and Unified Demand Forecast (UDF) on SAP Customer Activity Repository require the configuration of the reusable data layer DDF. For more information, see [Prerequisites \[page 21\]](#). In addition

to the steps described in the following sections, please see the [Common Master Guide](#) for additional configurations and integration information. You can find this guide on SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► [Installation and Upgrade Information](#) ► [Master Guide](#) ►.

## Note

### Integration Scenarios

- With the standard integration with an SAP ECC (SAP ERP Central Component) system, outbound data replication using the data replication framework (DRF, transaction **DRFOUT**) is required for the SAP Assortment Planning for Retail and SAP Promotion Management for Retail scenarios. For more information, please see the [Common Master Guide](#), which you can find on SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► [Installation and Upgrade Information](#) ► [Master Guide](#) ►.
- Integration with non-SAP ECC systems and multiple SAP ECC systems is possible for certain scenarios.

## 4.1.2.11.1 Activate DDF Business Functions

Some products residing in the ABAP back-end server may use data acquired and maintained in Demand Data Foundation (DDF). If this is the case for your implementation, you must ensure that the relevant DDF business functions are activated.

### ➔ Recommendation

- Business functions should be activated by a system administrator.
- Once a business function is active, we recommend that you do not deactivate it.
- Before activating a business function, read the corresponding business function documentation. For information about DDF business functions, see SAP Library for SAP Customer Activity Repository on SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► [SAP Library](#) ► [SAP Customer Activity Repository](#) ► [Demand Data Foundation](#) ► [Business Functions](#) ►.

## Procedure

1. Activate the following business functions:
  - `/DMF/DDF_IMDB_PL_TD` ([Decompression of Product Location Price Data](#))
  - `/DMF/DDF_IMDB_TS` ([Decompression of Time Series Data](#))
2. If you use demand modeling and forecasting with Unified Demand Forecast (UDF), activate the following business functions in the following order:
  - `/DMF/FORECAST` ([Activation of Forecast Engine](#))
  - `/DMF/DDF_UDF` ([Activation of Unified Demand Forecast](#))
3. Activate additional business functions:
  - `/DMF/OFR_FIN_CALC_OPT` ([Optimizations for Offer Financials](#))

### ➔ Recommendation

Although this business function is considered optional, we highly recommend that you activate it. With the business function activated, you get significant improvements in memory and performance.

- Activate the optional business function `/DMF/DDF_IMDB_LANE_TD` (*Decompression of Lane Price and Time Dependent Data*) if applicable to your specific implementation scenario.
- Activate the optional business function `/DMF/DDF_IMDB_OFR_FIN` (*Decompression of Offer Financials Data*) only if you want to store offer financials data on the database in a decompressed format. The business function enables you to execute the `/DMF/OFFER_FIN_MIGRATION` report for this purpose. For more information, see the report documentation (transaction **SE38**).

## More Information

SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► *Integration Information* ► *Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA* ►

## 4.1.2.11.2 Import SAP Enterprise Portal Roles for DDF

For user authorization, you can use the roles from the SAP NetWeaver Business Client software and the SAP Enterprise Portal component. Both sets of roles operate in the same manner. Using the SAP Enterprise Portal is optional.

The `PFCG` roles have been created for use in SAP NetWeaver Business Client. To use the functions of these roles in SAP Enterprise Portal, you must upload the roles from the SAP system to SAP Enterprise Portal.

## Procedure

1. Use the *Role Upload* tool to generate the SAP Enterprise Portal roles automatically.

You can also enhance the SAP Enterprise Portal roles; for example, you can create your own iViews. For more information about the *Role Upload* tool, see SAP Note [1685257](#).

You can upload the following `PFCG` roles:

- `SAP_ISR_DDF_MASTER`
- `SAP_ISR_DDF_READONLY_MASTER`

## More Information

► [help.sap.com/car](https://help.sap.com/car) ► *Integration Information* ► *Administrator's Guide, Demand Data Foundation (DDF) with Unified Demand Forecast (UDF) on SAP HANA* ► *Standard Roles* ►

## 4.2 SAP Assortment Planning for Retail

### 4.2.1 Preparation

#### **i** Note

Some of the activities in this section may have already been performed in the corresponding section under [SAP Customer Activity Repository \[page 26\]](#). Such activities do not need to be repeated during the setup and installation of consuming applications.

#### 4.2.1.1 Verify SAP HANA Users and Privileges

Prior to installing the application, you need to ensure that the required database users exist, and that these users have all the required privileges.

#### Procedure

1. Ensure that the SAP HANA database users listed below exist and that they have the required roles/privileges.

Table 19

User	Role/Privilege
SAP<SID>  This is the generic database user specified for the connection from the SAP NetWeaver back-end server to the SAP HANA database.	<ul style="list-style-type: none"><li>• System privilege REPO . IMPORT</li><li>• System privilege ROLE ADMIN</li><li>• System privilege STRUCTUREDPRIVILEGE ADMIN</li><li>• Role CONTENT_ADMIN</li><li>• Role AFL__SYS_AFL_AFLPAL_EXECUTE and privilege EXECUTE on system.afl_wrapper_generator and system.afl_wrapper_eraser. For more information, see <a href="#">Enable Usage of PAL Functions [page 61]</a>.</li></ul>
_SYS_REPO	<ul style="list-style-type: none"><li>• Privilege SELECT, with option "<i>Grantable to others</i>", on the following physical DB schemas:<ul style="list-style-type: none"><li>◦ Physical database schema of your back-end system, typically this is called SAP&lt;SID&gt;</li><li>◦ Physical database schema that contains the SAP ERP tables</li><li>◦ Physical database schema that contains the SAP CRM tables</li></ul>You can use the following example SQL statement to grant the required privilege:  <b>GRANT SELECT ON &lt;Your schema name&gt; TO _SYS_REPO WITH GRANT OPTION;</b></li><li>• Privileges described in ► <a href="https://help.sap.com/car">help.sap.com/car</a> ► <i>Integration Information</i> ► <i>Administrator's Guide, Demand Data Foundation (DDF) with Unified</i></li></ul>

User	Role/Privilege
	<i>Demand Forecast (UDF) on SAP HANA</i> ➤ <i>Authorization Requirements for Unified Demand Forecast (UDF)</i> ➤
<Your User Name>*	<ul style="list-style-type: none"> <li>• Privilege SELECT on schema _SYS_BI</li> <li>• Privilege SELECT on schema SAP&lt;SID&gt;</li> <li>• Privilege EXECUTE on procedure REPOSITORY_REST</li> </ul>
*Your user on SAP HANA database level, back-end system, and on the front-end server (SAP NetWeaver Gateway) <b>must be identical</b> on these three levels.	

## 4.2.1.2 Configure AFL Usage

### 4.2.1.2.1 Activate SAP HANA Script Server

Once all the required AFLs are installed, as listed in the [Prerequisites \[page 21\]](#) section, ensure that you have activated the script server for the SAP HANA database.

#### Procedure

Read and implement SAP Note [1650957](#).

### 4.2.1.2.2 Enable Usage of PAL Functions

The installation of SAP HANA Platform (SPS 08 or higher) includes the installation of SAP HANA AFL 1.0, which contains the PAL algorithm, a prerequisite to the installation of SAP Assortment Planning for Retail.

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

#### Procedure

1. Ensure that the SAP<SID> user has the role AFL\_\_SYS\_AFL\_AFLPAL\_EXECUTE (there are 2 underscores between AFL and SYS) as described in [Verify SAP HANA User and Privileges \[page 60\]](#).  
This role must be assigned to execute functions of the PAL library. In the case of SAP Assortment Planning for Retail, this role is necessary for the assortment planner to use smart clustering in the [Manage Location Clusters](#) SAP Fiori app.
2. Ensure that the SAP<SID> user has the EXECUTE privilege of system.afl\_wrapper\_generator and system.afl\_wrapper\_eraser. For example, if the user name is SAP<SID>, run the following commands:  
**GRANT EXECUTE ON system.afl\_wrapper\_generator to SAP<SID>**  
**GRANT EXECUTE ON system.afl\_wrapper\_eraser to SAP<SID>**

This is also necessary for the assortment planner to use smart clustering in the *Manage Location Clusters* SAP Fiori app.

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 automatically done by SAP Assortment Planning for Retail.

### **i** Note

If you have upgraded to SAP HANA Platform SPS 08 from an earlier release, your database user might have lost the `EXECUTE` privilege of `system.afl_wrapper_generator` and `system.afl_wrapper_eraser` during the upgrade. You will have to grant these privileges again, as described in SAP Note [2022080](#).

3. Check the PAL installation. To confirm that the PAL functions were installed successfully, you can run `SELECT` statements in the following three public views:
  - `sys.afl_areas`
  - `sys.afl_packages`
  - `sys.afl_functions`

## More Information

► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *Reference Information* ► *SAP HANA Library References* ► *SAP HANA Predictive Analysis Library (PAL) Reference* ►

## 4.2.2 Installation

### **i** Note

Some of the activities in this section may have already been performed in the corresponding section under *SAP Customer Activity Repository* [page 26]. Such activities do not need to be repeated during the setup and installation of consuming applications.

The following interactive diagram depicts the installation process for SAP Assortment Planning for Retail 1.0. If you are reading this document on a device, you can select elements in the diagram to navigate to the corresponding sections.

### **i** Note

The *Install ABAP Back-End Server*, *Install ABAP Front-End Server*, *Install SAP HANA Live for SAP ERP*, and *Create SAP CRM Table Definitions* installation processes can be executed independently from one another. You may assign separate teams to work on these processes in parallel for a faster and simpler implementation.

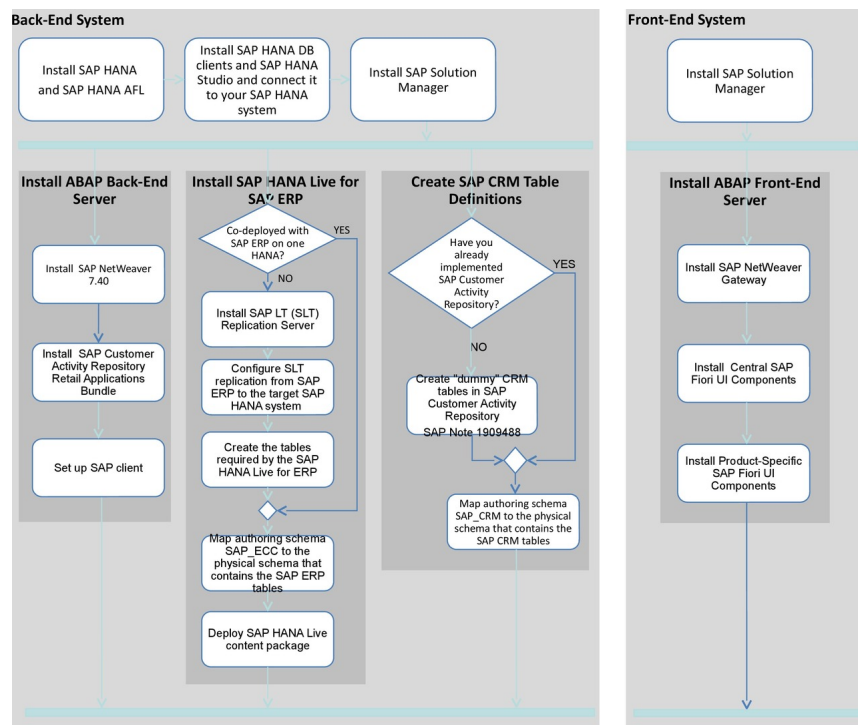


Figure 10: General Installation Flow

## 4.2.2.1 Install Prerequisites

Before proceeding with the installation, the following components must be installed and configured:

- SAP HANA
- SAP HANA Application Function Library (AFL)
- SAP HANA Database Clients
- SAP HANA Studio
- SAP Solution Manager

### **i** Note

The documentation for installing and configuring these components is maintained and published separately from this product. See the [Prerequisites \[page 21\]](#) section for more information on retrieving the related documentation.

## 4.2.2.2 Install ABAP Back-End Server

### 4.2.2.2.1 Install SAP NetWeaver

You must install SAP NetWeaver 7.40 SP 09 prior to installing other back-end components.

For more information about how to install SAP NetWeaver, see ► [help.sap.com/nw74](https://help.sap.com/nw74) ► *Installation and Upgrade Information* ► *Installation Guides* ►.

## 4.2.2.2.2 Install SAP Customer Activity Repository Retail Applications Bundle

We recommend using Maintenance Optimizer in SAP Solution Manager to install and update product versions. SAP Solution Manager calculates the required software components that have to be deployed on each server.

For more information about Maintenance Optimizer, see SAP Help Portal at ► [help.sap.com/solutionmanager71](https://help.sap.com/solutionmanager71) ► *Application Help* ► *SAP Library* ► *SAP Solution Manager* ► *Maintenance Management* ► *Maintenance Optimizer* ►.

Alternatively, you can download the required files directly from SAP Service Marketplace and deploy them manually.

In this procedure, you use Maintenance Optimizer to perform a stack XML installation of SAP Customer Activity Repository retail applications bundle 1.0.

### Procedure

1. Log on to SAP Solution Manager and launch Maintenance Optimizer.

For more information on using Maintenance Optimizer, see ► [service.sap.com/mopz](https://service.sap.com/mopz) ►.

#### Note

Maintenance Optimizer 3.0 (MOPZ) is the standard for SAP Solution Manager 7.1 SP12. You may experience difficulties installing products if you are running an older version of SAP Solution Manager.

We recommend upgrading to the latest version of SAP Solution Manager. If you do not wish to do so, you must implement SAP Note [1940845](https://support.sap.com/note/1940845) to render the MOPZ front-end compatible with the back-end.

2. In the Maintenance Optimizer work step that allows you to choose add-on products, select product version CAR RETAIL APPL BUNDLE 1.0 and product instance CARAB ABAP Server.

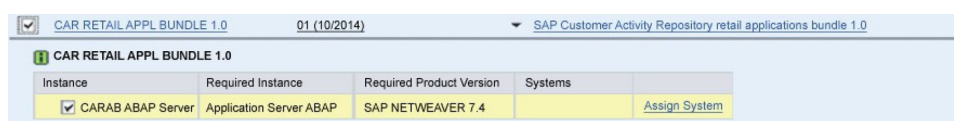


Figure 11: Selection of Product Version and Product Instance



#### Caution

Do not deselect any ABAP components from the product instance.

3. Calculate and download the stack XML file.
4. Log on to your back-end server, that is, the ABAP system on which you are installing CAR Retail Appl Bundle - ABAP Instance.
5. Use the SAP Add-On Installation Tool (transaction SAINT) to load and install the stack XML generated using SAP Solution Manager Maintenance Optimizer.



For more information on transaction SAINT, refer to the system documentation available directly in the system when you run transaction SAINT and select the [Online Help](#) icon.

## 4.2.2.2.3 Set Up SAP Client

In this procedure, you set up a client on your back-end system.

### Procedure

1. Verify the client number in the source SAP ERP system.

This installation includes SAP HANA content that provides views on a combination of client-dependent data authored in a source SAP ERP system.

2. Create the necessary client on your back-end system using client maintenance transaction (SCC4).

#### Caution

If you are performing a client copy, you should only perform the client copy after a successful import of all related software components. Also, you should only import or transfer Customizing tables after this client copy is complete, as described in SAP Note [337623](#).

If using the same client number is not possible due to the specifics of your implementation and client setup rules, **you must use SLT transformation rules before replicating data** to transform the source SAP ERP client to match the client on your back-end system.

#### Example

If SAP ERP is set up on client 100 in your implementation, 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.

Cross-system information is client-dependent. As a result, it is required to use the [SAP Client](#) (MANDT) attribute as one of the join attributes in the SAP HANA views to combine cross-system sales and master data. All data (whether created or replicated) must be affiliated with the same client number.

### More Information

For more information, see [help.sap.com/nw73](#) > *Application Help* > *Function-Oriented View* > *Application Server* > *Application Server ABAP* > *Other Services* > *Services for Administrators* > *Client Concept* .

---

## 4.2.2.3 Install ABAP Front-End Server

### 4.2.2.3.1 Install SAP NetWeaver Gateway on the ABAP Front-End Server

The complete UI layer consisting of the central UI component, the product-specific UI components and the SAP NetWeaver Gateway is contained in the ABAP front-end server. SAP NetWeaver Gateway handles the communication between the client and the ABAP back-end server. For a visualization of how these components interact, see [Overall System Planning \[page 11\]](#).

When you are implementing the Central Hub deployment option, you use separate servers for the back-end and front-end components in your landscape.

#### Procedure

Ensure that the necessary SAP NetWeaver version is installed on your front-end server. For more information, see SAP Library for SAP Fiori on SAP Help Portal at ► [help.sap.com/fiori\\_bs2013](https://help.sap.com/fiori_bs2013) ► *System Landscape Required for SAP Fiori* ► *Setup of SAP Fiori System Landscape with SAP HANA Database* ► *Installation* ►.

### 4.2.2.3.2 Install Central SAP Fiori UI Components

The complete UI layer consisting of the central UI component, the product-specific UI components and the SAP NetWeaver Gateway is contained in the ABAP front-end server. The central UI component contains the SAP UI5 control library and the SAP Fiori Launchpad.

When you are implementing the Central Hub deployment option, you use separate servers for the back-end and front-end components in your landscape. Your front-end server must have the required central UI component version.

#### Procedure

Ensure that **SAP\_UI 740 SP11** (which contains SAPUI5 Version 1.24.2 or higher) or equivalent is installed on your front-end server.

Depending on the version of SAP NetWeaver installed on your front-end server, the central UI component is either installed as an add-on (for example, for SAP EhP1 for SAP NetWeaver 7.3 or higher) or is integrated directly in the SAP NetWeaver installation (for example, SAP NetWeaver 7.4 SP04 or higher). In either case, to use the apps delivered as part of SAP Fiori 1.0 for SAP Customer Activity Repository retail applications bundle (SAP\_FIORI\_FOR\_SAP\_CARAB\_1.0), **SAP\_UI 740 SP11** (which contains SAPUI5 Version 1.24.2 or higher) or equivalent must be installed on your front-end server.

For more information, see SAP Library for SAP Fiori on SAP Help Portal at ► [help.sap.com/fiori\\_bs2013](https://help.sap.com/fiori_bs2013) ► *System Landscape Required for SAP Fiori* ► *Setup of SAP Fiori System Landscape with SAP HANA Database* ► *Installation* ► *Setup of Front-End Server* ► *Installation of Central UI Components* ►.

### 4.2.2.3.3 Install Product-Specific SAP Fiori UI Components

The complete UI layer consisting of the central UI component, the product-specific UI components and the SAP Gateway is contained in the ABAP front-end server. The product-specific UI component contains the SAP Fiori user interface for the SAP Assortment Planning for Retail application and the SAP Smart Business for SAP Customer Activity Repository. This procedure describes the installation of this product-specific UI component.

#### Procedure

1. Log on to SAP Solution Manager and launch Maintenance Optimizer.

For more information about using Maintenance Optimizer, see ► [service.sap.com/mopz](https://service.sap.com/mopz) ►.

#### Note

Maintenance Optimizer 3.0 (MOPZ) is the standard for SAP Solution Manager 7.1 SP12. You may experience difficulties installing products if you are running an older version of SAP Solution Manager.

We recommend upgrading to the latest version of SAP Solution Manager. If you do not wish to do so, you must implement SAP Note [1940845](#) to render the MOPZ front-end compatible with the back-end.

2. In the Maintenance Optimizer work step that allows you to choose add-on products, select product version `SAP_FIORI_FOR_SAP_CARAB_1.0`.
3. Select the product instance based on the SAP NetWeaver version of your front-end server:
  - UI for SAP CARAB on NW 740
  - UI for SAP CARAB on NW 731
4. Calculate and download the stack XML file.
5. Log on to your front-end server.
6. Use the SAP Add-On Installation Tool (transaction `SAINT`) to load and install the stack XML generated using SAP Solution Manager Maintenance Optimizer.

For more information on transaction `SAINT`, refer to the system documentation available directly in the system when you run transaction `SAINT` and select the [Online Help](#) icon.

### 4.2.2.4 Install SAP HANA Live for SAP ERP

This section describes how to install SAP HANA Live under different implementation conditions:

- If you are implementing a deployment option that requires data to be replicated from a source SAP ERP system, see [Deployment Scenario: SAP Customer Activity Repository Standalone or Co-Deployed with SAP BW](#) [page 68].
- If you are implementing a deployment option in which your source SAP ERP system and SAP Customer Activity Repository are co-deployed on the same SAP HANA database, see [Deployment Scenario: SAP Customer Activity Repository Co-Deployed with SAP ERP](#) [page 69].

For more information, see [System Landscape Variants](#) [page 13].

## 4.2.2.4.1 Deployment Scenario: SAP Customer Activity Repository Standalone or Co-Deployed with SAP BW

SAP Customer Activity Repository requires that SAP HANA Live for SAP ERP is installed, configured and connected to the same SAP HANA database that you plan to use for SAP Customer Activity Repository.

For more information on installing SAP HANA Live for SAP ERP, see ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ►

### Caution

SAP Customer Activity Repository does not require that you execute all of the installation steps exactly as they are described in the *Administrator's Guide, SAP HANA Live for SAP Business Suite*. Prior to executing steps that describe the creation and replication of SAP ERP tables, be sure to read the additional instructions for SAP Customer Activity Repository provided in this guide.

## Process

1. Ensure that the SAP Landscape Transformation component (SAP LT Replication Server) is installed.
2. Configure access from the SAP LT Replication Server to the source SAP ERP system (RFC connection) and from SAP LT Replication Server to the target SAP HANA database.

For more information, see:

- ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ► *Installation Steps* ►
  - ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *System Administration and Maintenance Information* ► *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* ► (<Technical Prerequisites and Authorization Aspects> and <Accessing the Configuration and Monitoring Dashboard>) ►
3. Ensure that your 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. Enter the required information the *Specify System* dialog:
      - Hostname
      - Instance Number
      - System description
    4. Specify your system *User Name* and *Password* in the *Connection Properties* dialog.
  4. Ensure that a database catalog schema is created on the target SAP HANA database. This is the schema on your SAP HANA database to which the SAP ERP data will be replicated.

For more information, see:

- ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ► *Installation Steps* ►




- [help.sap.com/hana\\_platform](#) > *System Administration and Maintenance Information* > *SAP HANA Administration Guides* > *Creating Schemas* .
5. Map the authoring schema of the `sap.hba.ecc` content package to your particular physical database schema, described in the previous step. If the physical database schema to which the SAP ERP data will be replicated is already called `SAP_ECC`, this schema mapping is not required.

Table 20

Authoring Schema	Physical Schema
SAP_ECC	<Name of Your Schema for Storing SAP ERP Data>

For more information, see:

- [help.sap.com/hba](#) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Installation Steps* .
  - [help.sap.com/hana\\_platform](#) > *Modeling Information* > *SAP HANA Modeling Guide* > *Mapping the Authoring Schema to the Physical Schema* .
6. Create the tables that are required by SAP HANA Live for ERP views on the target SAP HANA database using the instructions provided in SAP Note [1799313](#). The tables that are required to be created are listed in SAP Notes [1782065](#), [1781992](#), and [1900038](#).



The creation of the tables on the target SAP HANA database is required so that the content package of SAP HANA Live for ERP can be deployed and activated correctly.



#### Caution

**You must not replicate any data to these tables at this point. Data replication is performed during post-installation.**

For more information, see *Replicate SAP ERP Tables for <Your Product>* in the *Post-Installation* section specific to your scenario.

7. Deploy the SAP HANA Live for ERP content package on the SAP HANA database.  
For more information, see [help.sap.com/hba](#) > *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Administrator's Guide, SAP HANA Live for SAP Business Suite* > *Installation Steps* .
8. Ensure that the views included in the content package `sap.hba.ecc` have been activated.  
The subset of the views required by SAP Customer Activity Repository is listed in [SAP HANA Live for SAP ERP Views Required by SAP Customer Activity Repository \[page 106\]](#).  
For more information on activating views, see [help.sap.com/hana\\_platform](#) > *Development Information* > *SAP HANA Developer Guide* > *Setting Up the Analytic Model* > *Creating Views* > *Activating Objects* .

## 4.2.2.4.2 Deployment Scenario: SAP Customer Activity Repository Co-Deployed with SAP ERP

SAP Customer Activity Repository requires that SAP HANA Live for SAP ERP is installed, configured and connected to the same SAP HANA database that you plan to use for SAP Customer Activity Repository.

For more information on installing SAP HANA Live for SAP ERP, see ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ►.

### Caution

SAP Customer Activity Repository does not require that you execute all of the installation steps exactly as they are described in the *Administrator's Guide, SAP HANA Live for SAP Business Suite*. Be sure to read the additional instructions for SAP Customer Activity Repository provided in this guide.

## Process

1. Ensure that your 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 *Navigators* pane and select *Add System*.
  3. Enter the required information the *Specify System* dialog:
    - Hostname
    - Instance Number
    - System description
  4. Specify your system *User Name* and *Password* in the *Connection Properties* dialog.
2. Map the authoring schema of the `sap.hba.ecc` content package to your particular physical database schema. If the physical database schema is already called `SAP_ECC`, this schema mapping is not required.

Table 21

Authoring Schema	Physical Schema
SAP_ECC	<Name of Your Schema for Storing SAP ERP Data>

For more information, see:

- ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ► *Installation Steps* ►.
  - ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *Modeling Information* ► *SAP HANA Modeling Guide* ► *Mapping the Authoring Schema to the Physical Schema* ►.
3. Ensure that all the standard SAP ERP tables listed in SAP Notes [1782065](#), [1781992](#), and [1900038](#) are present on your SAP HANA database.  
The presence of these tables on the SAP HANA database is required so that the content package of SAP HANA Live for ERP can be deployed and activated correctly.
  4. Deploy the SAP HANA Live for ERP content package on the SAP HANA database.  
For more information, see ► [help.sap.com/hba](https://help.sap.com/hba) ► *Installation, Security, Configuration, and Operations Information* ► *Administrator's Guide* ► *Administrator's Guide, SAP HANA Live for SAP Business Suite* ► *Installation Steps* ►.
  5. Ensure that the views included in the content package `sap.hba.ecc` have been activated.  
The subset of the views required by SAP Customer Activity Repository is listed in [SAP HANA Live for SAP ERP Views Required by SAP Customer Activity Repository \[page 106\]](#).

For more information on activating views, see ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *Development Information* ► *SAP HANA Developer Guide* ► *Setting Up the Analytic Model* ► *Creating Views* ► *Activating Objects* ►.

## 4.2.2.5 Create SAP CRM Table Definitions

The presence of an SAP CRM system in your landscape is **optional**. If you do not have an SAP CRM system in your landscape, you need to create a set of “dummy” SAP CRM tables. These tables are required for the successful activation of views in the SAP HANA content.

If you have an SAP CRM system in your landscape and you are planning to use the standard SAP implementation of customer identification delivered with SAP Customer Activity Repository, you additionally need to set up the SAP CRM table replication as described in [Replicate SAP CRM Tables for SAP Customer Activity Repository](#) [page 40].

### **i** Note

Before you proceed, identify whether your back-end system will integrate with a source SAP CRM system. For example, if you have an operational SAP CRM system, you could access this system from SAP Customer Activity Repository to retrieve information about customers who use loyalty cards at the point of sale.

If your back-end system **will not integrate** with a source SAP CRM system, read and implement SAP Note [1909488](#).

If your back-end system will integrate with a source SAP CRM system, read and implement the following process.

## Process

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:

- ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *Installation and Upgrade Information* ► *SAP HANA Replication Installation Guides* ►
- ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *System Administration and Maintenance Information* ► *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* ► *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 ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *Installation and Upgrade Information* ► *SAP HANA Replication Installation Guides* ► *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 ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *System Administration and Maintenance Information* ► *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* ► *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 ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► *System Administration and Maintenance Information* ► *Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA* ► *Important Transactions and Control Tables* ►.

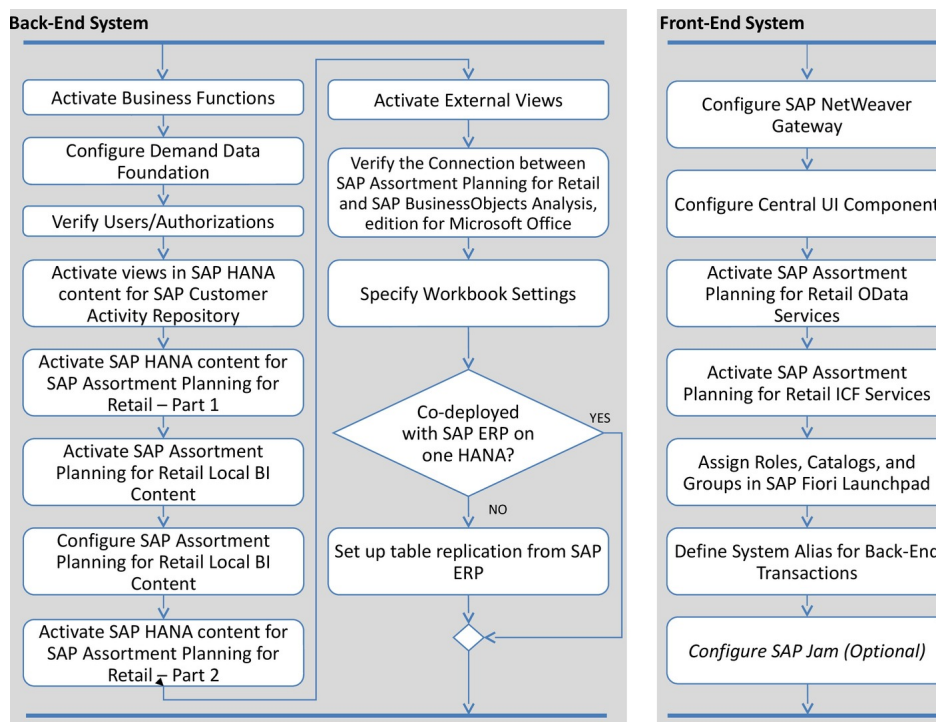
4. Replicate table definitions from SAP CRM by reading and implementing SAP Note [1938004](#).

## 4.2.3 Post-Installation

### **i** Note

Some of the activities in this section may have already been performed in the corresponding section under [SAP Customer Activity Repository \[page 26\]](#). Such activities do not need to be repeated during the setup and installation of consuming applications.

The following diagram depicts the post-installation process for SAP Assortment Planning for Retail 1.0.





## 4.2.3.1 Activate Business Functions

### 4.2.3.1.1 Activate DDF Business Functions

SAP Assortment Planning for Retail uses data acquired and maintained in Demand Data Foundation (DDF). You must ensure that the required DDF business functions are activated.

#### ➔ Recommendation

- Business functions should be activated by a system administrator.
- Once a business function is active, we recommend that you do not deactivate it.
- Before activating the business function, read the corresponding business function documentation. For information about DDF business functions, see SAP Library for SAP Customer Activity Repository on SAP Help Portal at ► [help.sap.com/car](https://help.sap.com/car) ► *SAP Library* ► *SAP Customer Activity Repository* ► *Demand Data Foundation* ► *Business Functions* ►.

#### Procedure

1. Activate the following business functions:
  - `/DMF/DDF_IMDB_PL_TD` (*Decompression of Product Location Price Data*)
  - `/DMF/DDF_IMDB_TS` (*Decompression of Time Series Data*)
2. If you use Unified Demand Forecast (UDF), activate the following business functions:
  - `/DMF/FORECAST` (*Activation of Forecast Engine*)
  - `/DMF/DDF_UDF` (*Activation of Unified Demand Forecast*)

#### More Information

► [help.sap.com/car](https://help.sap.com/car) ► *Integration Information* ► *Demand Data Foundation (DDF) 2.0 with the SAP HANA Database* ►

### 4.2.3.1.2 Activate SAP Assortment Planning for Retail Business Function

To use the SAP Assortment Planning for Retail application, the `/DMF/DDF_ASSORTMENT_PLANNING` (*Activation of Assortment Planning (Reversible)*) business function must be activated. During ramp-up, it is not possible to activate this business function yourself.

## Procedure

1. Contact SAP for information on Ramp-Up approval. SAP will provide a workaround allowing you to use SAP Assortment Planning for Retail without activating the `/DMF/DDF_ASSORTMENT_PLANNING` (*Activation of Assortment Planning (Reversible)*) business function.

### 4.2.3.2 Configure Demand Data Foundation

SAP Assortment Planning for Retail relies on data maintained in Demand Data Foundation (DDF). This procedure highlights key DDF configuration steps required to use the SAP Assortment Planning for Retail application.

## Procedure

1. Perform the necessary configuration steps in DDF.

SAP Assortment Planning for Retail uses master data and time series data stored in DDF. As such, prior to using the SAP Assortment Planning for Retail application, **you must ensure that DDF is fully configured and operational.**

#### **i** Note

DDF Customizing activities that are explicitly relevant for SAP Assortment Planning for Retail are referenced under ► *SAP Customizing Implementation Guide* ► *Cross-Application Components* ► *Assortment Planning for Retail* ► *Imported Demand Data Foundation Settings* ►.

For more information, see the *Configuring Demand Data Foundation* configuration document associated with the *Enabling Demand Data Foundation* business process of the *Assortment Planning for Retail* Solution Manager scenario.

2. Configure data replication from SAP ERP to DDF.

SAP Assortment Planning for Retail 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`.

For more information on setting up this data replication, see the following:

- *Business Process Documentation* associated with the *Enabling Demand Data Foundation* business process of the *Assortment Planning for Retail* Solution Manager scenario.
- *Configuring Data Replication from SAP ERP to DDF* configuration document associated with the *Enabling Demand Data Foundation* business process of the *Assortment Planning for Retail* Solution Manager scenario.

For more information on monitoring the replication, see *Periodic Tasks* in the *Management* section of the *Administrator's Guide, SAP Assortment Planning for Retail 1.0*.

3. Optionally, configure the transfer of Open-To-Buy figures (OTB) from SAP BW.

Several of the SAP BusinessObjects Analysis, edition for Microsoft Office workbooks provided with SAP Assortment Planning for Retail allow you to compare the planned assortment figures to the OTB figures. OTB is determined using the SAP Planning for Retail, rapid-deployment solution, and stored in SAP BW

InfoProviders (for example, `ORP_MP12` MultiProvider). To access OTB figures from SAP Assortment Planning for Retail workbooks, this data must first be imported from the SAP BW system to your back-end system.

1. Set up an RFC connection between your back-end system and the SAP BW system, from which you will import the OTB data (transaction `SM59`).
2. Provide the required settings in the *Define SAP BW Application for Merchandise Planning* and *Define Field Mapping for Merchandise Planning* Customizing activities under ► *SAP Customizing Implementation Guide* ► *Cross-Application Components* ► *Assortment Planning for Retail* ► *Imported Demand Data Foundation Settings* ► *Integration* .

Alternatively, provide a custom implementation for *BAdI: Read Merchandise Planning*.

3. Run report `DMF/BI_IF_MERCH_PLAN` (transaction `SE38`) to import the OTB data from SAP BW to your back-end system.

If you use the standard settings defined in the *Define Field Mapping for Merchandise Planning* Customizing activity, that is, you are importing the OTB from the `ORP_MP12` MultiProvider, you must specify **MMF** (Finalized Merchandise Version) in the *Merchandise Plan Version* field of the report.

#### Note

You can execute the `DMF/BI_IF_MERCH_PLAN` report as a scheduled background job (transaction `SM36`), as described in the *Periodic Tasks* section of the *SAP Assortment Planning for Retail Administrator's Guide*.

## More Information

► [help.sap.com/bicontent](https://help.sap.com/bicontent) ► <Your Release> ► *SAP Library* ► *BI Content & BI Content Extensions* ► *BI Content* ► *Industry Solutions* ► *Trading Industries* ► *Retail Trade* ► *Merchandise and Assortment Planning* ► *Retail Planning* ► *MultiProvider* ► *Merchandise Retail Plan* .

► [service.sap.com](https://service.sap.com) ► *Products* ► *SAP Rapid Deployment Solutions (RDS)* ► *A-Z Index* ► *P* ► *SAP Planning for Retail rapid-deployment solution* .

## 4.2.3.3 Verify Users, Privileges, and Roles

Prior to proceeding with the post-installation steps for the application, you need to ensure that the required database and back-end application users have all the required privileges, roles and authorizations.

## Prerequisites

You have read and implemented the procedure described in [Verify SAP HANA User and Privileges \[page 60\]](#).

## Procedure

1. Ensure that the SAP HANA database users listed below exist and that they have the required additional roles/privileges.

Table 22

User	Role/Privilege
SAP<SID> This is the generic database user specified for the connection from the SAP NetWeaver back-end server to the SAP HANA database.	<ul style="list-style-type: none"> <li>Privilege EXECUTE on procedure TRUNCATE_PROEDURE_OBJECTS</li> <li>Privilege EXECUTE on procedure GET_PROEDURE_OBJECTS</li> </ul>
_SYS_REPO	
<Your User Name>*	<ul style="list-style-type: none"> <li>Privilege REPO.READ on package bw2hana/SAP&lt;SID&gt;_/RAP/&lt;InfoCube&gt;_REPORTING</li> </ul> <p>The corresponding privileges will be created automatically when activating BI Content. As there are five InfoCubes (DS01, DS02, DS03, RC01, RC05) three are also five privileges that are created and assigned to the users.</p> <ul style="list-style-type: none"> <li><i>Session Client</i> of this database user has to be set to the appropriate back-end system client. <ol style="list-style-type: none"> <li>Log on to SAP HANA Studio.</li> <li>Open the <i>Modeler</i> perspective and use the <i>Navigator</i> to access your back-end system.</li> <li>Under <i>Security</i>, select a user.</li> <li>Set the <i>Session Client</i> to the client number created in <a href="#">Set Up SAP Client [page 65]</a>.</li> </ol> <p>This step is necessary to use the SAP Assortment Planning for Retail planning framework, where SAP BusinessObjects Analysis, edition for Microsoft Office workbooks obtain data from SAP HANA views.</p> <p>For more information, see the <i>Assign Default Client</i> section in the <i>SAP HANA Modeling Guide</i>.</p> </li> </ul>

\*The username on SAP HANA database level, back-end system and on the front-end server (SAP NetWeaver Gateway) **must be identical**.

2. Ensure that your back-end application user has the following roles/authorizations.

Table 23

User	Role/Authorization
<Your User Name>*	<ul style="list-style-type: none"> <li>SAP_ISR_DDF_MASTER</li> <li>SAP_ISR_AP_MASTER</li> <li>/RAP/BW_AP_WORKBOOKS</li> <li>Set SAP HANA User Mapping to <b>C</b> (<i>DBMS user, else SAP HANA user with same name as BW user</i>) in transaction RS2HANA_VIEW.</li> <li>The user profile must have the following parameters maintained (transaction SU3, <i>Parameters</i> tab):</li> </ul>

User	Role/Authorization	
	Table 24	
	Parameter	Value
	RSPLS_HDB_PE_TRACE	<b>Y</b>
	RSPLS_HDB_SUPPORT	<b>HDB_ON</b>
*The username on SAP HANA database level, back-end system and on the front-end server (SAP NetWeaver Gateway) <b>must be identical</b> .		

3. Ensure that your front-end application user name is identical to the user name on SAP HANA database level and on the back-end system. Furthermore, verify that the front-end application user has all the necessary roles assigned. For more information, see the *Security Information* section in the *SAP Assortment Planning for Retail 1.0 Administrator's Guide*.

#### 4.2.3.4 Activate SAP Assortment Planning for Retail Planning Framework Content

The planning framework used by SAP Assortment Planning for Retail 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 BusinessObjects Analysis, edition for Microsoft Office workbooks.

SAP BusinessObjects Analysis, edition for Microsoft Office workbooks are designed to consume data from BI Content objects. The local BI Content objects that are provided with the SAP Assortment Planning for Retail applications 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 BusinessObjects Analysis, edition for Microsoft Office workbooks.

##### **i** Note

The local BI Content provided with the SAP Assortment Planning for Retail application is entirely independent of the SAP Business Warehouse BI Content and BI Content Extensions add-on. You can use this local BI Content directly in SAP Assortment Planning for Retail.

- **SAP BusinessObjects Analysis, edition 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 Assortment Planning for Retail planning framework.

##### **i** Note

If you have already activated SAP HANA content for SAP Customer Activity Repository, as described in [Activate SAP HANA Content for SAP Customer Activity Repository \[page 37\]](#), you can proceed to the [Activate SAP HANA Content for SAP Assortment Planning for Retail \[page 79\]](#) procedure.

## 4.2.3.4.1 Activate SAP HANA Content for SAP Customer Activity Repository

In this procedure, you activate all SAP HANA content (SAP HANA views and SQLScript procedures) required by SAP Customer Activity Repository.

For more information about activating SAP HANA content, see SAP Help Portal at ► [help.sap.com/hana\\_platform](https://help.sap.com/hana_platform) ► [Development Information](#) ► [SAP HANA Developer Guide](#) ► [Setting Up the Analytic Model](#) ► [Creating Views](#) ► [Activating Objects](#) ►.

### Prerequisites

As a mandatory prerequisite for a successful activation of the SAP HANA content for SAP Customer Activity Repository, you must have successfully completed all of the procedures listed in the previous sections of this guide.

### Procedure

1. Ensure that the `_SYS_REPO` user has the authorizations required to successfully activate SAP HANA content.
  1. Provide user `_SYS_REPO` with object privilege `SELECT`, with option *"Grantable to others"*, on the following physical DB schemas:
    - Physical database schema of your back-end system, typically this is called `SAP<SID>`.
    - Physical database schema that contains the SAP ERP tables
    - Physical database schema that contains the SAP CRM tables

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

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

2. Assign the required privileges described in ► [help.sap.com/car](https://help.sap.com/car) ► [Integration Information](#) ► [Administrator's Guide, Demand Data Foundation \(DDF\) with Unified Demand Forecast \(UDF\) on SAP HANA](#) ► [Authorization Requirements for Unified Demand Forecast \(UDF\)](#) ►.
2. Use transaction **SE38** to run program `/CAR/ACTIVATE_HANA_CONTENT`.

The program activates all SAP HANA content required by SAP Customer Activity Repository. Note that this includes the SAP HANA content for DDF and UDF.
3. Log on to SAP HANA studio.
4. Open the *Modeler* perspective and use the *Navigator* to access your back-end system.
5. Expand the *Content* folder located under your system name in the *Navigator*.
6. Expand each of the packages listed below and ensure that all the content in the underlying folders is active:
  - `sap.is.ddf`
  - `sap.is.udf`
  - `sap.is.retail.car`
  - `sap.is.retail.ecc`
  - `sap.is.retail.posdm`
  - `sap.is.retail.syndication`

## 4.2.3.4.2 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 1

In this procedure, you perform the initial activation of SAP HANA content (views and stored procedures) required by the SAP Assortment Planning for Retail application.

### Caution

This initial activation results in a **partial** activation of the SAP HANA content for SAP Assortment Planning for Retail. Several SAP HANA views depend on local BI Content objects, and as such, have to be activated following the activation of these BI Content objects. For more information, see [Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 2 \[page 88\]](#).

## Prerequisites

As a mandatory prerequisite for a successful activation of SAP HANA content for SAP Assortment Planning for Retail, you must have successfully completed all of the procedures listed in the previous sections of this guide. In particular, you must have activated SAP HANA content for SAP Customer Activity Repository.

## Procedure

1. Ensure that the `_SYS_REPO` user has the authorizations required to successfully activate SAP HANA content.
  1. Provide user `_SYS_REPO` with object privilege `SELECT`, with option "*Grantable to others*", on the following physical DB schemas:
    - Physical database schema of your back-end system, typically this is called SAP<SID>.
    - Physical database schema that contains the SAP ERP tables

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

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

2. Assign the required privileges described in section *Authorization Requirements for Unified Demand Forecast (UDF)*, of the *Administrator's Guide, Demand Data Foundation (DDF) 2.0 with Unified Demand Forecast (UDF) on SAP HANA*.
2. Use transaction **SE38** to run program `/RAP/ACTIVATE_HANA_CONTENT`.

The program activates a majority of the SAP HANA content (views and stored procedures) required by SAP Assortment Planning for Retail.
3. Log on to SAP HANA Studio.
4. Open the *Modeler* and use the *Navigator* to access your back-end system.
5. Expand the *Content* folder located under your system name in the *Navigator*.
6. Expand the package listed below:
  - `sap.is.retail.rap`

You will notice that some of the content in the underlying folders is not deployed.

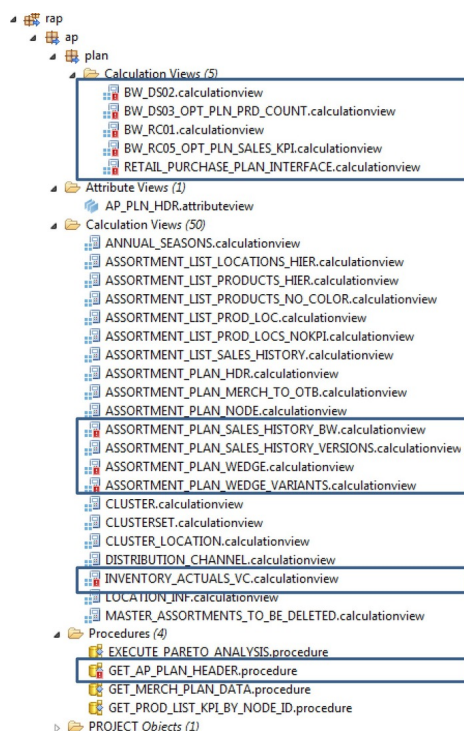


Figure 13: SAP HANA content not deployed

This is the expected result of this procedure, and the remaining content will be deployed in the [Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 2 \[page 88\]](#) procedure.



### Caution

If you see that none of the views/procedures in the `sap.is.retail.rap` package are deployed, you can resolve this by manually selecting, right-clicking, and choosing to **Redeploy** each of the sub-folders. This manual redeployment should leave only the views/procedures highlighted above as not deployed.

## More Information

Section *Activating Objects*, of the *SAP HANA Developer Guide SAP*

### 4.2.3.4.3 Activate SAP Assortment Planning for Retail Local BI Content

#### 4.2.3.4.3.1 Activate Technical Content

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. 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 shot-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*.

## 4.2.3.4.3.2 Activate Application BI Content

In this procedures, you perform a sequential, step-by-step activation of the local BI Content objects delivered with the SAP Assortment Planning for Retail application.

### **i** Note

To ensure correct activation of the local BI Content objects, carry out the activation sequentially, as specified in the following procedures.

## Procedure

1. On your back-end SAP Assortment Planning for Retail 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*.

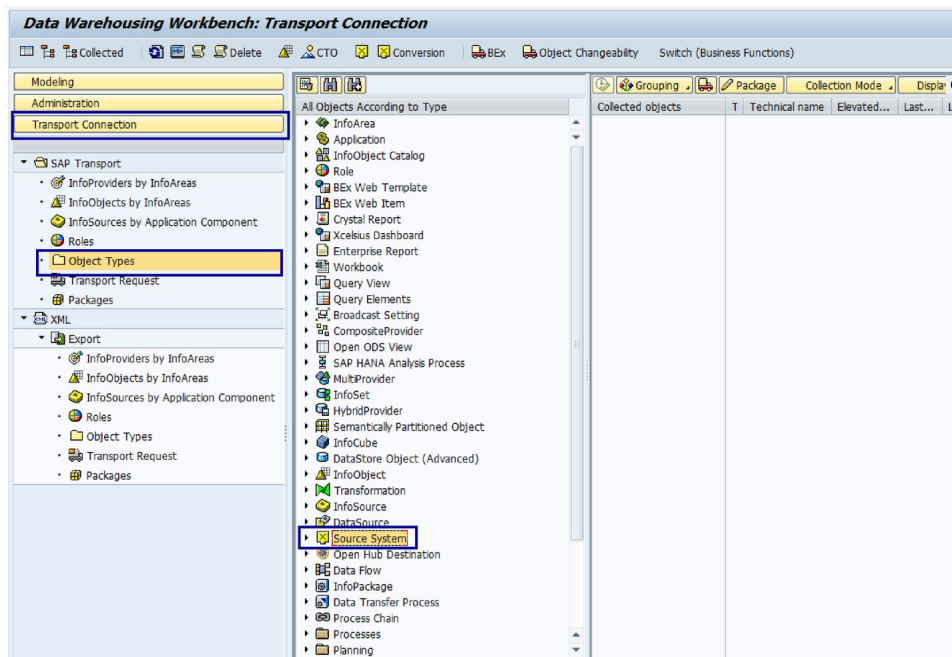


Figure 14: Selecting Source Systems

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*.

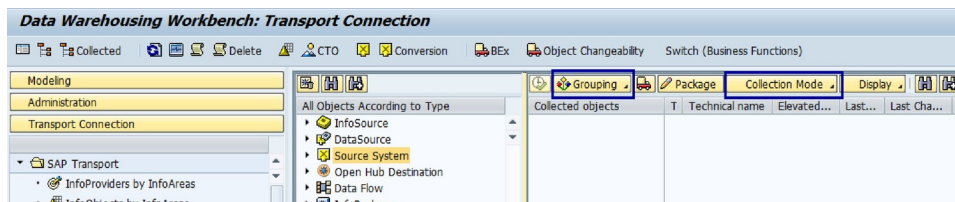


Figure 15: Grouping and Collection Settings

3. Select *BI Content* in the left-hand frame.
4. Activate InfoObject catalogs.
  1. Expand *InfoObject Catalog*.
  2. Use *Select Objects* to select the */RAP/CHAR\_CAT* and the */RAP/KYF\_CAT* catalogs, that is, all the InfoObject catalogs that starting with */RAP/\**.
  3. Choose *Transfer Selections*.
  4. In the right-hand frame, in the list of *Collected objects*, verify that both InfoObject catalogs are listed.

### **i** Note

If you are carrying out a brand new installation, proceed to the next step. If, however, you have previously installed/activated any of the */RAP/\** BI Content, you should enable the *Match (X) or copy* option for each of the InfoObject catalogs.

5. Right-click on each of the InfoObject catalogs, and choose *Install all Bellow*.
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.

### Note

If you have enabled the *Match (X) or copy* option for any the InfoObjects, you will need to carry out an additional *Transfer selections* step to proceed with the activation.

5. Select *Modeling* in the left-hand frame.
6. Maintain version master data.
  1. Expand *InfoObjects*.
  2. Search for InfoObject `/RAP/VERSN`, located under ► *Assortment Planning for Retail* ► *RAP Character InfoObject Catalog* ►.
  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:

Table 25

Version
AP1
AP2
APF
REF
000

The five supported planning versions are described in detail in the [Maintain Customizing Table /RAP/RS\\_VARCUST \[page 86\]](#) procedure.

### Note

If you encounter problems opening the master data maintenance WebDynpro application, ensure that you have implemented SAP Note [2034623](#).

7. Select *BI Content* in the left-hand frame.
8. Activate DataStore Objects.
  1. Expand ► *More Types* ► *DataStore Object (Classic)* ►.
  2. Use *Select Objects* to select all DataStore Objects starting with `/RAP/*`.
  3. Choose *Transfer Selections*.
  4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
  5. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.

If during the installation, you are presented with a dialog asking you to add objects to a personal list, select **No**.

If activation warnings similar to the ones displayed below appear, you can ignore them.

Figure 16: Warnings

9. Activate InfoCubes.
  1. Expand *InfoCube*.
  2. Use *Select Objects* to select all InfoCubes starting with */RAP/ \**.
  3. Choose *Transfer Selections*.
  4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
  5. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.

If activation warnings similar to the ones displayed below appear, you can ignore them.

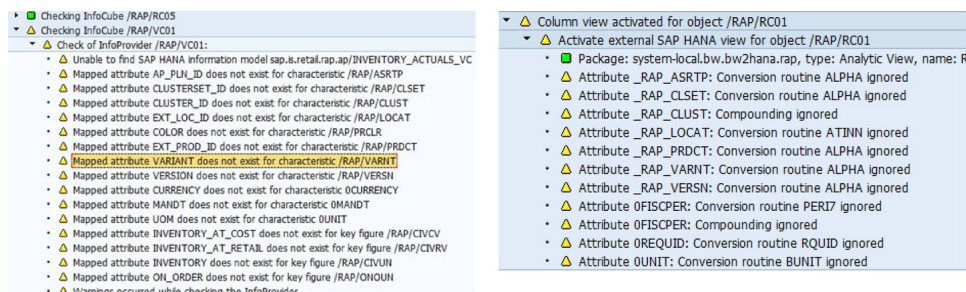


Figure 17: Warnings

10. Activate MultiProviders.
  1. Expand *MultiProvider*.
  2. Use *Select Objects* to select all MultiProviders starting with */RAP/ \**.
  3. Choose *Transfer Selections*.
  4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
  5. 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 Aggregation Levels.
  1. Expand *Planning* > *Aggregation Level*.
  2. Use *Select Objects* to select all Aggregation Levels starting with */RAP/ \**.
  3. Choose *Transfer Selections*.
  4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
  5. 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. Activate Queries.
  1. Expand *Query Elements* > *Query*.
  2. Use *Select Objects*. In the *Selection of Query Objects* dialog that appears, expand all the nodes under *Assortment Planning for Retail*, and select all the underlying query objects.

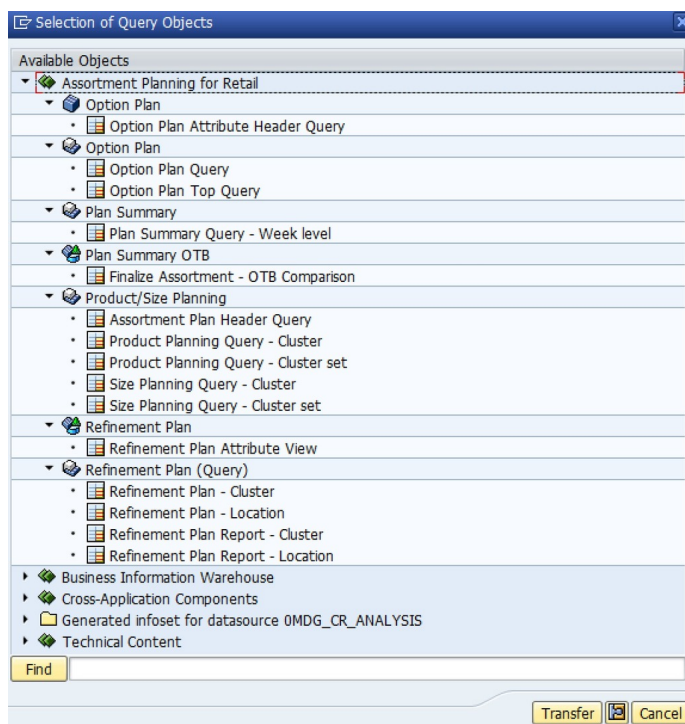


Figure 18: Assortment Planning for Retail Queries

3. Choose *Transfer Selections*.
4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
5. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.
13. Activate Planning Sequence Objects.
  1. Expand ► *Planning* ► *Planning Sequence* .
  2. Use *Select Objects* to select all Planning Sequences starting with */RAP/\**.
  3. Choose *Transfer Selections*.
  4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
  5. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.
14. Activate Workbooks.
  1. Expand ► *More Types* ► *Analysis Office Excel Workbook* .
  2. Use *Select Objects* to select all the workbooks starting with */RAP/\**.
  3. Choose *Transfer Selections*.
  4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled for each of the objects.
  5. Choose *Install*. If an information dialog box appears, choose *Continue*. Choose *Local Object* or enter a package if you need to transport the objects.
15. Choose *Exit* to leave the transaction.

## 4.2.3.4.4 Configure SAP Assortment Planning for Retail Local BI Content

### 4.2.3.4.4.1 Enable the Planning Application Kit (PAK)

To be able to use the SAP BusinessObjects Analysis, edition for Microsoft Office workbooks provided as part of the SAP Assortment Planning for Retail 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 Integratn. Active* column select **Deep HANA Integration Active** and in the *Functn. Active* column, enable the checkbox.

### 4.2.3.4.4.2 Maintain Customizing Table /RAP/RS\_VARCUST

In this procedure, you maintain entries in the variable customizing table /RAP/RS\_VARCUST in the back-end system. For each SAP Assortment Planning for Retail query, the entries of this table specify a mapping of a data version (for example, actual data versus planning data) to the source of data (InfoCube).

#### Procedure

1. Log on to your back-end system.
2. Open the *Data Browser* (transaction SE16).
3. Enter **/RAP/RS\_VARCUST** in the *Table Name* field and choose *Create Entries*.
4. Choose *Execute* followed by *Create*.

On the *Table /RAP/RS\_VARCUST Insert* screen, you will be able to make the following entries:

Table 26

Field Name	User Entry
COMPID	SAP Assortment Planning for Retail technical query name. For example, /RAP/M01A02_IRQ02.
VNAM_ICUBE	InfoCube variable name. For example, /RAP/INFOPROV_ESM_01.
INFOCUBE	InfoCube identifier.

Field Name	User Entry
	For example, /RAP/RC01.
VNAM_VERS	Version variable name. For example, /RAP/VERSN_MSM_01.
VERSION	Version Identifier. For example, AP1. There are five supported planning versions: <ul style="list-style-type: none"> <li>AP1: Planning simulation version 1. Version that is typically used as the planning version.</li> <li>AP2: Planning simulation version 2. Version typically used to simulate different scenarios without having to change your planned version.</li> <li>APF: Final version (planned data). After completing the planning, the user will select the plan they want to finalize and review in Plan Summary. Only the APF version is available in the Plan Summary. This is done to help align completed plans with the Open-To-Buy figures (OTB) from the SAP Planning for Retail, rapid-deployment solution.</li> <li>REF: Reference version (past data). This is historical data for the items from the time frame of the reference period. This data is used to pre-populate the planning version by using the copy function. This allows the planner to have a baseline when starting the planning process. It is recommended to seed the planning version with the REF data.</li> <li>000: Actual version (current data). The user can see current inventory values with this such as Actual Inventory and Open Orders.</li> </ul>
F4HELP	Flag that specifies whether the field provides F4 help or not.

- Maintain entries in the /RAP/RS\_VARCUST table **for each** of the SAP Assortment Planning for Retail queries. The complete list of entries that you must maintain is found in is found in SAP Note [2056254](#).
- Choose **Save**.

### 4.2.3.4.4.3 Maintain Fiscal Year Variant

In this procedure you maintain the required fiscal year variant (0FISCVARNT 'RW').



#### Caution

SAP Assortment Planning for Retail 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 \[page 80\]](#) procedure. As such, if you are using SAP Assortment Planning for Retail, you must execute the procedure below despite having potentially carried out the [Generate Time Data \[page 40\]](#) procedure.

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

- 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	

Figure 19: 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 *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.
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 2018. The corresponding tables are available in SAP Note [2112634](#).
19. Choose *Save* after you have finished the maintenance for year 2018.

#### 4.2.3.4.5 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 2

In this procedure, you perform the final activation of SAP HANA content (views and stored procedures) required by the SAP Assortment Planning for Retail application. This final activation results in a **full** activation of the SAP HANA content for SAP Assortment Planning for Retail. Several SAP HANA views depend on local BI Content objects, and as such, have to be activated following the activation of these BI Content objects, as described in this procedure.



## Prerequisites

As a mandatory prerequisite for a successful activation of SAP HANA content for SAP Assortment Planning for Retail, you must have successfully completed all of the procedures listed in the previous sections of this guide.

## Procedure

1. Ensure that the `_SYS_REPO` user has the authorizations required to successfully activate SAP HANA content.
  1. Provide user `_SYS_REPO` with object privilege `SELECT`, with option *"Grantable to others"*, on the following physical DB schemas:
    - Physical database schema of your back-end system, typically this is called SAP<SID>.
    - Physical database schema that contains the SAP ERP tablesYou can use the following example SQL statement to grant the required privilege:  
**GRANT SELECT ON <Your schema name> TO \_SYS\_REPO WITH GRANT OPTION;**
  2. Assign the required privileges described in section *Authorization Requirements for Unified Demand Forecast (UDF)*, of the *Administrator's Guide, Demand Data Foundation (DDF) 2.0 with Unified Demand Forecast (UDF) on SAP HANA*.
2. Use transaction `SE38` to run program `/RAP/ACTIVATE_HANA_CONTENT`.  
The program activates the remaining SAP HANA content (views and stored procedures) required by SAP Assortment Planning for Retail.
3. Log on to SAP HANA Studio.
4. Open the *Modeler* and use the *Navigator* to access your back-end system.
5. Expand the *Content* folder located under your system name in the *Navigator*.
6. Expand the package listed below:
  - `sap.is.retail.rap`All the content in the underlying folders should be active.

## More Information

Section *Activating Objects*, of the *SAP HANA Developer Guide SAP*

### 4.2.3.4.6 Activate External Views

During the activation of SAP HANA content for SAP Assortment Planning for Retail, several external views are not automatically activated.

## Procedure

1. Read and implement SAP Note [2067030](#) to manually activate external views.  
You can use either transaction `SE11` or `SE80` to activate the views.

#### 4.2.3.4.7 Verify the Connection Between SAP Assortment Planning for Retail System and SAP BusinessObjects Analysis, edition for Microsoft Office

The SAP Assortment Planning for Retail application includes several SAP BusinessObjects Analysis, edition 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 BusinessObjects Analysis, edition for Microsoft Office.

In this procedure, you verify that you can open an SAP Assortment Planning for Retail workbook from SAP BusinessObjects Analysis, edition for Microsoft Office.

### Prerequisites

You have installed SAP BusinessObjects Analysis, edition for Microsoft Office 1.4 SP 09 or higher as a prerequisite to the installation of the SAP Assortment Planning for Retail application, as described in the [Prerequisites \[page 21\]](#) section.

### Procedure

1. Open SAP BusinessObjects Analysis, edition 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/\** on the *Search* tab.

Alternatively, open the *Folder* tab and navigate to ► *Assortment planning workbooks* ► *Workbooks* ►.

6. Open any of the workbooks from the list of SAP Assortment Planning for Retail workbooks.

The opening of the workbook indicates that there are no issues with the connection between your back-end system and SAP BusinessObjects Analysis, edition for Microsoft Office.

#### 4.2.3.4.8 Specify Analysis Workbooks Settings

SAP Assortment Planning for Retail is delivered with a number of SAP BusinessObjects Analysis, edition for Microsoft Office workbooks. These are template workbooks that you can adapt to use in your retail business.

For an example of how to create customized versions of the workbooks, see [Workbook Design Example \[page 108\]](#).

---

## 4.2.3.4.8.1 Enable Macros

In this procedure, you enable your SAP BusinessObjects Analysis, edition for Microsoft Office workbooks to use macros.

### Procedure

1. Open SAP BusinessObjects Analysis, edition 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 BusinessObjects Analysis, edition for Microsoft Office.
6. Select the *Developer Tab* and choose *Macro Security*.
7. Choose *Enable all macros*.

## 4.2.3.4.8.2 Set Language for Workbook Ribbons “Planning Functions” and “Filter KPIs”

In this procedure, you can set the desired language of the workbook ribbons *Planning Functions* and *Filter KPIs*.

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 workbook ribbons *Planning Functions* and *Filter KPIs*, 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* .

### 4.2.3.4.8.3 Set ResultSetSizeLimit Registry Setting

By default, SAP BusinessObjects Analysis, edition 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 Retail. For example, if you have more than 300 products in your assortment plan, you might encounter the following error message:

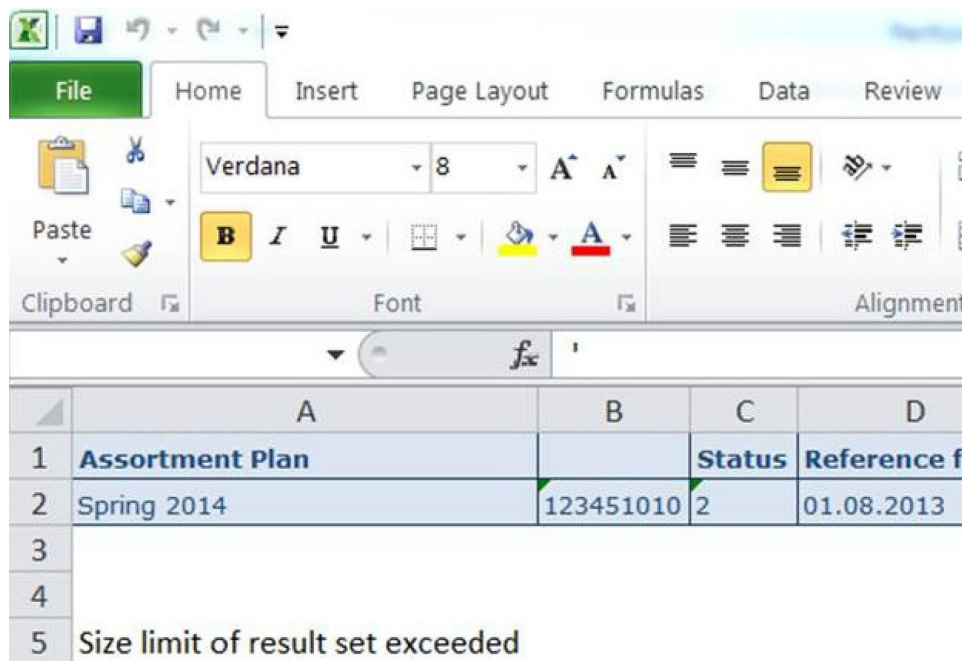


Figure 20: Size Limit Error

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 for Retail, you need to carry out the steps listed in this procedure on the workstation of each SAP Assortment Planning for Retail user.

## 4.2.3.5 Replicate SAP ERP Tables for SAP Assortment Planning for Retail

In this procedure, you ensure that all SAP ERP tables that are relevant for SAP Assortment Planning for Retail have not only been created but have also been filled with data. More specifically, you replicate the contents of relevant tables from the source SAP ERP system to your back-end system.

The steps outlined in this procedure are required when you are implementing one of the system landscape variants that require data to be replicated from a source SAP ERP system. If your source SAP ERP system and

your back-end system are co-deployed on the same SAP HANA database, proceed to the next procedure. For more information, see [System Landscape Variants \[page 13\]](#).

## Procedure

1. Define client transformation rules for all SAP ERP tables that you plan to replicate.

In most cases, you need to apply transformation rules to map the client of the source SAP ERP system to the client on the target back-end system.

### Caution

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

For more information, refer to one of the following:

- [Set Up SAP Client \[page 65\]](#)
  - [▶ help.sap.com/hana\\_platform ▶ System Administration and Maintenance Information ▶ Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA ▶ Data Transformation Capabilities within SAP Landscape Transformation Replication Server ▶](#)
  - SAP Note [1733714](#)
2. Read SAP Note [2054656](#) and replicate the tables listed in the file attached to this SAP Note.

For more information, see:

- [▶ help.sap.com/hba ▶ Installation, Security, Configuration, and Operations Information ▶ Administrator's Guide ▶ Administrator's Guide, SAP HANA Live for SAP Business Suite ▶ Configuration Steps ▶ Replicate Data \(Side-by-Side Only\) ▶](#)
- [▶ help.sap.com/hana\\_platform ▶ System Administration and Maintenance Information ▶ Application Operations Guide – Trigger-Based Data Replication Using SAP LT Replication Server for SAP HANA ▶ \(<Managing the Replication Process Using the SAP HANA Studio> and <Important Transactions and Control Tables>\) ▶](#)

### Caution

This procedure includes the replication of tables from your source SAP ERP system. Trigger-based replication includes deletion in source tables by archiving activities (since on the database level it is impossible to distinguish between delete actions caused by archiving and regular deletion of data records). As a result, SAP LT (Landscape Transformation) Replication Server replicates archiving activities as delete actions in the SAP HANA database.

More specifically, when data is archived in your source SAP ERP system, records are deleted from their respective database tables. Therefore, when these tables are replicated to another SAP HANA database, the records that were archived in the source tables are deleted in the target database tables.

When deciding on the frequency at which to archive data in the source SAP ERP system, you must consider and balance the performance requirements of your SAP ERP system and the amount of historical data that should be replicated to and available in your back-end system.

## 4.2.3.6 Configure Front-End

### 4.2.3.6.1 Configure SAP Gateway

#### 4.2.3.6.1.1 Perform General SAP Gateway Configuration

Prior to connecting the SAP Gateway on your front-end server to your back-end system, you need to perform a series of general SAP Gateway configuration steps. These configuration steps include the setting of profile parameters, ICF (Internet Communication Framework) services, language settings, and so on.

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

#### Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Carry out the instructions specific to your SAP NetWeaver version:
  - SAP Gateway for SAP NetWeaver 7.31  
See ► [help.sap.com/nwgateway20](http://help.sap.com/nwgateway20) ► *Application Help* ► *SAP NetWeaver Gateway* ► *SAP NetWeaver Gateway Configuration Guide* ► *Basic Configuration Settings* ►.
  - SAP Gateway for SAP NetWeaver 7.40  
See ► [help.sap.com/nw74](http://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *Basic Configuration Settings* ►.

#### 4.2.3.6.1.2 Connect SAP Gateway to your Back-End System

In this procedure, you configure the OData channel, that is, set up a connection between SAP Gateway on your front-end server and your back-end system.

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

#### Procedure

1. Set up the required roles on the front-end server and assign your user to these roles.  
For more information, see ► [help.sap.com/nw74](http://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *OData Channel Configuration* ► *User, Developer and Administrator Authorizations* ►.
2. Specify the connection settings on the SAP Gateway hub system, which include:
  - Connection from the SAP Gateway to consumer systems

These settings allow the connection between the SAP Gateway host and the consumer systems (clients from which you access the SAP Fiori user interfaces.)

- Connection from the SAP Gateway to SAP back-end system

These settings allow the connection between SAP Gateway to your back-end system.

These settings include:

- 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.
- Configure the necessary system aliases.

## More Information

For SAP NetWeaver 7.31, see SAP Library for SAP NetWeaver Gateway on SAP Help Portal at ► [help.sap.com/nwgateway20](https://help.sap.com/nwgateway20) ► *Application Help* ► *Support Package Stack* ► *SAP NetWeaver Gateway* ► *SAP NetWeaver Gateway Configuration Guide* ► *OData Channel Configuration* ► *Connection Settings on the SAP NetWeaver Gateway Hub System* ►.

For SAP NetWeaver 7.4, see SAP Library for SAP NetWeaver on SAP Help Portal at ► [help.sap.com/nw74](https://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *OData Channel Configuration* ► *Connection Settings on the SAP NetWeaver Gateway Hub System* ►.

### 4.2.3.6.1.3 Activate SAP Gateway

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

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

## Procedure

1. Determine the SAP NetWeaver version of your front-end server.
2. Carry out the instructions specific to your SAP NetWeaver version:
  - For SAP NetWeaver 7.4, see SAP Help Portal at ► [help.sap.com/nw74](https://help.sap.com/nw74) ► *Application Help* ► *Function-Oriented View* ► *SAP NetWeaver Gateway Foundation (SAP\_GWFND)* ► *SAP NetWeaver Gateway Foundation Configuration Guide* ► *OData Channel Configuration* ► *Activating SAP NetWeaver Gateway* ►.
  - For SAP NetWeaver 7.31, see SAP Help Portal at ► [help.sap.com/nwgateway20](https://help.sap.com/nwgateway20) ► *Application Help* ► *SAP NetWeaver Gateway Configuration Guide* ► *SAP NetWeaver Gateway Configuration Guide* ► *OData Channel Configuration* ► *Activating SAP NetWeaver Gateway* ►.

## 4.2.3.6.1.4 Activate Common OData Services

A number of OData services are required to run the SAP Fiori Launchpad. These OData services are delivered with the central UI component (SAP\_UI 740 SP11 or equivalent).

For security reasons, all OData services are delivered in an inactive state. To use the SAP Fiori Launchpad, you must activate the common SAP Fiori OData services.

### Procedure

1. Log on to your front-end system (your SAP Gateway system).
2. Go to Customizing (transaction **SPRO**).
3. Navigate to ► **SAP NetWeaver** ► **Gateway** ► **OData Channel** ► **Administration** ► **General Settings** ► **Activate and Maintain Services** .

You are presented with the service catalog. This is a list of all the services that are currently active on your SAP Gateway.

4. Get common SAP Fiori OData services:
  1. Choose **Add Service**.  
The **Add Service** screen is displayed.
  2. Enter the system alias of your local front-end system.  
This is the alias created in the [Connect SAP NetWeaver Gateway to your Back-End System \[page 94\]](#) procedure. For example, **LOCAL**.
  3. Enter **/UI2\*** in the **Technical Service Name** field.
  4. Choose **Get Services**.  
The **Add Selected Services** screen is displayed.
  5. Select the common SAP Fiori OData services that you would like to activate, and choose **Add Selected Services**.

Table 27

Service Name
/UI2/PAGE_BUILDER_CONF
/UI2/PAGE_BUILDER_CUST
/UI2/PAGE_BUILDER_PERS
/UI2/TRANSPORT
/UI2/INTEROP

The selected OData services are now active in your SAP Gateway.



## More Information

- For SAP NetWeaver 7.31, see SAP Library for User Interface Add-On 1.0 on SAP Help Portal at [help.sap.com/nw-uiaddon](https://help.sap.com/nw-uiaddon) > *Application Help* > *User Interface Add-On for SAP NetWeaver* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP NetWeaver Gateway OData Services* .
- For SAP NetWeaver 7.4, see the documentation on SAP Help Portal at [help.sap.com/nw74](https://help.sap.com/nw74) > *Application Help* > *UI Technologies in SAP NetWeaver* > *UI Frameworks based on HTML5, JavaScript and CSS* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP NetWeaver Gateway OData Services* .

### 4.2.3.6.2 Configure Central UI Component

The central UI component (SAP\_UI 740 SP11 or equivalent) contains the SAP UI5 control library and the SAP Fiori Launchpad. Prior to being able to use the SAP Fiori apps that constitute the user interface of the retail applications described in this guide, you may need to configure the SAP Fiori Launchpad.

These steps are not specific to this installation guide and are described in the SAP NetWeaver product documentation referenced below.

## Procedure

1. Determine the SAP NetWeaver version on your front-end server.
2. Carry out the instructions specific to your SAP NetWeaver version:
  - SAP Gateway for SAP NetWeaver 7.31
    - [help.sap.com/nw-uiaddon](https://help.sap.com/nw-uiaddon) > *Application Help* > *SAP Fiori Launchpad* , and
    - [help.sap.com/nw-uiaddon](https://help.sap.com/nw-uiaddon) > *Application Help* > *Administration Guide* > *Content Administration* > *SAP Fiori Launchpage* > *Setting Up the SAP Fiori Launch Page* .
  - SAP Gateway for SAP NetWeaver 7.40
    - [help.sap.com/nw74](https://help.sap.com/nw74) > *Application Help* > *UI Technologies in SAP NetWeaver* > *UI Framework based on HTML5, JavaScript and CSS* > *SAP Fiori Launchpad* , and
    - [help.sap.com/nw74](https://help.sap.com/nw74) > *Application Help* > *UI Technologies in SAP NetWeaver* > *UI Framework based on HTML5, JavaScript and CSS* > *SAP NetWeaver User Interface Services* > *Administration Guide* > *Content Administration* > *SAP Fiori Launchpage* > *Setting Up the SAP Fiori Launch Page* .

### 4.2.3.6.3 Activate SAP Assortment Planning for Retail OData Services

A number of OData services are required to run the SAP Assortment Planning for Retail application.

For security reasons, all OData services are delivered in an inactive state. You must activate these application-specific OData services to use the SAP Fiori user interface of the SAP Assortment Planning for Retail application.

## Procedure

1. Log on to your front-end system (your SAP NetWeaver system).
2. Go to Customizing (transaction SPRO).
3. Navigate to ► **SAP NetWeaver** ► **Gateway** ► **OData Channel** ► **Administration** ► **General Settings** ► **Activate and Maintain Services** .

You are presented with the service catalog. This is a list of all the services that are currently active on your SAP Gateway.

4. Get SAP Assortment Planning for Retail OData services:
  1. Choose **Add Service**.  
The **Add Service** screen is displayed.
  2. Enter the system alias of your back-end system.  
This is the alias created for your back-end system in the [Connect SAP NetWeaver Gateway to your Back-End System \[page 94\]](#) procedure. For example RAPCLNT100.
  3. Enter **/DMF\*** in the **Technical Service Name** field.
  4. Choose **Get Services**.  
The **Add Selected Services** screen is displayed.
  5. Select the SAP Assortment Planning for Retail OData services you would like to activate, and choose **Add Selected Services**.

Table 28

Service Name
/DMF/LOCATION_CLUSTERSET_SRV
/DMF/SEARCH_LOCATIONS_SRV
/DMF/SEARCH_PRODUCTS_SRV
/DMF/CURRENCY_LIST_SRV

The selected OData services are now active in your SAP Gateway.

6. Enter **/RAP\*** in the **Technical Service Name** field.
7. Choose **Get Services**.  
The **Add Selected Services** screen is displayed.
8. Select the SAP Assortment Planning for Retail OData services you would like to activate, and choose **Add Selected Services**.

Table 29

Service Name
/RAP/MASTER_ASSORT_LIST_SRV
/RAP/OPTION_PLAN_SRV
/RAP/OBJ_ATTRIBUTE_SRV
/RAP/REFINE_ASSORTMENT
/RAP/PHP_MATCH_SRV

The selected OData services are now active in your SAP Gateway.

## More Information

For SAP NetWeaver 7.31, see SAP Library for User Interface Add-On 1.0 on SAP Help Portal at [help.sap.com/nw-uiaddon](https://help.sap.com/nw-uiaddon) > *Application Help* > *User Interface Add-On for SAP NetWeaver* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP NetWeaver Gateway OData Services*.

For SAP NetWeaver 7.4, see the documentation on SAP Help Portal at [help.sap.com/nw74](https://help.sap.com/nw74) > *Application Help* > *UI Technologies in SAP NetWeaver* > *UI Frameworks based on HTML5, JavaScript and CSS* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP NetWeaver Gateway OData Services*.

### 4.2.3.6.4 Activate SAP Assortment Planning for Retail ICF Services

For security reasons, all Internet Communication Framework (ICF) services relevant to your SAP Assortment Planning for Retail application are made available in an inactive state.

You have activated the central ICF services in the [Perform General SAP NetWeaver Gateway Configuration \[page 94\]](#) and [Configure Central UI Component \[page 97\]](#) procedures. This procedure provides the instructions to activate ICF services required for the SAP Assortment Planning for Retail 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/locationclsts/**
4. Choose *Execute*.
5. To activate the service, choose *Service/host Activate*.
6. Repeat steps 3 to 5 for the following services:
  - **/sap/bc/ui5\_ui5/sap/mstrassortlist/**
  - **/sap/bc/ui5\_ui5/sap/assortplan/**
  - **/sap/bc/ui5\_ui5/sap/phpmatch/**
  - **/sap/bc/ui5\_ui5/sap/optionplan/**

## 4.2.3.6.5 Define System Alias for Back-End Transactions

From the SAP Fiori launchpad, you can launch SAP Assortment planning for Retail apps that access and start transactions 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 and the back-end systems.

### Procedure

1. Log on to your front-end system, that is, the system where you have installed the user interface (UI) components of the SAP Assortment Planning for Retail application.
2. Launch *Configuration of RFC Connections* (transaction `SM59`).
3. Create an RFC connection with the *RFC Destination* set to `SAP_ISR_CARAB` and *Connection Type* set to `H` (HTTP connection).
4. Save your changes.

Once this connection is created, the required *SAP Assortment Planning for Retail* SAP Fiori apps are connected to your back-end system. To verify this:

1. Open *Launchpad Customizing* (transaction `LPD_CUST`).
2. Select the SAP Assortment Planning for Retail role (`UIRAP001`), and choose *Display*.  
The two catalogs, *Assortment Planner* and *Planning Administrator*, are displayed.
3. Expand the *Assortment Administrator* catalog.
4. From the list of displayed apps, select *Manage Category Responsibilities*.
5. Verify the name in the *System Alias* field, it is set to `SAP_ISR_CARAB`.

This setting allows the *Manage Category Responsibilities* app to launch the corresponding DDF WebDynpro application. Same is true for the *Manage Products* and *Manage Locations* SAP Fiori apps.

## 4.2.3.6.6 Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad

To be able to access SAP Fiori apps that constitute the SAP Assortment Planning for Retail 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 for Retail application is delivered with two predefined roles, catalogs, and groups. These include technical content as well as business content:

Table 30

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 for Retail 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.

## More Information

Security Information section of the *SAP Assortment Planning for Retail Administrator's Guide*.

### 4.2.3.7 Configure SAP Jam (Optional)

Your retail application uses collaboration SAPUI5 components to define key ABAP-based SAP business object data that can be consumed by SAP Jam.

If you are using the SAP Jam social collaboration platform in your business, you can configure the integration between your retail application and SAP Jam. The integration, enabled by Social Media Integration, allows you to share, or expose, the pre-defined ABAP-based SAP business object data directly from your retail application with members of your organization, through SAP JAM.

The steps to enable the integration between your retail application and SAP Jam are not specific to this installation guide and are described in the User Interface Add-On 1.0 for SAP NetWeaver product documentation referenced below.

## Prerequisites

To enable the integration of your retail application with SAP Jam, you must have a license for SAP Jam Enterprise edition and your SAP Jam instance must be configured for productive use.

## Procedure

1. Read the documentation for User Interface Add-On available on SAP Help Portal at ► [help.sap.com/netweaver](https://help.sap.com/netweaver) ► *User Interface Add-On for SAP NetWeaver* ► *Application Help* ► *Social Media Integration* ►.

This documentation provides important information on configuring the integration of your retail application with SAP Jam, including:

- Understanding the Overall Process for Integrating Collaboration for a Business Object
- Implementation of ABAP Social Media Integration (ABAP SMI)
- Implementation of Collaboration SAPUI5 Components
- Connecting SAP Jam with ABAP SMI
- Configuring ABAP SMI for SAP Fiori Apps

## More Information

For the latest updates on SAP Jam, see the SAP Help Portal at [help.sap.com/sapjam](https://help.sap.com/sapjam).

## 4.3 SAP Promotion Management for Retail

### 4.3.1 Installation

#### 4.3.1.1 Install SAP Customer Activity Repository Retail Applications Bundle

We recommend using Maintenance Optimizer in SAP Solution Manager to install and update product versions. SAP Solution Manager calculates the required software components that have to be deployed on each server.

For more information about Maintenance Optimizer, see SAP Help Portal at ► [help.sap.com/solutionmanager71](https://help.sap.com/solutionmanager71) ► *Application Help* ► *SAP Library* ► *SAP Solution Manager* ► *Maintenance Management* ► *Maintenance Optimizer* ►.

Alternatively, you can download the required files directly from SAP Service Marketplace and deploy them manually.

In this procedure, you use Maintenance Optimizer to perform a stack XML installation of SAP Customer Activity Repository retail applications bundle 1.0.

## Procedure

1. Log on to SAP Solution Manager and launch Maintenance Optimizer.

For more information on using Maintenance Optimizer, see ► [service.sap.com/mopz](https://service.sap.com/mopz) ►.

### Note

Maintenance Optimizer 3.0 (MOPZ) is the standard for SAP Solution Manager 7.1 SP12. You may experience difficulties installing products if you are running an older version of SAP Solution Manager.

We recommend upgrading to the latest version of SAP Solution Manager. If you do not wish to do so, you must implement SAP Note [1940845](#) to render the MOPZ front-end compatible with the back-end.

2. In the Maintenance Optimizer work step that allows you to choose add-on products, select product version CAR RETAIL APPL BUNDLE 1.0 and product instance CARAB ABAP Server.

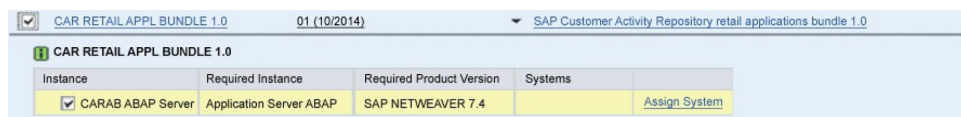


Figure 21: Selection of Product Version and Product Instance

### Caution

Do not deselect any ABAP components from the product instance.

3. Calculate and download the stack XML file.
4. Log on to your back-end server, that is, the ABAP system on which you are installing CAR Retail Appl Bundle - ABAP Instance.
5. Use the SAP Add-On Installation Tool (transaction SAINT) to load and install the stack XML generated using SAP Solution Manager Maintenance Optimizer.

For more information on transaction SAINT, refer to the system documentation available directly in the system when you run transaction SAINT and select the [Online Help](#) icon.

## 4.3.1.2 Install SAP Promotion Management for Retail

### Prerequisites

1. You have installed SAP Customer Activity Repository as outlined in the [SAP Customer Activity Repository \[page 26\]](#) section of this guide.
2. You have performed the required steps to configure Demand Data Foundation (DDF) as outlined in the [Configure Demand Data Foundation \(DDF\) \[page 57\]](#) section of this guide.

### Procedure

1. You must read the following SAP Notes before you start the installation. These SAP Notes contain the most recent information on the installation, as well as corrections to the installation documentation.

Table 31

SAP Note Number	Title	Description
2026580	Release strategy for the ABAP add-on RTLPRMO	This SAP Note contains information about planning the installation and upgrades of the ABAP add-on [Add-on].



## 5 Additional Information

### 5.1 SAP ERP Sales Document Fields used by SAP Customer Activity Repository

This section lists all the SAP ERP sales document fields that are used by SAP Customer Activity Repository.

This information is particularly relevant for customers who transfer sales orders from a third party CRM system to SAP ERP. You must ensure that the third party CRM sales orders are transferred to SAP ERP as described in [Ensure that Third Party CRM Sales Orders are Transferred to SAP \[page 52\]](#). The resulting SAP ERP sales document tables can then be accessed from SAP Customer Activity Repository, either thorough SLT replication or through direct access to the SAP ERP tables.

The SAP Customer Activity Repository, in particular, the SAP HANA content for SAP Customer Activity Repository, assumes that the fields listed below contain data.

Table 32

Field	SAP ERP Table	Description
VBELN	VBAK	Sales document number (sales orders and returns)
VBTP	VBAK	Sales document category
AUART	VBAK	Sales document type
AUDAT	VBAK	Order date
VKORG	VBAK	Sales organization, needed for the distribution chain (distribution channel + sales organization). This is part of the order channel definition.
VTWEG	VBAK	Distribution channel, needed for the distribution chain (distribution channel + sales organization). This is part of the order channel definition.
KUNNR	VBAK	Customer number (sold-to party)
VDATU	VBAK	Requested delivery date
NETWR	VBAK	Transaction total
WAERK	VBAK	Currency
LOGSYSB	VBAK	Source logical system
GBSTK	VBUK	Sales order status
ZLSCH	VBKD	Payment type / means of payment
WAKTION	VBKD	Promotion ID
CAMPAIGN	VBKD	Campaign ID
MATNR	VBAP	Ordered article (SAP ERP article number)
MATKL	VBAP	Merchandise category

Field	SAP ERP Table	Description
REASN	VBAP	Replacement article
MWSBP	VBAP	Tax information
WAVWR	VBAP	Cost information
ABGRU	VBAP	Reason for rejection
PSTYV	VBAP	Item category
NETPR	VBAP	Sales price
WERKS	VBAP	Plant
WERKS	VBAP	Actual fulfillment location
WERKS	VBAP	Pickup location
VSTEL	VBAP	Shipping/receiving point
KWMENG	VBAP	Order quantity in sales units
LFGSA	VBUP	Delivery item status
ABSTA	VBUP	Rejection status
VBELN	VBEP	Sales document number (sales orders and returns)
POSNR	VBEP	Item
ETENR	VBEP	Schedule line
WMENG	VBEP	Ordered quantity in sales units
BMENG	VBEP	Confirmed quantity
CMENG	VBEP	Corrected quantity
VRKME	VBEP	Sales unit
MBDAT	VBEP	Planned availability date for item
LFIMG	LIPS	Delivered quantity
LFDAT	LIKP	Actual delivery date
WADAT	LIKP	Planned goods issue date
WADAT_IST	LIKP	Actual goods issue date

## 5.2 SAP HANA Live for SAP ERP Views Required by SAP Customer Activity Repository

The following SAP HANA views, available in the `sap.hba.ecc` content package and installed and activated as part of the SAP HANA Live for SAP ERP SP02 installation, are required for operation of SAP Customer Activity Repository:

Table 33

View Name		
sap.hba.ecc/ArticleGroup	sap.hba.ecc/MaterialCategory	sap.hba.ecc/RetailPromotionCategoryName
sap.hba.ecc/ArticleGroupName	sap.hba.ecc/MaterialGroup	sap.hba.ecc/RetailPromotionCrtdByAppl
sap.hba.ecc/BillingDocumentCondition	sap.hba.ecc/MaterialInternationalArtINmbr	sap.hba.ecc/RetailPromotionCrtdByApplName
sap.hba.ecc/BillingDocumentHeader	sap.hba.ecc/MaterialPlantData	sap.hba.ecc/RetailPromotionDiscStatusName
sap.hba.ecc/BillingDocumentItem	sap.hba.ecc/MaterialProcurementArrangement	sap.hba.ecc/RetailPromotionDiscount
sap.hba.ecc/BonusBuyCndnlsGrantedOnce	sap.hba.ecc/MaterialSeasonCategory	sap.hba.ecc/RetailPromotionDiscountStatus
sap.hba.ecc/BonusBuyCndnlsGrantedOnceName	sap.hba.ecc/MaterialSeasonCategoryName	sap.hba.ecc/RetailPromotionItem
sap.hba.ecc/BonusBuyConditionTargetType	sap.hba.ecc/MaterialType	sap.hba.ecc/RetailPromotionName
sap.hba.ecc/BonusBuyConditionTargetTypeName	sap.hba.ecc/MaterialUnitOfMeasure	sap.hba.ecc/RetailPromotionTheme
sap.hba.ecc/BonusBuyLinkCatBuyGetItems	sap.hba.ecc/MaterialValuatedNonSpecialStockFact s	sap.hba.ecc/RetailPromotionThemeName
sap.hba.ecc/BonusBuyLinkCatBuyGetItemsName	sap.hba.ecc/MaterialValuationTableName	sap.hba.ecc/RetailPromotionType
sap.hba.ecc/BonusBuyName	sap.hba.ecc/Plant	sap.hba.ecc/RetailPromotionTypeName
sap.hba.ecc/BonusBuyStatus	sap.hba.ecc/ProductHierarchyNode	sap.hba.ecc/SDDocumentReason
sap.hba.ecc/BonusBuyStatusName	sap.hba.ecc/PurchasingOrganisation	sap.hba.ecc/SalesDistrict
sap.hba.ecc/BonusBuyType	sap.hba.ecc/Region	sap.hba.ecc/SalesDocumentHeader
sap.hba.ecc/BonusBuyTypeName	sap.hba.ecc/RetailArticleBrand	sap.hba.ecc/SalesDocumentItem
sap.hba.ecc/CalendarBasedFiscalYearVariantFiscalCalendar	sap.hba.ecc/RetailArticleBrandName	sap.hba.ecc/SalesDocumentScheduleLine
sap.hba.ecc/CalendarDeviantFiscalYearVariantFiscalCalendar	sap.hba.ecc/RetailArticleFashionGrade	sap.hba.ecc/SalesOrganization
sap.hba.ecc/CharacteristicValueDesc	sap.hba.ecc/RetailArticleFashionGradeName	sap.hba.ecc/SalesPriceActivationStatus

View Name		
sap.hba.ecc/CompanyCode	sap.hba.ecc/ RetailArticleHierNodeToArticle	sap.hba.ecc/ SalesPriceActivationStatusName
sap.hba.ecc/Country	sap.hba.ecc/RetailArticleHierarchy	sap.hba.ecc/ TCURM_BWKEY_BUKRS_WERKS
sap.hba.ecc/Currency	sap.hba.ecc/ RetailArticleHierarchyAssignment	sap.hba.ecc/UnitOfMeasureName
sap.hba.ecc/CustomerBasicData	sap.hba.ecc/ RetailArticleHierarchyName	sap.hba.ecc/VBAK_COM
sap.hba.ecc/Date	sap.hba.ecc/ RetailArticleHierarchyNode	sap.hba.ecc/VBAP_COM
sap.hba.ecc/DistributionChain	sap.hba.ecc/ RetailBonusBuyConditions	sap.hba.ecc/VBEP_COM
sap.hba.ecc/DistributionChannel	sap.hba.ecc/ RetailBonusBuyPrerequisites	sap.hba.ecc/VBKD_COM
sap.hba.ecc/Division	sap.hba.ecc/RetailLocation	sap.hba.ecc/VBRK_COM
sap.hba.ecc/FiscalCalendar	sap.hba.ecc/RetailLocationType	sap.hba.ecc/VBRP_COM
sap.hba.ecc/KNA1_COM	sap.hba.ecc/RetailLocationTypeName	sap.hba.ecc/VBUK_COM
sap.hba.ecc/KONV_COM	sap.hba.ecc/ RetailPromnOfferDiscTypeName	sap.hba.ecc/VBUP_COM
sap.hba.ecc/MARC_KeyNonValuated	sap.hba.ecc/ RetailPromnOfferDiscountType	sap.hba.ecc/VEDA_COM
sap.hba.ecc/MARC_stocks	sap.hba.ecc/ RetailPromnOfferPriceType	sap.hba.ecc/Year
sap.hba.ecc/MARD_stocks	sap.hba.ecc/ RetailPromnOfferPriceTypeName	sap.hba.ecc/ YearSpecificFiscalYearVariant
sap.hba.ecc/MBEW_stock	sap.hba.ecc/RetailPromotion	sap.hba.ecc/ YearUnspecificFiscalYearVariant
sap.hba.ecc/Material	sap.hba.ecc/ RetailPromotionBonusBuy	
sap.hba.ecc/MaterialAccountingData	sap.hba.ecc/RetailPromotionCategory	

## 5.3 Workbook Design Example

In this procedure, you walk through an example of creating an SAP BusinessObjects Analysis, edition 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 BusinessObjects Analysis, edition 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 for Retail 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* .
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.

## 5.4 Referenced SAP Notes

The following is a comprehensive list of all SAP Notes referenced throughout the entire guide. For a list of critical SAP Notes that you must read (and, when appropriate, implement) before you start the installation, see the [SAP Notes for the Installation \[page 5\]](#) section.

Make sure that you have the up-to-date version of each SAP Note, which you can find on SAP Service Marketplace at [service.sap.com/notes](http://service.sap.com/notes).

Table 34: SAP Notes for SAP Customer Activity Repository

SAP Note Number	Title	Description
<a href="#">1605140</a>	SAP HANA 1.0: Central Note - SAP LT Replication Server	Collective note for all the relevant SAP Notes for LT Replication Server for SAP HANA.
<a href="#">1778607</a>	SAP HANA Live for SAP Business Suite	What to consider when implementing SAP HANA Live for SAP Business Suite.
<a href="#">1791342</a>	Time Zone Support in SAP HANA	How to handle time zone functions <code>UTCTOLOCAL</code> and <code>LOCALTOUTC</code> .
<a href="#">1799313</a>	Create Tables for SAP HANA Live	How to create a set of tables relevant for SAP HANA Live in the SAP HANA database using the SAP LT Replication Server.
<a href="#">1782065</a>	Tables for SAP HANA Analytics for SAP Business Suite	Contains a list of general tables required for SAP HANA Live for SAP Business Suite.
<a href="#">1781992</a>	Tables for SAP HANA Analytics for ERP 1.0	Contains a list of tables required for SAP HANA Live for ERP.
<a href="#">1938004</a>	Create CRM tables in SAP Customer Activity Repository	Note describing the creation of SAP CRM tables required to activate SAP HANA content for SAP Customer Activity Repository.
<a href="#">1909488</a>	Create "dummy" CRM tables in SAP Customer Activity Repository	Note describing the creation of SAP CRM "dummy" tables required to activate SAP HANA content for SAP Customer Activity Repository.

SAP Note Number	Title	Description
<a href="#">1897024</a>	Replicate ERP tables for SAP Customer Activity Repository	Note describing the replication of SAP ERP tables from a source SAP ERP system.
<a href="#">1897025</a>	Replicate CRM tables for SAP Customer Activity Repository	Note describing the optional replication of SAP CRM tables from a source SAP CRM system.
<a href="#">337623</a>	Customizing after installation or upgrade	Note describing the process of copying the standard SAP-delivered Customizing settings.
<a href="#">1900038</a>	Create ECC SLT tables in SAP Customer Activity Repository	Information on how to automatically create ECC SLT tables via SQL.
<a href="#">2056102</a>	Release and Upgrade Information for On-Shelf Availability Application Function Library (POS AFL)	Information on where and how the POS AFL is released; overview of all independent releases (revisions) of the POS AFL as of revision 82; installation instructions.
<a href="#">1846194</a>	Lack of permissions when using AFL	Information on how to solve authorization issues when using an application function library such as the POS AFL (On-Shelf Availability functionality); information on the required database users, roles, and schemas.

Table 35: SAP Notes for Demand Data Foundation (DDF) with Unified Demand Forecast (UDF)

SAP Note Number	Title	Description
<p>You need to read and, when appropriate, implement the following SAP Notes if your installation scenario includes the following SAP Customer Activity Repository components:</p> <ul style="list-style-type: none"> <li>DDF 2.0 (RTLDDF 200) as the cross-industry reusable data layer</li> <li>UDF AFL (UDFAFL_INST 100), revision 83 or higher, as the demand modeling and forecasting engine that you install and run in the SAP HANA database</li> </ul>		
<a href="#">1809841</a>	Release strategy for the ABAP add-on RTLDDF	Information about planning the installation and upgrades of the ABAP add-on RTLDDF.
<a href="#">2001688</a>	Consuming Applications of Demand Data Foundation and Unified Demand Forecast	List of the consuming applications supported by DDF with UDF on SAP HANA, information on the minimum requirements.
<a href="#">2050229</a>	Release and Upgrade Information for Unified Demand Forecast Application Function Library (UDF AFL)	Only for UDF: Overview of all independent releases (revisions) of the UDF AFL as of revision 82 on SAP HANA Platform SPS 08 revision 82; instructions for installing or upgrading the UDF AFL using the recommended installation tools, hdb1cm or hdb1cmgui.
<a href="#">2004952</a>	Migration of UDF AFL and POS AFL from SAP HANA AFL as of SAP HANA Platform SPS 08	Only for UDF: Instructions for performing a mandatory one-time migration when upgrading from a UDF AFL on SAP HANA Platform SPS 06 or SPS 07; additional installation instructions.

SAP Note Number	Title	Description
<a href="#">1997526</a>	SAP HANA lifecycle manager with SAP HANA Database SPS 08	Only for UDF: Information on SAP HANA tools that you can use to install the UDF AFL. Note that the recommended tools depend on your edition of the SAP HANA Platform.
<a href="#">2075266</a>	SAP HANA Platform SPS 09 Release Note	Only for UDF: This note is only relevant for you if you want to use revision 90 or higher of the UDF AFL. In this case, you need to install the same revision of SAP HANA Platform SPS 09.
<a href="#">1898341</a>	Modeling or forecasting fails with failed decomposition	Information about how you can change the configuration for demand modeling and forecasting if the errors <i>901 Failed execution for &amp;1</i> and <i>926 Failed decomposition</i> occur.
<a href="#">2038829</a>	Corrections for unified rendering up to SAP_UI 740/09 I	Corrections to unified rendering for Web Dynpro applications; information about the required installation of SAP_UI 740 SP 10 on the back-end server when installing SAP NetWeaver 7.4 SP 02 up to SP 09.
<a href="#">2080423</a>	Assortment Planning: Sales Projection crashes with large data volumes	Performance optimization for the sales projections that DDF can generate for SAP Assortment Planning for Retail.
<a href="#">1846194</a>	Lack of permissions when using AFL	Only for UDF: Information on how to solve authorization issues when using an application function library such as the UDF AFL; information on the required database users, roles, and schemas.
<a href="#">1836357</a> (optional)	Install and Configure the UDF Launchpad	Only for UDF: Hardware requirements for the optional visualization tool <i>Unified Demand Forecast Launchpad</i> ; installation and configuration instructions.

Table 36: SAP Notes for SAP Assortment Planning for Retail

SAP Note Number	Title	Description
<a href="#">1637199</a>	Using the planning applications KIT	Important information for running the Planning Application Kit (PAK).
<a href="#">2033016</a>	Improved buffering of "unposted" calls in queries	Correction to reduce the number of times the LOAD method in class CL_RSR_RRKO_UNPOSTED_PLAN is called.
<a href="#">2067733</a>	BW-IP: Not all data is filtered	Corrections related to the SAP BW planning buffer.
<a href="#">2022080</a>	Upgrade of PAL AFL and BFL AFL from SAP HANA earlier release to SPS08	Corrections to add privileges removed during upgrade to SAP HANA Platform SPS 08.



SAP Note Number	Title	Description
<a href="#">1662968</a>	Clarification on setting ResultSetSizeLimit in Analysis Office	Information on changing the default ResultSetSizeLimit registry setting.
<a href="#">2075135</a>	Assortment Planning: Wrong values and incorrect planning functions in option plan	Correction related to option planning.
<a href="#">2075211</a>	Assortment Planning: Errors in Refine Assortment workbook category display and KPIs	Correction to Refine Assortment workbook.

Table 37: SAP Notes for SAP Assortment Planning for Retail

SAP Note Number	Title	Description
<a href="#">1637199</a>	Using the planning applications KIT	Important information for running the Planning Application Kit (PAK).
<a href="#">2033016</a>	Improved buffering of "unposted" calls in queries	Correction to reduce the number of times the LOAD method in class CL_RSR_RRKO_UNPOSTED_PLAN is called.
<a href="#">2067733</a>	BW-IP: Not all data is filtered	Corrections related to the SAP BW planning buffer.
<a href="#">2022080</a>	Upgrade of PAL AFL and BFL AFL from SAP HANA earlier release to SPS08	Corrections to add privileges removed during upgrade to SAP HANA Platform SPS 08.
<a href="#">1662968</a>	Clarification on setting ResultSetSizeLimit in Analysis Office	Information on changing the default ResultSetSizeLimit registry setting.
<a href="#">2082906</a>	Use new api to get option count in assortment list	Correction to retrieving option counts in assortment lists.
<a href="#">2075135</a>	Assortment Planning: Wrong values and incorrect planning functions in option plan	Correction related to option planning.
<a href="#">2075211</a>	Assortment Planning: Errors in Refine Assortment workbook category display and KPIs	Correction to Refine Assortment workbook.
<a href="#">2082929</a>	Duplicate SQL exception when extracting data	Correction to location clustering for products with multiple base units of measure.
<a href="#">2080423</a>	Assortment Planning: Sales Projection crashes with large data volumes	Performance optimization for DDF sales projections.

Table 38: SAP Notes for SAP Promotion Management for Retail

SAP Note Number	Title	Description
<a href="#">2026580</a>	Release strategy for the ABAP add-on RTLPROMO	This SAP Note contains information about planning the installation and upgrades of the ABAP add-on [Add-on].

# Typographic Conventions

Table 39

Example	Description
<Example>	Angle brackets indicate that you replace these words or characters with appropriate entries to make entries in the system, for example, "Enter your <User Name>".
► Example ► Example ▢	Arrows separating the parts of a navigation path, for example, menu options
<b>Example</b>	Emphasized words or expressions
<b>Example</b>	Words or characters that you enter in the system exactly as they appear in the documentation
<a href="http://www.sap.com">www.sap.com</a>	Textual cross-references to an internet address
<a href="#">/example</a>	Quicklinks added to the internet address of a homepage to enable quick access to specific content on the Web
<a href="#">123456</a>	Hyperlink to an SAP Note, for example, SAP Note <a href="#">123456</a>
<i>Example</i>	<ul style="list-style-type: none"> <li>Words or characters quoted from the screen. These include field labels, screen titles, pushbutton labels, menu names, and menu options.</li> <li>Cross-references to other documentation or published works</li> </ul>
Example	<ul style="list-style-type: none"> <li>Output on the screen following a user action, for example, messages</li> <li>Source code or syntax quoted directly from a program</li> <li>File and directory names and their paths, names of variables and parameters, and names of installation, upgrade, and database tools</li> </ul>
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, database table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE
EXAMPLE	Keys on the keyboard



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