UPGRADE GUIDE | PUBLIC

SAP Customer Activity Repository applications bundle

Document Version: 1.1 – 2018-11-23

Common Upgrade Guide for SAP Customer Activity Repository retail applications bundle 1.0 SPS7

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Content

1 Introduction

1.1 About this Document

Purpose

This *Common Upgrade Guide* provides you with information on the upgrade process of the following applications, all of which are delivered with SAP Customer Activity Repository retail applications bundle 1.0 SPS7:

Applications	SAP Help Portal with Product Documentation
• SAP Customer Activity Repository 2.0 SP6 • SAP Assortment Planning for Retail 1.0 SP6 • SAP Merchandise Planning for Retail 1.0 SP6 • SAP Promotion Management for Retail 8.1 SP6	https://help.sap.com/viewer/p/CARAB

For more information on these applications and their business scenarios, see the *Common Master Guide*, which you can find under https://help.sap.com/viewer/p/CARAB ▶ *<Version>* ▶ *Installation and Upgrade* ▶.

Technically, the application versions described in this guide are shipped in the following installable product versions:

- Back-end product version: `CAR RETAIL APPL BUNDLE 1.0 SPS7`
- Front-end product version: `SAP FIORI FOR SAP CARAB 2.0 SPS1` (same as for the previous release)

For more information on these product versions, see the corresponding release information notes (RINs):

- For the back-end product version: SAP Note 2088924
- For the front-end product version: SAP Note 2319703

New Installation Scenarios

> ⚠ Caution
>
> If you do not have an existing installation of these applications, you must perform a software installation rather than a software upgrade. For more information, see the *Common Installation Guide*, which you can find under http://help.sap.com/viewer/p/CARAB ▶ *<Version>* ▶ *Installation and Upgrade* ▶.

2 Before You Start

The following sections provide information about:

- Naming Conventions
- Information Available on SAP Service Marketplace
- Integration with SAP Fashion Management
- SAP Notes for the Upgrade

2.1 Naming Conventions

Throughout this document the following naming conventions apply.

Definitions

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

Term	Definition
Common Master Guide	Common Master Guide for SAP Customer Activity Repository 2.0 SP5, SAP Assortment Planning for Retail 1.0 SP5, SAP Promotion Management for Retail 8.1 SP5, and SAP Merchandise Planning for Retail 1.0 SP5. You can find this guide on SAP Service Marketplace at http://service.sap.com/instguides *Installation & Upgrade Guides* > *Industry Solutions* > *Industry Solution Guides* > *SAP for Retail* > *SAP Customer Activity Repository* > *SAP Customer Activity Repository 2.0 SP4* > *Master Guide*.
consuming application	An SAP product designed to consume and utilize data obtained from SAP Customer Activity Repository. **Example** • SAP Assortment Planning for Retail • SAP Merchandise Planning for Retail • SAP Promotion Management for Retail

Term	Definition
back-end system	The SAP NetWeaver-based back-end server on which SAP Customer Activity Repository and its consuming applications are installed. For a visual representation of the back-end system, see *Figure 1* in the *Overall System Planning* section.
front-end server	The SAP NetWeaver-based front-end server on which the SAP Gateway, SAP Fiori launchpad, SAP Fiori central SAP Fiori UI component, and the product-specific SAP Fiori components are installed. For a visual representation of the front-end system, see *Figure 1* in the *Overall System Planning* section.
SAP ERP	Unless otherwise specified, references in this guide to SAP ERP are comprehensive; that is, they apply to SAP ERP and the following two add-ons: • SAP Retail: an add-on to SAP ERP For more information, see SAP Help Portal for SAP Retail at https://help.sap.com/viewer/p/SAP_ERP ▶ *<your release>* ▶ *Application Help* ▶ *SAP Library* ▶ *Industries in SAP ERP* ▶ *SAP Retail* ▶. • SAP Fashion Management: an add-on to SAP Retail For more information, see SAP Help Portal for SAP Fashion Management at https://help.sap.com/viewer/p/SAP_FASHION_MANAGEMENT ▶ *<your release>* ▶ *Application Help* ▶ *SAP Library* ▶ *Industries in SAP ERP* ▶ *SAP Retail* ▶ *Fashion Management* ▶. For more information on how both add-ons relate to SAP ERP, see SAP Help Portal for SAP ERP at https://help.sap.com/viewer/p/SAP_ERP ▶ *<your release>* ▶ *Application Help* ▶ *SAP Library* ▶ *Industries in SAP ERP* ▶ *SAP Retail* ▶ and subsection *Fashion Management*.

Naming Differences

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

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

SAP Customer Activity Repository (all modules except for UDF and DDF)	Unified Demand Forecast (UDF) and Demand Data Foundation (DDF)	SAP Assortment Planning for Retail / SAP Merchandise Planning for Retail	SAP Promotion Management for Retail	SAP ERP
store	location	location	location	store site

Variables

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

2.2 Information Available on SAP Help Portal

Information on Prerequisite Platforms, Applications, and Other Components

Description	Path	Title
Information on installing SAP HANA	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM <your version> > *Installation and Upgrade* > *SAP HANA Server Installation and Update Guide*	*SAP HANA Server Installation and Update Guide*

Description	Path	Title
Information on installing SAP HANA database clients	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ *<your version>* ▶ *Installation and Upgrade* ▶ *SAP HANA Client Installation and Update Guide*	*SAP HANA Client Installation and Update Guide*
Information on installing SAP HANA studio	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ *<your version>* ▶ *Installation and Upgrade* ▶ *SAP HANA Studio Installation and Update Guide*	*SAP HANA Studio Installation and Update Guide*
Information on installing the SAP LT (Landscape Transformation) Replication Server for SAP HANA	http://help.sap.com/viewer/p/SAP_HANA_REAL_TIME_REPLICATION ▶ *<your version>* ▶ *Installation and Upgrade*	*Installation Guide - Trigger-Based Data Replication Using SAP Landscape Transformation Replication Serve*
Information on managing major operational aspects of the SAP LT Replication Server	http://help.sap.com/viewer/p/SAP_HANA_REAL_TIME_REPLICATION ▶ *<your version>* ▶ *Operations*	*Application Operations Guide - SAP Landscape Transformation Replication Server*
Information on using SAP HANA	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ *<your version>* ▶ *Administration* ▶ *SAP HANA Administration Guide*	*SAP HANA Administration Guide*
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	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ *<your version>* ▶ *Development* ▶ *SAP HANA Developer Guide (For SAP HANA Studio)*	*SAP HANA Developer Guide*
Information for modelers (or business analysts) on how to define data models that will be used in SAP HANA	http://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ *<your version>* ▶ *Development* ▶ *SAP HANA Modeling Guide (For SAP HANA Studio)*	*SAP HANA Modeling Guide*
Information on installing SAP NetWeaver	https://help.sap.com/viewer/p/SAP_NETWEAVER_740 ▶ *Installation and Upgrade* ▶ *Installation Guide*	*Installation Guide, SAP Systems Based on the Application Server <Your Server> of SAP NetWeaver on <Your Operating System>: SAP HANA Database*

Description	Path	Title
Information on installing SAP ERP 6.0	http://help.sap.com/viewer/p/SAP_ERP ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *Installation Guide* ▶	*Installation Guide, SAP ERP 6.0 Including <your SAP Enhancement Package> - Technical Usage "Central Applications" <Your Server> on <Your Operating System>*
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	http://help.sap.com/viewer/p/SAP_CUSTOMER_RELATIONSHIP_MANAGEMENT ▶ *Version 7.0 EHP2* ▶ *Installation and Upgrade* ▶ *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* ▶ https://help.sap.com/viewer/p/SAP_CUSTOMER_RELATIONSHIP_MANAGEMENT_FOR_HANA ▶ *Installation and Upgrade* ▶ *Administrator's Guide* ▶ *Administrator's Guide SAP CRM 7.0 EHP2, Version for SAP HANA* ▶	*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*

General Quick Links

Description	Path
SAP Help Portal	http://help.sap.com
SAP Notes	http://support.sap.com/notes
SAP Software Download Center	http://support.sap.com/swdc
Product Availability Matrix	http://support.sap.com/pam
Released platforms and operating systems	http://service.sap.com/platforms
SAP Solution Manager	http://support.sap.com/solutionmanager
Security	http://service.sap.com/security
Security guides	http://service.sap.com/securityguides
Support package stacks, latest versions, patch level requirements	http://support.sap.com/patches

Description	Path
System sizing	http://service.sap.com/sizing

2.3 Integration with SAP Fashion Management

Use

This document describes installation scenarios deployed in parallel with one of the following:

- SAP Retail, an add-on to SAP ERP
  For more information, see SAP Help Portal for SAP Retail at https://help.sap.com/viewer/p/SAP_ERP.
- SAP Fashion Management, an add-on to SAP Retail
  For more information, see SAP Help Portal for SAP Fashion Management at https://help.sap.com/viewer/p/SAP_ERP ▶ *<your release>* ▶ *Application Help* ▶ *SAP Library* ▶ *Industries in SAP ERP* ▶ *SAP Retail Fashion Management* ▶.

Unless otherwise specified, references in this guide to SAP ERP are comprehensive; that is, they apply to SAP ERP, SAP Retail, and SAP Fashion Management.

More Information

For more information on how both add-ons relate to SAP ERP, see SAP Help Portal for SAP ERP at https://help.sap.com/viewer/p/SAP_ERP ▶ *<your release>* ▶ *Application Help* ▶ *SAP Library* ▶ *Industries in SAP ERP* ▶ *SAP Retail Fashion Management* ▶.

2.4 SAP Notes for the Upgrade

This section lists SAP Notes that you must read (and, when appropriate, implement) before you start the upgrade.

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

SAP Notes for SAP Customer Activity Repository

SAP Note Number	Title	Description
2084900	Release and Information Note (RIN) - SAP Customer Activity Repository 2.0	This note serves as an entry point for SAP Customer Activity Repository 2.0.
2666179	On-Shelf Availability (OSA) crashes SAP HANA script server	Correction for the On-Shelf Availability module that must be implemented for specific SAP HANA revisions.
2298340	SAP HANA DB: CDS views with external views as base objects cannot be created in the DB	Relevant for installations on SAP NetWeaver 7.40 SPS 12, SPS 13, or SPS 14: Important corrections that you must apply **prior to upgrading** the `CAR RETAIL APPL BUNDLE 1.0` back-end product version.
1605140	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.
1778607	SAP HANA Live for SAP Business Suite	What to consider when implementing SAP HANA Live for SAP Business Suite.
1791342	Time Zone Support in SAP HANA	How to handle time zone functions `UTCTOLOCAL` and `LOCALTOUTC`.
1952701	DBSL supports new SAP HANA SP9 version number	What to consider when establishing a connection with the SAP LT Replication Server.
2244521	Product Hierarchy Import - nodes are not getting process	Corrections to importing product hierarchy data.
2145356	Activation of SAP HANA content for DDF and UDF when applying SAP Notes	Information on how you must manually activate the SAP HANA content for DDF and UDF again after implementing a support package or correction on an existing installation. For example, this is the case when you apply an SAP Note for DDF or UDF using transaction **SNOTE**.

SAP Notes for SAP Assortment Planning for Retail

SAP Note Number	Title	Description
SAP Notes for SAP ERP		
2196351	Pre-requisite for SAP Note #2196323	Corrections to SAP ERP data elements.
2196323	DRFOUT: Only valid current node assignments and article assignments are transferred during Article Hierarchy Replication	Article Hierarchy Transfer replication will transfer all node and article assignments irrespective of the validity.

SAP Note Number	Title	Description
2209621	Assortment Listing API: List by DC fix	Functionality on the SAP ERP side to enable PIR integration with SAP Assortment Planning for Retail.
2286994	New Listing API for Retail Assortment Planning	Supports: • Different listing periods for different products within an assortment. • Changes in the listing after a product has been listed. • In-season listing changes. • Multiple validity time periods for the same location.
SAP Notes for Back-End System		
2022080	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.
If your back-end system is on a version of SAP NetWeaver that is lower than 7.40 SP15, then you must also implement the following SAP Notes:		
2298340	SAP HANA DB: CDS views with external views as base objects cannot be created in the DB	Corrections to activating CDS views on an SAP HANA database.
SAP Notes for Front-End Server		
2077357	RIN SAP Fiori for SAP Assortment Planning for Retail 1.0	Common note containing correction instructions that must be implemented following the installation of the SAP Fiori UI Components on the front-end server.
2296550	LPD_CUST system Alias is not recognized	Corrections to central SAP Fiori component.
SAP Notes for Planning Functionality Used by SAP Assortment Planning for Retail		
1637199	Using the planning applications KIT	Important information for running the Planning Application Kit (PAK).
2319395	MultiProvider, PAK, and use of characteristics as key figures	Corrections to PAK.
1662968	Clarification on setting ResultSetSizeLimit in Analysis Office	Information on changing the default `ResultSetSizeLimit` registry setting.

SAP Note Number	Title	Description
2074801	Dumps and Issues with special InfoObjects like 0FISCYEAR, 0CALMONTH...	Corrections to in-memory planning.
If your back-end system is on a version of SAP NetWeaver that is lower than 7.40 SP15, then you may also need to implement the following SAP Notes. Verify the *Solution* section of each SAP Note to determine whether the note is applicable.		
2211165	Short dump GETWA_NOT_ASSIGNED in RRMS_MESSAGES_OUTPUT	Corrections to SAP BW.
2215242	BW-IP: In-memory planning: Attempt to save physically deleted records in attribute planning does not work	Corrections to PAK.
2212552	Incorrect values in input help for variable	Corrections to planning.
2193251	BIT_OFFSET_NOT_POSITIVE in ENHANCE_FF_SFC	Corrections to SAP BW.
2207983	Incorrect data when using current member variable	Corrections to SAP BW.
2215568	System error in program CL_RSR_RRK0_CURRENT_MEMBER and form _CREATE_FEMSN_CHECK-4-	Corrections to SAP BW.
2178795	query with FIX-operator: correction for note 2172874 / Support Package 12 for SAP BW 7.40	Corrections to SAP BW.
2181672	Failed to find source column *_SID in itab	Corrections to SAP BW.
2182912	Incorrect value during materialization (SID-CONVERT)	Corrections to SAP BW.
2185225	Processing of key figures and NULL values from SAP HANA models	Corrections for CompositeProviders.
2185838	ADSO: Layer-execution of query	Corrections to SAP BW.
2213427	CL_RSDRV_TREX_HCPR_QUERY does not return NameMapper in layer context in GET_TREX_PARTS	Corrections to SAP BW.

SAP Note Number	Title	Description
2231729	Activation error for CompositeProvider with SAP HANA model as PartProvider	Corrections for CompositeProviders.
2256850	Missing values for current member variable in intervals and "unposted"	Corrections to SAP BW.
2277561	Individual execution for InfoCube with navigation attributes from an InfoObject based on SAP HANA model not possible	Corrections for CompositeProviders.
2277650	BW-IP: RSPLS 142 for aggregation level on CompositeProviders with navigation attributes from InfoObject based on SAP HANA model	Corrections for CompositeProviders.
2294872	Incorrect/missing data for CURRENT MEMBER	Corrections to SAP BW.
2281027	CompositeProvider collects transient InfoObjects in namespace 1KYF_* during transport	Corrections for CompositeProviders.
2263294	BW-IP PAK in SQL script with 1KYF_ key figures	Corrections to PAK.
2296460	BW-IP PAK in SQL script with 1KYF_ key figures	Corrections to PAK.
2209808	Attribute planning throws error in case planning on not existing member is allowed	Corrections to planning.
2295762	Reset (Back to saved state) does not work for exception-aggregated data	For SAP NetWeaver 7.40 SP13 and SP14 only, issue not present in SP12 and fixed in SP15.

SAP Notes for SAP Promotion Management for Retail

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

SAP Note Number	Title	Description
2298340	SAP HANA DB: CDS views with external views as base objects cannot be created in the DB	Relevant for installations on SAP NetWeaver 7.40 SPS 12, SPS 13, or SPS 14: Important corrections that you must apply **prior to upgrading** the `CAR RETAIL APPL BUNDLE 1.0` back-end product version.
2163602	DRFOUT: Incorrect timestamp send for Moving Average Price	This SAP Note contains information on correcting the timestamp field when using `DRFOUT` to replicate the Moving Average Price.

SAP Notes for SAP Merchandise Planning for Retail

SAP Note Number	Title	Description
2332831	Top down function correction for Single Store Workbook.	Program error `/RAP/CL_PF_CHNPLN_SNGL_TOPDWN`.
2349942	MPR Multi Store Query: Locking Issue in Copy Store Function.	When multiple planners work simultaneously with the workbook `03 – Channel Plan – Multi Store`, unwanted locking behavior can occur when executing the function `Copy Store`.
2349948	MPR Multi Store Query: Wrong Calculations in **Multi Store Workbook**.	Some key figures face incorrect calculations in the Multi Store workbook.
2347606	Store area aggregated incorrectly - manual instructions for MPR query for FP03 release.	When planning store area, it is not correctly aggregated from weeks to months during save in specific situations.
2347622	`<Sales at Retail Contribution>` in Multi Store - manual instructions for MPR query for FP03 release.	The key figure `% Contribution Sales at Retail LY` is calculated incorrectly for the Channel Plan – Multi Store workbook.
2347623	**Bottom Up Single Store** worksheet zeros out key figures - manual instructions for MPR query for FP03 release.	Single store key figures for bottom up in any of the merchandise plan workbooks issues. All additional merchandise plan key figures not maintained in the single store plan get zeroed out.
2347624	**Bottom Up Single Store Function Button** disappears in workbook. Manual instructions for MPR query for FP03 release.	When changing to the **WSSI** sheet in the merchandise plan workbooks, the button for `Bottom Up – Channel Plan – Single Store` function sometimes disappears.

SAP Note Number	Title	Description
2347625	Aggregation of <calculated OTB>, <markdown budget> and< promotion budget> are incorrect. Manual instructions for MPR query for FP03 release.	Key figures <OTB>: &RAP_VERSN_TXT_01&, <Promo Budget>: &RAP_VERSN_TXT_01&, and <Markdown Budget>: &RAP_VERSN_TXT_01& are calculated incorrectly on aggregated level for the **OTB Reconciliation Report** workbook.
2353793	Wrong variable type in single store workbook.	The plan queries in **Workbook 04 – Channel Plan – Single Store** uses multi entry variables for the info objects <Sales Organization> and <Distribution Channel>, which is not relevant in this workbook as you can only select one store at a time.
If your back-end system is on a version of SAP NetWeaver that is lower than 7.40 SP15, then you must also implement the following SAP Notes:		
2298340	SAP HANA DB: CDS views with external views as base objects cannot be created in the DB	Corrections to activating CDS views on an SAP HANA database.

3 Prerequisites

This section lists all the prerequisite platforms, applications, and components that must be installed and configured during an **upgrade from a previous release**.

> **i Note**
>
> If you are performing a **new installation of this release**, you must not follow this *Common Upgrade Guide* and rather proceed with the *Common Installation Guide* under https://help.sap.com/viewer/p/CARAB ▶ *Version: 1.0 SPSx* ▶ *Installation and Upgrade* ▶.

For your convenience, the prerequisites are presented to you in two categories:

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

> **i Note**
>
> The prerequisites should be installed and configured by an experienced SAP Basis administrator. Documentation and support for each prerequisite is available on the SAP Help Portal at https://help.sap.com.

Common Prerequisites

1. **SAP HANA Platform**
   The minimum requirement for this release is **SAP HANA Platform SPS 11 Revision 112.02 or higher**, regardless of the business scenario you are planning to implement.
   For installation information, see https://help.sap.com/viewer/p/SAP_HANA_PLATFORM ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *SAP HANA Server Installation and Update Guide* ▶, in particular section *Installing and Updating SAP HANA Components*.
2. **SAP Solution Manager**
   The minimum requirement for this release is **the latest version of SAP Solution Manager**, regardless of the business scenario you are planning to implement. Failure to do so may cause problems when using the Maintenance Optimizer (MOPZ) application.
   For installation information, see https://help.sap.com/viewer/p/SAP_Solution_Manager ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *Master Guide* ▶ and *Upgrade Guide*.
3. **SAP NetWeaver**
   The minimum requirement for this release is **SAP NetWeaver 7.40 SPS 12**, regardless of the business scenario you are planning to implement.
   With **SAP NetWeaver 7.40 SPS 12, SPS 13, or SPS 14**, you must additionally implement SAP Note 2298340 to apply important corrections. You must implement this note **prior to** upgrading the `CAR RETAIL APPL BUNDLE 1.0` back-end product version.

The highly recommended version for this release is **SAP NetWeaver 7.40 SPS 15**, regardless of the business scenario you are planning to implement. In this case, you do not need to implement the SAP Note.

For installation information, see https://help.sap.com/viewer/p/SAP_NETWEAVER_740 ▶ *Installation and Upgrade* ▶ *Installation Guide* ▶ and Implement SAP Note 2298340 [page 24].

4. **SAP Landscape Transformation Replication Server**
   The minimum requirement for this release is **SAP Landscape Transformation Replication Server for SAP HANA 2.0**, regardless of the business scenario you are planning to implement.
   For installation information, see https://help.sap.com/viewer/p/SAP_LANDSCAPE_TRANSFORMATION_REPLICATION_SERVER ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *Installation Guide (Replicating Data to SAP HANA)* ▶. Additionally, see SAP Note 1605140 (*SAP HANA 1.0 and 2.0: Central Note - SAP LT Replication Server*). This is the central note for enabling trigger-based data replication (information on download, installation, upgrade, corrections, implementation).
5. **SAP Fiori**
   The minimum requirement for this release is **SAP FIORI FRONT-END SERVER 2.0 SPS3**, regardless of the business scenario you are planning to implement.
   For installation information, see SAP Notes 2219596, 2327935, and 2169917, as well as the app implementation information under https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ▶ *<Version>* ▶ *Implementation* ▶.
6. **UDF AFL**
   The minimum requirement for this release is **UDF AFL Revision 112.20 or higher**, regardless of the business scenario you are planning to implement.
   For installation information, see the Upgrade SAP Customer Activity Repository Retail Applications Bundle [page 24] section of this guide, as well as SAP Note 2088924.

   > **i Note**
   >
   > While installation of the UDF AFL is mandatory, implementation depends on the consuming application:
   >
   > - Optional implementation for:
   >   - SAP Assortment Planning for Retail
   >   - SAP Merchandise Planning for Retail
   > - Mandatory implementation for:
   >   - SAP Promotion Management for Retail (only for what-if forecasts)

7. **POS AFL**
   The minimum requirement for this release is **POS AFL Revision 112.20 or higher**, regardless of the business scenario you are planning to implement.
   For installation information, see the Upgrade SAP Customer Activity Repository Retail Applications Bundle [page 24] section of this guide, as well as SAP Note 2088924.

   > **i Note**
   >
   > While installation of the POS AFL is mandatory, implementation is optional for the following consuming applications:
   >
   > - SAP Assortment Planning for Retail
   > - SAP Merchandise Planning for Retail
   > - SAP Promotion Management for Retail

Application-Specific Prerequisites

SAP Customer Activity Repository

Prerequisites for SAP Customer Activity Repository

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP ERP	The minimum requirement for this release is one of the following: • SAP ERP 6.0 Enhancement Package 4 is mandatory at a bare minimum if installing but not implementing DDF and UDF. • SAP ERP 6.0 Enhancement Package 5 is mandatory when implementing SAP Customer Activity Repository with its DDF and UDF modules. • SAP ERP 6.0 Enhancement Package 7 or higher is mandatory if implementing the SAP Customer Activity Repository Co-Deployed with SAP ERP or SAP Fashion Management system landscape. The following prerequisites apply if you want to implement the Omnichannel Article Availability functionality within SAP Customer Activity Repository: • Minimum: SAP ERP 6.0 Enhancement Package 7 SPS 11 or SAP ERP 6.0 Enhancement Package 8 SPS 1 • Recommended: SAP ERP 6.0 Enhancement Package 7 SPS 12 or SAP ERP 6.0 Enhancement Package 8 SPS 2	Mandatory	https://help.sap.com/viewer/p/SAP_ERP ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *Installation Guide* ▶

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP HANA Live for SAP ERP	SAP HANA Live for SAP ERP 1.0 SPS 02 or higher	Mandatory	http://help.sap.com/hba ▶ *Version: 2.0* ▶ *Installation and Upgrade* ▶ *Administrator's Guide* ▶
SAP CRM	The minimum requirement for this release is one of the following: • SAP Enhancement Package 2 for SAP CRM 7.0 • SAP Enhancement Package 2 for SAP CRM 7.0, Version for SAP HANA or higher	Optional, depending on whether or not you choose to implement customer determination with SAP CRM.	https://help.sap.com/viewer/p/SAP_CUSTOMER_RELATIONSHIP_MANAGEMENT ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *Installation Guide* ▶
SAP Smart Business	SAP Smart Business foundation component 1.0 SPS 03	Optional, depending on whether or not you choose to implement the *SAP Smart Business for Multichannel Sales Analytics* dashboard within SAP Customer Activity Repository.	SAP Note 2018360
SAP Hybris Marketing	SAP Hybris Marketing 1.10 or higher	Optional, depending on whether or not you choose to implement customer determination with SAP Hybris Marketing.	https://help.sap.com/viewer/product/SAP_HYBRIS_MARKETING/1702%20YMKT/en-US ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *Installation and Configuration Guide* ▶
SAP Hybris Commerce	SAP Hybris Commerce 6.0 or higher (in particular, the Accelerator and the Data Hub)	Optional, depending on whether or not you choose to implement the Omnichannel Article Availability functionality within SAP Customer Activity Repository.	http://help.hybris.com ▶ *<Version>* ▶ *<Main Menu>* ▶ *Installing and Upgrading Hybris* ▶
SAP Hybris Commerce, integration package for SAP for Retail	SAP Hybris Commerce, integration package for SAP for Retail 2.0 or higher	Optional, depending on whether or not you choose to implement the Omnichannel Article Availability functionality within SAP Customer Activity Repository.	See the *Administrator Guide* delivered with the software package.

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP IQ	SAP IQ 16.0, SP8 or higher	Optional, depending on whether or not you choose to use the *Table Content Aging* report within SAP Customer Activity Repository.	https://help.sap.com/viewer/p/SAP_IQ ▶ *<Version>* ▶ *Installation and Upgrade* ▶ *<various SAP IQ Installation and Configuration Guides>* ▶
SAP Jam	SAP Jam, initial release or higher	Optional, depending on whether or not you choose to integrate social media collaboration functionality with SAP Jam.	https://help.sap.com/viewer/p/SAP_JAM_COLLABORATION ▶ *<Version>* ▶ *Administration* ▶ *Administrator Guide* ▶

SAP Assortment Planning for Retail

Prerequisites for SAP Assortment Planning for Retail

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP ERP	The minimum requirement for this release is one of the following: • SAP ERP 6.0 Enhancement Package 5 is mandatory. • SAP ERP 6.0 Enhancement Package 7 or higher is mandatory if implementing the SAP Assortment Planning for Retail Co-Deployed with SAP ERP system landscape.	Mandatory	http://help.sap.com/erp ▶ *<your release>* ▶ *Installation and Upgrade Information* ▶ *Installation Guide* ▶
SAP HANA Live for SAP ERP	SAP HANA Live for SAP ERP 1.0 SPS 02 or higher	Mandatory	http://help.sap.com/hba ▶ *Installation, Security, Configuration, and Operations Information* ▶ *Administrator's Guide* ▶

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP Jam	SAP Jam, initial release or higher	Optional, depending on whether or not you choose to integrate social media collaboration functionality with SAP Jam.	http://help.sap.com/sapjam *SAP Jam Collaboration System Administration Information* > *Administrator Guide*
SAP BusinessObjects Analysis	SAP BusinessObjects Analysis, edition for Microsoft Office 2.2 SP2	Mandatory	http://help.sap.com/boao *<your release>* > *Installation, Configuration, Security, and Administration Information* > *Administrator's Guide*

SAP Merchandise Planning for Retail

Prerequisites for SAP Merchandise Planning for Retail

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP ERP	The minimum requirement for this release is one of the following: • SAP ERP 6.0 Enhancement Package 5 is mandatory. • SAP ERP 6.0 Enhancement Package 7 or higher is mandatory if implementing the SAP Assortment Planning for Retail Co-Deployed with SAP ERP system landscape.	Mandatory	http://help.sap.com/erp *<your release>* > *Installation and Upgrade Information* > *Installation Guide*
SAP HANA Live for SAP ERP	SAP HANA Live for SAP ERP 1.0 SPS 02 or higher	Optional, depending on whether or not you choose to integrate real-time analytics with SAP HANA Live.	http://help.sap.com/hba *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide*

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP Jam	SAP Jam, initial release or higher	Optional, depending on whether or not you choose to integrate social media collaboration functionality with SAP Jam.	http://help.sap.com/sapjam *SAP Jam Collaboration System Administration Information* > *Administrator Guide*
SAP BusinessObjects Analysis	SAP BusinessObjects Analysis, edition for Microsoft Office 2.2 SP2	Mandatory	http://help.sap.com/boao *<your release>* > *Installation, Configuration, Security, and Administration Information* > *Administrator's Guide*

SAP Promotion Management for Retail

Prerequisites for SAP Promotion Management for Retail

Product	Prerequisite Version	Mandatory/Optional	Installation Information
SAP ERP	SAP ERP 6.0 Enhancement Package 5	Mandatory	http://help.sap.com/erp *<your release>* > *Installation and Upgrade Information* > *Installation Guide*
SAP HANA Live for SAP ERP	SAP HANA Live for SAP ERP 1.0 SPS 02 or higher	Mandatory.	http://help.sap.com/hba *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide*
SAP Jam	SAP Jam, initial release or higher	Optional, depending on whether or not you choose to integrate social media collaboration functionality with SAP Jam.	http://help.sap.com/sapjam *SAP Jam Collaboration System Administration Information* > *Administrator Guide*

4 Upgrade Scenarios

4.1 SAP Customer Activity Repository

4.1.1 Quick Guide

This section includes a checklist with all actions that you have to perform. The actions are in chronological order, so that you can work through them like a checklist.

Checklist

Prerequisites

Mandatory Steps

- ☐ Ensure that your landscape meets the requirements outlined in the *Prerequisites* section.

Upgrade Process

Mandatory Steps

- ☐ Read and implement SAP Note 2298340.
- ☐ Upgrade your back-end system product version in SAP Solution Manager.
- ☐ Upgrade the application function libraries (`UDFAFL_INST 100`, `POSAFL_INST 100`).

Optional Steps

- ☐ Upgrade or install product-specific SAP Fiori UI components on the front-end server. This is only required if you plan on using the *SAP Smart Business for Multichannel Sales Analytics* cockpit or the *Analyze Forecast* standalone SAP Fiori app.
- ☐ Install alternate storage integration with SAP IQ or Hadoop.

Follow-Up Activities

Mandatory Steps

- ☐ Activate the SAP HANA content.
- ☐ Replicate the new SAP ERP tables for SAP Customer Activity Repository.
- ☐ Generate time data.

Optional Steps

- ☐ Configure SAP Smart Business for Multichannel Sales Analytics.
- ☐ Configure Demand Data Foundation.

☐ Configure Unified Demand Forecast.

☐ Configure the *Analyze Forecast* standalone SAP Fiori app

☐ Configure On-Shelf Availability.

4.1.2 Upgrade Process

4.1.2.1 Implement SAP Note 2298340

Use

Prior to upgrading the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack (SPS) to a newer one, you need to verify the SAP NetWeaver 7.40 SPS in your system landscape. Important corrections, relevant for Core Data Services (CDS) views, and required by the latest SPS of `CAR RETAIL APPL BUNDLE 1.0`, are only available as of SAP NetWeaver 7.40 SPS 15.

Procedure

1. Verify your SAP NetWeaver 7.40 support package stack.
   If your landscape contains SAP NetWeaver 7.40 SPS 12, SPS13, or SPS14, you will need to implement SAP Note 2298340 to apply corrections relevant for CDS views.
   If your landscape has been upgraded to SAP NetWeaver 7.40 SPS 15, you do not need to implement SAP Note 2298340, and you can go to the next procedure.
2. Read and implement SAP Note 2298340 **prior** to upgrading the back-end system product version.

More Information

http://help.sap.com/hana_platform *Development and Modeling* > *SAP HANA Modeling Guide (For SAP HANA Studio)*

4.1.2.2 Upgrade SAP Customer Activity Repository Retail Applications Bundle

Use

This procedure describes how to upgrade the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack to a newer one.

Procedure

1. Check your upgrade scenario:
   1. Navigate to the Product Availability Matrix (PAM) at http://support.sap.com/pam.
   2. For information about the available support package stacks (SPS), search for the `CAR RETAIL APPL BUNDLE 1.0` product version, and choose *Support Package Stacks*.
   3. For information about the supported upgrade paths, choose *Related Product Versions*.
   4. For information about the software components in the SPS, choose *Technical Release Information* and consult the subsections, such as *Database Systems*.
   5. To navigate directly to the download area for the SPS, choose *SAP Software Download Center* > *CAR RETAIL APPL BUNDLE 1.0 - Support Packages & Patches*.
      Alternatively, you can get there from the SAP Support Portal by choosing http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0*.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information about this tool, see SAP Help Portal at http://help.sap.com/spmanager > *Application Help*, as well as SAP Note 1803986.

To finalize the upgrade of the back-end product version, you must additionally do some manual steps. Continue with the next section.

Download and Install the Application Function Libraries (AFLs)

There are two components that you cannot upgrade using Support Package Manager.

- Unified Demand Forecast application function library (UDF AFL, software component version `UDFAFL_INST 100`, provides the demand modeling and forecasting services in SAP Customer Activity Repository, runs directly in the SAP HANA database)
- On-Shelf Availability application function library (POS AFL, software component version `POSAFL_INST 100`, provides the On-Shelf Availability services in SAP Customer Activity Repository, runs directly in the SAP HANA database)

You need to download one UDF AFL revision and one POS AFL revision manually and install them together in your SAP HANA database.

Where to Download

Both AFLs are provided as part of the `CAR RETAIL APPL BUNDLE 1.0` product version on the SAP Support Portal under http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0* > *Entry by Component* > *Analytics AFL*.

For a successful upgrade, you need to be aware of the following dependencies.

Dependencies Between the AFLs and the SAP HANA Database

The AFLs are released independently of the releases of SAP Customer Activity Repository retail applications bundle. This is because the AFLs follow the release cycle of the SAP HANA database. The releases are called “revisions”. Whenever a new revision of the SAP HANA database is released, a new revision of each AFL is released. As a result, multiple revisions of each AFL are available on the SAP Support Portal at any one time.

> ⚠ Caution
>
> For each revision of an AFL, there is **only one** compatible revision of the SAP HANA database. For example, you can only use revision 112.20 of the UDF AFL with revision 112.02 of the SAP HANA database. Whenever you upgrade an AFL, you must also upgrade the database and any other AFLs to the compatible revisions. Reversely, whenever you upgrade the database, you must upgrade the AFLs.
>
> Note that this dependency applies not only to the UDF AFL and the POS AFL but also to the generic SAP HANA AFL. Both the SAP HANA AFL and the SAP HANA database are components of the SAP HANA Platform (see Prerequisites [page 16]).
>
> When you download an AFL revision from the SAP Support Portal, the compatible revision of the SAP HANA database is indicated.

Nomenclature

The following table explains how you can see the dependencies by looking at the release numbers:

Release of ...	Released as ...	Example	Guideline
SAP HANA Platform	<Support Package Stack>	SAP HANA Platform SPS **11**	The number of the support package stack determines the first digits of the revisions.
SAP HANA Database	<Revision>.<Patch>	SAP HANA Database **11**2.0 **2**	All 11x.xx database revisions belong to the SPS 11 platform stack. The patch number determines the first digit of the AFL patch.
UDF AFL	<Revision>.<Patch>	UDF AFL **11**2. **2**0	
POS AFL		POS AFL **11**2. **2**0	
SAP HANA AFL		SAP HANA AFL **11**2. **2**0	

> → Recommendation
>
> We recommend that you upgrade all the AFLs **at the same time**. This means:
>
> - UDF AFL and POS AFL, which you must both install for a successful upgrade of SAP Customer Activity Repository retail applications bundle
> - SAP HANA AFL, which is one of the mandatory prerequisites
> - if applicable, other AFLs provided with SAP HANA that might be relevant for your scenario
>
> **Focus** on the AFL that provides the most important functionality for your scenario (for example, demand forecasting with the UDF AFL). Select the best revision of that AFL for your scenario. This in turn will give you the compatible revision of the SAP HANA database and the compatible revisions of the other AFLs. Then install all the AFLs together.

Download and Install the UDF AFL (Focus: Demand Forecasting)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your Unified Demand Forecast scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2050229: Gives you an overview of all UDF AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the UDF AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2050229.

> **i Note**
>
> To use the UDF functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure Unified Demand Forecast (Optional) [page 64].

Download and Install the POS AFL (Focus: On-Shelf Availability)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your On-Shelf Availability scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2056102: Gives you an overview of all POS AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the POS AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2056102.

> **Note**
>
> To use the On-Shelf Availability functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure On-Shelf Availability (Optional) [page 53].

Result

You have successfully upgraded the `CAR RETAIL APPL BUNDLE 1.0` back-end product version to the current SPS. Continue with the next section.

4.1.2.3 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 or the *Analyze Forecast* standalone SAP Fiori app.

For more information about the cockpit or the app, see SAP Help Portal at http://help.sap.com/car ▶ *<your release>* ▶ *Application Help* ▶ *Additional Content* ▶ *SAP Smart Business for SAP Customer Activity Repository* ▶ as well as *Standalone SAP Fiori Apps for SAP Customer Activity Repository*.

4.1.2.3.1 Install SAP Gateway on the ABAP Front-End Server

Use

The ABAP front-end server contains the complete UI layer consisting of the central SAP Fiori UI component, the product-specific SAP Fiori UI component, and the SAP Gateway. SAP Gateway handles the communication between the client and the ABAP back-end server.

For a visualization of how these components interact, see the *Overall System Planning* section of the *Common Installation Guide*.

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

Procedure

1. Ensure that the necessary SAP NetWeaver version is installed on your front-end server. For more information, see https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ▶ *Version: SAP NW 7.40* ▶

Installation and Upgrade > *Setup of SAP Fiori System Landscape* > *Setup of SAP Fiori System Landscape with SAP HANA Database* > *Installation* >.

4.1.2.3.2 Install Central SAP Fiori UI Components

Use

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 central UI component contains the SAPUI5 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

1. Ensure that `SAP FIORI FRONT-END SERVER 2.0 SPS03` is installed on your front-end server.
   For more information about this component, see the *Prerequisites* section in this guide.

4.1.2.3.3 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 http://help.sap.com/nw74 > *Application Help* > *UI Technologies in SAP NetWeaver* > *UI Development Toolkit for HTML5 (SAPUI5)* > *SAPUI5 Application Frameworks* > *SAP Smart Business* > *Setting up the SAP Smart Business Modeler Apps Framework* >.

4.1.2.3.4 Upgrade Product-Specific SAP Fiori UI Component

Use

This procedure describes how to upgrade the `SAP FIORI FOR SAP CARAB` front-end product version from an older support package stack to a newer one.

The ABAP front-end server contains the complete UI layer, which consists of the SAP Gateway, the central SAP Fiori UI component, and the product-specific SAP Fiori UI component. The product-specific SAP Fiori UI component contains all the SAP Fiori user interfaces for the applications provided for the SAP Customer Activity Repository retail applications bundle.

Procedure

1. Identify the support package stack on the SAP Support Portal at http://support.sap.com *Software Downloads* *Support Packages and Patches* *Software Downloads* *By Alphabetical Index (A-Z)* *F* *SAP FIORI* *SAP FIORI FOR SUITE* *SAP FIORI FOR SAP CARAB* *SAP FIORI FOR SAP CARAB 2.0 SPS01*.
   For more information on support package stacks, see http://support.sap.com/sp-stacks.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information, see SAP Help Portal at http://help.sap.com/spmanager *Application Help*, as well as SAP Note 1803986.

   > ⚠ Caution
   >
   > As of the FP3 release, software components `UISCAR01` and `UIRAP001` have been merged into one, `UICAR001`, software component.
3. If you are using SAP Assortment Planning for Retail, consult SAP Note 2077357, which lists the SAP Notes relevant for your release.

4.1.2.4 Install Alternate Storage (Optional)

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

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

> **i Note**
>
> When modeling and forecasting demand using the Unified Demand Forecast (UDF) module, we recommend retaining the historical sales data in memory.

Process Flow

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

1. Do one of the following:
   - Install and set up integration with SAP IQ, **or**
   - Install and set up integration with Apache Hadoop.
2. Create the remote source in SAP HANA studio.
3. Create the virtual table.
4. Set the deploy mode in SAP HANA Transport for ABAP.

4.1.2.4.1 Install and Set Up Integration with SAP IQ

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

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

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

Install SAP IQ

A detailed procedure is described in the *SAP IQ 16.0 SP08 Installation and Configuration Guide*.

For more information, see SAP Help Portal at http://help.sap.com/iq1608 *Installation and Upgrade Information* > *Installation and Configuration Guide for <your operating system>*.

Configure SAP IQ

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

> **Note**
>
> The default DBSpaces provided during installation are intended to be used for SAP IQ system management. You should create your own DBSpace under the *Main* store with a DB File that is large enough to satisfy your sizing requirements.
>
> For more information, see SAP Help Portal at http://help.sap.com/iq1608 ▶ *Reference Administration* ▶ *Operations Information* ▶ *Reference:Statements and Options* ▶ *SQL Statements* ▶ *CREATE DBSPACE Statement*.

2. Create an in-memory row-level versioning (RLV) store.
   For more information, see SAP Help Portal at http://help.sap.com/iq1608 ▶ *System Administration and Maintenance Information* ▶ *Application Operations Guides* ▶ *Administration: In-Memory Row-Level Versioning* ▶ *About In-Memory Row-Level Versioning*.
3. Create a database under the content created at the beginning of this procedure.

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

   For more information, see SAP Help Portal at http://help.sap.com/iq1608 ▶ *Configuration and Deployment Information* ▶ *Configuration Guide*.
4. Create tables `/POSDW/TLOGF`, `/POSDW/TLOGF_EXT` and `/POSDW/TLOGF_X` tables in the DBSpace created at the beginning of the procedure.

   > **Note**
   >
   > These tables should have the same structure as your SAP HANA system. One possible way is to export the table structure via Export SQL on the SAP HANA side, and import it on the SAP IQ side using the SQL console. The SQL statement might require minor modifications, for example renaming `NVARCHAR` to `VARCHAR` and removing references to `CS_*` (for example, `CS_FIXED`).
5. Enable the RLV for the tables you just created.
6. Set the snapshot versioning property of the transaction to row-level.

   > **Example**
   >
   ```
   set option Snapshot_Versioning = 'Row-level';
   ```
7. Enable connection blocking and set the blocking timeout threshold.

   > **Example**
   >
   ```
   set option blocking = 'On';

   set option blocking_timeout = '0';
   ```

Install SAP IQ Drivers

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

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

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

For more information, see SAP Help Portal at http://help.sap.com/hana_platform *System Administration* *SAP HANA Administration Guide* *SAP HANA Data Provisioning* *SAP HANA Smart Data Access* *Setting Up Database Drivers* *SAP IQ Driver Setup*.

4.1.2.4.2 Install and Set Up Integration with Apache Hadoop

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

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

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

Process Flow

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

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

Install Apache Hadoop

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

For more information on integration between SAP HANA and Apache Hadoop, see SAP Help Portal at http://help.sap.com/hana_platform *System Administration* *SAP HANA Administration Guide* *SAP HANA Data Provisioning* *SAP HANA Smart Data Access*.

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

Install and Set Up Apache Hive ODBC Driver

> **i** Note
>
> Integration between SAP HANA and Apache Hadoop requires **either** an Apache Hive ODBC driver **or** an SAP HANA Spark controller.
>
> Implement this procedure only if you wish to integrate SAP HANA with Apache Hadoop via the Apache Hive ODBC driver.

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

Install and Set Up the SAP HANA Spark Controller

> **i** Note
>
> Integration between SAP HANA and Apache Hadoop requires **either** an Apache Hive ODBC driver **or** a SAP HANA Spark controller.
>
> Implement this procedure only if you wish to integrate SAP HANA with Apache Hadoop via the SAP HANA Spark controller.

1. Read SAP Note 2290350 to confirm the right combination of versions required between SAP HANA, Apache Spark, and the SAP HANA Spark controller.
2. Install and set up the SAP HANA Spark controller as described in SAP Note 2273047.

For more information on installing and setting up the SAP HANA Spark controller, see SAP Help Portal at http://help.sap.com/hana_platform *System Administration* > *SAP HANA Administration Guide* > *SAP HANA Data Provisioning* > *SAP HANA Hadoop Integration* > *SAP HANA Spark Controller*.

Create and Partition Tables

Create the SAP schema, tables, and table partitions as described in SAP Note 2317597.

Create a NFS Mount on SAP NetWeaver

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

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

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

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

2. List the NFS shares exported on the server.
   Example
   `showmount -e <host>`
3. Set up a mount point for an NFS share.
   Example
   `sudo mkdir <folder>`

> **i Note**
>
> You must ensure that the folder paths share the same naming conventions, as follows:
>
> | | |
> |---|---|
> | Temporary data folder | `/tmp/tct_csv_out/temp` |
> | Data folder | `/tmp/tct_csv_out/data` |

4. Mount the cluster using NFS.
   Example
   `sudo mount -o hard, nolock <host> <folder>`

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

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

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

Example (Data Directory)

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

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

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

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

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

Logical path	/CAR/HDFS_DATA

Example (Temporary Directory)

On top of the Hadoop data files, you also need to provide a temporary directory in which the program will populate script files and also temporarily store data files to be compressed.

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

Logical path	/CAR/HDFS_TEMP
Name	HDFS Temp
Syntax group	UNIX
Physical path	/tmp/tct_csv_out/temp/<FILENAME>

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

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

4.1.2.4.3 Create the Remote Source in SAP HANA Studio

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

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

For more information, see SAP Help Portal at http://help.sap.com/hana_platform ▶ *System Administration* ▶ *SAP HANA Administration Guide* ▶ *SAP HANA Data Provisioning* ▶ *SAP HANA Smart Data Access* ▶ *Creating and Configuring Remote Data Sources* ▶ *Create Remote Data Sources*.

4.1.2.4.4 Create the Virtual Table

Create virtual tables to access the data stored in remote tables.

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

For more information, see SAP Help Portal at http://help.sap.com/hana_platform ▶ *System Administration* ▶ *SAP HANA Administration Guide* ▶ *SAP HANA Data Provisioning* ▶ *SAP HANA Smart Data Access* ▶ *Creating Virtual Tables*.

4.1.2.4.5 Set the Deploy Mode in SAP HANA Transport for ABAP

1. In your back-end system, start the *SAP HANA Transport for ABAP* (`SCTS_HTA`) transaction.
2. Enter `sap.is.retail.car.nls` in the *SAP HANA Repository Package* field and choose *Execute*.
3. Choose F6 to select all synchronizable packages and objects.
4. Choose ▶ *Utilities* ▶ *Deploy Mode*.
5. Choose *Mode P*.
   .

For more information, see SAP Help Portal at http://help.sap.com/nw74 ▶ *Application Help* ▶ *Function-Oriented View* ▶ *Solution Lifecycle Management* ▶ *Software Logistics* ▶ *Transport Scenarios for SAP HANA Content* ▶ *SAP HANA Transport for ABAP* ▶ *Deploy Mode in SAP HANA Transport for ABAP*.

4.1.3 Follow-Up Activities

4.1.3.1 Create SAP ERP Tables

In this section you must create the new SAP ERP tables that are required for SAP Customer Activity Repository 2.0. Create these tables using the instructions provided in SAP Note 2263205.

> **i Note**
>
> You must create the tables before proceeding with the upgrade. Failure to do so will result in SAP HANA content activation and deployment failures.

4.1.3.2 Verify Correct Schema Mapping

The applications delivered with SAP Customer Activity Repository retail applications bundle require different authoring schemas for their respective SAP HANA content. In this procedure, you verify that all authoring schemas are mapped to the correct physical schemas of your customer system.

Background

Schema mapping is required for several reasons:

- It is necessary for the SAP HANA content objects (for example, the views) to work correctly.
- It allows you to move SAP HANA content from one system to another system, such as:
  - from the SAP delivery system to your test system
  - from your test system to your production system

You must map the *authoring schema* of the SAP HANA content objects to the *physical schema* of the relevant tables:

- The *authoring schema* (logical schema) is the database schema in the source system with which the SAP HANA content objects were created. It is referred to in the object properties.
- In the target system, the tables are typically stored in a different *physical schema*.

Authoring Schemas

You have two sets of authoring schemas:

Authoring Schemas for SAP Customer Activity Repository Retail Applications Bundle

SAP_CAR
SAP_DDF
SAPOSA
SAP_RAP

Authoring Schemas for the Source Master Data Systems

SAP_CRM	SAP Customer Relationship Management
SAP_CUAN	SAP Hybris Marketing
SAP_ECC	SAP ERP
SAP_S4H	SAP S/4HANA Retail

Procedure

> ⚠ Caution
>
> This procedure is required regardless of the business scenario you are planning to implement.

To verify the schema mappings or create new ones, follow these steps in SAP HANA studio:

1. Open the *Modeler* perspective and display the *Quick View* tab.
2. Choose *Schema Mapping*.
3. Select the system and choose *Next*.
4. Do the following for the two sets of schemas:
   - Map **all authoring schemas from Table 1** to **the same physical schema** in your customer system. If necessary, add new mappings.
   - Map **each authoring schema from Table 2** to **the physical schema for the respective source master data system** in your customer system. If necessary, add new mappings.
5. Choose *Finish*.

4.1.3.3 Activate SAP HANA Content

Use

In this procedure, you activate all SAP HANA content required by SAP Customer Activity Repository.

For more information about activating SAP HANA content, see SAP Help Portal at http://help.sap.com/hana_platform ▶ *<your SAP HANA Platform SPS>* ▶ *Development and Modeling* ▶ *SAP HANA Developer Guide (For SAP HANA Studio)* ▶ *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.
- You must also set up the roles and privileges for the Unified Demand Foreast module as described in the *Authorization Requirements for the UDF AFL* section of the *SAP Customer Activity Repository Security Guide*, available at http://help.sap.com/car ▶ *<your release>* ▶ *Security Information*.
  You must do this regardless of whether you want to use UDF forecasting in your scenario or not. This procedure not only enables UDF, but it is required so that the SAP HANA content for SAP Customer Activity Repository can be activated correctly.

Procedure

To activate the SAP HANA content, carefully follow the instructions provided in SAP Note 2330386.

> ⚠ Caution
>
> If you are applying a support package or correction on an existing installation and this support package or correction involves SAP HANA content for the DDF module or the UDF module in SAP Customer Activity Repository, then you must manually activate this content again. For example, this is the case when you apply an SAP Note using transaction **SNOTE**.
>
> Follow the instructions in SAP Note 2145356.

More Information

If you encounter issues during the activation, see the Troubleshooting [page 75] section for possible solutions.

4.1.3.4 Replicate SAP ERP Tables

Use

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* in the *Common Installation Guide*.

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* section in the *Common Installation Guide*.

- http://help.sap.com/hana ▶ *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Configuration Information and Replication Concepts* > *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 2263205, replicating only the tables listed in the attached files.
   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:
   - http://help.sap.com/hba ▶ *Installation, Security, Configuration, and Operations Information* > *Administrator's Guide* > *Configuration Steps* > *Replicate Data (Side-by-Side Only)*
   - http://help.sap.com/hana ▶ *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Configuration Information and Replication Concepts* > *(* `<Managing the Replication Process Using the SAP HANA Studio>` *and* `<Important Transactions and Control Tables>` *)*

> ⚠ 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.

4.1.3.5 Replicate Optional Tables

4.1.3.5.1 Replicate SAP CRM Tables (Optional)

Use

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. Ensure that the SAP LT Replication Server is installed and that a user with the appropriate authorizations is set up in the target SAP HANA database.
   If you have already ensured proper installation of the SAP LT Replication Server during previous procedures, skip to the next step. Otherwise, refer to one of the following for more information:
   - http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *Installation Information*
   - http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Technical Prerequisites and Authorization Aspects*
2. Set up a user in the source SAP CRM system and grant relevant authorizations to this user.
   For more information, see http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Configuration Information and Replication Concepts* > *System Connections and Authorizations*.
3. Specify a configuration in SAP LT Replication Server, which contains the definition of the connections between:
   - The source SAP CRM system and the SAP LT Replication Server
   - The SAP LT Replication Server and the target SAP HANA database

   For more information, see http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Accessing the Configuration and Monitoring Dashboard*.
   The name that you assign to your configuration will be also be used as the name of the database catalog schema that is automatically created on the target SAP HANA database. This is the schema to which you will replicate the tables from the source SAP CRM system.
   Once you save the configuration, a schema GUID and a mass transfer ID are automatically created and assigned to the configuration. Furthermore, several dictionary tables are automatically replicated from your source system to your target SAP HANA database.

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

4. Define client transformation rules for all the SAP CRM tables that you plan to replicate.
   In most cases, you need to apply transformation rules to map the client of the source SAP CRM system to the client on the target SAP Customer Activity Repository system.

   > ⚠ Caution
   >
   > Transformation rules must be defined **prior** to replicating tables.

   For more information, refer to one of the following:
   - *Set Up SAP Client* section in the *Common Installation Guide*.
   - http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Important Transactions and Control Tables* > *Data Transformation Capabilities within SAP Landscape Transformation Replication Server*
   - SAP Note 1733714
5. Read SAP Note 2263205 and replicate the tables listed in the attached file.
   For more information, see http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information*.
6. Map the authoring schema `SAP_CRM` to your particular physical database schema which contains the SAP CRM tables. If the physical database schema is already named `SAP_CRM`,this schema mapping is not required.

Authoring Schema	Physical Schema
`SAP_CRM`	`<Name of Your Schema for Storing SAP_CRM Data>`

For more information, see http://help.sap.com/hana_platform *Development and Modeling* > *SAP HANA Modeling Guide* > *Importing Table Definitions and Data* > *Map Authoring Schema to the Physical Schema*.

> ℹ Note
>
> Every time you make changes to the schema mapping, the SAP HANA content must be redeployed.
>
> You can do this using one of two methods:
> - Execute the `/CAR/ACTIVATE_HANA_CONTENT` report as described in SAP Note 2330386.
> - Manually redeploy only those SAP HANA objects which are impacted by your schema mapping change.

4.1.3.5.2 Replicate SAP Hybris Marketing Tables (Optional)

Use

In this optional procedure, you set up the replication of tables from your SAP Hybris Marketing source system. You only need to perform this procedure if you have a SAP Hybris Marketing system in your SAP Customer Activity Repository landscape and you are planning to use the standard SAP implementation of customer identification delivered with the SAP Customer Activity Repository.

Procedure

1. If you plan to implement SAP Hybris Marketing co-deployed with SAP Customer Activity Repository, the SAP Hybris Marketing tables will not be replicated because they already exist in the same SAP HANA database and the same database schema.

   > **i Note**
   >
   > Client transformation is not possible without table replication, therefore a co-deployed scenario is only possible if the client numbers in the two back-end systems are identical.
   >
   > For more information, see *Set Up SAP Client* section in the *Common Installation Guide*.

2. If you plan to implement SAP Hybris Marketing side-by-side with SAP Customer Activity Repository, do the following:
   1. Define client transformation rules for all the SAP Hybris Marketing tables that you plan to replicate. In most cases, you need to apply transformation rules to map the client of the source SAP Hybris Marketing system to the client on the target SAP Customer Activity Repository system.

      > **⚠ Caution**
      >
      > Transformation rules must be defined **prior** to replicating tables.

      For more information, refer to one of the following:
      - *Set Up SAP Client* section in the *Common Installation Guide*.
      - http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Important Transactions and Control Tables* > *Data Transformation Capabilities within SAP Landscape Transformation Replication Server*
      - SAP Note 1733714
   2. Read SAP Note 2263205 and replicate the tables listed in the attached file.
      For more information, see http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information*.
3. Regardless of whether you implement SAP Hybris Marketing co-deployed or side-by-side with SAP Customer Activity Repository, map the authoring schema `SAP_CUAN` to your particular physical database

schema that contains the SAP CRM tables. If the physical database schema is already named `SAP_CUAN`, this schema mapping is not required.

Authoring Schema	Physical Schema
`SAP_CUAN`	`<Name of Your Schema for Storing SAP Hybris Marketing Data>`

For more information, see http://help.sap.com/hana_platform *Development and Modeling* > *SAP HANA Modeling Guide* > *Importing Table Definitions and Data* > *Map Authoring Schema to the Physical Schema*.

> **i Note**
>
> Every time you make changes to the schema mapping, the SAP HANA content must be redeployed.
>
> You can do this using one of two methods:
>
> - Execute the `/CAR/ACTIVATE_HANA_CONTENT` report as described in SAP Note 2330386.
> - Manually redeploy only those SAP HANA objects that are impacted by your schema mapping change.

Side-by-Side Scenario (SLT)

1. Define client transformation rules for all the SAP Hybris Marketing tables that you plan to replicate. In most cases, you need to apply transformation rules to map the client of the source SAP Hybris Marketing system to the client on the target SAP Customer Activity Repository system.

   > **⚠ Caution**
   >
   > Transformation rules must be defined **prior** to replicating tables.

   For more information, refer to one of the following:
   - *Set Up SAP Client* section in the *Common Installation Guide*.
   - http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information* > *Important Transactions and Control Tables* > *Data Transformation Capabilities within SAP Landscape Transformation Replication Server*
   - SAP Note 1733714
2. Read SAP Note 1897025 and replicate the tables listed in the `.txt` file attached to this SAP Note.
   For more information, see http://help.sap.com/hana *SAP HANA* > *SAP HANA Options* > *SAP HANA Real-Time Replication* > *SAP HANA Trigger-Based Data Replication Using SAP LT Replication Server* > *System Administration and Maintenance Information*.

4.1.3.6 Configure SAP Smart Business for Multichannel Sales Analytics (Optional)

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

Use

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 40].

Procedure

1. Log on to the ABAP instance of the SAP Customer Activity Repository system.
2. Execute transaction **SE38**.
3. Specify `SNHI_NHDU_POST_PROCESS` in the *Program* field and choose *Execute*.
4. If you are running SAP NetWeaver 7.4 SPS 05 or higher, make the following entries:

Parameter	Instruction
Transport Container Name	`/CAR/HCO_RTLCAR_MCSA`
Activate Delivery Unit Content	Select the checkbox.
Activate HTC	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.

4.1.3.6.2 Configure SAP NetWeaver Gateway

4.1.3.6.2.1 Perform General SAP Gateway Configuration

Use

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 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 http://help.sap.com/nwgateway20 ▶ *Application Help* ▶ *SAP NetWeaver Gateway Configuration Guide* ▶ *Basic Configuration Settings* ▶.
   - SAP Gateway for SAP NetWeaver 7.40
     See http://help.sap.com/nw74 ▶ *Application Help* ▶ *Function-Oriented View* ▶ *SAP NetWeaver Gateway Foundation (SAP_GWFND)* ▶ *SAP NetWeaver Gateway Foundation Configuration Guide* ▶ *General Configuration Settings* ▶.

4.1.3.6.2.2 Connect SAP Gateway to Your Back-End System

Use

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 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 http://help.sap.com/nw74 ▶ *Application Help* ▶ *Function-Oriented View* ▶ *SAP NetWeaver Gateway Foundation (SAP_GWFND)* ▶ *SAP NetWeaver Gateway Foundation Configuration Guide* ▶ *SAP Gateway Configuration* ▶ *User, Developer and Administrator Roles* ▶.

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.
     - Configuring the necessary system aliases.

More Information

For SAP NetWeaver 7.31, see SAP Library for SAP NetWeaver Gateway on SAP Help Portal at http://help.sap.com/nwgateway20 ▶ *Application Help* ▶ *Support Package Stack* ▶ *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 http://help.sap.com/nw74 ▶ *Application Help* ▶ *Function-Oriented View* ▶ *SAP NetWeaver Gateway Foundation (SAP_GWFND)* ▶ *SAP NetWeaver Gateway Foundation Configuration Guide* ▶ *SAP Gateway Configuration* ▶ *Connection Settings for the SAP Gateway Hub System* ▶.

4.1.3.6.2.3 Activate SAP Gateway

Use

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 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:
   - SAP Gateway for SAP NetWeaver 7.31
     See http://help.sap.com/nwgateway20 ▶ *Application Help* ▶ *SAP NetWeaver Gateway Configuration Guide* ▶ *OData Channel Configuration* ▶ *Activating SAP NetWeaver Gateway* ▶.
   - SAP Gateway for SAP NetWeaver 7.4
     See http://help.sap.com/nw74 ▶ *Application Help* ▶ *Function-Oriented View* ▶ *SAP NetWeaver Gateway Foundation (SAP_GWFND)* ▶ *SAP Gateway Foundation Configuration Guide* ▶ *SAP Gateway Configuration* ▶ *Activating SAP Gateway* ▶.

4.1.3.6.2.4 Activate Common OData Services

Use

A number of OData services are required to run the SAP Fiori launchpad. These OData services are delivered as part of the SAP Fiori front-end server. For more information, see the *Prerequisites* section in this guide.

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 48] 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*.

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 http://help.sap.com/nw-uiaddon20 ▶ *Application Help* ▶ *SAP Fiori Launchpad* ▶ *Setting Up the Launchpad* ▶ *Activating SAP Gateway OData Services*.
- For SAP NetWeaver 7.4, see the documentation on SAP Help Portal at http://help.sap.com/nw74 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 740* ▶ *SAP Fiori Launchpad* ▶ *Setting Up the Launchpad* ▶ *Activating SAP Gateway OData Services*.

4.1.3.6.3 Configure the SAP Web Dispatcher

To configure the SAP Web Dispatcher, see SAP Help Portal at http://help.sap.com/nw_platform ▶ *<your release>* ▶ *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.

4.1.3.6.4 Configure Central SAP Fiori UI Component

Use

The central SAP Fiori UI component (delivered as part of the SAP Fiori front-end server) contains the SAPUI5 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 guide and are described in the SAP NetWeaver product documentation referenced below.

For more information, see the *Prerequisites* section in this guide.

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
     - http://help.sap.com/nw-uiaddon20 ▶ *Application Help* ▶ *SAP Fiori Launchpad* ▶, and
     - http://help.sap.com/nw-uiaddon20 ▶ *System Administration and Maintenance Information* ▶ *Administrator's Guide* ▶ *Configuration and Operations* ▶ *Content Administration* ▶ *SAP Fiori Launch Page* ▶ *Setting Up the SAP Fiori Launch Page* ▶
   - SAP Gateway for SAP NetWeaver 7.40
     - http://help.sap.com/nw74 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 740* ▶ *SAP Fiori Launchpad* ▶, and
     - http://help.sap.com/nw74 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 740* ▶ *SAP NetWeaver User Interface Services* ▶ *Configuration and Operations* ▶ *Content Administration* ▶ *SAP Fiori Launchpage* ▶ *Setting Up the SAP Fiori Launch Page* ▶
   - SAP Gateway for SAP NetWeaver 7.50
     - http://help.sap.com/nw75 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 750* ▶ *SAP Fiori Launchpad* ▶, and
     - http://help.sap.com/nw75 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 750* ▶ *SAP NetWeaver User Interface Services* ▶ *Configuration and Operations* ▶ *Content Administration* ▶ *SAP Fiori Launch Page* ▶ *Setting Up the SAP Fiori Launch Page* ▶

4.1.3.6.5 Configure SAP Jam (Optional)

Use

Your retail application uses collaboration SAP UI5 components to define key ABAP-based SAP business object data that can be consumed by the SAP Jam social collaboration platform.

If you are using SAP Jam, 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 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 Collaboration, enterprise edition*, and your SAP Jam instance must be configured for productive use.

Procedure

1. Read the documentation for the user interface add-on available on SAP Help Portal at http://help.sap.com/netweaver *User interface add-on 1.0 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 the following sections:
   - *About SAP Jam Integration*

   Sections under *Information for Administrators*:
   - *Understanding the Overall Process for Integrating Collaboration for a Business Object*
   - *Implementation of ABAP Social Media Integration (ABAP SMI)*
   - *Implementation of Collaboration Components*
   - *Connecting to SAP Jam with ABAP SMI*
   - *Configuring ABAP SMI for SAP Fiori Apps*

More Information

- For the latest updates on SAP Jam, see SAP Help Portal at http://help.sap.com/sapjam.
- For configuration and maintenance information for SAP Jam, see http://help.sap.com/sapjam *SAP Jam Collaboration System Administration Information* > *Administrator Guide* .

4.1.3.7 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.
>
> Note that configuration of the On-Shelf Availability module is mandatory if you want to generate intraday forecasts. For more information about this feature, see http://help.sap.com/car *<your release>* > *Application Help* > *SAP Customer Activity Repository* > *Unified Demand Forecast* > *General Services* > *Generate Intraday Forecasts* .

On-Shelf Availability (OSA) has its own database schema on the SAP HANA Platform (SAPOSA). To use the OSA functionality in SAP Customer Activity Repository, perform the following post-installation steps.

4.1.3.7.1 Generate Run IDs for OSA Processing Steps

Use

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:

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

Do the following steps for each transaction:

1. Execute the transaction by specifying either **`/n<transaction>`** or **`/o<transaction>`**.
   Example for the first transaction: **`/n/OSA/NR_IWP`**
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
3. Save your changes.

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

Use

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

- `AN_TRANSACTION`
- `PROMOTION_TRANS`

You 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 http://help.sap.com/hana_appliance *Development and Modeling*.

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.

4.1.3.7.3 Activate SAP HANA Content for On-Shelf Availability

Use

In this procedure, you activate all SAP HANA content required by the On-Shelf Availability (OSA) module in SAP Customer Activity Repository.

Prerequisites

You have verified that the authoring schemas are mapped to the correct physical schema. Note that On-Shelf Availability has its own authoring schema (`SAPOSA`). For more information, see Verify Correct Schema Mapping [page 39].

Procedure

1. Log on to your back-end system.
2. Execute transaction **SE38**.
3. Specify `SNHI_NHDU_POST_PROCESS` in the *Program* field and choose *Execute*.
4. If you are running SAP NetWeaver 7.4 SPS 05 or higher, make the following entries:

Parameter	Instruction
Transport Container Name	`/OSA/HCO_POSDMEXT`
Activate Delivery Unit Content	Select the check-box.
Activate HTC	Do not select the check-box.

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 unity was successful.

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

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_IWP_SUBDEP`
      - `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.estimation.config`:
      - `GET_CONFIG`
   7. Procedures in the package `sap.is.retail.posdmext.osa.estimation.dao`:
      - `PERSIST`
      - `GET_PARAMETER`
      - `GET_PARAMETERS`

8. Procedures in the package `sap.is.retail.posdmext.osa.estimation.runner.internal`:
    - `CALL_FUNCTION`
    - `CALL_ALGO_PRODUCT_IN_SUBDEP`
9. Procedure in the package `sap.is.retail.posdmext.osa.estimation.runner.public`:
    - `RUN_FOR_PRODUCT_IN_SUBDEP`
10. 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`
11. Procedures in the package `sap.is.retail.posdmext.osa.monitor.runner.internal`:
    - `CALL_FUNCTION`
    - `CALL_ALGO_PRODUCT_IN_SUBDEP`
    - `RUN_FOR_PRODUCT_IN_SUBDEP`
12. Procedures in the package `sap.is.retail.posdmext.osa.monitor.runner.public`:
    - `GET_QUALIFIED_PRODUCT_FOR_RUNNER`
    - `RUN_MONITOR`
13. Procedure in the package `sap.is.retail.posdmext.osa.analysis.calc`:
    - `COMPUTE_LOST_SALES`
14. Procedure in the package `sap.is.retail.posdmext.osa.analysis.dao`:
    - `PERSIST`
15. Procedures in the package `sap.is.retail.posdmext.osa.analysis.runner.internal`:
    - `CALL_FUNCTION`
    - `CALL_ALGO_PRODUCT_IN_SUBDEP`
16. Procedure in the package `sap.is.retail.posdmext.osa.analysis.runner.public`:
    - `RUN_FOR_PRODUCT_IN_SUBDEP`

4.1.3.7.5 Configure SAP NetWeaver Gateway and Activate OData Service

Use

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 http://help.sap.com/nwgateway *Application Help* > *Support Package* > *SAP NetWeaver Gateway Developer Guide* > *OData Channel*.

4.1.3.8 Configure Demand Data Foundation (Optional)

⚠ Caution

Required Configuration

The implementation and configuration of the DDF module in SAP Customer Activity Repository is mandatory for the following scenarios:

- You want to model and forecast demand using the UDF module in SAP Customer Activity Repository. For more information, see Configure Unified Demand Forecast (Optional) [page 64].
- You want to use the Omnichannel Promotion Pricing module in SAP Customer Activity Repository. For more information, see Configure Omnichannel Promotion Pricing for Use with SAP Customer Activity Repository [page 74].
- You want to use SAP Allocation Management for Retail.
- You want to use SAP Assortment Planning for Retail.
- You want to use SAP Merchandise Planning for Retail.
- You want to use SAP Promotion Management for Retail.

In addition to the configuration steps described in the following sections, see the *Common Master Guide* for additional configurations and integration information. You can find this guide on SAP Help Portal at http://help.sap.com/car *<your release>* > *Installation and Upgrade Information* > *Master Guide*.

ℹ 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 following scenarios:
  - Modeling and forecasting with UDF

- SAP Allocation Management for Retail
- SAP Assortment Planning for Retail
- SAP Merchandise Planning for Retail
- SAP Promotion Management for Retail

- Integration with non-SAP ECC systems and multiple SAP ECC systems is possible for certain scenarios.

For more information, see SAP Help Portal for SAP Customer Activity Repository at http://help.sap.com/car <your release> > *Application Help* > *Demand Data Foundation* > *Integration Information* > *Master Data Replication from SAP ERP to Demand Data Foundation* >.

4.1.3.8.1 Activate Business Functions for DDF and UDF

In this procedure, you activate the business functions for DDF and UDF that are relevant for your scenario.

Use

> **i Note**
>
> As of SAP Customer Activity Repository 2.0 FP3, most of the existing business functions have been set to obsolete. You no longer need to activate them to be able to use the Demand Data Foundation (DDF) and Unified Demand Forecast (UDF) modules in SAP Customer Activity Repository. There is now only 1 recommended business function for DDF, and 2 required business functions for UDF. Nothing will happen if you activate any of the obsolete business functions by accident. The new, simpler activation procedure is described in the following.

You must implement DDF in the following scenarios:

- You want to model and forecast demand using UDF.
- You want to use applications residing in the ABAP back-end server that use data acquired and maintained in DDF.

Procedure

1. Check which business functions are relevant for your scenario:
   - For DDF (optional): We recommend that you activate the optional business function *Decompression of Lane Price and Time Dependent Data* (`/DMF/DDF_IMDB_LANE_TD`) to benefit from optimized memory usage.
   - For UDF (required): If you want to model and forecast demand with UDF, you must activate the following business functions:
     - *Activation of Forecast Engine* (`/DMF/FORECAST`)
     - *Activation of Unified Demand Forecast* (`/DMF/DDF_UDF`)

2. Read the following documentation for each business function that you want to activate:
   - Business function description under https://help.sap.com/viewer/p/CARAB > *<Version>* > *Application Help* > *SAP Customer Activity Repository* > *Demand Data Foundation* > *Business Functions*
   - Execute transaction **SFW5**, select the business function, and follow the instructions under *Release Information*.
3. Execute transaction **SFW5** and activate the business functions that are relevant for your scenario.

> → Recommendation
>
> - Business functions should be activated by a system administrator.
> - Once a business function is active, we recommend that you do not deactivate it.

> i Note
>
> For more information on business functions, see SAP Note 337623 *Customizing after installation or upgrade* .

4.1.3.8.2 Configure Automatic Flattening of Hierarchies

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

Context

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

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

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

Procedure

1. Carefully read SAP Note 1425876 and follow the instructions.
2. Execute transaction **SWETYPV** and ensure that you have activated all required event type linkages and have enabled the specified event queues. In particular, check that the *Linkage Activated* and *Enable Event Queue* options are for each of the following events: `LOCATION_CREATED`, `LOCATION_UPDATED`,

`CREATE_LOC_HIER`, `CREATE_PROD_HIER`. If you need to change a setting, you can do so in the *Details* screen of each event.

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

Results

You have set up the automatic flattening of the hierarchies. Whenever you now create (or update) a hierarchy, the system will automatically run the `/DMF/TREE_FLATTENER_PROD_INS` report (for product hierarchies) or the `/DMF/TREE_FLATTENER_LOC_INS` report (for location hierarchies) and create (or update) the corresponding flat structure.

4.1.3.8.3 Import SAP NetWeaver Portal Roles for DDF

Use

To set up user authorizations for Demand Data Foundation (DDF), you can use the `PFCG` roles from the SAP NetWeaver Business Client (NWBC) and from the SAP NetWeaver Portal. Both sets of roles operate in the same manner. Using the SAP NetWeaver Portal is optional.

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

Procedure

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

More Information

For descriptions of these roles and more information about maintaining roles in SAP Customer Activity Repository, see http://help.sap.com/car <*your release*> > *Security Information* > *Security Guide* > *Authorizations* .

4.1.3.8.4 Enable Time-Dependent Article Hierarchies

Use

You can create SAP ERP article hierarchies with different statuses (*Active*, *Disabled*, *Planned*). Time-dependent article hierarchies have status *Planned*. They only become active during a defined validity period in the future.

If you want to use time-dependent article hierarchies, you must first create them as such in your SAP ERP system. Then in order for the Demand Data Foundation (DDF) module in your SAP Customer Activity Repository system to recognize a time-dependent hierarchy, you must enable it as described in the following.

Procedure

To enable time-dependent article hierarchies, follow these steps:

1. Make sure that you have implemented the following SAP Notes:
   - 2244521
   - 2245133
   - 2245134
2. In Customizing, activate the time-dependent article hierarchy under *Cross-Application Components* > *Demand Data Foundation* > *Data Maintenance* > *Product Hierarchy* > *Control Parameters for Product Hierarchies*. For more information, see the Customizing activity documentation (transaction SPRO).

More Information

For more information about replicating data to DDF, see the following:

- https://help.sap.com/viewer/p/SAP_CUSTOMER_ACTIVITY_REPOSITORY_RETAIL_APPLICATIONS_BUNDLE *<Version>* > *Application Help* > *SAP Customer Activity Repository* > *Demand Data Foundation* > *Integration Information* > *Master Data Replication from SAP ERP to Demand Data Foundation*
- https://help.sap.com/viewer/p/SAP_CUSTOMER_ACTIVITY_REPOSITORY_RETAIL_APPLICATIONS_BUNDLE *<Version>* > *Installation and Upgrade* > *Common Master Guide* > *Business Overview* > *SAP Customer Activity Repository* > *Introduction to SAP Customer Activity Repository*

For more information about Customizing for article hierarchies in SAP ERP, see the Customizing activities under *Logistics - General* > *Article Hierarchy*.

4.1.3.8.5 Check Performance-Related Configuration Options

Use

Depending on your implementation scenario, you have additional configuration options for DDF that allow you to optimize performance.

Procedure

Check the following options and implement those that are relevant for your scenario:

Use Case	Configuration Option
You have an installation on a multiple-host SAP HANA system.	Consider table partitioning. For more information, see Partition Tables for UDF and DDF (Optional) [page 67].
You want to use the *Sales Projection* function in SAP Assortment Planning for Retail and have large data volumes to process.	The function relies heavily on the DDF module. You can optimize performance by implementing SAP Note 2080423.

More Information

If you encounter issues during the setup, see the Troubleshooting [page 75] section for possible solutions.

4.1.3.9 Configure Unified Demand Forecast (Optional)

> **i** Note
>
> The steps in this section and all subsections are **optional** and depend on your specific implementation scenario.

To use the functionality of the Unified Demand Forecast (UDF) module in SAP Customer Activity Repository, perform the following post-installation steps.

4.1.3.9.1 Complete UDF Setup

In this procedure, you complete the setup of the Unified Demand Forecast (UDF) module to enable demand modeling and forecasting in SAP Customer Activity Repository.

Prerequisites

- You have installed the UDF AFL as described in *Download and Install the Application Function Libraries (AFLs)* in this guide.
- You have configured DDF as described in Configure Demand Data Foundation (Optional) [page 59].
- You have consulted the *Common Master Guide* for additional integration and configuration information for DDF and UDF. You can find this guide on SAP Help Portal at https://help.sap.com/viewer/p/CARAB ▶ *<Version: 1.0 SPSx>* ▶ *Installation and Upgrade* ▶ *Common Master Guide* ▶.
  In particular, you are aware that different business processes related to DDF and UDF are available for different business scenarios:

Business Scenario	Business Process	Uses DDF	Uses UDF
SAP Customer Activity Repository	*Enabling Demand Data Foundation and Creating Demand Forecast*	x	x
SAP Assortment Planning for Retail	*Enabling Demand Data Foundation and Creating Demand Forecast*	x	
SAP Merchandise Planning for Retail	*Enabling Demand Data Foundation*	x	
SAP Promotion Management for Retail	*Enabling Demand Data Foundation and Creating Demand Forecast*	x	x (only for what-if forecasts)

For more information about each scenario, see the *Business Overview* section in the *Common Master Guide*.

Procedure

Perform Mandatory Configuration Steps

The following steps are mandatory if you want to model and forecast demand with UDF:

1. Set up the users, roles, and privileges for UDF as described in the *Authorization Requirements for the UDF AFL* section of the *SAP Customer Activity Repository Security Guide*. You can find this guide under https://help.sap.com/viewer/p/CARAB ▶ *<Version: 1.0 SPSx>* ▶ *Security* ▶.
2. Activate all SAP HANA content for SAP Customer Activity Repository as described in Activate SAP HANA Content [page 40].

3. Analyze and implement the following SAP Notes:
   - 1911141: Setting UDF-specific performance optimization parameters in the SAP HANA database
   - 1898341: Configuration changes for demand modeling and forecasting to prevent decomposition errors

Perform Optional Configuration Steps

You have the following additional options:

1. Implement the following optional SAP Notes if they are relevant for your scenario:
   - 2176058: Performance-related note that you must implement if you want to forecast complex offers (such as *Buy X Get Y*) in production mode
   - 2161484: Information about an ABAP report that you can use to validate the input data for demand modeling and forecasting and identify potential issues.
2. Set up table partitioning for your scenario.
   For more information, see Partition Tables for UDF and DDF (Optional) [page 67].
3. Set up the generation of intraday forecasts.
   If you want to generate intraday forecasts, you must configure both the UDF module and the OSA module in SAP Customer Activity Repository:
   1. See the *Implementation Considerations* section under https://help.sap.com/viewer/p/CARAB ▶ *<Version: 1.0 SPSx>* ▶ *Application Help* ▶ *SAP Customer Activity Repository* ▶ *Unified Demand Forecast* ▶ *General Services* ▶ *Generate Intraday Forecasts* ▶.
   2. Configure UDF as described in this guide. At a minimum, you must perform the mandatory configuration steps listed above.
   3. Configure OSA as described in Configure On-Shelf Availability (Optional) [page 53].
   4. In transaction SPRO, perform the Customizing as required for your scenario:
      - For UDF, see the activities and their documentation under ▶ *Cross-Application Components* ▶ *Demand Data Foundation* ▶ *Modeling and Forecasting* ▶.
      - For OSA, see the activities and their documentation under ▶ *SAP Customer Activity Repository* ▶ *On-Shelf Availability* ▶.
4. Set up forecast visualization with the *Analyze Forecast* SAP Fiori app:
   This analytical app is provided as part of the `SAP FIORI FOR SAP CARAB` front-end product version, which you have already installed. To set up forecast visualization with this app, proceed as described in Configure the Analyze Forecast App [page 68].
   For more information about the app, see https://help.sap.com/viewer/p/CARAB ▶ *<Version: 1.0 SPSx>* ▶ *Application Help* ▶ *SAP Customer Activity Repository* ▶ *Additional Content* ▶ *Standalone SAP Fiori Apps for SAP Customer Activity Repository* ▶ *Analyze Forecast* ▶, including all subsections.

More Information

If you encounter issues during the setup, see the Troubleshooting [page 75] section for possible solutions.

4.1.3.10 Partition Tables for UDF and DDF (Optional)

Use

> **i Note**
>
> This section is only relevant for installations on multiple-host SAP HANA systems.
>
> If you have an installation on a single-host SAP HANA system, you can skip this section.

To forecast consumer demand, you use the Unified Demand Forecast (UDF) and Demand Data Foundation (DDF) modules in SAP Customer Activity Repository. UDF provides the actual modeling and forecasting services. DDF provides the required data layer (for the import, export, and maintenance processes, for example).

If your forecasting scenario involves large numbers of products and locations, the relevant UDF and DDF tables can become very large. To improve standard database operations (such as inserting, updating, deleting, and reading) and mass operations (such as archiving or index merging), we therefore recommend that you set up partitioning for those tables.

As the Unified Demand Forecast application function library (UDF AFL) runs directly in the SAP HANA database, much of the partitioning guidance for SAP HANA systems also applies to forecasting scenarios with UDF and DDF. Your main reference, therefore, is the *SAP HANA Administration Guide*, which you can find under http://help.sap.com/hana_platform *System Administration*. Make sure to select the guide for your specific SAP HANA Platform SPS (if necessary, choose *Earlier releases* in the navigation tree on the left).

Prerequisites

- You have installed and configured UDF and DDF as described in this guide.
- You have the system privileges and object privileges required to perform table partitioning operations. For more information, see the *Authorization for Basic Administration Tasks in the SAP HANA Database* section of the *SAP HANA Administration Guide*.
- You are aware of the limitations for table partitioning. For more information, see the *Partitioning Limits* section of the *SAP HANA Administration Guide*.

Procedure

1. Read the *Table Partitioning* section of the *SAP HANA Administration Guide* to learn about partitioning of SAP HANA systems.
2. Read SAP Note 2190377 to learn which UDF and DDF tables are relevant for partitioning and what partitioning aspects to consider.
3. Partition the tables as described in the note.

→ Recommendation

To help you with the partitioning decisions, consult the sizing information for your system landscape. For example, check the number of records estimated for the large tables to decide which tables to partition and how many partitions you need.

For more information on system sizing and a sizing questionnaire for SAP Customer Activity Repository, see http://help.sap.com/car *<your release>* *Additional Information* *Sizing*.

4.1.3.11 Configure Standalone SAP Fiori Apps for SAP Customer Activity Repository (Optional)

i Note

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

4.1.3.11.1 Configure the Analyze Forecast App

You can use the *Analyze Forecast* SAP Fiori app in SAP Customer Activity Repository to visualize detailed demand modeling and forecasting information for performing in-depth analyses. In this procedure, you perform several front-end and back-end implementation tasks to configure the app.

Prerequisites

i Note

Depending on your implementation scenario, several of the following prerequisites might already be fulfilled in your system landscape.

General Prerequisites

- Front-end server: To determine which version of `SAP FIORI FRONT-END SERVER` you need for this release, see the *Prerequisites* section in the *Common Installation Guide* (for new installations) or the *Common Upgrade Guide* (for upgrade scenarios). You can find both guides under https://help.sap.com/viewer/p/CARAB *<Version>* *Installation and Upgrade*.
- SAP Fiori system landscape: You have set up the landscape as described under https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION *Version: SAP NW 7.40* *Installation and Upgrade* *Setup of SAP Fiori System Landscape* *Setup of SAP Fiori System Landscape with SAP HANA XS*.

For system landscape diagrams of supported scenarios, see https://help.sap.com/viewer/p/SAP_FIORI ▶ *SAP Fiori for SAP Business Suite: Implementation Information* ▶ *Setup of SAP Fiori System Landscape for SAP Business Suite with SAP HANA XS* ▶.

- SAP Fiori launchpad: You have set up the launchpad as described under https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ▶ *Version: SAP NW 7.40* ▶ *Configuration* ▶ *Configuration of SAP Fiori Infrastructure* ▶ *Setup of SAP Fiori Launchpad* ▶.
  The SAP Fiori launchpad is the access point to apps on desktop or mobile devices. Users can access an app via its corresponding tile on the launchpad. For more information, see https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ▶ *Version: SAP NW 7.40* ▶ *Additional Information* ▶ *SAP Fiori Launchpad* ▶.
- SAP Fiori launchpad designer: You have set up this administrator tool as described under https://help.sap.com/viewer/p/SAP_NETWEAVER ▶ *SAP NetWeaver Platform* ▶ *<Version>* ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver* ▶ *SAP Fiori Launchpad* ▶ *Setting up the Launchpad* ▶ and *Using the Launchpad Designer*. In the procedure below, you will later do app-specific configuration settings in the designer.
- SAP NetWeaver Gateway: You have installed and configured the gateway. In particular, make sure that you have done the following:
  - Performed the general SAP Gateway configuration and activated the central Internet Communication Framework (ICF) services (SAP Note 1560585 and Perform General SAP Gateway Configuration [page 48]).
  - Activated SAP Gateway on your front-end server (Activate SAP Gateway [page 49]).
  - Activated the common OData services so you can use the SAP Fiori launchpad (Activate Common OData Services [page 50]).

  You can **skip** the Connect SAP Gateway to Your Back-End System [page 48] step because *Analyze Forecast* uses SAP HANA extended application services (SAP HANA XS), classic model.
- SAP Web Dispatcher: You have configured the dispatcher and set up the routing rules for browser requests as described in section Configure the SAP Web Dispatcher [page 51] here in this guide, and in section *Configuring SAP Web Dispatcher* of the *Central Implementation Information* at http://help.sap.com/saphelp_hba/helpdata/en/5e/9d0c52bcc19b33e10000000a44538d/content.htm.
  For a configuration example, see https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ▶ *Version: SAP NW 7.40* ▶ *Additional Information* ▶ *SAP Fiori Launchpad* ▶ *SAP Fiori Launchpad* ▶ *Setting Up the Launchpad* ▶ *Configuring SAP Web Dispatcher* ▶.
- Central SAP Fiori UI component: This component contains the SAPUI5 control library and the SAP Fiori launchpad. You have configured it as described in Configure Central UI Component [page 51].
- SAP Jam (optional): You have integrated the SAP Jam collaborative environment as described in the following:
  - Configure SAP Jam (Optional) [page 52]
  - https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ▶ *Version: SAP NW 7.40* ▶ *Configuration* ▶ *Configuration of SAP Fiori Infrastructure* ▶ *Integrating SAP Jam (Optional)* ▶

Prerequisites Specific to SAP Customer Activity Repository Retail Applications Bundle

- DDF: You have configured the DDF module as described in Configure Demand Data Foundation (Optional) [page 59].
- UDF: You have configured the UDF module as described in Configure Unified Demand Forecast (Optional) [page 64].
- SAP HANA content: You have activated all SAP HANA content for SAP Customer Activity Repository, as described in Activate SAP HANA Content [page 40].

Note that with this step, you have also activated the SAP HANA content for *Analyze Forecast*. In SAP HANA studio, you can find this content under *Content* > *sap.hba.t.rtl.udf.afc*.

- ABAP front-end server: You have installed the front-end server as described in the *Install ABAP Front-End Server (Optional)* section of this guide.
  This installation must include the SAP Gateway, the central SAP Fiori UI component, and the product-specific SAP Fiori UI component.

Procedure

To configure *Analyze Forecast*, follow these steps:

1. Read the app-specific information on SAP Help Portal for SAP Customer Activity Repository at https://help.sap.com/viewer/p/CARAB *Version: 1.0 SPSx* > *Application Help* > *SAP Customer Activity Repository* > *Additional Content* > *Standalone SAP Fiori Apps for SAP Customer Activity Repository* > *Analyze Forecast*, including all subsections.
2. Configure user access to the SAP HANA data for the app.

   > **i Note**
   >
   > You can find the general SAP Fiori Help section for this step at https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION *Version: SAP NW 7.40* > *Implementation* > *App Implementation* > *App Implementation for Analytical Apps* > *Configuring Access to SAP HANA Data*.
   >
   > Use this section as your starting point. However, to configure *Analyze Forecast*, you will only need to perform some of the steps described there. Proceed as follows:

   1. Synchronize the SAP HANA database users. Each user requires both a user in the ABAP front-end server (to enable navigation in the SAP Fiori launchpad) and a database user in SAP HANA (to enable access to the relevant views).
      Follow the steps in *Configuring Access to SAP HANA Data* > *Synchronizing SAP HANA Database Users*.
   2. Assign the app-specific SAP HANA role `sap.hba.t.rtl.udf.afc.roles::AnalyzeForecast.hdbrole` to the users of the app. The role enables them to access the app-specific SAP HANA data to be able to analyze sales and forecast values.
      Follow the steps in *Configuring Access to SAP HANA Data* > *Assigning Roles for Accessing SAP HANA Data*.
   3. Create the analytic privileges to give the users read-only access to the SAP HANA views for the app. You can find these views in the `sap.hba.t.rtl.udf.afc.v` folder in SAP HANA studio. Without the correct analytic privileges, the users only see empty views.
      Follow the steps in *Configuring Access to SAP HANA Data* > *Creating Analytic Privileges*.
      For more information about analytic privileges, see https://help.sap.com/viewer/p/SAP_HANA_PLATFORM *<Version>* > *Development* > *SAP HANA Modeling Guide (SAP HANA Studio)* > *Defining Data Access Privileges* > *Create Classical XML-based Analytic Privileges*.
3. Customize the navigation target for the app in the SAP Fiori launchpad.

In *Launchpad Customizing* (transaction **LPD_CUST**), choose *UICAR001 TRANSACTIONAL* > *AnalyzeForecast* and make the following app-specific settings:

- *Link Text*: **AnalyzeForecast**
- *Application Type*: **URL**
- *URL*: **/sap/bc/ui5_ui5/sap/analyzfcst_v2**
- *Application Alias*: **AnalyzeForecast**
- *Additional Information*: **SAPUI5.Component=retail.udf.analyzeforecastv2**
- *Portal Parameters*: Leave the default settings.
- *Switch Support*: Leave the default settings.

For more information about navigation targets, see the following:

- For SAP NetWeaver 7.31: https://help.sap.com/viewer/p/UI_ADD-ON_FOR_SAP_NETWEAVER_20 > *<Version>* > *Application Help* > *SAP Library* > *SAP Fiori Launchpad* > *Configuring Navigation* > *Configuring Target Mappings* > *Customizing Navigation Targets in LPD_CUST*
- For SAP NetWeaver 7.4: https://help.sap.com/viewer/p/SAP_NETWEAVER_740 > *Application Help* > *UI Technologies in SAP NetWeaver with SAP_UI 740* > *SAP Fiori Launchpad* > *Configuring Navigation* > *Customizing Navigation Targets*

4. Configure the SAP Fiori launchpad designer for *Analyze Forecast*.
   1. Launch the SAP Fiori launchpad designer with one of the following URLs:
      - In `CUST` mode:
        https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrvc_upb_admn/main.html#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_ISR_CAR_TC_A
        Use this mode for client-specific configurations, specifying the respective client.
      - In `CONF` mode:
        https://<server>:<port>/sap/bc/ui5_ui5/sap/arsrvc_upb_admn/main.html ?sap-client=<client>&scope=<CONF/CUST>#/Catalog/X-SAP-UI2-CATALOGPAGE:SAP_ISR_CAR_TC_A
        Use this mode for global configurations across all clients. In this URL, you additionally specify the **scope** parameter.
   2. Configure the application tile.
      If the tile for *Analyze Forecast* has not yet been created, create it as a static tile using the following settings:
      - *Title*: **Analyze Forecast**
      - *Icon*: **sap-icon://Fiori5/F0812**
      - *Use semantic object navigation*: Select this option.
      - *Semantic Object*: **ForecastDemand**
      - *Action*: **showUDFAnalyzeForecast**
      - *Parameters*: **bk-client= <backend client>**
      - Leave the other options empty.

      For more information about configuring tiles, see https://help.sap.com/viewer/p/SAP_NETWEAVER_740 > *Application Help* > *UI Technologies in SAP NetWeaver* > *SAP Fiori Launchpad* > *Using the Launchpad Designer* > *Setting Up Catalogs, Tiles and Groups* > *Catalogs and Tiles* > *Configuring Tiles*.
   3. Configure the target mapping.

If the target mapping has not yet been created, create it using the following settings:

- *Semantic Object*: **`ForecastDemand`**
- *Action*: **`showUDFAnalyzeForecast`**
- *Application Type*: **`SAP Fiori App using LPD_CUST`**
- *Launchpad Role*: **`UICAR001`**
- *Launchpad Instance*: **`TRANSACTIONAL`**
- *Application Alias*: **`AnalyzeForecast`**
- *Device Types*: Select *Desktop* and *Tablet*.
- *Allow additional parameters*: Select this option.

For more information about configuring target mappings, see https://help.sap.com/viewer/p/SAP_NETWEAVER_740 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver* ▶ *SAP Fiori Launchpad* ▶ *Configuring Navigation* ▶ *Configuring Target Mappings* ▶.

5. Perform the required implementation tasks on the front-end server.

> **i Note**
>
> You can find the general SAP Fiori Help section for this step at https://help.sap.com/viewer/p/FIORI_IMPLEMENTATION ▶ *Version: SAP NW 7.40* ▶ *Implementation* ▶ *App Implementation* ▶ *App Implementation for Analytical Apps* ▶ *Implementation Tasks on Front-End Server* ▶.
>
> Use this section as your starting point. However, to configure *Analyze Forecast*, you only need to perform some of the steps described there. Proceed as follows:

1. Check that the app-specific ICF service (`/sap/bc/ui5_ui5/sap/analyzfcst_v2`) is active. If it is not, activate it.

   Follow the steps in ▶ *Implementation Tasks on Front-End Server* ▶ *Front-End Server: Activate ICF Services of SAPUI5 Application* ▶.
2. Add the start authorizations for the app-specific OData service (`sap.hba.t.rtl.udf.afc.odata::AnalyzeForecast.xsodata`) to the role on the front-end. The users need the start authorizations for the activated OData service to be able to launch the app.

   Follow the steps in ▶ *Implementation Tasks on Front-End Server* ▶ *Add Start Authorizations for OData Services to Role on Front-End* ▶.
3. Create the `SAP_CAR_TCR_A` PFCG role on the front-end and assign the required launchpad catalogs and groups. `SAP_CAR_TCR_A` is the back-end server authorization role delivered for analytical apps in SAP Customer Activity Repository.

   Follow the steps in ▶ *Implementation Tasks on Front-End Server* ▶ *Create PFCG Role on Front-End and Assign Launchpad Catalogs and Groups* ▶.
4. Set up the catalogs, groups, and roles in the SAP Fiori launchpad.

   Follow the steps in ▶ *Implementation Tasks on Front-End Server* ▶ *Setup of Catalogs, Groups, and Roles in the SAP Fiori Launchpad* ▶.
5. Take the front-end PFCG role that you have created before and assign it to the users of the app. The role contains the catalogs, groups, and start authorizations for the OData service that the users need.

   Follow the steps in ▶ *Implementation Tasks on Front-End Server* ▶ *Front-End Server: Assign Roles to Users* ▶.

Result

You have successfully configured the *Analyze Forecast* app.

More Information

You can extend the app with custom content. For more information, see https://help.sap.com/viewer/p/CARAB ▶ *<Version>* ▶ *Application Help* ▶ *SAP Customer Activity Repository* ▶ *Additional Content* ▶ *Standalone SAP Fiori Apps for SAP Customer Activity Repository* ▶ *Analyze Forecast* ▶ *App Extensibility: Analyze Forecast* ▶.

4.1.3.12 Configure Omnichannel Article Availability for Use with SAP Customer Activity Repository (Optional)

You need to integrate SAP Retail, SAP Customer Activity Repository, SAP Hybris Commerce, and SAP Hybris Commerce, integration package for SAP for Retail, as well as set up asynchronous order management and the data replication between SAP Retail and SAP Customer Activity Repository.

4.1.3.12.1 Set up Data Replication Between SAP Retail and SAP Hybris Commerce

In SAP Retail and SAP Hybris Commerce, set up the **asynchronous order management scenario** as follows:

1. Set up **asynchronous replication of articles** via the Data Hub from SAP Retail to SAP Hybris Commerce.
   For more information, see the documentation for SAP Hybris Commerce at https://help.hybris.com/6.0.0/hcd/8bc6b884866910148532f2e1e500f95f.html *Getting Started with SAP ERP Integration*. Follow the steps for the asynchronous order management scenario.
2. Set up **asynchronous replication of orders** via the Data Hub from SAP Hybris Commerce to SAP Retail (see link above).
3. Configure asynchronous order management.
   For more information, see the documentation for SAP Hybris Commerce at https://help.hybris.com/6.0.0/hcd/8b8ac51b866910148e68c3be8963eb96.html *Configuring Asynchronous Order Management*.

4.1.3.12.2 Set up Data Replication Between SAP Retail and SAP Customer Activity Repository

1. In SAP Retail, create an **RFC connection** between SAP Retail and SAP Customer Activity Repository (transaction **SM59**).

2. In SAP Customer Activity Repository, **set up SLT replication** from SAP Retail to SAP Customer Activity Repository (see SAP Note 2263205).
   For Omnichannel Article Availability, the following tables must be replicated via SLT:
   - `VBAK`
   - `MARA`
   - `MARM`
   - `T001W`
   - `OAA_ATP_PROFILE`
   - Tables required for Inventory Visibility view `sap.is.retail.car/InventoryVisibilityWithSalesOrderReservedQuantity`

4.1.3.12.3 Set Up Data Replication Between SAP Hybris Commerce and SAP Customer Activity Repository

1. In SAP Hybris Commerce, in the Backoffice application under *SAP Integration* > *HTTP Destination*, create the HTTP destination of SAP Customer Activity Repository that is used for ATP calculation and sourcing.
2. In SAP Hybris Commerce, in the Backoffice application under *SAP Integration* > *SAP Global Configuration* > *Backend Connectivity*, enter the HTTP destination of SAP Customer Activity Repository created before.

> **i Note**
>
> In the standard Solr configuration for products in SAP Hybris Commerce, ProductStoreStockValueProvider is used to replicate the store availability situation from the Hybris database into the Solr index.
>
> If you use omnichannel article availability, availability information is provided through synchronous calls into SAP Customer Activity Repository for every article/store combination instead. If your product catalog is rather large, this is why indexing the complete product catalog can take very long. In this case, we recommend to either deactivate the value provider or to create a custom one. If you deactivate the value provider, faceted search according to store availability is not possible in the product catalog. OAA functionality is not affected.

4.1.3.13 Configure Omnichannel Promotion Pricing for Use with SAP Customer Activity Repository

1. In Customizing for SAP Customer Activity Repository, under *Omnichannel Promotion Pricing* > *Configuring Omnichannel Promotion Pricing*, activate and configure Omnichannel Promotion Pricing.
2. In transaction **SFW5**, activate business function `MDG_FOUNDATION`.
   This activates Data Replication Framework (DRF) functionality. You need DRF to be able to send regular prices and OPP promotions to an external system via IDocs.

4.1.4 Troubleshooting

Use

This section proposes possible solutions to issues that may occur when you install and implement your SAP Customer Activity Repository solution. It also provides guidance on how to improve the system configuration for specific use cases. If you need to report a customer incident, see the information in the final section.

Areas	Issues	Explanations	Possible Solutions
Installation	You want to download a revision of the UDF AFL to install or upgrade Unified Demand Forecast functionality.	• You need the exact download path on the SAP Support Portal. • You want to know what's new in a revision.	• SAP Note 2050229 • SAP Note 2331410
	You get an error indicating that the UDF AFL is not compatible.	You are trying to install incompatible releases ("revisions") of the UDF AFL and the SAP HANA database.	SAP Note 2050229
	You want to download a revision of the POS AFL to install or upgrade On-Shelf Availability functionality.	• You need the exact download path on the SAP Support Portal. • You want to know what's new in a revision.	SAP Note 2056102
	You get an error indicating that the POS AFL is not compatible.	You are trying to install incompatible releases ("revisions") of the POS AFL and the SAP HANA database.	SAP Note 2056102
	You want to install or upgrade application function libraries (AFLs) and are experiencing issues with the SAP HANA Lifecycle Management tool (`hdblcm` or `hdblcmgui`).	You need information on possible causes and solutions.	• SAP Note 2078425 • SAP Note 2082466
	You get syntax errors when installing the `CAR RETAIL APPL BUNDLE` back-end product version.	You need guidance on whether to take action. The answer depends on your implementation scenario.	SAP Note 2089829

Areas	Issues	Explanations	Possible Solutions
	You get the error *SAP DBTech JDBC: [258]: insufficient privilege: Not authorized*.	You are using SAP HANA AFL 1.0 and have performed an upgrade of your SAP HANA Platform. Previously assigned privileges might have been lost during the upgrade.	SAP Note 2022080
	In an upgrade or when implementing a transport, you get one of the following errors: • *Retcode 512: SQL-error "259-invalid table name: Could not find table/view* • *Retcode 512: SQL-error "328-invalid name of function or procedure*	An issue in the SAP HANA content must be fixed.	SAP Note 2298340
SAP HANA content	• You cannot run the `/CAR/ACTIVATE_HANA_CONTENT` activation report. • Or you can run the report but the SAP HANA content is not activated correctly.	Different causes are possible.	SAP Note 2330386
	You get an error that a SQLScript procedure (such as `SP_SR_GET_PROD_HR_XR_BY_DATE`) cannot be activated.	You might have a circular dependency issue.	SAP Note 2404872
	You want to check the dependencies of a specific view.	You might need this information to solve a dependency or activation issue.	• In SAP HANA studio: Select the view and choose *Auto Documentation* from the context menu. This generates a file with detailed information on the view. Consult the *Cross References* section. • If you are using the SAP HANA Live View Browser app: Select the view and choose *Cross References*.

Areas	Issues	Explanations	Possible Solutions
	You get an error indicating that you are attempting to access inactive or invalid SAP HANA content.	You have not installed the UDF AFL.	Follow the steps under *Download and Install the Application Function Libraries (AFLs)* in this guide.
		You have not installed the POS AFL.	Follow the steps under *Download and Install the Application Function Libraries (AFLs)* in this guide.
		You are trying to activate the SAP HANA content using the wrong SAP Note.	Follow the steps under Activate SAP HANA Content [page 40].
	You get the error *Table ABAP:/DMF_ORG_ASSIGN not found*.	A program error must be fixed.	• SAP Note 2218875 • SAP Note 2224582
	You get the error *Object DDF_ORG_ASSIGN (Calculation View), package sap.is.ddf.udf.data_validation, was processed with errors*.	A program error must be fixed.	SAP Note 2224582
	You get the error *SQLScript: Could not derive table type for variable "UDF_FC_HORIZON"*.	A program error must be fixed.	SAP Note 2125672
	When you run the SAP HANA content activation report `/CAR/ACTIVATE_HANA_CONTENT`, the activation of delivery unit `HCO_DDF_UDF` fails on SAP HANA Platform SPS 09.	A program error must be fixed.	SAP Note 2120372
	SAP HANA view `sap.is.ddf.fms` does not activate properly.	A program error must be fixed.	SAP Note 2203930

Areas	Issues	Explanations	Possible Solutions
Customizing (transaction **SPRO**)	You cannot see the Customizing activities for Unified Demand Forecast (UDF) in the *SAP Customizing Implementation Guide*. Either the activities are not displayed at all or you see different activities. When you try to display the correct activities by activating business functions in the Switch Framework (transaction **SFW5**), you get an error.	You might not have activated all required business functions for UDF.	Activate Business Functions for DDF and UDF [page 60]
	You cannot see the *Define Historical Inventory Information* Customizing activity under *Cross-application Components* > *Demand Data Foundation* > *Data Maintenance* > *Inventory*.	A program error must be fixed.	SAP Note 2399733
Hierarchies	You are getting errors when creating location hierarchies and/or product hierarchies.	The system does not generate the flat structures for the hierarchies. You need to do some configuration steps so that the hierarchies get flattened automatically.	• Follow the steps under *Configure Automatic Flattening of Hierarchies* in this guide. • See the configuration information for DDF in SAP Solution Manager under *Solutions/Applications* > *SAP for Retail* > *Scenarios* > *Customer Activity Repository* > *Business Processes* > *Enabling Demand Data Foundation and Creating Demand Forecast* > *Tab: Configuration* > *Configuring Demand Data Foundation*.
	You get errors when importing article hierarchies from your master data system (such as SAP ERP).	A program error must be fixed.	• SAP Note 2244521 • SAP Note 2245134

Areas	Issues	Explanations	Possible Solutions
	You want to know which locations are included in each version of an offer.	You can implement an easy enhancement for table `/DMF/OFR_LG_LOC`.	SAP Note 2208619
Modeling and forecasting	You get the error *905 Structured Query Language (SQL) exception detected: &1&2&3&4*.	An SQL error must be fixed.	Use the system log (transaction **SM21**) to find the underlying SQL exception: • To help find the correct log entries, specify the user and the approximate time frame. • Look for entries with the same error as in this message. • Note that the log may span several lines. This is indicated by a red priority icon and an initial “>”. • Attempt to determine the root cause and a corrective action based on the message texts of the applicable log entries.
	You get the errors *901 Failed execution for &1* **and** *926 Failed decomposition*.	You most likely have a data issue, such as: • The load balancing settings are not correct. • Or there are no active product locations.	• See the message long texts (transaction **SE91**). • SAP Note 1898341
	You get the errors *901 Failed execution for &1* **and** *905 Structured Query Language (SQL) exception: &1&2&3&4* **and** *926 Failed decomposition*.	You most likely have an SQL error.	See the message long texts (transaction **SE91**).
	You get the error *Could not execute 'call _SYS_AFL...* or the error *Repository: Internal error during statement execution...*.	The privileges for calling application function libraries (such as the UDF AFL) are not assigned correctly or are incomplete.	SAP Note 1846194

Areas	Issues	Explanations	Possible Solutions
	You get one of the following errors during modeling or forecasting: • *1341 Procedure versions validation failed: Procedure version is not matched with given version number #* • *1341 Procedure versions validation failed: Version validation is not enabled for this procedure*	An SAP HANA version check might be out of sync.	• Try running the failed modeling or forecasting process again several times. This allows the SAP HANA version management to synchronize the versions. If the error occurred during modeling, also run forecasting again. • SAP Note 1972414 (for development experts)
	You want to forecast complex offers (such as *Buy X Get Y*).	You must set up a specific task decomposition for the production forecast in Unified Demand Forecast (UDF).	SAP Note 2176058
	You are using the *Update Sales Projection* function in SAP Assortment Planning for Retail (workbooks *Product Planning* and *Size Planning*). You are experiencing performance issues when using the function with large data volumes.	You can enhance the performance by implementing an SAP Note.	SAP Note 2080423
	You are running demand modeling and get the following errors: • *Internal errors in demand modeling and forecasting or the database* (`/DMF/UDF_TECHNICAL 000`) • *Internal error for product &1 in modeling and forecasting: (observation >= 0.0) is false* (`/DMF/UDF_TECHNICAL 001`)	A program error must be fixed.	SAP Note 2106332

Areas	Issues	Explanations	Possible Solutions
	You are experiencing issues during inbound processing; in particular, you cannot transfer import data from the staging tables to the production tables.	A program error must be fixed.	SAP Note 2356844
DRF data replication framework (transaction **DRFOUT**)	You have deleted a vendor from the `/DMF/D_VENDOR` table but this deletion is not replicated to the master data system.	A program error must be fixed.	SAP Note 1872136
	You get an error when using the DRF with the `PMPL` SAP ERP outbound implementation.	A program error must be fixed.	• SAP Note 1904782 • SAP Note 2167629 • Application help for SAP Customer Activity Repository at http://help.sap.com/car ▸ *<your release>* ▸ *Application Help* ▸ *Demand Data Foundation* ▸ *Integration Information* ▸ *Master Data Replication from SAP ERP to Demand Data Foundation*.
	You get the error *Product &1, location &2: The Valid From time for &3 must be 00:00:00* (message 364 in message class `/DMF/MSG_HL`).	A program error must be fixed.	SAP Note 2163602
	You have changed the listing information in your master data system and replicated the changes to your SAP Customer Activity Repository system. However, the listing information there is not updated correctly.	A program error must be fixed.	SAP Note 1932525

Areas	Issues	Explanations	Possible Solutions
Performance	You are experiencing performance issues in your SAP HANA database.	You need information on how to troubleshoot and resolve those issues and how to enhance performance in general.	See the *SAP HANA Troubleshooting and Performance Analysis Guide* under http://help.sap.com/hana_platform ▶ *<your SAP HANA SPS>* ▶ *System Administration* ▶.
	You get a runtime error or exit message and need information about possible causes and solutions.	Different causes are possible.	Use the ABAP dump analysis (transaction **ST22**) to search for short dumps and call up detailed error information.
Remote Function Calls (RFCs), function modules	You are experiencing workflow issues when executing an RFC function module.	Different causes are possible.	SAP Note 1098805 (detailed troubleshooting information for different causes, tips & tricks)
SAP Fiori	You cannot open the *Analyze Forecast* app in your SAP Fiori launchpad.	The back-end reuse library might not be loading correctly.	You can do the following in the back-end system: 1. In transaction **SICF**, search for the `/sap/bc/ui5_ui5/sap/ddfreuse_v2` service and check that it is active. 2. If the service is active, you can try to reset the SAP Fiori cache: In transaction **SE38**, execute the following reports: `/UI5/APP_INDEX_CALCULATE` and `/UI2/INVALIDATE_GLOBAL_CACHES` and `/UI2/INVALIDATE_CLIENT_CACHES`. 3. Clear your browser cache and check whether you can now open the app.
SAP HANA Platform	You are using a revision under SAP HANA Platform SPS 10 and get an error relating to the SAP HANA planning engine or exception `CX_RSR_PE_ERROR`.	The error is caused by more severe checks that were introduced with SAP HANA Platform SPS 10.	SAP Note 2285769

Areas	Issues	Explanations	Possible Solutions
	You get errors in row store tables with SAP HANA database revision 122.02.	A program error must be fixed.	SAP Note 2370160

Report a Customer Incident

- If you encounter an issue with your system, we recommend that you first search the SAP Knowledge Base and SAP Notes for existing solutions. For more information, see http://support.sap.com/ *My Support* *Knowledge Base*.
- To view or report an incident, see http://support.sap.com/ *My Support* *Incidents*.
  When reporting a new incident, you must specify an application component. You can find the list of components on the SAP Support Portal at http://support.sap.com/ *Download Software* *By Alphabetical Index (A-Z)* *C* *CAR RETAIL APPLICATIONS BUNDLE* *CAR RETAIL APPL BUNDLE 1.0* *Info*.
  For more information on reporting incidents for SAP Customer Activity Repository, see the *Support Desk Management* section of the *SAP Customer Activity Repository Operations Guide* under https://help.sap.com/viewer/p/CARAB *<Version>* *Operations*.

4.2 SAP Assortment Planning for Retail

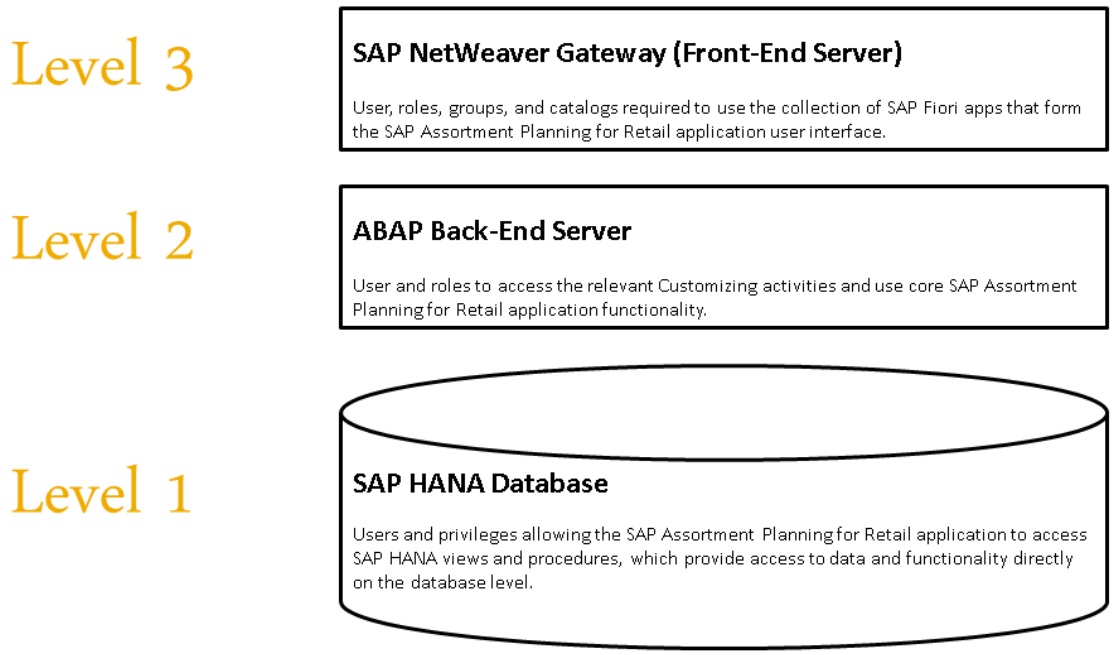
4.2.1 Preparation

> **i Note**
>
> Some of the activities in this section may have already been performed in the corresponding section under *SAP Customer Activity Repository*. 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

Use

The SAP Assortment Planning for Retail application requires a layered system landscape. As an assortment planner or planning administrator, you must assign the necessary users, roles and authorizations in all of the levels of the SAP Assortment Planning for Retail application.



Authorization Levels

This procedure lists the required database users and privileges shown as level 1 in the diagram above. These are roles and privileges that you can set up in the database before installing SAP Assortment for Retail on the back-end or front-end systems.

Back-end, level 2 authorizations, are described in the *Verify Users, Privileges, and Roles* section of the *Common Installation Guide*. Front-end, level 3 authorizations, are described in the *Assign Roles, Catalogs, and Groups in SAP Fiori Launchpad* section of the *Common Installation Guide*.

Procedure

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

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.	○ System privilege `REPO.IMPORT` ○ System privilege `ROLE ADMIN` ○ System privilege `STRUCTUREDPRIVILEGE ADMIN` ○ Role `CONTENT_ADMIN` ○ Role `AFLPM_CREATOR_ERASER_EXECUTE`. For more information, see Enable Usage of PAL Functions [page 86] and SAP Note 2046767. ○ Role `AFL__SYS_AFL_OFL_AREA_EXECUTE`

_SYS_REPO	○ 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 SCHEMA <Your schema name> TO _SYS_REPO WITH GRANT OPTION;`
	○ Privileges described in http://help.sap.com/car *<your release>* > *Security Information* > *Security Guide* > *Authorization Requirements for the UDF AFL*.

<Your User Name>*	○ Privilege `SELECT` on schema `_SYS_BI` ○ Privilege `SELECT` on schema `SAP<SID>` ○ Privilege `EXECUTE` on procedure `REPOSITORY_REST`
*Your user on SAP HANA database level, back-end system, and on the front-end server (SAP NetWeaver Gateway) **must be identical** on these three levels.	

4.2.1.2 Configure AFL Usage

4.2.1.2.1 Activate SAP HANA Script Server

Use

Once all the required AFLs are installed, as listed in the *Prerequisites* 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

Use

The installation of SAP HANA Platform 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 `AFLPM_CREATOR_ERASER_EXECUTE` as described in Verify SAP HANA User and Privileges [page 83] and SAP Note 2046767.
   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.
   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.
2. To confirm that the PAL functions were installed successfully, you can run `SELECT` statements in the three relevant public views as follows:
   - `SELECT * FROM SYS.AFL_AREAS WHERE AREA_NAME = 'AFLPAL'`
   - `SELECT * FROM SYS.AFL_PACKAGES WHERE AREA_NAME = 'AFLPAL'`
   - `SELECT * FROM SYS.AFL_FUNCTIONS WHERE AREA_NAME = 'AFLPAL'`

More Information

- *Prerequisites* section
- http://help.sap.com/hana_platform *References* > *SAP HANA Predictive Analysis Library (PAL) Reference* >

4.2.1.2.3 Check the OFL Installation

Use

The installation of SAP HANA Platform includes the installation of SAP HANA AFL 1.0, which contains the OFL algorithm, a prerequisite to the installation of SAP Assortment Planning for Retail.

Procedure

1. To confirm that the OFL was installed successfully, you can run `SELECT` statements in the three relevant public views as follows:
   - `SELECT * FROM SYS.AFL_AREAS WHERE AREA_NAME = 'OFL_AREA'`
   - `SELECT * FROM SYS.AFL_PACKAGES WHERE AREA_NAME = 'OFL_AREA'`
   - `SELECT * FROM SYS.AFL_FUNCTIONS WHERE AREA_NAME = 'OFL_AREA'`

   In the case of a successful installation, each of statements should return 1 row.

More Information

Prerequisites section

4.2.2 1.0 SP4 to 1.0 SP5

Upgrade information.

This section is intended for existing SAP Assortment Planning for Retail customers who have installed and configured SAP Assortment Planning for Retail 1.0 SP4 and would like to upgrade to SAP Assortment Planning for Retail 1.0 SP5.

4.2.2.1 Quick Guide

SAP Assortment Planning for Retail 1.0 SP4 to 1.0 SP5 upgrade checklist.

Checklist

Prerequisites

Mandatory Steps

- ☐ Ensure that you have implemented the necessary SAP Notes listed in the *SAP Notes for the Upgrade* section.
- ☐ Ensure that your landscape meets the requirements outlined in the *Prerequisites* section.

Preparation

Mandatory Steps

- ☐ Verify that you have all of the required SAP HANA users and privileges. See Verify SAP HANA Users and Privileges [page 83].
- ☐ Configure AFL and OFL usage. See Enable Usage of PAL Functions [page 86] and Check the OFL Installation [page 87].

Upgrade Process

Mandatory Steps

- ☐ Upgrade your back-end system product version in SAP Solution Manager.
- ☐ Upgrade the application function libraries (`UDFAFL_INST 100`, `POSAFL_INST 100`).

Follow-Up Activities

Mandatory Steps

- ☐ Create SAP ERP tables.
- ☐ Verify SAP HANA and back-end system roles. See the *Verify Users, Privileges, and Roles* section in the *Common Installation Guide*.
- ☐ Reactivate SAP Assortment Planning for Retail planning framework content.
- ☐ Maintain Customizing table `/RAP/RS_VARCUST`.
- ☐ Update fiscal year entries.
- ☐ Optionally, restore language settings in workbooks.
- ☐ Verify that data replication is running following the upgrade.
- ☐ Run the validation report.

4.2.2.2 Upgrade Process

4.2.2.2.1 Upgrade SAP Customer Activity Repository Retail Applications Bundle

Use

This procedure describes how to upgrade the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack to a newer one.

Procedure

1. Check your upgrade scenario:
   1. Navigate to the Product Availability Matrix (PAM) at http://support.sap.com/pam.
   2. For information about the available support package stacks (SPS), search for the `CAR RETAIL APPL BUNDLE 1.0` product version, and choose *Support Package Stacks*.
   3. For information about the supported upgrade paths, choose *Related Product Versions*.
   4. For information about the software components in the SPS, choose *Technical Release Information* and consult the subsections, such as *Database Systems*.
   5. To navigate directly to the download area for the SPS, choose *SAP Software Download Center* > *CAR RETAIL APPL BUNDLE 1.0 - Support Packages & Patches*.
      Alternatively, you can get there from the SAP Support Portal by choosing http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0*.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information about this tool, see SAP Help Portal at http://help.sap.com/spmanager > *Application Help*, as well as SAP Note 1803986.

To finalize the upgrade of the back-end product version, you must additionally do some manual steps. Continue with the next section.

Download and Install the Application Function Libraries (AFLs)

There are two components that you cannot upgrade using Support Package Manager.

- Unified Demand Forecast application function library (UDF AFL, software component version `UDFAFL_INST 100`, provides the demand modeling and forecasting services in SAP Customer Activity Repository, runs directly in the SAP HANA database)
- On-Shelf Availability application function library (POS AFL, software component version `POSAFL_INST 100`, provides the On-Shelf Availability services in SAP Customer Activity Repository, runs directly in the SAP HANA database)

You need to download one UDF AFL revision and one POS AFL revision manually and install them together in your SAP HANA database.

Where to Download

Both AFLs are provided as part of the `CAR RETAIL APPL BUNDLE 1.0` product version on the SAP Support Portal under http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0* > *Entry by Component* > *Analytics AFL*.

For a successful upgrade, you need to be aware of the following dependencies.

Dependencies Between the AFLs and the SAP HANA Database

The AFLs are released independently of the releases of SAP Customer Activity Repository retail applications bundle. This is because the AFLs follow the release cycle of the SAP HANA database. The releases are called “revisions”. Whenever a new revision of the SAP HANA database is released, a new revision of each AFL is released. As a result, multiple revisions of each AFL are available on the SAP Support Portal at any one time.

> ⚠ Caution
>
> For each revision of an AFL, there is **only one** compatible revision of the SAP HANA database. For example, you can only use revision 112.20 of the UDF AFL with revision 112.02 of the SAP HANA database. Whenever you upgrade an AFL, you must also upgrade the database and any other AFLs to the compatible revisions. Reversely, whenever you upgrade the database, you must upgrade the AFLs.
>
> Note that this dependency applies not only to the UDF AFL and the POS AFL but also to the generic SAP HANA AFL. Both the SAP HANA AFL and the SAP HANA database are components of the SAP HANA Platform (see Prerequisites [page 16]).
>
> When you download an AFL revision from the SAP Support Portal, the compatible revision of the SAP HANA database is indicated.

Nomenclature

The following table explains how you can see the dependencies by looking at the release numbers:

Release of ...	Released as ...	Example	Guideline
SAP HANA Platform	<Support Package Stack>	SAP HANA Platform SPS **11**	The number of the support package stack determines the first digits of the revisions.
SAP HANA Database	<Revision>.<Patch>	SAP HANA Database **11**2.0 **2**	All 11x.xx database revisions belong to the SPS 11 platform stack. The patch number determines the first digit of the AFL patch.
UDF AFL	<Revision>.<Patch>	UDF AFL **11**2. **2**0	
POS AFL		POS AFL **11**2. **2**0	
SAP HANA AFL		SAP HANA AFL **11**2. **2**0	

> → Recommendation
>
> We recommend that you upgrade all the AFLs **at the same time**. This means:
>
> - UDF AFL and POS AFL, which you must both install for a successful upgrade of SAP Customer Activity Repository retail applications bundle
> - SAP HANA AFL, which is one of the mandatory prerequisites
> - if applicable, other AFLs provided with SAP HANA that might be relevant for your scenario
>
> **Focus** on the AFL that provides the most important functionality for your scenario (for example, demand forecasting with the UDF AFL). Select the best revision of that AFL for your scenario. This in turn will give you the compatible revision of the SAP HANA database and the compatible revisions of the other AFLs. Then install all the AFLs together.

Download and Install the UDF AFL (Focus: Demand Forecasting)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your Unified Demand Forecast scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2050229: Gives you an overview of all UDF AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the UDF AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2050229.

> **Note**
>
> To use the UDF functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure Unified Demand Forecast (Optional) [page 64].

Download and Install the POS AFL (Focus: On-Shelf Availability)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your On-Shelf Availability scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2056102: Gives you an overview of all POS AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the POS AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2056102.

> **i Note**
>
> To use the On-Shelf Availability functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure On-Shelf Availability (Optional) [page 53].

Result

You have successfully upgraded the `CAR RETAIL APPL BUNDLE 1.0` back-end product version to the current SPS. Continue with the next section.

4.2.2.3 Follow-Up Activities

4.2.2.3.1 Create SAP ERP Tables

> **⚠ Caution**
>
> Following an upgrade, it is important to remember to create any additional tables required by the new release.

Tables required to be created as of the SAP Assortment Planning for Retail are listed in SAP Note 2263205. Ensure that **all** tables listed in this note have been created.

4.2.2.3.2 Reactivate SAP Assortment Planning for Retail Planning Framework Content

4.2.2.3.2.1 Activate SAP HANA Content

Use

In this procedure, you activate all SAP HANA content required by SAP Customer Activity Repository.

For more information about activating SAP HANA content, see SAP Help Portal at http://help.sap.com/hana_platform ▶ *<your SAP HANA Platform SPS>* ▶ *Development and Modeling* ▶ *SAP HANA Developer Guide (For SAP HANA Studio)* ▶ *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.
- You must also set up the roles and privileges for the Unified Demand Foreast module as described in the *Authorization Requirements for the UDF AFL* section of the *SAP Customer Activity Repository Security Guide*, available at http://help.sap.com/car ▶ *<your release>* ▶ *Security Information* ▶.
  You must do this regardless of whether you want to use UDF forecasting in your scenario or not. This procedure not only enables UDF, but it is required so that the SAP HANA content for SAP Customer Activity Repository can be activated correctly.

Procedure

To activate the SAP HANA content, carefully follow the instructions provided in SAP Note 2330386.

> ⚠ Caution
>
> If you are applying a support package or correction on an existing installation and this support package or correction involves SAP HANA content for the DDF module or the UDF module in SAP Customer Activity Repository, then you must manually activate this content again. For example, this is the case when you apply an SAP Note using transaction **SNOTE**.
>
> Follow the instructions in SAP Note 2145356.

More Information

If you encounter issues during the activation, see the Troubleshooting [page 75] section for possible solutions.

4.2.2.3.2.2 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 1

Use

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 102].

Prerequisites

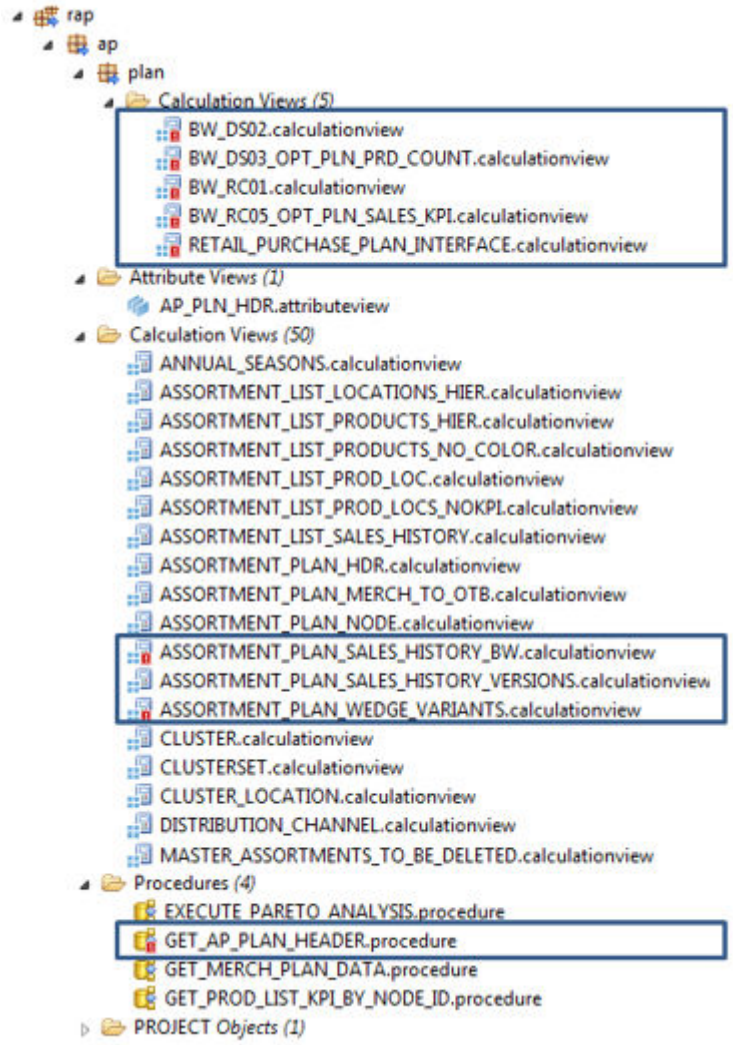
As a mandatory prerequisite for a successful activation of SAP HANA content for SAP Assortment Planning for Retail, you must have successfully completed all of the procedures listed in the previous sections of this guide. In particular, you must have activated SAP HANA content for SAP Customer Activity 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 the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.
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. The figure below provides an example of content that has not been deployed.



Example of SAP HANA content not deployed

A small number of views not deploying is an 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 102] 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*

4.2.2.3.2.3 Activate Application BI Content

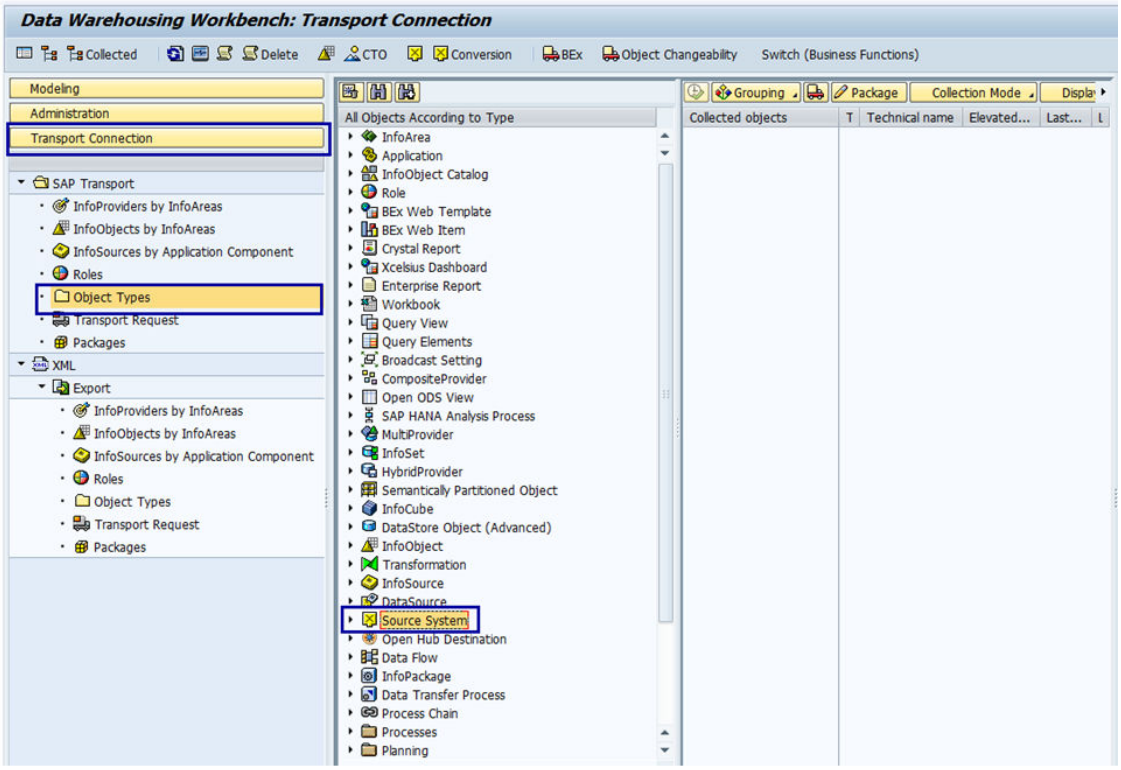
Use

In this procedures, you perform a sequential, step-by-step activation of the local BI Content objects following the upgrade to SAP Assortment Planning for Retail 1.0 FP3.

> **i** Note
>
> To ensure correct activation of the local BI Content objects, carry out the activation sequentially, as specified in the following procedures.
>
> Also, the default BI setting to collect and activate all dependencies must not be disabled by the user. The instructions below activate a minimum subset of objects, and it assumed that all their dependencies will be collected and activated.

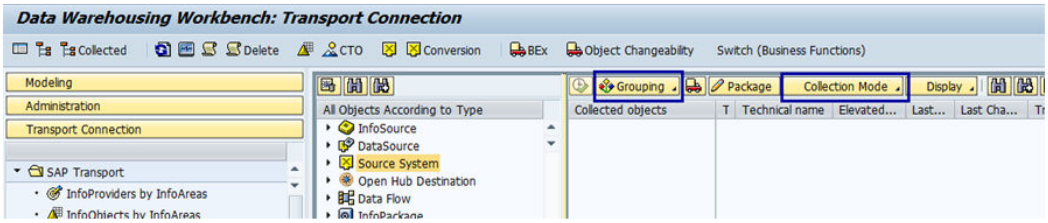
Procedure

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*.



Selecting Source Systems

4. Use *Select Objects* to ensure that the back-end system is selected as the source system.
5. Choose *Transfer Selections*.
6. At the top of the right-hand frame, above the list of *Collected objects*, choose *Grouping* and select *Only Necessary Objects*.
7. At the top of the right-hand frame, choose *Collection Mode* and select *Collect Automatically*.



Grouping and Collection Settings

3. Select *BI Content* in the left-hand frame.
4. Determine your BI Content installation requirements and apply these to each subsequent step.
   If you are carrying out a brand new installation, proceed to the next step.

   > ### → Recommendation
   >
   > If, however, you have previously installed/activated any of the `/RAP/*` BI Content, you need to apply special considerations to the installation/activation of BI Content following a system upgrade.
   >
   > - If you have modified any of the previously installed `/RAP/*` BI Content objects, we recommend that for the modified objects, you enable the *Match (X) or copy* option. When this options is selected, you will be asked to carry out an additional *Transfer selections* step during which you select to install the *Active Version* (that is, your modified version) or the *Content Version* (that is, the SAP delivered, and possibly updated version of the object).
   > - If you have not modified any of the previously installed `/RAP/*` BI Content objects, you do not need to enable the *Match (X) or copy* option for any of the BI Content objects, and you don't need to choose whether to install the *Active Version* or the *Content Version* of the objects.

5. 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.
   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.

6. Maintain version master data. As of FP3 , two new versions, *AW1* and *AW2*, are required.
   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:

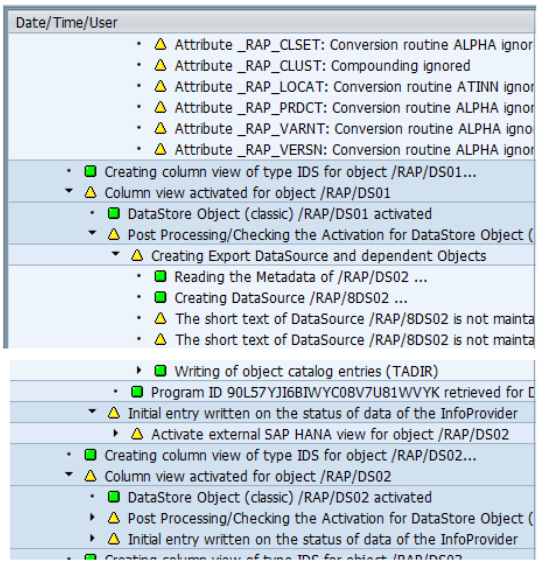
Version
AP1
AP2
AW1
AW2
OC1
OC2
OM1
OM2
APF
REF
000

   The supported planning versions are described in detail in the *Maintain Customizing Table /RAP/RS_VARCUST* section of the *Common Installation Guide*.

> **i Note**
>
> If you encounter problems opening the master data maintenance WebDynpro application, ensure that you have implemented SAP Note 2034623.

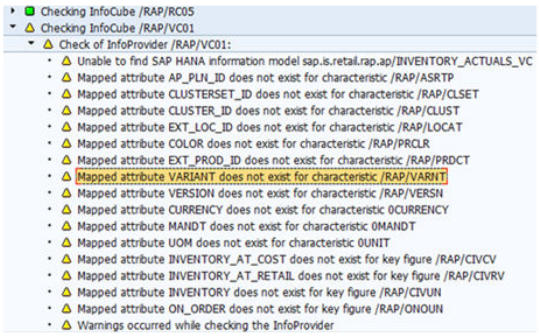
7. Activate DataStore Objects.
   1. Expand *More Types* > *DataStore Object (Classic)*.
   2. Use *Select Objects* to select all DataStore Objects starting with `/RAP/*`.
   3. Choose *Transfer Selections*.
   4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled 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.

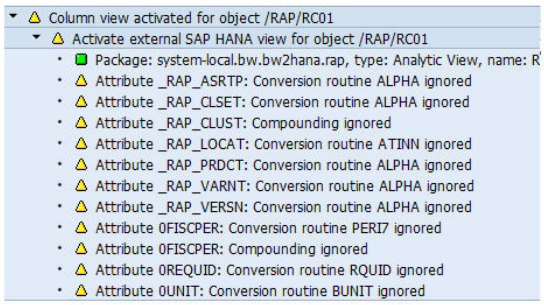
If during the installation, you are presented with a dialog asking you to add objects to a personal list, select **No**.
If activation warnings similar to the ones displayed below appear, you can ignore them.



Warnings

8. Activate InfoCubes.
    1. Expand *InfoCube*.
    2. Use *Select Objects* to select all InfoCubes starting with `/RAP/RC*`.
    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.





Warnings

9. Activate new Aggregation Level.
    1. Expand ▶ *Planning* ▶ *Aggregation Level* ▶.
    2. Use *Select Objects* to select the `/RAP/D08A02` Aggregation Level.
    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.
10. Reactivate Planning Sequence Objects.
    1. Expand ▶ *Planning* ▶ *Planning Sequence* ▶.
    2. Use *Select Objects* to select the following Planning Sequences:
        - `/RAP/D12A01_PS01`
        - `/RAP/D12A01_PS02`
        - `/RAP/D15A01_PS01`
        - `/RAP/D15A01_PS02`
        - `/RAP/D07A04_PS01`
        - `/RAP/M06A01_PS07`
        - `/RAP/R10A01_PS02`
    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. Reactivate Workbooks.
    1. Expand ▶ *More Types* ▶ *Analysis Office Excel Workbook* ▶.
    2. Use *Select Objects* to select the following workbooks:
        - `/RAP/OPTIONPLANBYMODULE`
        - `/RAP/OPTIONPLANBYCLUSTER`
        - `/RAP/REFINEASSORTMENT`
        - `/RAP/PLANASSORTMENT`
    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. Choose *Exit* to leave the transaction.

4.2.2.3.2.4 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 2

Use

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 tables

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

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

2. Assign the required privileges described in section *Authorization Requirements for the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.

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*

4.2.2.3.2.5 Verify Activation of External Views

Use

During activation of SAP HANA content for SAP Assortment Planning for Retail, several external views are not automatically activated. Following an upgrade, you need to verify that all previously activated external views remain active.

Procedure

1. Use either transaction `SE11` or `SE80` to verify that all the external views listed in SAP Note 2067030 are in an activate state. If they are not, manually activate the views.

4.2.2.3.3 Maintain Customizing Table /RAP/RS_VARCUST

Use

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. Run report `/RAP/SEED_BW_CUSTOMIZING_DATA` (transaction `SE38`).
3. Determine whether you want to overwrite the existing entries in the `/RAP/RS_VARCUST` table.
   If you do want to overwrite the contents of the table, enable the *Remove Existing Entries* option. If you don't want to overwrite the contents of the table, but want to append the new entries, disable the *Remove Existing Entries* option.

   > **i Note**
   >
   > Duplicate entries that can potentially be created if you choose to disable the *Remove Existing Entries* option, which will result in an error.

4. Enable the *Test* option and choose *Execute* to run the report in test mode.
   Running the report in test mode allows you to verify that you can successfully update the `/RAP/RS_VARCUST` table. No entries are persisted in the table as a result.
5. Once you have successfully executed the `/RAP/SEED_BW_CUSTOMIZING_DATA` report in test mode, disable the *Test* option and choose *Execute* to run the report.
6. Optionally, once the report has finished executing, you can verify the entries of the `/RAP/RS_VARCUST` variable customizing table.
   If required, you can make changes to any of the entries made by the `/RAP/SEED_BW_CUSTOMIZING_DATA` report by doing the following:
   1. Open the *Data Browser* (transaction `SE16`).
   2. Enter **`/RAP/RS_VARCUST`** in the *Table Name* field and choose *Create Entries*.
   3. Choose *Execute* followed by *Create*.
      On the *Table /RAP/RS_VARCUST Insert* screen, you will be able to make the following entries:

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`.

Field Name	User Entry
INFOCUBE	InfoCube identifier. For example, /RAP/RC01.
VNAM_VERS	Version variable name. For example, /RAP/VERSN_MSM_01.
VERSION	Version Identifier. There are several supported planning versions: ○ AP1: Location level version 1. Version that is typically used as the planning version. ○ AP2: Location level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ AW1: Week level version 1. Version that is typically used as the planning version. ○ AW2: Week level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OC1: Option plan by cluster simulation version 1. Version that is typically used as the planning version. ○ OC2: Option plan by cluster simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OM1: Option plan by module simulation version 1. Version that is typically used as the planning version. ○ OM2: Option plan by module simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ APF: Final version (planned data). After completing the planning, the user will select the plan they want to finalize and review in the *Plan Weekly Sales and Receipts* workbook. Only the APF version is available in *Plan Weekly Sales and Receipts*. ○ 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. ○ 000: Actual version (current data). The user can see current inventory values with this such as Actual Inventory and Open Orders.
F4HELP	Flag that specifies whether the field provides F4 help or not.

4. Maintain entries in the /RAP/RS_VARCUST table as required.
   For example you can change the InfoCube used as the source of data for a particular planning version.
5. Choose *Save*.

4.2.2.3.4 Update Fiscal Year Variant Entries

Use

In this procedure you update previously maintained fiscal year variants (`0FISCVARNT 'RW'`). The SAP Merchandise Planning for Retail application, which can be used in conjunction with the SAP Assortment Planning for Retail application, only supports fiscal years with 52 posting periods. As a result, fiscal year variant entries must be adjusted, entering each year with 53 posting periods as a shortened fiscal year.

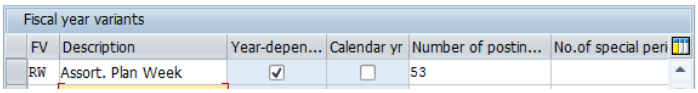
> ⚠ Caution
>
> You must maintain fiscal year variants for at least one year past the years for which you are planning. For example, if your assortment plans extend to December 2018, you must maintain fiscal year variants until December 2019.

The steps provided in this procedure allow you to maintain `0FISCVARNT 'RW'` using the standard 4-5-4 calendar entries. If you are using alternative fiscal periods in your retail business, for example, each week starting on a Sunday instead of Saturday, you can provide your own entries instead of the ones suggested in this guide.

Procedure

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose *New Entries*.

4. On the *New Entries: Overview of Added Entries* screen make the following sets of entries:


Fiscal year variants

FV	Description	Year-depen...	Calendar yr	Number of postin...	No.of special peri
RW	Assort. Plan Week	☑	☐	53	

Create New Fiscal Year Variant

5. Choose *Enter*.
   An information message is displayed about creating more than 16 periods, choose *Continue*.
6. Choose *Back*.
   You can see the newly created entry.
7. Mark the entry *RW* and double-click on *Shortened Fiscal Years* from the *Dialog Structure*.
8. Enter **2012** in the *Fiscal year* field and choose *Continue*.
9. Choose *New Entries*.
10. Enter **52** in the *No. of posting periods* field in the *Shortened Fiscal Years* section.
11. Choose *Back* twice.
12. Open SAP Note 2112634, locate the entries for year 2012, and enter the data by copy-and-paste.
13. Repeat steps 7-12 to maintain the weekly fiscal year variant for years 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2020, entering each year as shortened fiscal year. The corresponding tables are available in SAP Note 2112634.
14. Choose *Save* after you have finished the maintenance for year 2020.

4.2.2.3.5 Set Language for Ribbons and Buttons in Workbooks (Optional)

Use

In this optional procedure, you can change the language settings specific to SAP Assortment Planning for Retail workbooks. During the upgrade, some of the workbooks are updated, and, if you have previously changed the language settings of these workbooks, you need to make these settings again following the upgrade.

You can set the desired language of the following user interface objects:

- Ribbons *Planning Functions*, *Refinement Functions*, and *Extended Features*
- Tooltips for planning functions
- Message texts
- Buttons

The content of the workbooks consists of multiple parts:

- The language of the standard menus and standard ribbons depends on the language set for Microsoft Excel.
- The language of the contents in the cells (mainly KPIs) depends on the user-selected system language of the back-end system.
- The language of the user interface objects that are specific to the workbooks of SAP Assortment Planning for Retail, 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*.

4.2.2.3.6 Verify that Data Replication is Running Following the Upgrade

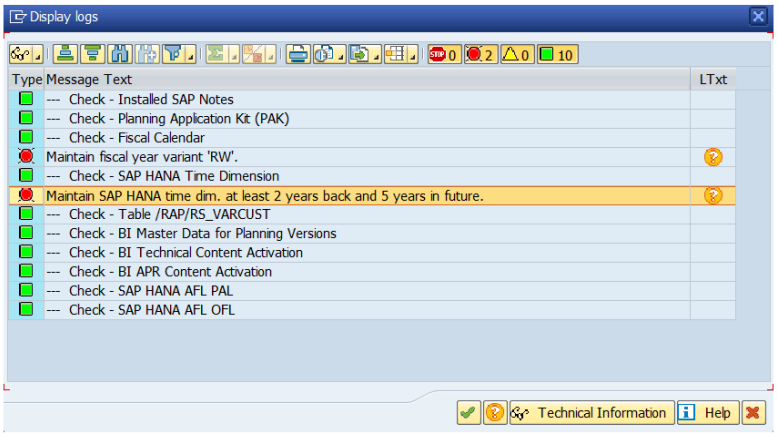
In general, following the upgrade, you need to ensure that all of the data replication described in *Configure Data Replication* section of the *Common Installation Guide* is still running.

In particular, you need to pay attention to the following:

- Ensure that time-dependent article hierarchies are properly loaded into SAP Assortment Planning for Retail following the upgrade. See *Load of Time-Dependent Article Hierarchies* section of the *Common Installation Guide*.
- All the tables listed in SAP Note 2054656 are being replicated. New tables can be added with each new release.
- Ensure that periodic tasks to load product attributes into SAP Assortment Planning for Retail are still running following the upgrade. See, *Load Product Attributes into SAP Assortment Planning for Retail* section of the *Common Installation Guide*.
- Ensure that OTB data is being loaded from the appropriate source. For more information, see the *Load Merchandise Planning Data* section of the *Common Installation Guide*.

4.2.2.3.7 Run the Validation Report

1. Run transaction `SE38`.
2. Execute the `/DMF/VALIDATE_CAR_INSTALLATION` report.
3. Select the *Assortment Planning* scenario and select *Execute*.
   Running this report allows you verify the success of the installation, providing a log of potential issues. For example, you may be presented with the following results:



Validation Report Results

View the long text associated with each message to see the link to the documentation describing the procedure you need to troubleshoot.

4.2.3 1.0 FP3 to 1.0 SP5

Upgrade information.

This section is intended for existing SAP Assortment Planning for Retail customers who have installed and configured SAP Assortment Planning for Retail 1.0 FP3 and would like to upgrade to SAP Assortment Planning for Retail 1.0 SP5.

4.2.3.1 Quick Guide

SAP Assortment Planning for Retail 1.0 FP3 to 1.0 SP5 upgrade checklist.

Checklist

Prerequisites

Mandatory Steps

- ☐ Ensure that you have implemented the necessary SAP Notes listed in the *SAP Notes for the Upgrade* section.
- ☐ Ensure that your landscape meets the requirements outlined in the *Prerequisites* section.

Preparation

Mandatory Steps

- ☐ Verify that you have all of the required SAP HANA users and privileges. See Verify SAP HANA Users and Privileges [page 83].
- ☐ Configure AFL and OFL usage. See Enable Usage of PAL Functions [page 86] and Check the OFL Installation [page 87].

Upgrade Process

Mandatory Steps

- ☐ Implement SAP Note 2298340 if your landscape includes a NW version earlier than NW 740 SP15. You must perform this step prior to upgrading the back-end system product version.
- ☐ Upgrade your back-end system product version in SAP Solution Manager.
- ☐ Upgrade the application function libraries (`UDFAFL_INST 100`, `POSAFL_INST 100`).
- ☐ Upgrade or install product-specific SAP Fiori UI component on the front-end server.

Follow-Up Activities

Mandatory Steps

- ☐ Create SAP ERP tables.
- ☐ Verify SAP HANA and back-end system roles. See the *Verify Users, Privileges, and Roles* section in the *Common Installation Guide*.

- ☐ Reactivate SAP Assortment Planning for Retail planning framework content.
- ☐ Maintain Customizing table `/RAP/RS_VARCUST`.
- ☐ Update fiscal year entries.
- ☐ Optionally, restore language settings in workbooks.
- ☐ Verify that data replication is running following the upgrade.
- ☐ Run the validation report.
- ☐ Configure index calculation.
- ☐ Activate SAP Assortment Planning for Retail OData services.
- ☐ Verify that all the ICF services relevant to SAP Assortment Planning for Retail are active following the upgrade.
- ☐ Define system alias for back-end transactions.
- ☐ Troubleshoot front-end server upgrade.

4.2.3.2 Upgrade Process

4.2.3.2.1 Implement SAP Note 2298340

Use

Prior to upgrading the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack (SPS) to a newer one, you need to verify the SAP NetWeaver 7.40 SPS in your system landscape. Important corrections, relevant for Core Data Services (CDS) views, and required by the latest SPS of `CAR RETAIL APPL BUNDLE 1.0`, are only available as of SAP NetWeaver 7.40 SPS 15.

Procedure

1. Verify your SAP NetWeaver 7.40 support package stack.
   If your landscape contains SAP NetWeaver 7.40 SPS 12, SPS13, or SPS14, you will need to implement SAP Note 2298340 to apply corrections relevant for CDS views.
   If your landscape has been upgraded to SAP NetWeaver 7.40 SPS 15, you do not need to implement SAP Note 2298340, and you can go to the next procedure.
2. Read and implement SAP Note 2298340 **prior** to upgrading the back-end system product version.

More Information

http://help.sap.com/hana_platform *Development and Modeling* *SAP HANA Modeling Guide (For SAP HANA Studio)*

4.2.3.2.2 Upgrade SAP Customer Activity Repository Retail Applications Bundle

Use

This procedure describes how to upgrade the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack to a newer one.

Procedure

1. Check your upgrade scenario:
   1. Navigate to the Product Availability Matrix (PAM) at http://support.sap.com/pam.
   2. For information about the available support package stacks (SPS), search for the `CAR RETAIL APPL BUNDLE 1.0` product version, and choose *Support Package Stacks*.
   3. For information about the supported upgrade paths, choose *Related Product Versions*.
   4. For information about the software components in the SPS, choose *Technical Release Information* and consult the subsections, such as *Database Systems*.
   5. To navigate directly to the download area for the SPS, choose *SAP Software Download Center* > *CAR RETAIL APPL BUNDLE 1.0 - Support Packages & Patches*.
      Alternatively, you can get there from the SAP Support Portal by choosing http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0*.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information about this tool, see SAP Help Portal at http://help.sap.com/spmanager > *Application Help*, as well as SAP Note 1803986.

To finalize the upgrade of the back-end product version, you must additionally do some manual steps. Continue with the next section.

Download and Install the Application Function Libraries (AFLs)

There are two components that you cannot upgrade using Support Package Manager.

- Unified Demand Forecast application function library (UDF AFL, software component version `UDFAFL_INST 100`, provides the demand modeling and forecasting services in SAP Customer Activity Repository, runs directly in the SAP HANA database)
- On-Shelf Availability application function library (POS AFL, software component version `POSAFL_INST 100`, provides the On-Shelf Availability services in SAP Customer Activity Repository, runs directly in the SAP HANA database)

You need to download one UDF AFL revision and one POS AFL revision manually and install them together in your SAP HANA database.

Where to Download

Both AFLs are provided as part of the `CAR RETAIL APPL BUNDLE 1.0` product version on the SAP Support Portal under http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* >

SUPPORT PACKAGES & PATCHES > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0* > *Entry by Component* > *Analytics AFL* .

For a successful upgrade, you need to be aware of the following dependencies.

Dependencies Between the AFLs and the SAP HANA Database

The AFLs are released independently of the releases of SAP Customer Activity Repository retail applications bundle. This is because the AFLs follow the release cycle of the SAP HANA database. The releases are called “revisions”. Whenever a new revision of the SAP HANA database is released, a new revision of each AFL is released. As a result, multiple revisions of each AFL are available on the SAP Support Portal at any one time.

> ⚠ Caution
>
> For each revision of an AFL, there is **only one** compatible revision of the SAP HANA database. For example, you can only use revision 112.20 of the UDF AFL with revision 112.02 of the SAP HANA database. Whenever you upgrade an AFL, you must also upgrade the database and any other AFLs to the compatible revisions. Reversely, whenever you upgrade the database, you must upgrade the AFLs.
>
> Note that this dependency applies not only to the UDF AFL and the POS AFL but also to the generic SAP HANA AFL. Both the SAP HANA AFL and the SAP HANA database are components of the SAP HANA Platform (see Prerequisites [page 16]).
>
> When you download an AFL revision from the SAP Support Portal, the compatible revision of the SAP HANA database is indicated.

Nomenclature

The following table explains how you can see the dependencies by looking at the release numbers:

Release of ...	Released as ...	Example	Guideline
SAP HANA Platform	<Support Package Stack>	SAP HANA Platform SPS **11**	The number of the support package stack determines the first digits of the revisions.
SAP HANA Database	<Revision>.<Patch>	SAP HANA Database **11**2.0 **2**	All 11x.xx database revisions belong to the SPS 11 platform stack. The patch number determines the first digit of the AFL patch.
UDF AFL	<Revision>.<Patch>	UDF AFL **11**2. **2**0	
POS AFL		POS AFL **11**2. **2**0	
SAP HANA AFL		SAP HANA AFL **11**2. **2**0	

→ Recommendation

We recommend that you upgrade all the AFLs **at the same time**. This means:

- UDF AFL and POS AFL, which you must both install for a successful upgrade of SAP Customer Activity Repository retail applications bundle
- SAP HANA AFL, which is one of the mandatory prerequisites
- if applicable, other AFLs provided with SAP HANA that might be relevant for your scenario

Focus on the AFL that provides the most important functionality for your scenario (for example, demand forecasting with the UDF AFL). Select the best revision of that AFL for your scenario. This in turn will give you the compatible revision of the SAP HANA database and the compatible revisions of the other AFLs. Then install all the AFLs together.

Download and Install the UDF AFL (Focus: Demand Forecasting)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your Unified Demand Forecast scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2050229: Gives you an overview of all UDF AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the UDF AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2050229.

i Note

To use the UDF functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure Unified Demand Forecast (Optional) [page 64].

Download and Install the POS AFL (Focus: On-Shelf Availability)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your On-Shelf Availability scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.

- SAP Note 2056102: Gives you an overview of all POS AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the POS AFL.
- SAP-HANA-related information:
  - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
  - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
  - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
  - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
  - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database

2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2056102.

> **i Note**
>
> To use the On-Shelf Availability functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure On-Shelf Availability (Optional) [page 53].

Result

You have successfully upgraded the `CAR RETAIL APPL BUNDLE 1.0` back-end product version to the current SPS. Continue with the next section.

4.2.3.2.3 Upgrade Product-Specific SAP Fiori UI Component

Use

This procedure describes how to upgrade the `SAP FIORI FOR SAP CARAB` front-end product version from an older support package stack to a newer one.

The ABAP front-end server contains the complete UI layer, which consists of the SAP Gateway, the central SAP Fiori UI component, and the product-specific SAP Fiori UI component. The product-specific SAP Fiori UI component contains all the SAP Fiori user interfaces for the applications provided for the SAP Customer Activity Repository retail applications bundle.

Procedure

1. Identify the support package stack on the SAP Support Portal at http://support.sap.com *Software Downloads* > *Support Packages and Patches* > *Software Downloads* > *By Alphabetical Index (A-Z)* > *F* >

SAP FIORI > *SAP FIORI FOR SUITE* > *SAP FIORI FOR SAP CARAB* > *SAP FIORI FOR SAP CARAB 2.0 SPS01* .

For more information on support package stacks, see http://support.sap.com/sp-stacks.

2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).

   For more information, see SAP Help Portal at http://help.sap.com/spmanager > *Application Help* , as well as SAP Note 1803986.

   > ⚠ Caution
   >
   > As of the FP3 release, software components `UISCAR01` and `UIRAP001` have been merged into one, `UICAR001`, software component.

3. If you are using SAP Assortment Planning for Retail, consult SAP Note 2077357, which lists the SAP Notes relevant for your release.

4.2.3.3 Follow-Up Activities

4.2.3.3.1 Create SAP ERP Tables

> ⚠ Caution
>
> Following an upgrade, it is important to remember to create any additional tables required by the new release.

Tables required to be created as of the SAP Assortment Planning for Retail are listed in SAP Note 2263205. Ensure that **all** tables listed in this note have been created.

4.2.3.3.2 Reactivate SAP Assortment Planning for Retail Planning Framework Content

4.2.3.3.2.1 Activate SAP HANA Content

Use

In this procedure, you activate all SAP HANA content required by SAP Customer Activity Repository.

For more information about activating SAP HANA content, see SAP Help Portal at http://help.sap.com/hana_platform > *<your SAP HANA Platform SPS>* > *Development and Modeling* > *SAP HANA Developer Guide (For SAP HANA Studio)* > *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.
- You must also set up the roles and privileges for the Unified Demand Foreast module as described in the *Authorization Requirements for the UDF AFL* section of the *SAP Customer Activity Repository Security Guide*, available at http://help.sap.com/car ▶ *<your release>* ▶ *Security Information* ▶.
  You must do this regardless of whether you want to use UDF forecasting in your scenario or not. This procedure not only enables UDF, but it is required so that the SAP HANA content for SAP Customer Activity Repository can be activated correctly.

Procedure

To activate the SAP HANA content, carefully follow the instructions provided in SAP Note 2330386.

> ⚠ Caution
>
> If you are applying a support package or correction on an existing installation and this support package or correction involves SAP HANA content for the DDF module or the UDF module in SAP Customer Activity Repository, then you must manually activate this content again. For example, this is the case when you apply an SAP Note using transaction **SNOTE**.
>
> Follow the instructions in SAP Note 2145356.

More Information

If you encounter issues during the activation, see the Troubleshooting [page 75] section for possible solutions.

4.2.3.3.2.2 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 1

Use

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 102].

Prerequisites

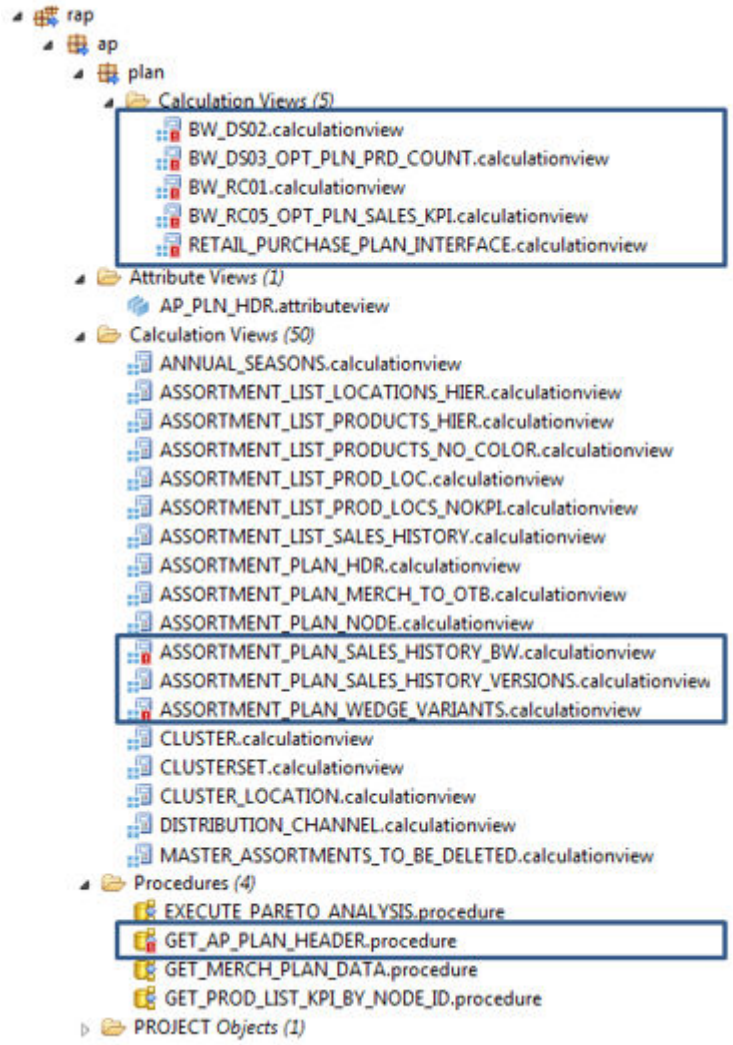
As a mandatory prerequisite for a successful activation of SAP HANA content for SAP Assortment Planning for Retail, you must have successfully completed all of the procedures listed in the previous sections of this guide. In particular, you must have activated SAP HANA content for SAP Customer Activity 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 the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.
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. The figure below provides an example of content that has not been deployed.



Example of SAP HANA content not deployed

A small number of views not deploying is an 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 102] 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*

4.2.3.3.2.3 Activate Application BI Content

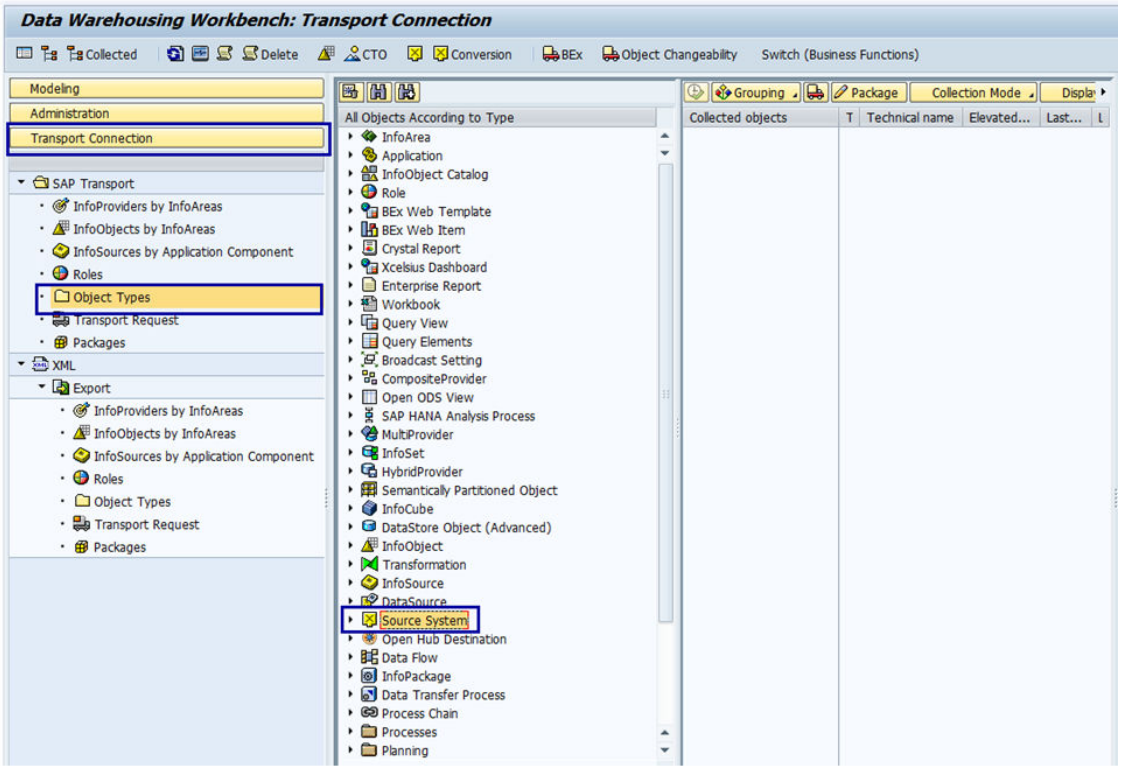
Use

In this procedures, you perform a sequential, step-by-step activation of the local BI Content objects following the upgrade to SAP Assortment Planning for Retail 1.0 FP3.

> **i** Note
>
> To ensure correct activation of the local BI Content objects, carry out the activation sequentially, as specified in the following procedures.
>
> Also, the default BI setting to collect and activate all dependencies must not be disabled by the user. The instructions below activate a minimum subset of objects, and it assumed that all their dependencies will be collected and activated.

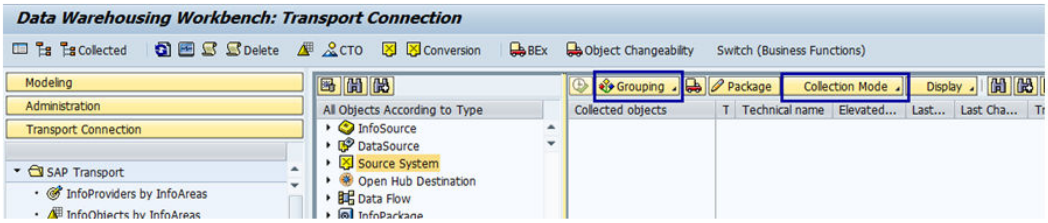
Procedure

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*.



Selecting Source Systems

4. Use *Select Objects* to ensure that the back-end system is selected as the source system.
5. Choose *Transfer Selections*.
6. At the top of the right-hand frame, above the list of *Collected objects*, choose *Grouping* and select *Only Necessary Objects*.
7. At the top of the right-hand frame, choose *Collection Mode* and select *Collect Automatically*.



Grouping and Collection Settings

3. Select *BI Content* in the left-hand frame.
4. Determine your BI Content installation requirements and apply these to each subsequent step.
   If you are carrying out a brand new installation, proceed to the next step.

   > ### → Recommendation
   >
   > If, however, you have previously installed/activated any of the `/RAP/*` BI Content, you need to apply special considerations to the installation/activation of BI Content following a system upgrade.
   >
   > - If you have modified any of the previously installed `/RAP/*` BI Content objects, we recommend that for the modified objects, you enable the *Match (X) or copy* option. When this options is selected, you will be asked to carry out an additional *Transfer selections* step during which you select to install the *Active Version* (that is, your modified version) or the *Content Version* (that is, the SAP delivered, and possibly updated version of the object).
   > - If you have not modified any of the previously installed `/RAP/*` BI Content objects, you do not need to enable the *Match (X) or copy* option for any of the BI Content objects, and you don't need to choose whether to install the *Active Version* or the *Content Version* of the objects.

5. 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.
   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.

6. Maintain version master data. As of FP3 , two new versions, *AW1* and *AW2*, are required.
   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:

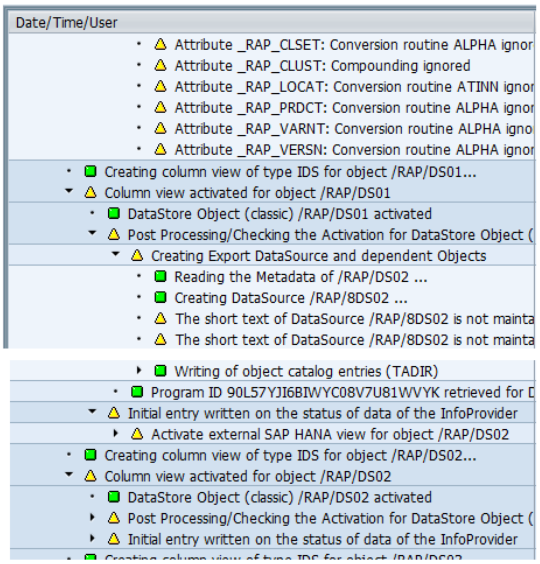
Version
AP1
AP2
AW1
AW2
OC1
OC2
OM1
OM2
APF
REF
000

   The supported planning versions are described in detail in the *Maintain Customizing Table /RAP/RS_VARCUST* section of the *Common Installation Guide*.

> **i Note**
>
> If you encounter problems opening the master data maintenance WebDynpro application, ensure that you have implemented SAP Note 2034623.

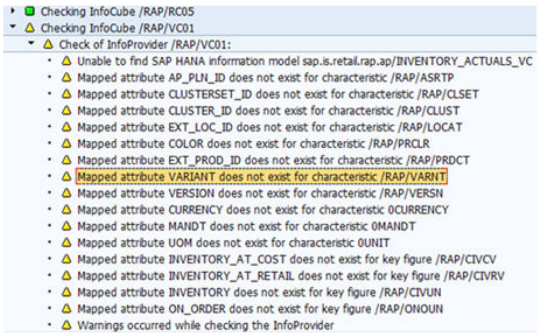
7. Activate DataStore Objects.
   1. Expand *More Types* > *DataStore Object (Classic)*.
   2. Use *Select Objects* to select all DataStore Objects starting with `/RAP/*`.
   3. Choose *Transfer Selections*.
   4. In the list of *Collected objects*, verify that the option in the *Install* column is enabled 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.

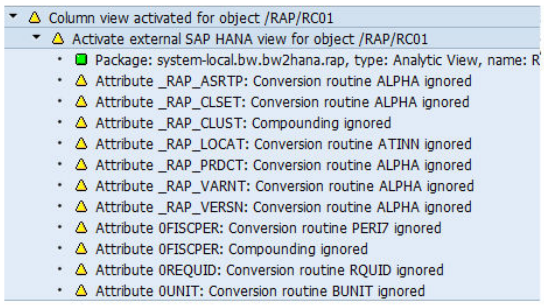
If during the installation, you are presented with a dialog asking you to add objects to a personal list, select **No**.
If activation warnings similar to the ones displayed below appear, you can ignore them.



Warnings

8. Activate InfoCubes.
    1. Expand *InfoCube*.
    2. Use *Select Objects* to select all InfoCubes starting with `/RAP/RC*`.
    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.





Warnings

9. Activate new Aggregation Level.
    1. Expand ▶ *Planning* ▶ *Aggregation Level* ▶.
    2. Use *Select Objects* to select the `/RAP/D08A02` Aggregation Level.
    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.
10. Reactivate Planning Sequence Objects.
    1. Expand ▶ *Planning* ▶ *Planning Sequence* ▶.
    2. Use *Select Objects* to select the following Planning Sequences:
        - `/RAP/D12A01_PS01`
        - `/RAP/D12A01_PS02`
        - `/RAP/D15A01_PS01`
        - `/RAP/D15A01_PS02`
        - `/RAP/D07A04_PS01`
        - `/RAP/M06A01_PS07`
        - `/RAP/R10A01_PS02`
    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. Reactivate Workbooks.
    1. Expand ▶ *More Types* ▶ *Analysis Office Excel Workbook* ▶.
    2. Use *Select Objects* to select the following workbooks:
        - `/RAP/OPTIONPLANBYMODULE`
        - `/RAP/OPTIONPLANBYCLUSTER`
        - `/RAP/REFINEASSORTMENT`
        - `/RAP/PLANASSORTMENT`
    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. Choose *Exit* to leave the transaction.

4.2.3.3.2.4 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 2

Use

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 tables

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

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

2. Assign the required privileges described in section *Authorization Requirements for the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.

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*

4.2.3.3.2.5 Verify Activation of External Views

Use

During activation of SAP HANA content for SAP Assortment Planning for Retail, several external views are not automatically activated. Following an upgrade, you need to verify that all previously activated external views remain active.

Procedure

1. Use either transaction `SE11` or `SE80` to verify that all the external views listed in SAP Note 2067030 are in an activate state. If they are not, manually activate the views.

4.2.3.3.3 Maintain Customizing Table /RAP/RS_VARCUST

Use

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. Run report `/RAP/SEED_BW_CUSTOMIZING_DATA` (transaction `SE38`).
3. Determine whether you want to overwrite the existing entries in the `/RAP/RS_VARCUST` table.
   If you do want to overwrite the contents of the table, enable the *Remove Existing Entries* option. If you don't want to overwrite the contents of the table, but want to append the new entries, disable the *Remove Existing Entries* option.

   > **i Note**
   >
   > Duplicate entries that can potentially be created if you choose to disable the *Remove Existing Entries* option, which will result in an error.

4. Enable the *Test* option and choose *Execute* to run the report in test mode.
   Running the report in test mode allows you to verify that you can successfully update the `/RAP/RS_VARCUST` table. No entries are persisted in the table as a result.
5. Once you have successfully executed the `/RAP/SEED_BW_CUSTOMIZING_DATA` report in test mode, disable the *Test* option and choose *Execute* to run the report.
6. Optionally, once the report has finished executing, you can verify the entries of the `/RAP/RS_VARCUST` variable customizing table.
   If required, you can make changes to any of the entries made by the `/RAP/SEED_BW_CUSTOMIZING_DATA` report by doing the following:
   1. Open the *Data Browser* (transaction `SE16`).
   2. Enter **`/RAP/RS_VARCUST`** in the *Table Name* field and choose *Create Entries*.
   3. Choose *Execute* followed by *Create*.
      On the *Table /RAP/RS_VARCUST Insert* screen, you will be able to make the following entries:

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`.

Field Name	User Entry
INFOCUBE	InfoCube identifier. For example, /RAP/RC01.
VNAM_VERS	Version variable name. For example, /RAP/VERSN_MSM_01.
VERSION	Version Identifier. There are several supported planning versions: ○ AP1: Location level version 1. Version that is typically used as the planning version. ○ AP2: Location level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ AW1: Week level version 1. Version that is typically used as the planning version. ○ AW2: Week level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OC1: Option plan by cluster simulation version 1. Version that is typically used as the planning version. ○ OC2: Option plan by cluster simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OM1: Option plan by module simulation version 1. Version that is typically used as the planning version. ○ OM2: Option plan by module simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ APF: Final version (planned data). After completing the planning, the user will select the plan they want to finalize and review in the *Plan Weekly Sales and Receipts* workbook. Only the APF version is available in *Plan Weekly Sales and Receipts*. ○ 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. ○ 000: Actual version (current data). The user can see current inventory values with this such as Actual Inventory and Open Orders.
F4HELP	Flag that specifies whether the field provides F4 help or not.

4. Maintain entries in the /RAP/RS_VARCUST table as required.
   For example you can change the InfoCube used as the source of data for a particular planning version.
5. Choose *Save*.

4.2.3.3.4 Update Fiscal Year Variant Entries

Use

In this procedure you update previously maintained fiscal year variants (`0FISCVARNT 'RW'`). The SAP Merchandise Planning for Retail application, which can be used in conjunction with the SAP Assortment Planning for Retail application, only supports fiscal years with 52 posting periods. As a result, fiscal year variant entries must be adjusted, entering each year with 53 posting periods as a shortened fiscal year.

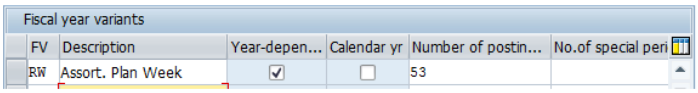
> ⚠ Caution
>
> You must maintain fiscal year variants for at least one year past the years for which you are planning. For example, if your assortment plans extend to December 2018, you must maintain fiscal year variants until December 2019.

The steps provided in this procedure allow you to maintain `0FISCVARNT 'RW'` using the standard 4-5-4 calendar entries. If you are using alternative fiscal periods in your retail business, for example, each week starting on a Sunday instead of Saturday, you can provide your own entries instead of the ones suggested in this guide.

Procedure

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose *New Entries*.

4. On the *New Entries: Overview of Added Entries* screen make the following sets of entries:


Fiscal year variants

FV	Description	Year-depen...	Calendar yr	Number of postin...	No.of special peri
RW	Assort. Plan Week	☑	☐	53	

Create New Fiscal Year Variant

5. Choose *Enter*.
   An information message is displayed about creating more than 16 periods, choose *Continue*.
6. Choose *Back*.
   You can see the newly created entry.
7. Mark the entry *RW* and double-click on *Shortened Fiscal Years* from the *Dialog Structure*.
8. Enter **2012** in the *Fiscal year* field and choose *Continue*.
9. Choose *New Entries*.
10. Enter **52** in the *No. of posting periods* field in the *Shortened Fiscal Years* section.
11. Choose *Back* twice.
12. Open SAP Note 2112634, locate the entries for year 2012, and enter the data by copy-and-paste.
13. Repeat steps 7-12 to maintain the weekly fiscal year variant for years 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2020, entering each year as shortened fiscal year. The corresponding tables are available in SAP Note 2112634.
14. Choose *Save* after you have finished the maintenance for year 2020.

4.2.3.3.5 Set Language for Ribbons and Buttons in Workbooks (Optional)

Use

In this optional procedure, you can change the language settings specific to SAP Assortment Planning for Retail workbooks. During the upgrade, some of the workbooks are updated, and, if you have previously changed the language settings of these workbooks, you need to make these settings again following the upgrade.

You can set the desired language of the following user interface objects:

- Ribbons *Planning Functions*, *Refinement Functions*, and *Extended Features*
- Tooltips for planning functions
- Message texts
- Buttons

The content of the workbooks consists of multiple parts:

- The language of the standard menus and standard ribbons depends on the language set for Microsoft Excel.
- The language of the contents in the cells (mainly KPIs) depends on the user-selected system language of the back-end system.
- The language of the user interface objects that are specific to the workbooks of SAP Assortment Planning for Retail, 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*.

4.2.3.3.6 Verify that Data Replication is Running Following the Upgrade

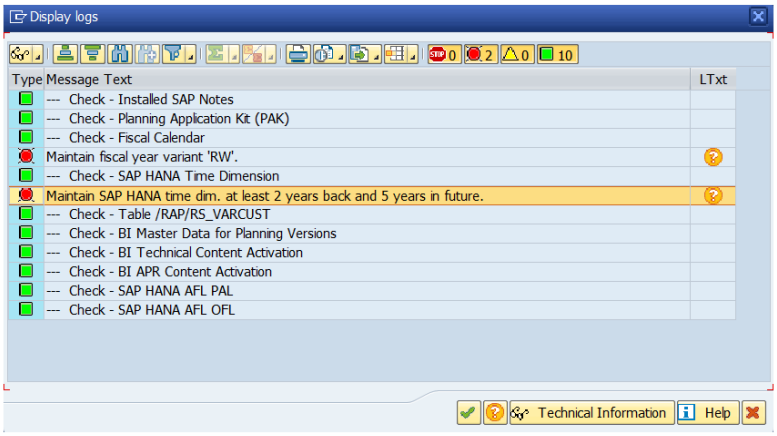
In general, following the upgrade, you need to ensure that all of the data replication described in *Configure Data Replication* section of the *Common Installation Guide* is still running.

In particular, you need to pay attention to the following:

- Ensure that time-dependent article hierarchies are properly loaded into SAP Assortment Planning for Retail following the upgrade. See *Load of Time-Dependent Article Hierarchies* section of the *Common Installation Guide*.
- All the tables listed in SAP Note 2054656 are being replicated. New tables can be added with each new release.
- Ensure that periodic tasks to load product attributes into SAP Assortment Planning for Retail are still running following the upgrade. See, *Load Product Attributes into SAP Assortment Planning for Retail* section of the *Common Installation Guide*.
- Ensure that OTB data is being loaded from the appropriate source. For more information, see the *Load Merchandise Planning Data* section of the *Common Installation Guide*.

4.2.3.3.7 Run the Validation Report

1. Run transaction `SE38`.
2. Execute the `/DMF/VALIDATE_CAR_INSTALLATION` report.
3. Select the *Assortment Planning* scenario and select *Execute*.
   Running this report allows you verify the success of the installation, providing a log of potential issues. For example, you may be presented with the following results:



Validation Report Results

View the long text associated with each message to see the link to the documentation describing the procedure you need to troubleshoot.

4.2.3.3.8 Configure Index Calculation

Use

The SAPUI5 application index provides an indexing and caching mechanism for information related to SAPUI5 apps, components, and libraries that are contained in SAPUI5 repositories on the SAP NetWeaver Application Server for ABAP. This index, calculated by the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report (`/UI5/APP_INDEX_CALCULATE`), makes it possible to retrieve and find this information significantly faster than when carrying out the calculations each time it's requested.

We recommend that you schedule the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report as to run as a background job on your front-end server.

Following any changes to the content of the SAPUI5 ABAP repository (for example, installation of a new version of the SAPUI5 distribution layer or implementation of an SAP Note containing changes to an SAPUI5 app), the SAPUI5 application index should be updated using the calculation report. This report has to be executed in every system whenever the content of the SAPUI5 ABAP repository has changed.

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
     - http://help.sap.com/nw-uiaddon20 ▶ *Application Help* ▶ *SAPUI5: UI Development Toolkit for HTML5* ▶ *Developing Apps* ▶ *The SAPUI5 ABAP Repository and the ABAP Back-End Infrastructure* ▶ *SAPUI5 Application Index*
   - SAP Gateway for SAP NetWeaver 7.40
     - http://help.sap.com/nw74 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 740* ▶ *SAPUI5: UI Development Toolkit for HTML5* ▶ *Using the SAPUI5 Repository* ▶ *SAPUI5 Application Index*
       Alternatively, you can launch the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report (`/UI5/APP_INDEX_CALCULATE`) from Customizing under ▶ *SAP NetWeaver* ▶ *UI Technologies* ▶ *SAP Fiori* ▶ *Initial Setup* ▶ *Schedule SAPUI5 Application Index Calculation*.

4.2.3.3.9 Activate SAP Assortment Planning for Retail OData Services

Use

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 48] 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*.

OData Service
/DMF/CURRENCY_LIST_SRV
/DMF/LOCATION_CLUSTERSET_SRV
/DMF/MODULE_MANAGEMENT_SRV
/DMF/OBJ_ATTRIBUTE_SRV
/DMF/SEARCH_LOCATIONS_SRV
/DMF/SEARCH_PRODUCTS_SRV
/DMF/SEASONS_SRV
/DMF/MASTER_DATA_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*.

OData Service
/RAP/ASSORT_AUTOMATIC_PROP_SRV
/RAP/ASSORT_LIST_MODULE_SRV
/RAP/ASSORTMENT_PLAN_SRV
/RAP/OPTION_PLAN_SRV
/RAP/PHP_MATCH_SRV
/RAP/SADL_PROD_LIST_KPI_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 http://help.sap.com/nw-uiaddon20 *Application Help* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP Gateway OData Services*.

For SAP NetWeaver 7.4, see the documentation on SAP Help Portal at http://help.sap.com/nw74 *Application Help* > *UI Technologies in SAP NetWeaver with SAP_UI 740* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP Gateway OData Services*.

4.2.3.3.10 Activate SAP Assortment Planning for Retail ICF Services

Use

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 48] and Configure Central UI Component [page 51] 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/locclsts_v2/`**
4. Choose *Execute*.
5. To activate the service, choose *Service/host Activate*.
6. Repeat steps 3 to 5 to ensure that **all** of the following services are activated:
   - `/sap/bc/ui5_ui5/sap/attribmgmt_v2/`
   - `/sap/bc/ui5_ui5/sap/assortmodule_v2/`
   - `/sap/bc/ui5_ui5/sap/assortplan_v2/`
   - `/sap/bc/ui5_ui5/sap/ddfreuse_v2/`
   - `/sap/bc/ui5_ui5/sap/locclsts_v2/`
   - `/sap/bc/ui5_ui5/sap/modulemgmt_v2/`
   - `/sap/bc/ui5_ui5/sap/optionplan_v2/`
   - `/sap/bc/ui5_ui5/sap/phpmatch_v2/`

4.2.3.3.11 Define System Alias for Back-End Transactions

Use

A number of SAP Assortment Planning for Retail SAP Fiori apps, installed on your front-end system, launch transactions directly on the back-end system. For example, the *Manage Products* tile actually launches the Demand Data Foundation (DDF) `POWL_EASY` WebDynpro application.

To enable this behavior, you need to create a dedicated RFC connection between the front-end 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).
   Ensure to maintain all of the settings required to connect to your back-end system, in particular, the *Target Host* entry on the *Technical Settings* tab.
4. Create another RFC connection with the RFC Destination set to `SAP_ERP_ISR_CARAB` and *Connection Type* set to `H` (HTTP connection).

Ensure to maintain all of the settings required to connect to your front-end system to the SAP ERP system, in particular, the *Target Host* entry on the *Technical Settings* tab.

5. Save your changes.
6. Open *Launchpad Customizing* (transaction `LPD_CUST`).
7. Select the SAP Assortment Planning for Retail role (`UIRAP001`), and choose *Display*.
   The two catalogs, *Assortment Planner* and *Planning Administrator*, are displayed.
8. In each of the catalogs, selecting one app at a time, make the following settings:

Catalog	App	System Alias	Description
Assortment Planner	*View Log*	`SAP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `SLG1` on the back-end system. **i Note** This application is only used to configure a link to the back-end system, you do not need to add this app to your SAP Fiori launchpad.
	View ExtAssort Listing Conditions	`SAP_ERP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `WSL10` on the connected SAP ERP system. **i Note** This application is only used to configure a link to the SAP ERP system, you do not need to add this app to your SAP Fiori launchpad.
	View External Assortments	`SAP_ERP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `WRF_WSOA3` on the connected SAP ERP system. **i Note** This application is only used to configure a link to the SAP ERP system, you do not need to add this app to your SAP Fiori launchpad.
Assortment Planner	*Manage Category responsibilities*	`SAP_ISR_CARAB`	This setting allows the *Manage Category Responsibilities* app to launch the corresponding DDF WebDynpro application.
	Manage Products	`SAP_ISR_CARAB`	This setting allows the *Manage Products* app to launch the corresponding DDF WebDynpro application.
	Manage Locations	`SAP_ISR_CARAB`	This setting allows the *Manage Locations* app to launch the corresponding DDF WebDynpro application.

4.2.3.3.12 Troubleshoot Front-End Server Upgrade

Use

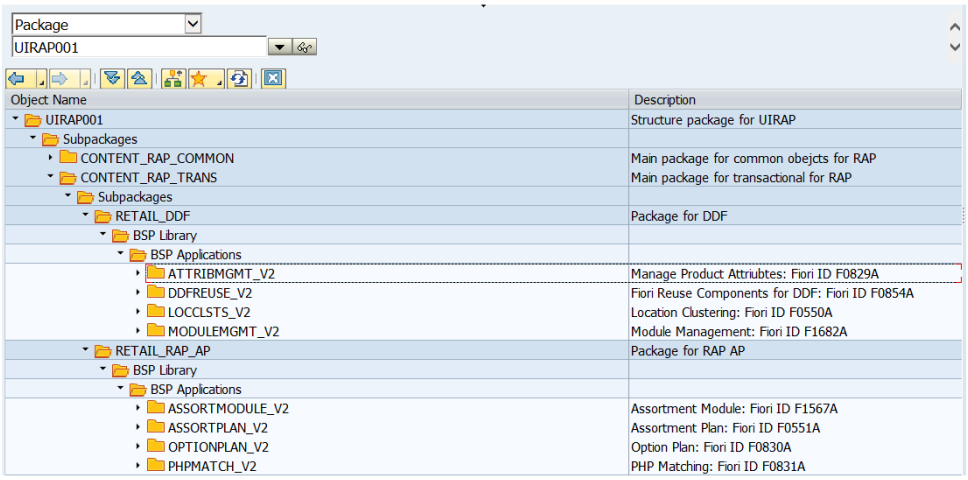
Following the upgrade of the product version on the front-end server, you may not be able to see some of the SAP Assortment Planing for Retail 1.0 FP3 SAP Fiori tiles in your launchpad. This section outlines how to troubleshoot these issues, should you experience them.

These steps are also listed in the *Troubleshooting* section of the *SAP Assortment Planing for Retail Administrator's Guide* available on the SAP Help Portal at http://help.sap.com/rap ▶ *<Your Release>* ▶ *System Administration and Maintenance Information* ▶ *Administrator's Guide* ▶.

Process

Do the following:

1. Check that all of the required BSP applications are listed in the `UIRAP001` package.
    1. Log on to your front-end system (your SAP Gateway system).
    2. Launch the *Object Navigator* (transaction `SE80`).
    3. In the *Repository Browser*, open package `UIRAP001`.
    4. Expand all of the embedded packages of embedded package `CONTENT_RAP_TRANS`.
    5. Verify that the following *BSP Applications* are listed:



BSP Applications

6. If you do not see one or more of the BSP applications listed above, right-click on each of the `RETAIL_DDF` and `RETAIL_RAP_AP` packages, and select ▶ *Other Functions* ▶ *Rebuild Object List* ▶.

> ⚠ Caution
>
> Do not rebuild objects on a higher package level.

2. Clean the cache.
    1. Log on to your front-end system (your SAP Gateway system).
    2. In Customizing (transaction `SPRO`), navigate to *SAP NetWeaver* > *UI Technologies* > *SAP Fiori* > *Data Administration* > *Invalidate Caches*.
    This activity launches the `/UI2/INVALIDATE_GLOBAL_CACHES` report. This report invalidates all server-side caches in SAP NetWeaver user interface services, which can become out-of-date following an upgrade.
    3. If necessary, implement instructions listed in SAP Note 2147669.
3. Remove any previously customized versions of the `UIRAP001` launchpad.
    1. Log on to your front-end system (your SAP Gateway system).
    2. Launch the *Overview for Launchpads* (transaction `LPD_CUST`).
    3. Search for *Role* `UIRAP001`, and see whether any instances exist where the *User Name* is not *SAP*. If so, this means that customized versions of the `UIRAP001` launchpad exist, and these take precedence over the standard launchpad instance delivered by SAP.
    4. Delete all but the launchpad instance delivered by SAP.

4.2.4 1.0 FP2 to 1.0 SP5

This section is intended for existing SAP Assortment Planning for Retail customers who have installed and configured SAP Assortment Planning for Retail 1.0 FP2 and would like to upgrade to SAP Assortment Planning for Retail 1.0 SP5.

4.2.4.1 Quick Guide

This section includes a checklist with all actions that you have to perform. The actions are in chronological order, so that you can work through them like a checklist.

Checklist

Prerequisites

Mandatory Steps

- ☐ Ensure that you have implemented the necessary SAP Notes listed in the *SAP Notes for the Upgrade* section.
- ☐ Ensure that your landscape meets the requirements outlined in the *Prerequisites* section.

Preparation

Mandatory Steps

- ☐ Configure AFL and OFL usage.
- ☐ Verify that you have all of the required SAP HANA users and privileges. See Verify SAP HANA Users and Privileges [page 83].
- ☐ Configure AFL and OFL usage. See Enable Usage of PAL Functions [page 86] and Check the OFL Installation [page 87].

Upgrade Process

Mandatory Steps

- ☐ Implement SAP Note 2298340 if your landscape includes a NW version earlier than NW 740 SP15. You must perform this step prior to upgrading the back-end system product version.
- ☐ Upgrade your back-end system product version in SAP Solution Manager.
- ☐ Upgrade the application function libraries (`UDFAFL_INST 100`, `POSAFL_INST 100`).
- ☐ Upgrade or install product-specific SAP Fiori UI components on the front-end server.

Follow-Up Activities

Mandatory Steps

- ☐ Create SAP ERP tables.
- ☐ Verify SAP HANA and back-end system roles. See the *Verify Users, Privileges, and Roles* section in the *Common Installation Guide*.
- ☐ Adjust Customizing settings.
- ☐ Reactivate SAP Assortment Planning for Retail planning framework content.
- ☐ Maintain Customizing table `/RAP/RS_VARCUST`.
- ☐ Update fiscal year entries.
- ☐ Optionally, restore language settings in workbooks.
- ☐ Verify that data replication is running following the upgrade.
- ☐ Run the SAP Assortment Planning for Retail 1.0 FP3 update report.
- ☐ Run the validation report.
- ☐ Configure index calculation.
- ☐ Activate SAP Assortment Planning for Retail OData services.
- ☐ Verify that all the ICF services relevant to SAP Assortment Planning for Retail are active following the upgrade.
- ☐ Define system alias for back-end transactions.
- ☐ Troubleshoot front-end server upgrade.

4.2.4.2 Upgrade Process

4.2.4.2.1 Implement SAP Note 2298340

Use

Prior to upgrading the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack (SPS) to a newer one, you need to verify the SAP NetWeaver 7.40 SPS in your system landscape. Important corrections, relevant for Core Data Services (CDS) views, and required by the latest SPS of `CAR RETAIL APPL BUNDLE 1.0`, are only available as of SAP NetWeaver 7.40 SPS 15.

Procedure

1. Verify your SAP NetWeaver 7.40 support package stack.
   If your landscape contains SAP NetWeaver 7.40 SPS 12, SPS13, or SPS14, you will need to implement SAP Note 2298340 to apply corrections relevant for CDS views.
   If your landscape has been upgraded to SAP NetWeaver 7.40 SPS 15, you do not need to implement SAP Note 2298340, and you can go to the next procedure.
2. Read and implement SAP Note 2298340 **prior** to upgrading the back-end system product version.

More Information

http://help.sap.com/hana_platform ▶ *Development and Modeling* ▶ *SAP HANA Modeling Guide (For SAP HANA Studio)*

4.2.4.2.2 Upgrade SAP Customer Activity Repository Retail Applications Bundle

Use

This procedure describes how to upgrade the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack to a newer one.

Procedure

1. Check your upgrade scenario:
   1. Navigate to the Product Availability Matrix (PAM) at http://support.sap.com/pam.
   2. For information about the available support package stacks (SPS), search for the `CAR RETAIL APPL BUNDLE 1.0` product version, and choose *Support Package Stacks*.
   3. For information about the supported upgrade paths, choose *Related Product Versions*.
   4. For information about the software components in the SPS, choose *Technical Release Information* and consult the subsections, such as *Database Systems*.
   5. To navigate directly to the download area for the SPS, choose *SAP Software Download Center* > *CAR RETAIL APPL BUNDLE 1.0 - Support Packages & Patches*.
      Alternatively, you can get there from the SAP Support Portal by choosing http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0*.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information about this tool, see SAP Help Portal at http://help.sap.com/spmanager > *Application Help*, as well as SAP Note 1803986.

To finalize the upgrade of the back-end product version, you must additionally do some manual steps. Continue with the next section.

Download and Install the Application Function Libraries (AFLs)

There are two components that you cannot upgrade using Support Package Manager.

- Unified Demand Forecast application function library (UDF AFL, software component version `UDFAFL_INST 100`, provides the demand modeling and forecasting services in SAP Customer Activity Repository, runs directly in the SAP HANA database)
- On-Shelf Availability application function library (POS AFL, software component version `POSAFL_INST 100`, provides the On-Shelf Availability services in SAP Customer Activity Repository, runs directly in the SAP HANA database)

You need to download one UDF AFL revision and one POS AFL revision manually and install them together in your SAP HANA database.

Where to Download

Both AFLs are provided as part of the `CAR RETAIL APPL BUNDLE 1.0` product version on the SAP Support Portal under http://support.sap.com/swdc > *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0* > *Entry by Component* > *Analytics AFL*.

For a successful upgrade, you need to be aware of the following dependencies.

Dependencies Between the AFLs and the SAP HANA Database

The AFLs are released independently of the releases of SAP Customer Activity Repository retail applications bundle. This is because the AFLs follow the release cycle of the SAP HANA database. The releases are called “revisions”. Whenever a new revision of the SAP HANA database is released, a new revision of each AFL is released. As a result, multiple revisions of each AFL are available on the SAP Support Portal at any one time.

> ⚠ Caution
>
> For each revision of an AFL, there is **only one** compatible revision of the SAP HANA database. For example, you can only use revision 112.20 of the UDF AFL with revision 112.02 of the SAP HANA database. Whenever you upgrade an AFL, you must also upgrade the database and any other AFLs to the compatible revisions. Reversely, whenever you upgrade the database, you must upgrade the AFLs.
>
> Note that this dependency applies not only to the UDF AFL and the POS AFL but also to the generic SAP HANA AFL. Both the SAP HANA AFL and the SAP HANA database are components of the SAP HANA Platform (see Prerequisites [page 16]).
>
> When you download an AFL revision from the SAP Support Portal, the compatible revision of the SAP HANA database is indicated.

Nomenclature

The following table explains how you can see the dependencies by looking at the release numbers:

Release of ...	Released as ...	Example	Guideline
SAP HANA Platform	<Support Package Stack>	SAP HANA Platform SPS **11**	The number of the support package stack determines the first digits of the revisions.
SAP HANA Database	<Revision>.<Patch>	SAP HANA Database **11**2.0 **2**	All 11x.xx database revisions belong to the SPS 11 platform stack. The patch number determines the first digit of the AFL patch.
UDF AFL	<Revision>.<Patch>	UDF AFL **11**2. **2**0	
POS AFL		POS AFL **11**2. **2**0	
SAP HANA AFL		SAP HANA AFL **11**2. **2**0	

> → Recommendation
>
> We recommend that you upgrade all the AFLs **at the same time**. This means:
>
> - UDF AFL and POS AFL, which you must both install for a successful upgrade of SAP Customer Activity Repository retail applications bundle
> - SAP HANA AFL, which is one of the mandatory prerequisites
> - if applicable, other AFLs provided with SAP HANA that might be relevant for your scenario
>
> **Focus** on the AFL that provides the most important functionality for your scenario (for example, demand forecasting with the UDF AFL). Select the best revision of that AFL for your scenario. This in turn will give you the compatible revision of the SAP HANA database and the compatible revisions of the other AFLs. Then install all the AFLs together.

Download and Install the UDF AFL (Focus: Demand Forecasting)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your Unified Demand Forecast scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2050229: Gives you an overview of all UDF AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the UDF AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2050229.

> **Note**
>
> To use the UDF functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure Unified Demand Forecast (Optional) [page 64].

Download and Install the POS AFL (Focus: On-Shelf Availability)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your On-Shelf Availability scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2056102: Gives you an overview of all POS AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the POS AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2056102.

> **i Note**
>
> To use the On-Shelf Availability functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure On-Shelf Availability (Optional) [page 53].

Result

You have successfully upgraded the `CAR RETAIL APPL BUNDLE 1.0` back-end product version to the current SPS. Continue with the next section.

4.2.4.2.3 Upgrade Product-Specific SAP Fiori UI Component

Use

This procedure describes how to upgrade the `SAP FIORI FOR SAP CARAB` front-end product version from an older support package stack to a newer one.

The ABAP front-end server contains the complete UI layer, which consists of the SAP Gateway, the central SAP Fiori UI component, and the product-specific SAP Fiori UI component. The product-specific SAP Fiori UI component contains all the SAP Fiori user interfaces for the applications provided for the SAP Customer Activity Repository retail applications bundle.

Procedure

1. Identify the support package stack on the SAP Support Portal at http://support.sap.com *Software Downloads* > *Support Packages and Patches* > *Software Downloads* > *By Alphabetical Index (A-Z)* > *F* > *SAP FIORI* > *SAP FIORI FOR SUITE* > *SAP FIORI FOR SAP CARAB* > *SAP FIORI FOR SAP CARAB 2.0 SPS01*.
   For more information on support package stacks, see http://support.sap.com/sp-stacks.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information, see SAP Help Portal at http://help.sap.com/spmanager *Application Help*, as well as SAP Note 1803986.

   > **⚠ Caution**
   >
   > As of the FP3 release, software components `UISCAR01` and `UIRAP001` have been merged into one, `UICAR001`, software component.

3. If you are using SAP Assortment Planning for Retail, consult SAP Note 2077357, which lists the SAP Notes relevant for your release.

4.2.4.3 Follow-Up Activities

4.2.4.3.1 Create SAP ERP Tables

> ⚠ Caution
>
> Following an upgrade, it is important to remember to create any additional tables required by the new release.

Tables required to be created as of the SAP Assortment Planning for Retail are listed in SAP Note 2263205. Ensure that **all** tables listed in this note have been created.

4.2.4.3.2 Adjust Customizing Settings

Use

Following the upgrade, you need to make settings in Customizing to be able to use SAP Assortment Planning for Retail 1.0 FP3.

Procedure

1. Log on to your back-end system.
2. In Customizing (transaction SPRO), navigate to *Cross-Application Components* > *Assortment Planning for Retail* > *Imported Demand Data Foundation Settings* > *Integration* > *Sending System and Master Data System Coupling*.
   As of FP3, a new column *HTTP Destination* has been added. You must specify an entry for a relevant SAP ERP system, including a valid *HTTP Destination* value, to be able to access SAP ERP assortments and listing conditions from *My Assortment Plans (Version 2)* app.

4.2.4.3.3 Reactivate SAP Assortment Planning for Retail Planning Framework Content

4.2.4.3.3.1 Activate SAP HANA Content

Use

In this procedure, you activate all SAP HANA content required by SAP Customer Activity Repository.

For more information about activating SAP HANA content, see SAP Help Portal at http://help.sap.com/hana_platform ▶ *<your SAP HANA Platform SPS>* ▶ *Development and Modeling* ▶ *SAP HANA Developer Guide (For SAP HANA Studio)* ▶ *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.
- You must also set up the roles and privileges for the Unified Demand Foreast module as described in the *Authorization Requirements for the UDF AFL* section of the *SAP Customer Activity Repository Security Guide*, available at http://help.sap.com/car ▶ *<your release>* ▶ *Security Information*.
  You must do this regardless of whether you want to use UDF forecasting in your scenario or not. This procedure not only enables UDF, but it is required so that the SAP HANA content for SAP Customer Activity Repository can be activated correctly.

Procedure

To activate the SAP HANA content, carefully follow the instructions provided in SAP Note 2330386.

> ⚠ Caution
>
> If you are applying a support package or correction on an existing installation and this support package or correction involves SAP HANA content for the DDF module or the UDF module in SAP Customer Activity Repository, then you must manually activate this content again. For example, this is the case when you apply an SAP Note using transaction **SNOTE**.
>
> Follow the instructions in SAP Note 2145356.

More Information

If you encounter issues during the activation, see the Troubleshooting [page 75] section for possible solutions.

4.2.4.3.3.2 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 1

Use

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 102].

Prerequisites

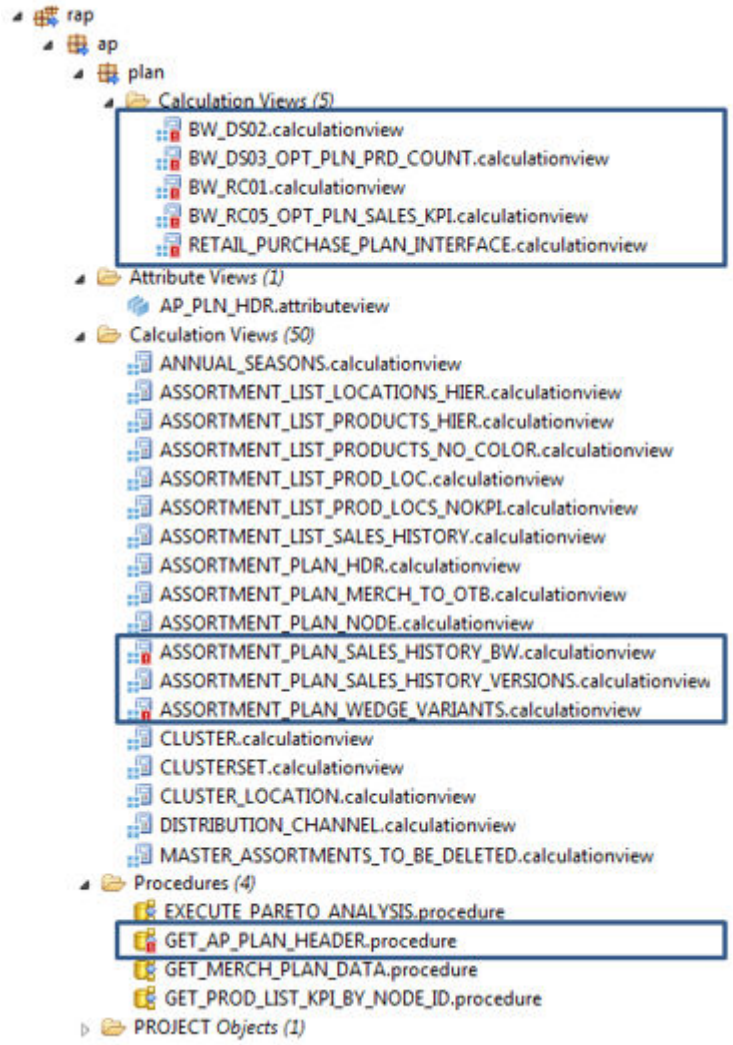
As a mandatory prerequisite for a successful activation of SAP HANA content for SAP Assortment Planning for Retail, you must have successfully completed all of the procedures listed in the previous sections of this guide. In particular, you must have activated SAP HANA content for SAP Customer Activity 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 the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.
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. The figure below provides an example of content that has not been deployed.



Example of SAP HANA content not deployed

A small number of views not deploying is an 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 102] 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*

4.2.4.3.3.3 Activate Application BI Content

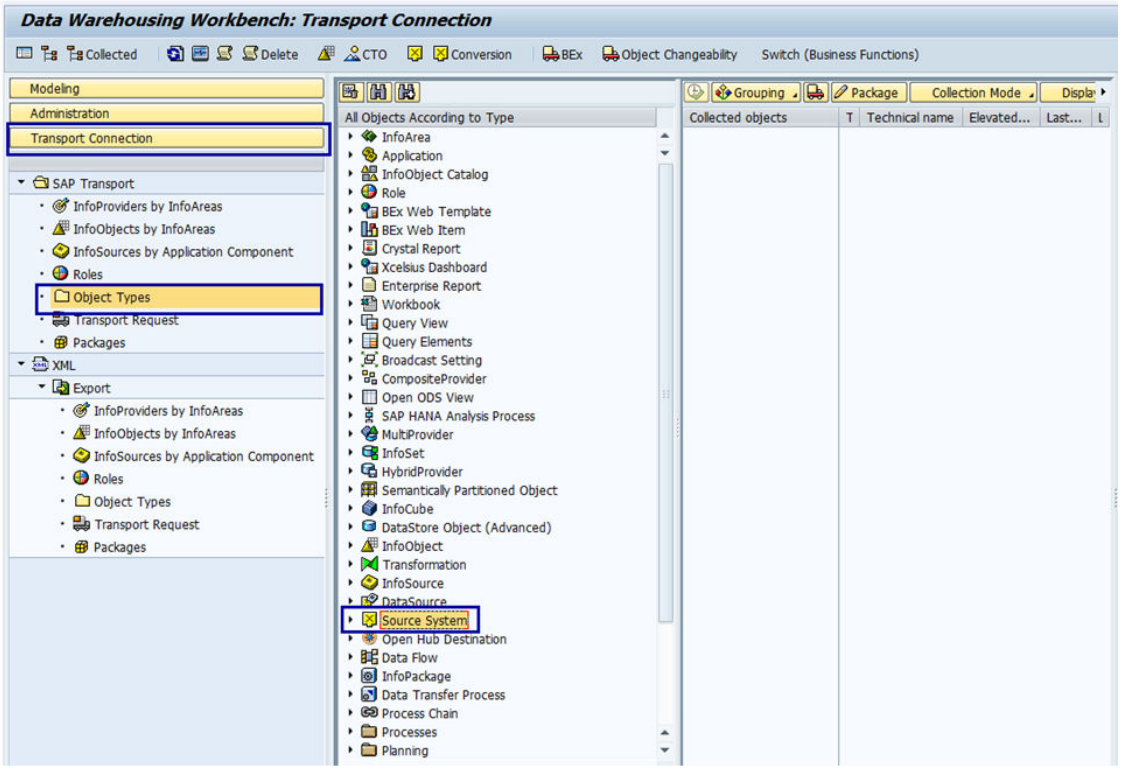
Use

In this procedures, you perform a sequential, step-by-step activation of the local BI Content objects following the upgrade to SAP Assortment Planning for Retail 1.0 FP3.

> **i** Note
>
> To ensure correct activation of the local BI Content objects, carry out the activation sequentially, as specified in the following procedures.
>
> Also, the default BI setting to collect and activate all dependencies must not be disabled by the user. The instructions below activate a minimum subset of objects, and it assumed that all their dependencies will be collected and activated.

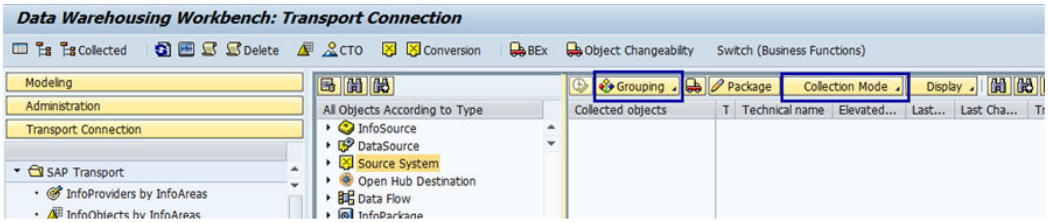
Procedure

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*.



Selecting Source Systems

4. Use *Select Objects* to ensure that the back-end system is selected as the source system.
5. Choose *Transfer Selections*.
6. At the top of the right-hand frame, above the list of *Collected objects*, choose *Grouping* and select *Only Necessary Objects*.
7. At the top of the right-hand frame, choose *Collection Mode* and select *Collect Automatically*.



Grouping and Collection Settings

3. Select *BI Content* in the left-hand frame.
4. Determine your BI Content installation requirements and apply these to each subsequent step.
   If you are carrying out a brand new installation, proceed to the next step.

   > ### → Recommendation
   >
   > If, however, you have previously installed/activated any of the `/RAP/*` BI Content, you need to apply special considerations to the installation/activation of BI Content following a system upgrade.
   >
   > - If you have modified any of the previously installed `/RAP/*` BI Content objects, we recommend that for the modified objects, you enable the *Match (X) or copy* option. When this options is selected, you will be asked to carry out an additional *Transfer selections* step during which you select to install the *Active Version* (that is, your modified version) or the *Content Version* (that is, the SAP delivered, and possibly updated version of the object).
   > - If you have not modified any of the previously installed `/RAP/*` BI Content objects, you do not need to enable the *Match (X) or copy* option for any of the BI Content objects, and you don't need to choose whether to install the *Active Version* or the *Content Version* of the objects.

5. 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.
   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.

6. Maintain version master data. As of FP3 , two new versions, *AW1* and *AW2*, are required.
   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:

Version
AP1
AP2
AW1
AW2
OC1
OC2
OM1
OM2
APF
REF
000

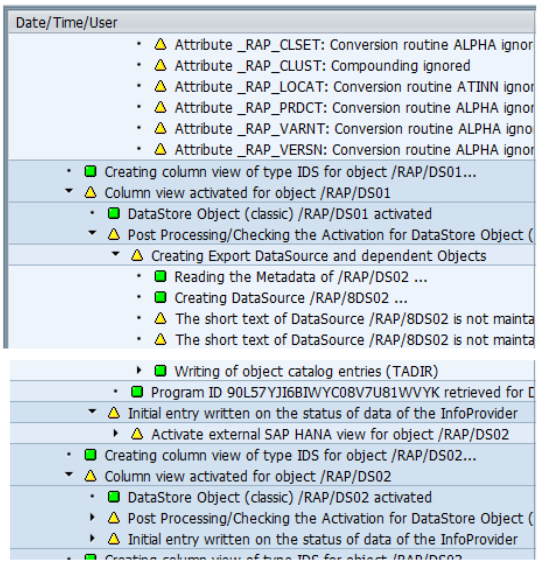
   The supported planning versions are described in detail in the *Maintain Customizing Table /RAP/RS_VARCUST* section of the *Common Installation Guide*.

> **i Note**
>
> If you encounter problems opening the master data maintenance WebDynpro application, ensure that you have implemented SAP Note 2034623.

7. 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**.

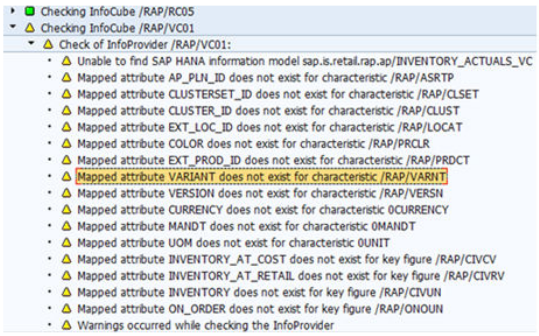
If activation warnings similar to the ones displayed below appear, you can ignore them.

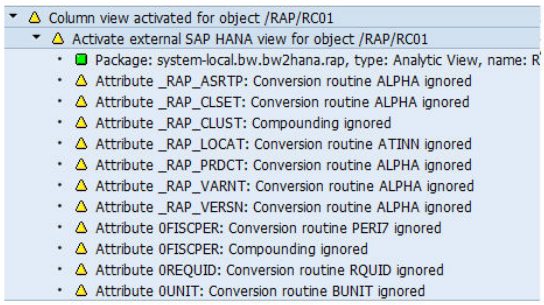


Warnings

8. Activate InfoCubes.
    1. Expand *InfoCube*.
    2. Use *Select Objects* to select all InfoCubes starting with `/RAP/RC*`.
    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.





Warnings

9. Activate new Aggregation Level.
    1. Expand ▶ *Planning* ▶ *Aggregation Level* ▶.
    2. Use *Select Objects* to select the `/RAP/D08A02` Aggregation Level.
    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.
10. Reactivate Planning Sequence Objects.
    1. Expand ▶ *Planning* ▶ *Planning Sequence* ▶.
    2. Use *Select Objects* to select the following Planning Sequences:
        - `/RAP/D12A01_PS01`
        - `/RAP/D12A01_PS02`
        - `/RAP/D15A01_PS01`
        - `/RAP/D15A01_PS02`
        - `/RAP/D07A04_PS01`
        - `/RAP/M06A01_PS07`
        - `/RAP/R10A01_PS02`
    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. Reactivate Workbooks.
    1. Expand ▶ *More Types* ▶ *Analysis Office Excel Workbook* ▶.
    2. Use *Select Objects* to select the following workbooks:
        - `/RAP/OPTIONPLANBYMODULE`
        - `/RAP/OPTIONPLANBYCLUSTER`
        - `/RAP/REFINEASSORTMENT`
        - `/RAP/PLANASSORTMENT`
    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. Choose *Exit* to leave the transaction.

4.2.4.3.3.4 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 2

Use

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 tables

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

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

2. Assign the required privileges described in section *Authorization Requirements for the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.

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*

4.2.4.3.3.5 Verify Activation of External Views

Use

During activation of SAP HANA content for SAP Assortment Planning for Retail, several external views are not automatically activated. Following an upgrade, you need to verify that all previously activated external views remain active.

Procedure

1. Use either transaction `SE11` or `SE80` to verify that all the external views listed in SAP Note 2067030 are in an activate state. If they are not, manually activate the views.

4.2.4.3.4 Maintain Customizing Table /RAP/RS_VARCUST

Use

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. Run report `/RAP/SEED_BW_CUSTOMIZING_DATA` (transaction `SE38`).
3. Determine whether you want to overwrite the existing entries in the `/RAP/RS_VARCUST` table.
   If you do want to overwrite the contents of the table, enable the *Remove Existing Entries* option. If you don't want to overwrite the contents of the table, but want to append the new entries, disable the *Remove Existing Entries* option.

   > **i Note**
   >
   > Duplicate entries that can potentially be created if you choose to disable the *Remove Existing Entries* option, which will result in an error.

4. Enable the *Test* option and choose *Execute* to run the report in test mode.
   Running the report in test mode allows you to verify that you can successfully update the `/RAP/RS_VARCUST` table. No entries are persisted in the table as a result.
5. Once you have successfully executed the `/RAP/SEED_BW_CUSTOMIZING_DATA` report in test mode, disable the *Test* option and choose *Execute* to run the report.
6. Optionally, once the report has finished executing, you can verify the entries of the `/RAP/RS_VARCUST` variable customizing table.
   If required, you can make changes to any of the entries made by the `/RAP/SEED_BW_CUSTOMIZING_DATA` report by doing the following:
   1. Open the *Data Browser* (transaction `SE16`).
   2. Enter **`/RAP/RS_VARCUST`** in the *Table Name* field and choose *Create Entries*.
   3. Choose *Execute* followed by *Create*.
      On the *Table /RAP/RS_VARCUST Insert* screen, you will be able to make the following entries:

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`.

Field Name	User Entry
INFOCUBE	InfoCube identifier. For example, /RAP/RC01.
VNAM_VERS	Version variable name. For example, /RAP/VERSN_MSM_01.
VERSION	Version Identifier. There are several supported planning versions: ○ AP1: Location level version 1. Version that is typically used as the planning version. ○ AP2: Location level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ AW1: Week level version 1. Version that is typically used as the planning version. ○ AW2: Week level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OC1: Option plan by cluster simulation version 1. Version that is typically used as the planning version. ○ OC2: Option plan by cluster simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OM1: Option plan by module simulation version 1. Version that is typically used as the planning version. ○ OM2: Option plan by module simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ APF: Final version (planned data). After completing the planning, the user will select the plan they want to finalize and review in the *Plan Weekly Sales and Receipts* workbook. Only the APF version is available in *Plan Weekly Sales and Receipts*. ○ 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. ○ 000: Actual version (current data). The user can see current inventory values with this such as Actual Inventory and Open Orders.
F4HELP	Flag that specifies whether the field provides F4 help or not.

4. Maintain entries in the /RAP/RS_VARCUST table as required.
   For example you can change the InfoCube used as the source of data for a particular planning version.
5. Choose *Save*.

4.2.4.3.5 Update Fiscal Year Variant Entries

Use

In this procedure you update previously maintained fiscal year variants (`0FISCVARNT 'RW'`). The SAP Merchandise Planning for Retail application, which can be used in conjunction with the SAP Assortment Planning for Retail application, only supports fiscal years with 52 posting periods. As a result, fiscal year variant entries must be adjusted, entering each year with 53 posting periods as a shortened fiscal year.

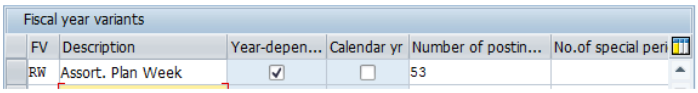
> ⚠ Caution
>
> You must maintain fiscal year variants for at least one year past the years for which you are planning. For example, if your assortment plans extend to December 2018, you must maintain fiscal year variants until December 2019.

The steps provided in this procedure allow you to maintain `0FISCVARNT 'RW'` using the standard 4-5-4 calendar entries. If you are using alternative fiscal periods in your retail business, for example, each week starting on a Sunday instead of Saturday, you can provide your own entries instead of the ones suggested in this guide.

Procedure

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose *New Entries*.

4. On the *New Entries: Overview of Added Entries* screen make the following sets of entries:



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 double-click on *Shortened Fiscal Years* from the *Dialog Structure*.
8. Enter **2012** in the *Fiscal year* field and choose *Continue*.
9. Choose *New Entries*.
10. Enter **52** in the *No. of posting periods* field in the *Shortened Fiscal Years* section.
11. Choose *Back* twice.
12. Open SAP Note 2112634, locate the entries for year 2012, and enter the data by copy-and-paste.
13. Repeat steps 7-12 to maintain the weekly fiscal year variant for years 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2020, entering each year as shortened fiscal year. The corresponding tables are available in SAP Note 2112634.
14. Choose *Save* after you have finished the maintenance for year 2020.

4.2.4.3.6 Set Language for Ribbons and Buttons in Workbooks (Optional)

Use

In this optional procedure, you can change the language settings specific to SAP Assortment Planning for Retail workbooks. During the upgrade, some of the workbooks are updated, and, if you have previously changed the language settings of these workbooks, you need to make these settings again following the upgrade.

You can set the desired language of the following user interface objects:

- Ribbons *Planning Functions*, *Refinement Functions*, and *Extended Features*
- Tooltips for planning functions
- Message texts
- Buttons

The content of the workbooks consists of multiple parts:

- The language of the standard menus and standard ribbons depends on the language set for Microsoft Excel.
- The language of the contents in the cells (mainly KPIs) depends on the user-selected system language of the back-end system.
- The language of the user interface objects that are specific to the workbooks of SAP Assortment Planning for Retail, 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*.

4.2.4.3.7 Verify that Data Replication is Running Following the Upgrade

In general, following the upgrade, you need to ensure that all of the data replication described in *Configure Data Replication* section of the *Common Installation Guide* is still running.

In particular, you need to pay attention to the following:

- Ensure that time-dependent article hierarchies are properly loaded into SAP Assortment Planning for Retail following the upgrade. See *Load of Time-Dependent Article Hierarchies* section of the *Common Installation Guide*.
- All the tables listed in SAP Note 2054656 are being replicated. New tables can be added with each new release.
- Ensure that periodic tasks to load product attributes into SAP Assortment Planning for Retail are still running following the upgrade. See, *Load Product Attributes into SAP Assortment Planning for Retail* section of the *Common Installation Guide*.
- Ensure that OTB data is being loaded from the appropriate source. For more information, see the *Load Merchandise Planning Data* section of the *Common Installation Guide*.

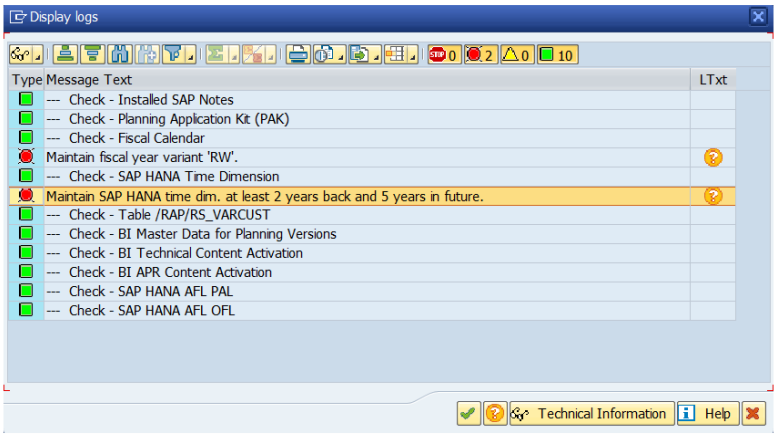
4.2.4.3.8 Run the SAP Assortment Planning for Retail 1.0 FP3 Update Report

1. Run transaction `SE38`.
2. Execute the `/RAP/FP03_UPGRADE_APR` report.

4.2.4.3.9 Run the Validation Report

1. Run transaction `SE38`.
2. Execute the `/DMF/VALIDATE_CAR_INSTALLATION` report.
3. Select the *Assortment Planning* scenario and select *Execute*.

Running this report allows you verify the success of the installation, providing a log of potential issues. For example, you may be presented with the following results:



Validation Report Results

View the long text associated with each message to see the link to the documentation describing the procedure you need to troubleshoot.

4.2.4.3.10 Configure Index Calculation

Use

The SAPUI5 application index provides an indexing and caching mechanism for information related to SAPUI5 apps, components, and libraries that are contained in SAPUI5 repositories on the SAP NetWeaver Application Server for ABAP. This index, calculated by the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report (`/UI5/APP_INDEX_CALCULATE`), makes it possible to retrieve and find this information significantly faster than when carrying out the calculations each time it's requested.

We recommend that you schedule the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report as to run as a background job on your front-end server.

Following any changes to the content of the SAPUI5 ABAP repository (for example, installation of a new version of the SAPUI5 distribution layer or implementation of an SAP Note containing changes to an SAPUI5 app), the SAPUI5 application index should be updated using the calculation report. This report has to be executed in every system whenever the content of the SAPUI5 ABAP repository has changed.

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
     - http://help.sap.com/nw-uiaddon20 ▶ *Application Help* ▶ *SAPUI5: UI Development Toolkit for HTML5* ▶ *Developing Apps* ▶ *The SAPUI5 ABAP Repository and the ABAP Back-End Infrastructure* ▶ *SAPUI5 Application Index*
   - SAP Gateway for SAP NetWeaver 7.40
     - http://help.sap.com/nw74 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 740* ▶ *SAPUI5: UI Development Toolkit for HTML5* ▶ *Using the SAPUI5 Repository* ▶ *SAPUI5 Application Index*
       Alternatively, you can launch the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report (`/UI5/APP_INDEX_CALCULATE`) from Customizing under ▶ *SAP NetWeaver* ▶ *UI Technologies* ▶ *SAP Fiori* ▶ *Initial Setup* ▶ *Schedule SAPUI5 Application Index Calculation*.

4.2.4.3.11 Activate SAP Assortment Planning for Retail OData Services

Use

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 48] 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*.

OData Service
/DMF/CURRENCY_LIST_SRV
/DMF/LOCATION_CLUSTERSET_SRV
/DMF/MODULE_MANAGEMENT_SRV
/DMF/OBJ_ATTRIBUTE_SRV
/DMF/SEARCH_LOCATIONS_SRV
/DMF/SEARCH_PRODUCTS_SRV
/DMF/SEASONS_SRV
/DMF/MASTER_DATA_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*.

OData Service
/RAP/ASSORT_AUTOMATIC_PROP_SRV
/RAP/ASSORT_LIST_MODULE_SRV
/RAP/ASSORTMENT_PLAN_SRV
/RAP/OPTION_PLAN_SRV
/RAP/PHP_MATCH_SRV
/RAP/SADL_PROD_LIST_KPI_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 http://help.sap.com/nw-uiaddon20 *Application Help* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP Gateway OData Services*.

For SAP NetWeaver 7.4, see the documentation on SAP Help Portal at http://help.sap.com/nw74 *Application Help* > *UI Technologies in SAP NetWeaver with SAP_UI 740* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP Gateway OData Services*.

4.2.4.3.12 Activate SAP Assortment Planning for Retail ICF Services

Use

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 48] and Configure Central UI Component [page 51] 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/locclsts_v2/`**
4. Choose *Execute*.
5. To activate the service, choose *Service/host Activate*.
6. Repeat steps 3 to 5 to ensure that **all** of the following services are activated:
   - `/sap/bc/ui5_ui5/sap/attribmgmt_v2/`
   - `/sap/bc/ui5_ui5/sap/assortmodule_v2/`
   - `/sap/bc/ui5_ui5/sap/assortplan_v2/`
   - `/sap/bc/ui5_ui5/sap/ddfreuse_v2/`
   - `/sap/bc/ui5_ui5/sap/locclsts_v2/`
   - `/sap/bc/ui5_ui5/sap/modulemgmt_v2/`
   - `/sap/bc/ui5_ui5/sap/optionplan_v2/`

- /sap/bc/ui5_ui5/sap/phpmatch_v2/

4.2.4.3.13 Define System Alias for Back-End Transactions

Use

A number of SAP Assortment Planning for Retail SAP Fiori apps, installed on your front-end system, launch transactions directly on the back-end system. For example, the *Manage Products* tile actually launches the Demand Data Foundation (DDF) `POWL_EASY` WebDynpro application.

To enable this behavior, you need to create a dedicated RFC connection between the front-end 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).
   Ensure to maintain all of the settings required to connect to your back-end system, in particular, the *Target Host* entry on the *Technical Settings* tab.
4. Create another RFC connection with the RFC Destination set to `SAP_ERP_ISR_CARAB` and *Connection Type* set to `H` (HTTP connection).
   Ensure to maintain all of the settings required to connect to your front-end system to the SAP ERP system, in particular, the *Target Host* entry on the *Technical Settings* tab.
5. Save your changes.
6. Open *Launchpad Customizing* (transaction `LPD_CUST`).
7. Select the SAP Assortment Planning for Retail role (`UIRAP001`), and choose *Display*.
   The two catalogs, *Assortment Planner* and *Planning Administrator*, are displayed.
8. In each of the catalogs, selecting one app at a time, make the following settings:

Catalog	App	System Alias	Description
Assortment Planner	*View Log*	`SAP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `SLG1` on the back-end system. **i Note** This application is only used to configure a link to the back-end system, you do not need to add this app to your SAP Fiori launchpad.

Catalog	App	System Alias	Description
	View ExtAssort Listing Conditions	`SAP_ERP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `WSL10` on the connected SAP ERP system. **i Note** This application is only used to configure a link to the SAP ERP system, you do not need to add this app to your SAP Fiori launchpad.
	View External Assortments	`SAP_ERP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `WRF_WSOA3` on the connected SAP ERP system. **i Note** This application is only used to configure a link to the SAP ERP system, you do not need to add this app to your SAP Fiori launchpad.
Assortment Planner	*Manage Category responsibilities*	`SAP_ISR_CARAB`	This setting allows the *Manage Category Responsibilities* app to launch the corresponding DDF WebDynpro application.
	Manage Products	`SAP_ISR_CARAB`	This setting allows the *Manage Products* app to launch the corresponding DDF WebDynpro application.
	Manage Locations	`SAP_ISR_CARAB`	This setting allows the *Manage Locations* app to launch the corresponding DDF WebDynpro application.

4.2.4.3.14 Troubleshoot Front-End Server Upgrade

Use

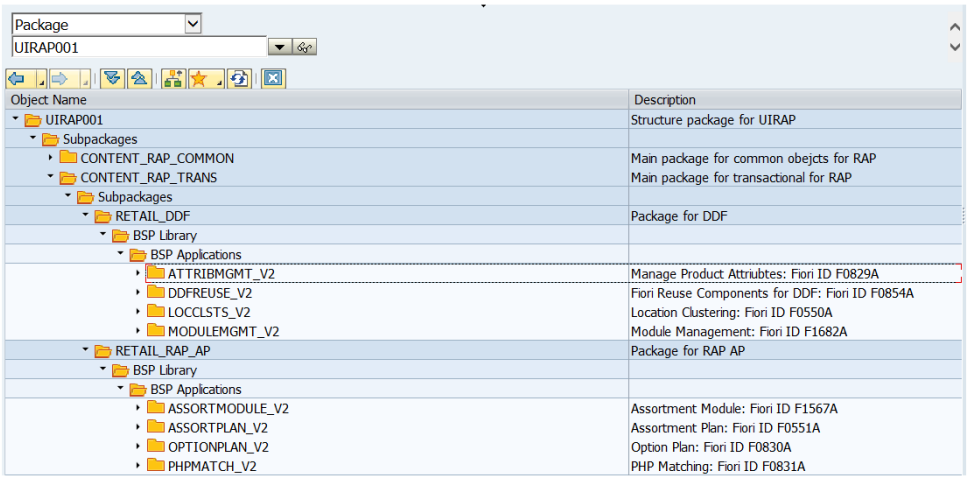
Following the upgrade of the product version on the front-end server, you may not be able to see some of the SAP Assortment Planing for Retail 1.0 FP3 SAP Fiori tiles in your launchpad. This section outlines how to troubleshoot these issues, should you experience them.

These steps are also listed in the *Troubleshooting* section of the *SAP Assortment Planing for Retail Administrator's Guide* available on the SAP Help Portal at http://help.sap.com/rap *<Your Release>* *System Administration and Maintenance Information* *Administrator's Guide*.

Process

Do the following:

1. Check that all of the required BSP applications are listed in the `UIRAP001` package.
   1. Log on to your front-end system (your SAP Gateway system).
   2. Launch the *Object Navigator* (transaction `SE80`).
   3. In the *Repository Browser*, open package `UIRAP001`.
   4. Expand all of the embedded packages of embedded package `CONTENT_RAP_TRANS`.
   5. Verify that the following *BSP Applications* are listed:



BSP Applications

   6. If you do not see one or more of the BSP applications listed above, right-click on each of the `RETAIL_DDF` and `RETAIL_RAP_AP` packages, and select *Other Functions* > *Rebuild Object List*.

> ⚠ Caution
>
> Do not rebuild objects on a higher package level.

2. Clean the cache.
   1. Log on to your front-end system (your SAP Gateway system).
   2. In Customizing (transaction `SPRO`), navigate to *SAP NetWeaver* > *UI Technologies* > *SAP Fiori* > *Data Administration* > *Invalidate Caches*.
      This activity launches the `/UI2/INVALIDATE_GLOBAL_CACHES` report. This report invalidates all server-side caches in SAP NetWeaver user interface services, which can become out-of-date following an upgrade.
   3. If necessary, implement instructions listed in SAP Note 2147669.
3. Remove any previously customized versions of the `UIRAP001` launchpad.
   1. Log on to your front-end system (your SAP Gateway system).
   2. Launch the *Overview for Launchpads* (transaction `LPD_CUST`).

3. Search for *Role* `UIRAP001`, and see whether any instances exist where the *User Name* is not *SAP*. If so, this means that customized versions of the `UIRAP001` launchpad exist, and these take precedence over the standard launchpad instance delivered by SAP.
4. Delete all but the launchpad instance delivered by SAP.

4.2.5 1.0 FP1 to 1.0 SP5

This section is intended for existing SAP Assortment Planning for Retail customers who have installed and configured SAP Assortment Planning for Retail 1.0 FP1 and would like to upgrade to SAP Assortment Planning for Retail 1.0 SP5.

4.2.5.1 Quick Guide

This section includes a checklist with all actions that you have to perform. The actions are in chronological order, so that you can work through them like a checklist.

Checklist

Prerequisites

Mandatory Steps

☐ Ensure that you have implemented the necessary SAP Notes listed in the *SAP Notes for the Upgrade* section.

☐ Ensure that your landscape meets the requirements outlined in the *Prerequisites* section.

Preparation

Mandatory Steps

☐ Verify that you have all of the required SAP HANA users and privileges. See Verify SAP HANA Users and Privileges [page 83].

> **i Note**
>
> As for the FP2 release, a new role (`AFL__SYS_AFL_OFL_AREA_EXECUTE`) must be assigned to the SAP<SID> user.

☐ Configure AFL and OFL usage. See Enable Usage of PAL Functions [page 86] and Check the OFL Installation [page 87].

Upgrade Process

Mandatory Steps

☐ Implement SAP Note 2298340 if your landscape includes a NW version earlier than NW 740 SP15. You must perform this step prior to upgrading the back-end system product version.

- ☐ Upgrade your back-end system product version in SAP Solution Manager.
- ☐ Upgrade the application function libraries (`UDFAFL_INST 100`, `POSAFL_INST 100`).
- ☐ Upgrade or install product-specific SAP Fiori UI components on the front-end server.

Follow-Up Activities

Mandatory Steps

- ☐ Create SAP ERP tables.
- ☐ Verify SAP HANA and back-end system roles. See the *Verify Users, Privileges, and Roles* section in the *Common Installation Guide*.
- ☐ Adjust Customizing settings.
- ☐ Reactivate SAP Assortment Planning for Retail planning framework content.
- ☐ Maintain Customizing table `/RAP/RS_VARCUST`.
- ☐ Update fiscal year entries.
- ☐ Optionally, restore language settings in workbooks.
- ☐ Verify that data replication is running following the upgrade.
- ☐ Run the SAP Assortment Planning for Retail 1.0 FP3 update report.
- ☐ Run the validation report.
- ☐ Configure index calculation.
- ☐ Activate SAP Assortment Planning for Retail OData services.
- ☐ Verify that all the ICF services relevant to SAP Assortment Planning for Retail are active following the upgrade.
- ☐ Define system alias for back-end transactions.
- ☐ Troubleshoot front-end server upgrade.

4.2.5.2 Upgrade Process

4.2.5.2.1 Implement SAP Note 2298340

Use

Prior to upgrading the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack (SPS) to a newer one, you need to verify the SAP NetWeaver 7.40 SPS in your system landscape. Important corrections, relevant for Core Data Services (CDS) views, and required by the latest SPS of `CAR RETAIL APPL BUNDLE 1.0`, are only available as of SAP NetWeaver 7.40 SPS 15.

Procedure

1. Verify your SAP NetWeaver 7.40 support package stack.
   If your landscape contains SAP NetWeaver 7.40 SPS 12, SPS13, or SPS14, you will need to implement SAP Note 2298340 to apply corrections relevant for CDS views.
   If your landscape has been upgraded to SAP NetWeaver 7.40 SPS 15, you do not need to implement SAP Note 2298340, and you can go to the next procedure.
2. Read and implement SAP Note 2298340 **prior** to upgrading the back-end system product version.

More Information

http://help.sap.com/hana_platform ▶ *Development and Modeling* > *SAP HANA Modeling Guide (For SAP HANA Studio)*

4.2.5.2.2 Upgrade SAP Customer Activity Repository Retail Applications Bundle

Use

This procedure describes how to upgrade the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack to a newer one.

Procedure

1. Check your upgrade scenario:
   1. Navigate to the Product Availability Matrix (PAM) at http://support.sap.com/pam.
   2. For information about the available support package stacks (SPS), search for the `CAR RETAIL APPL BUNDLE 1.0` product version, and choose *Support Package Stacks*.
   3. For information about the supported upgrade paths, choose *Related Product Versions*.
   4. For information about the software components in the SPS, choose *Technical Release Information* and consult the subsections, such as *Database Systems*.
   5. To navigate directly to the download area for the SPS, choose ▶ *SAP Software Download Center* > *CAR RETAIL APPL BUNDLE 1.0 - Support Packages & Patches*.
      Alternatively, you can get there from the SAP Support Portal by choosing http://support.sap.com/swdc ▶ *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0*.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).

For more information about this tool, see SAP Help Portal at http://help.sap.com/spmanager *Application Help*, as well as SAP Note 1803986.

To finalize the upgrade of the back-end product version, you must additionally do some manual steps. Continue with the next section.

Download and Install the Application Function Libraries (AFLs)

There are two components that you cannot upgrade using Support Package Manager.

- Unified Demand Forecast application function library (UDF AFL, software component version `UDFAFL_INST 100`, provides the demand modeling and forecasting services in SAP Customer Activity Repository, runs directly in the SAP HANA database)
- On-Shelf Availability application function library (POS AFL, software component version `POSAFL_INST 100`, provides the On-Shelf Availability services in SAP Customer Activity Repository, runs directly in the SAP HANA database)

You need to download one UDF AFL revision and one POS AFL revision manually and install them together in your SAP HANA database.

Where to Download

Both AFLs are provided as part of the `CAR RETAIL APPL BUNDLE 1.0` product version on the SAP Support Portal under http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0* > *Entry by Component* > *Analytics AFL*.

For a successful upgrade, you need to be aware of the following dependencies.

Dependencies Between the AFLs and the SAP HANA Database

The AFLs are released independently of the releases of SAP Customer Activity Repository retail applications bundle. This is because the AFLs follow the release cycle of the SAP HANA database. The releases are called “revisions”. Whenever a new revision of the SAP HANA database is released, a new revision of each AFL is released. As a result, multiple revisions of each AFL are available on the SAP Support Portal at any one time.

> ⚠ Caution
>
> For each revision of an AFL, there is **only one** compatible revision of the SAP HANA database. For example, you can only use revision 112.20 of the UDF AFL with revision 112.02 of the SAP HANA database. Whenever you upgrade an AFL, you must also upgrade the database and any other AFLs to the compatible revisions. Reversely, whenever you upgrade the database, you must upgrade the AFLs.
>
> Note that this dependency applies not only to the UDF AFL and the POS AFL but also to the generic SAP HANA AFL. Both the SAP HANA AFL and the SAP HANA database are components of the SAP HANA Platform (see Prerequisites [page 16]).
>
> When you download an AFL revision from the SAP Support Portal, the compatible revision of the SAP HANA database is indicated.

Nomenclature

The following table explains how you can see the dependencies by looking at the release numbers:

Release of ...	Released as ...	Example	Guideline
SAP HANA Platform	<Support Package Stack>	SAP HANA Platform SPS **11**	The number of the support package stack determines the first digits of the revisions.
SAP HANA Database	<Revision>.<Patch>	SAP HANA Database **11**2.0 **2**	All 11x.xx database revisions belong to the SPS 11 platform stack. The patch number determines the first digit of the AFL patch.
UDF AFL	<Revision>.<Patch>	UDF AFL **11**2. **2**0	
POS AFL		POS AFL **11**2. **2**0	
SAP HANA AFL		SAP HANA AFL **11**2. **2**0	

→ Recommendation

We recommend that you upgrade all the AFLs **at the same time**. This means:

- UDF AFL and POS AFL, which you must both install for a successful upgrade of SAP Customer Activity Repository retail applications bundle
- SAP HANA AFL, which is one of the mandatory prerequisites
- if applicable, other AFLs provided with SAP HANA that might be relevant for your scenario

Focus on the AFL that provides the most important functionality for your scenario (for example, demand forecasting with the UDF AFL). Select the best revision of that AFL for your scenario. This in turn will give you the compatible revision of the SAP HANA database and the compatible revisions of the other AFLs. Then install all the AFLs together.

Download and Install the UDF AFL (Focus: Demand Forecasting)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your Unified Demand Forecast scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2050229: Gives you an overview of all UDF AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the UDF AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*

- SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
- SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
- SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
- SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database

2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2050229.

> **i Note**
>
> To use the UDF functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure Unified Demand Forecast (Optional) [page 64].

Download and Install the POS AFL (Focus: On-Shelf Availability)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your On-Shelf Availability scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2056102: Gives you an overview of all POS AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the POS AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2056102.

> **i Note**
>
> To use the On-Shelf Availability functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure On-Shelf Availability (Optional) [page 53].

Result

You have successfully upgraded the `CAR RETAIL APPL BUNDLE 1.0` back-end product version to the current SPS. Continue with the next section.

4.2.5.2.3 Upgrade Product-Specific SAP Fiori UI Component

Use

This procedure describes how to upgrade the `SAP FIORI FOR SAP CARAB` front-end product version from an older support package stack to a newer one.

The ABAP front-end server contains the complete UI layer, which consists of the SAP Gateway, the central SAP Fiori UI component, and the product-specific SAP Fiori UI component. The product-specific SAP Fiori UI component contains all the SAP Fiori user interfaces for the applications provided for the SAP Customer Activity Repository retail applications bundle.

Procedure

1. Identify the support package stack on the SAP Support Portal at http://support.sap.com *Software Downloads* *Support Packages and Patches* *Software Downloads* *By Alphabetical Index (A-Z)* *F* *SAP FIORI* *SAP FIORI FOR SUITE* *SAP FIORI FOR SAP CARAB* *SAP FIORI FOR SAP CARAB 2.0 SPS01*.
   For more information on support package stacks, see http://support.sap.com/sp-stacks.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information, see SAP Help Portal at http://help.sap.com/spmanager *Application Help*, as well as SAP Note 1803986.

   > ⚠ Caution
   >
   > As of the FP3 release, software components `UISCAR01` and `UIRAP001` have been merged into one, `UICAR001`, software component.
3. If you are using SAP Assortment Planning for Retail, consult SAP Note 2077357, which lists the SAP Notes relevant for your release.

4.2.5.3 Follow-Up Activities

4.2.5.3.1 Create SAP ERP Tables

> ⚠ Caution
>
> Following an upgrade, it is important to remember to create any additional tables required by the new release.

Tables required to be created as of the SAP Assortment Planning for Retail are listed in SAP Note 2263205. Ensure that **all** tables listed in this note have been created.

4.2.5.3.2 Verify SAP HANA and Back-End Roles

As of the SAP Assortment Planning for Retail 1.0 FP2 release, a new role and a new authorization object have been added to the `SAP_ISR_AP_MASTER` back-end role. Following the upgrade, use transactions `SU01` and `PFCG` to ensure that the following are assigned to your back-end user:

- `SAP_DDF_MODULEMGMT_APP` role
- `/DMF/MD` authorization object

In general, following the upgrade, you need to ensure that all of the SAP HANA and back-end system roles listed in the *Verify Users, Privileges, and Roles* section of the *Common Installation Guide* are still assigned to all of the required users.

4.2.5.3.3 Adjust Customizing Settings

Use

Following the upgrade, there are several settings you need to make in Customizing to be able to use SAP Assortment Planning for Retail 1.0 FP3.

Procedure

1. Log on to your back-end system.
2. Open *Customizing* (transaction `SPRO`) and navigate to *Cross-Application Components* > *Assortment Planning for Retail* > *Number Range*.
3. Provide settings in the *Maintain Number Range for Attribute Container ID* activity.
4. Provide settings in the *Maintain Number Range for Assortment Modules* activity.
5. In Customizing, navigate to *Cross-Application Components* > *Assortment Planning for Retail* > *Imported Demand Data Foundation Settings* > *Integration*.
   As of FP2, the default configuration of SAP Assortment Planning for Retail is to consume merchandise planning data from the SAP Merchandise Planning for Retail application, another add-on to the SAP Customer Activity Repository. You perform the verification of these new default settings in the steps below. Otherwise, if you are determining the OTB using the SAP Planning for Retail, rapid-deployment solution, the OTB-related figures, or KPIs, (including planned sales, open orders, and purchase quantities) are stored in SAP Business Warehouse (SAP BW) InfoProviders. To access these figures from SAP Assortment Planning for Retail, this data must first be imported from the SAP BW system to your back-end system, as described in SAP Note 2208191.
6. Verify that in the *Define SAP BW Application for Merchandise Planning* Customizing activity, under *Cross-Application Components* > *Assortment Planning for Retail* > *Imported Demand Data Foundation Settings* > *Integration*, the default settings are applied as follows:
   - Destination: **LOCAL**

If this field is empty, the application assumes that the InfoProvider exists in the back-end system, which is the case if SAP Assortment Planning for Retail and SAP Merchandise Planning for Retail are installed on the same back-end system.

- InfoProvider: **/RAP/MPRC01**

7. Remaining in the *Define SAP BW Application for Merchandise Planning* Customizing activity, specify the same *Fiscal Year Variant* as the one maintained under *Cross-Application Components* > *Assortment Planning for Retail* > *Maintain fiscal year variant*.
8. Verify that in the *Define Field Mapping for Merchandise Planning* Customizing activity, also under, *Cross-Application Components* > *Assortment Planning for Retail* > *Imported Demand Data Foundation Settings* > *Integration*, the default settings for field-mapping to the SAP Merchandise Planning for Retail InfoProvider are maintained.
9. In the *Cross-Application Components* > *Assortment Planning for Retail* > *Imported Demand Data Foundation Settings* > *Integration* > *Sending System and Master Data System Coupling* Customizing activity, a new column *HTTP Destination* has been added. You must specify an entry for a relevant SAP ERP system, including a valid *HTTP Destination* value, to be able to access SAP ERP assortments and listing conditions from *My Assortment Plans (Version 2)* app.

4.2.5.3.4 Reactivate SAP Assortment Planning for Retail Planning Framework Content

4.2.5.3.4.1 Activate SAP HANA Content

Use

In this procedure, you activate all SAP HANA content required by SAP Customer Activity Repository.

For more information about activating SAP HANA content, see SAP Help Portal at http://help.sap.com/hana_platform > *<your SAP HANA Platform SPS>* > *Development and Modeling* > *SAP HANA Developer Guide (For SAP HANA Studio)* > *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.
- You must also set up the roles and privileges for the Unified Demand Foreast module as described in the *Authorization Requirements for the UDF AFL* section of the *SAP Customer Activity Repository Security Guide*, available at http://help.sap.com/car > *<your release>* > *Security Information*.
  You must do this regardless of whether you want to use UDF forecasting in your scenario or not. This procedure not only enables UDF, but it is required so that the SAP HANA content for SAP Customer Activity Repository can be activated correctly.

Procedure

To activate the SAP HANA content, carefully follow the instructions provided in SAP Note 2330386.

> ⚠ Caution
>
> If you are applying a support package or correction on an existing installation and this support package or correction involves SAP HANA content for the DDF module or the UDF module in SAP Customer Activity Repository, then you must manually activate this content again. For example, this is the case when you apply an SAP Note using transaction **SNOTE**.
>
> Follow the instructions in SAP Note 2145356.

More Information

If you encounter issues during the activation, see the Troubleshooting [page 75] section for possible solutions.

4.2.5.3.4.2 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 1

Use

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 102].

Prerequisites

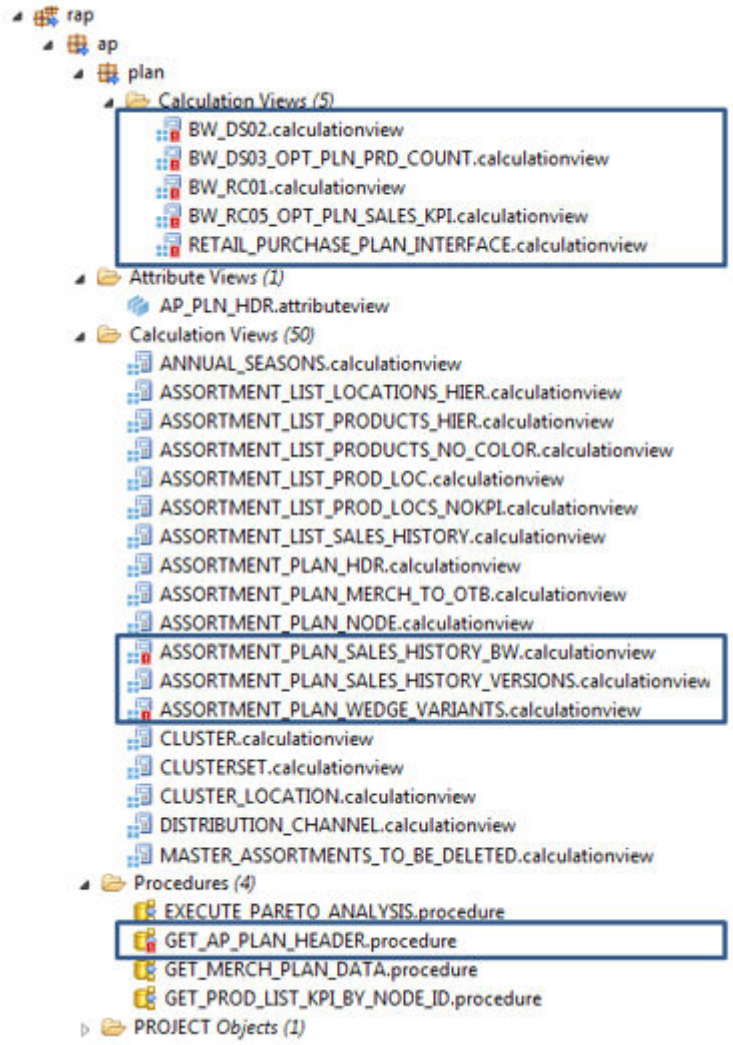
As a mandatory prerequisite for a successful activation of SAP HANA content for SAP Assortment Planning for Retail, you must have successfully completed all of the procedures listed in the previous sections of this guide. In particular, you must have activated SAP HANA content for SAP Customer Activity 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 the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.
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. The figure below provides an example of content that has not been deployed.



Example of SAP HANA content not deployed

A small number of views not deploying is an 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 102] 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*

4.2.5.3.4.3 Activate Application BI Content

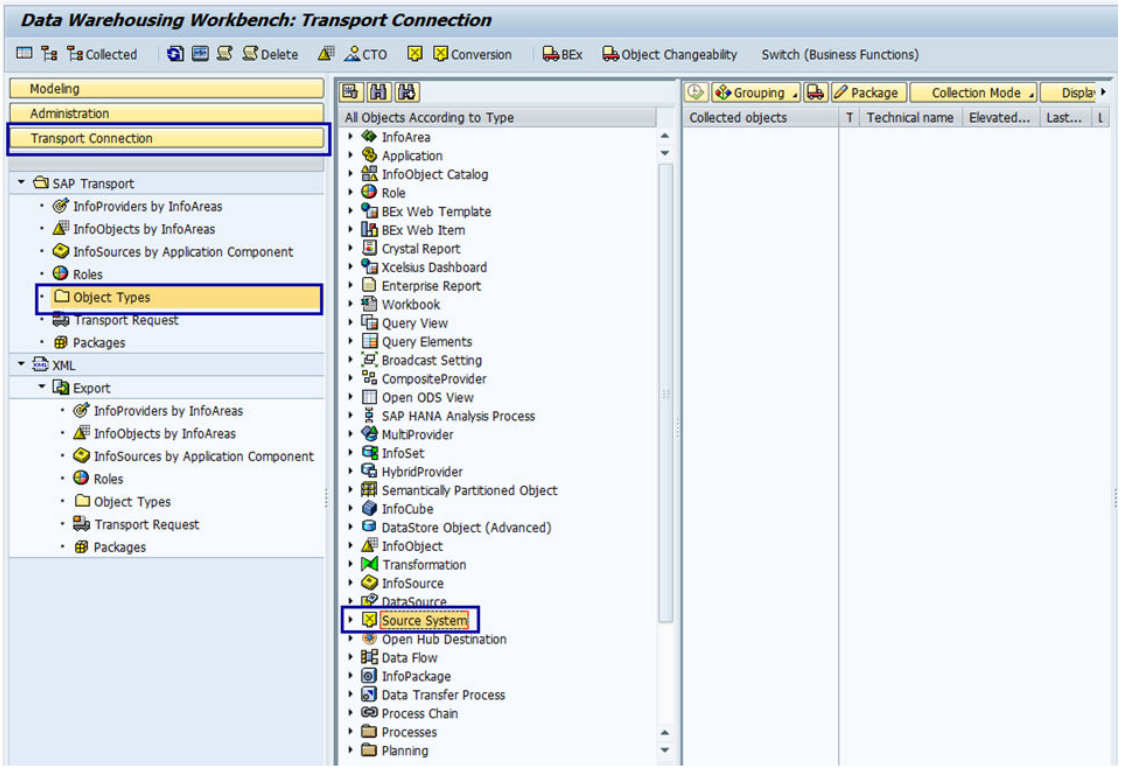
Use

In this procedures, you perform a sequential, step-by-step activation of the local BI Content objects following the upgrade to SAP Assortment Planning for Retail 1.0 FP3.

> **i** Note
>
> To ensure correct activation of the local BI Content objects, carry out the activation sequentially, as specified in the following procedures.
>
> Also, the default BI setting to collect and activate all dependencies must not be disabled by the user. The instructions below activate a minimum subset of objects, and it assumed that all their dependencies will be collected and activated.

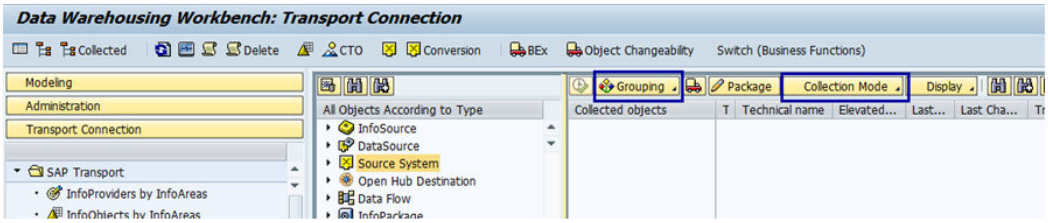
Procedure

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*.



Selecting Source Systems

4. Use *Select Objects* to ensure that the back-end system is selected as the source system.
5. Choose *Transfer Selections*.
6. At the top of the right-hand frame, above the list of *Collected objects*, choose *Grouping* and select *Only Necessary Objects*.
7. At the top of the right-hand frame, choose *Collection Mode* and select *Collect Automatically*.



Grouping and Collection Settings

3. Select *BI Content* in the left-hand frame.
4. Determine your BI Content installation requirements and apply these to each subsequent step.
   If you are carrying out a brand new installation, proceed to the next step.

   > ### → Recommendation
   >
   > If, however, you have previously installed/activated any of the `/RAP/*` BI Content, you need to apply special considerations to the installation/activation of BI Content following a system upgrade.
   >
   > - If you have modified any of the previously installed `/RAP/*` BI Content objects, we recommend that for the modified objects, you enable the *Match (X) or copy* option. When this options is selected, you will be asked to carry out an additional *Transfer selections* step during which you select to install the *Active Version* (that is, your modified version) or the *Content Version* (that is, the SAP delivered, and possibly updated version of the object).
   > - If you have not modified any of the previously installed `/RAP/*` BI Content objects, you do not need to enable the *Match (X) or copy* option for any of the BI Content objects, and you don't need to choose whether to install the *Active Version* or the *Content Version* of the objects.

5. 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.
   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.

6. Maintain version master data. As of FP3 , two new versions, *AW1* and *AW2*, are required.
   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:

Version
AP1
AP2
AW1
AW2
OC1
OC2
OM1
OM2
APF
REF
000

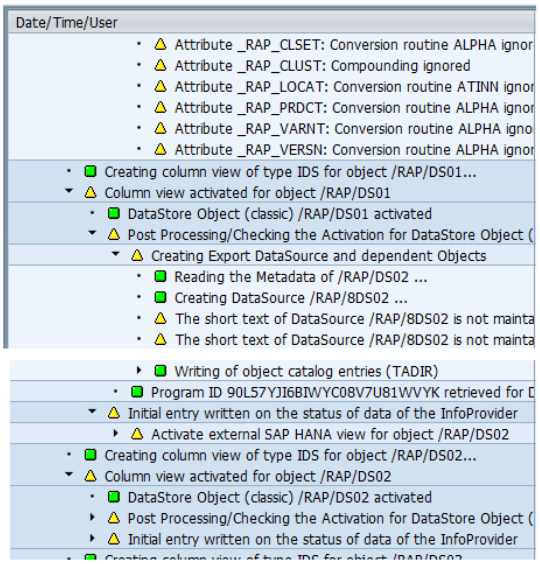
   The supported planning versions are described in detail in the *Maintain Customizing Table /RAP/RS_VARCUST* section of the *Common Installation Guide*.

> **i Note**
>
> If you encounter problems opening the master data maintenance WebDynpro application, ensure that you have implemented SAP Note 2034623.

7. 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**.

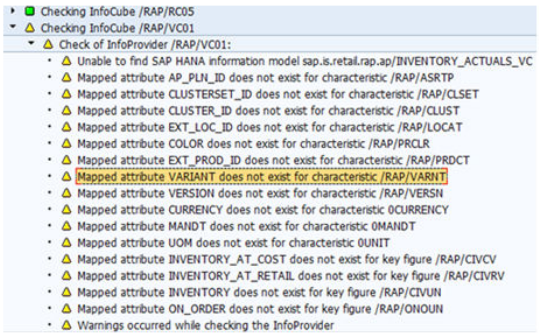
If activation warnings similar to the ones displayed below appear, you can ignore them.

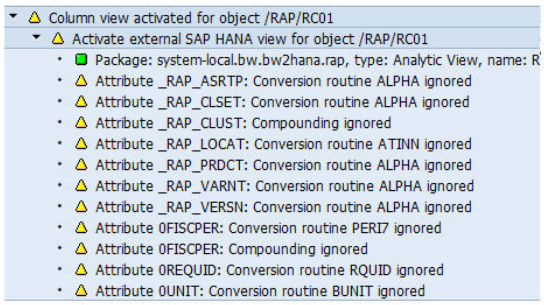


Warnings

6. Verify that DataStore Object `/RAP/DS07` is activated.
   An external view generated from DataStore Object `/RAP/DS07` has been added in the SAP Assortment Planning for Retail 1.0 FP2 release. This requires an explicit verification of the activation of this DataStore Object.

8. Activate InfoCubes.
   1. Expand *InfoCube*.
   2. Use *Select Objects* to select all InfoCubes starting with `/RAP/RC*`.
   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.





Warnings

9. Activate new Aggregation Level.
    1. Expand ▶ *Planning* ▶ *Aggregation Level* ▶.
    2. Use *Select Objects* to select the `/RAP/D08A02` Aggregation Level.
    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.
10. Reactivate Planning Sequence Objects.
    1. Expand ▶ *Planning* ▶ *Planning Sequence* ▶.
    2. Use *Select Objects* to select the following Planning Sequences:
        - `/RAP/D12A01_PS01`
        - `/RAP/D12A01_PS02`
        - `/RAP/D15A01_PS01`
        - `/RAP/D15A01_PS02`
        - `/RAP/D07A04_PS01`
        - `/RAP/M06A01_PS07`
        - `/RAP/R10A01_PS02`
    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. Reactivate Workbooks.
    1. Expand ▶ *More Types* ▶ *Analysis Office Excel Workbook* ▶.
    2. Use *Select Objects* to select the following workbooks:
        - `/RAP/OPTIONPLANBYMODULE`
        - `/RAP/OPTIONPLANBYCLUSTER`
        - `/RAP/REFINEASSORTMENT`
        - `/RAP/PLANASSORTMENT`
    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. Choose *Exit* to leave the transaction.

4.2.5.3.4.4 Activate SAP HANA Content for SAP Assortment Planning for Retail - Part 2

Use

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 tables

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

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

2. Assign the required privileges described in section *Authorization Requirements for the UDF AFL*, of the *SAP Customer Activity Repository Security Guide*.

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*

4.2.5.3.4.5 Verify Activation of External Views

Use

During activation of SAP HANA content for SAP Assortment Planning for Retail, several external views are not automatically activated. Following an upgrade, you need to verify that all previously activated external views remain active.

Procedure

1. Use either transaction `SE11` or `SE80` to verify that all the external views listed in SAP Note 2067030 are in an activate state. If they are not, manually activate the views.

4.2.5.3.5 Maintain Customizing Table /RAP/RS_VARCUST

Use

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. Run report `/RAP/SEED_BW_CUSTOMIZING_DATA` (transaction `SE38`).
3. Determine whether you want to overwrite the existing entries in the `/RAP/RS_VARCUST` table.
   If you do want to overwrite the contents of the table, enable the *Remove Existing Entries* option. If you don't want to overwrite the contents of the table, but want to append the new entries, disable the *Remove Existing Entries* option.

   > **i Note**
   >
   > Duplicate entries that can potentially be created if you choose to disable the *Remove Existing Entries* option, which will result in an error.

4. Enable the *Test* option and choose *Execute* to run the report in test mode.
   Running the report in test mode allows you to verify that you can successfully update the `/RAP/RS_VARCUST` table. No entries are persisted in the table as a result.
5. Once you have successfully executed the `/RAP/SEED_BW_CUSTOMIZING_DATA` report in test mode, disable the *Test* option and choose *Execute* to run the report.
6. Optionally, once the report has finished executing, you can verify the entries of the `/RAP/RS_VARCUST` variable customizing table.
   If required, you can make changes to any of the entries made by the `/RAP/SEED_BW_CUSTOMIZING_DATA` report by doing the following:
   1. Open the *Data Browser* (transaction `SE16`).
   2. Enter **`/RAP/RS_VARCUST`** in the *Table Name* field and choose *Create Entries*.
   3. Choose *Execute* followed by *Create*.
      On the *Table /RAP/RS_VARCUST Insert* screen, you will be able to make the following entries:

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`.

Field Name	User Entry
INFOCUBE	InfoCube identifier. For example, /RAP/RC01.
VNAM_VERS	Version variable name. For example, /RAP/VERSN_MSM_01.
VERSION	Version Identifier. There are several supported planning versions: ○ AP1: Location level version 1. Version that is typically used as the planning version. ○ AP2: Location level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ AW1: Week level version 1. Version that is typically used as the planning version. ○ AW2: Week level version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OC1: Option plan by cluster simulation version 1. Version that is typically used as the planning version. ○ OC2: Option plan by cluster simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ OM1: Option plan by module simulation version 1. Version that is typically used as the planning version. ○ OM2: Option plan by module simulation version 2. Version typically used to simulate different scenarios without having to change your planned version. ○ APF: Final version (planned data). After completing the planning, the user will select the plan they want to finalize and review in the *Plan Weekly Sales and Receipts* workbook. Only the APF version is available in *Plan Weekly Sales and Receipts*. ○ 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. ○ 000: Actual version (current data). The user can see current inventory values with this such as Actual Inventory and Open Orders.
F4HELP	Flag that specifies whether the field provides F4 help or not.

4. Maintain entries in the /RAP/RS_VARCUST table as required.
   For example you can change the InfoCube used as the source of data for a particular planning version.
5. Choose *Save*.

4.2.5.3.6 Update Fiscal Year Variant Entries

Use

In this procedure you update previously maintained fiscal year variants (`0FISCVARNT 'RW'`). The SAP Merchandise Planning for Retail application, which can be used in conjunction with the SAP Assortment Planning for Retail application, only supports fiscal years with 52 posting periods. As a result, fiscal year variant entries must be adjusted, entering each year with 53 posting periods as a shortened fiscal year.

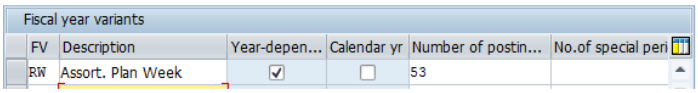
> ⚠ Caution
>
> You must maintain fiscal year variants for at least one year past the years for which you are planning. For example, if your assortment plans extend to December 2018, you must maintain fiscal year variants until December 2019.

The steps provided in this procedure allow you to maintain `0FISCVARNT 'RW'` using the standard 4-5-4 calendar entries. If you are using alternative fiscal periods in your retail business, for example, each week starting on a Sunday instead of Saturday, you can provide your own entries instead of the ones suggested in this guide.

Procedure

1. Log on to your back-end system.
2. Launch fiscal year variant maintenance (transaction `GVAR`).
3. Choose *New Entries*.

4. On the *New Entries: Overview of Added Entries* screen make the following sets of entries:


Fiscal year variants

FV	Description	Year-depen...	Calendar yr	Number of postin...	No.of special peri
RW	Assort. Plan Week	☑	☐	53	

Create New Fiscal Year Variant

5. Choose *Enter*.
   An information message is displayed about creating more than 16 periods, choose *Continue*.
6. Choose *Back*.
   You can see the newly created entry.
7. Mark the entry *RW* and double-click on *Shortened Fiscal Years* from the *Dialog Structure*.
8. Enter **2012** in the *Fiscal year* field and choose *Continue*.
9. Choose *New Entries*.
10. Enter **52** in the *No. of posting periods* field in the *Shortened Fiscal Years* section.
11. Choose *Back* twice.
12. Open SAP Note 2112634, locate the entries for year 2012, and enter the data by copy-and-paste.
13. Repeat steps 7-12 to maintain the weekly fiscal year variant for years 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2020, entering each year as shortened fiscal year. The corresponding tables are available in SAP Note 2112634.
14. Choose *Save* after you have finished the maintenance for year 2020.

4.2.5.3.7 Set Language for Ribbons and Buttons in Workbooks (Optional)

Use

In this optional procedure, you can change the language settings specific to SAP Assortment Planning for Retail workbooks. During the upgrade, some of the workbooks are updated, and, if you have previously changed the language settings of these workbooks, you need to make these settings again following the upgrade.

You can set the desired language of the following user interface objects:

- Ribbons *Planning Functions*, *Refinement Functions*, and *Extended Features*
- Tooltips for planning functions
- Message texts
- Buttons

The content of the workbooks consists of multiple parts:

- The language of the standard menus and standard ribbons depends on the language set for Microsoft Excel.
- The language of the contents in the cells (mainly KPIs) depends on the user-selected system language of the back-end system.
- The language of the user interface objects that are specific to the workbooks of SAP Assortment Planning for Retail, 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*.

4.2.5.3.8 Verify that Data Replication is Running Following the Upgrade

In general, following the upgrade, you need to ensure that all of the data replication described in *Configure Data Replication* section of the *Common Installation Guide* is still running.

In particular, you need to pay attention to the following:

- Ensure that time-dependent article hierarchies are properly loaded into SAP Assortment Planning for Retail following the upgrade. See *Load of Time-Dependent Article Hierarchies* section of the *Common Installation Guide*.
- All the tables listed in SAP Note 2054656 are being replicated. New tables can be added with each new release.
- Ensure that periodic tasks to load product attributes into SAP Assortment Planning for Retail are still running following the upgrade. See, *Load Product Attributes into SAP Assortment Planning for Retail* section of the *Common Installation Guide*.
- Ensure that OTB data is being loaded from the appropriate source. For more information, see the *Load Merchandise Planning Data* section of the *Common Installation Guide*.

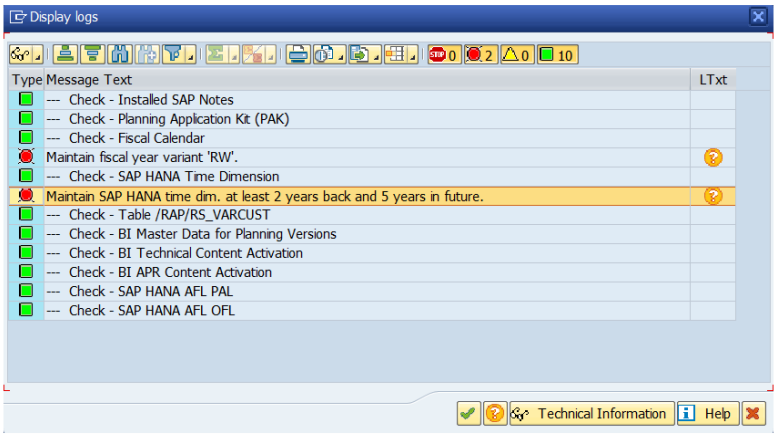
4.2.5.3.9 Run the SAP Assortment Planning for Retail 1.0 FP3 Update Report

1. Run transaction `SE38`.
2. Execute the `/RAP/FP03_UPGRADE_APR` report.

4.2.5.3.10 Run the Validation Report

1. Run transaction `SE38`.
2. Execute the `/DMF/VALIDATE_CAR_INSTALLATION` report.
3. Select the *Assortment Planning* scenario and select *Execute*.

Running this report allows you verify the success of the installation, providing a log of potential issues. For example, you may be presented with the following results:



Validation Report Results

View the long text associated with each message to see the link to the documentation describing the procedure you need to troubleshoot.

4.2.5.3.11 Configure Index Calculation

Use

The SAPUI5 application index provides an indexing and caching mechanism for information related to SAPUI5 apps, components, and libraries that are contained in SAPUI5 repositories on the SAP NetWeaver Application Server for ABAP. This index, calculated by the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report (`/UI5/APP_INDEX_CALCULATE`), makes it possible to retrieve and find this information significantly faster than when carrying out the calculations each time it's requested.

We recommend that you schedule the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report as to run as a background job on your front-end server.

Following any changes to the content of the SAPUI5 ABAP repository (for example, installation of a new version of the SAPUI5 distribution layer or implementation of an SAP Note containing changes to an SAPUI5 app), the SAPUI5 application index should be updated using the calculation report. This report has to be executed in every system whenever the content of the SAPUI5 ABAP repository has changed.

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
     - http://help.sap.com/nw-uiaddon20 ▶ *Application Help* ▶ *SAPUI5: UI Development Toolkit for HTML5* ▶ *Developing Apps* ▶ *The SAPUI5 ABAP Repository and the ABAP Back-End Infrastructure* ▶ *SAPUI5 Application Index* ▶
   - SAP Gateway for SAP NetWeaver 7.40
     - http://help.sap.com/nw74 ▶ *Application Help* ▶ *UI Technologies in SAP NetWeaver with SAP_UI 740* ▶ *SAPUI5: UI Development Toolkit for HTML5* ▶ *Using the SAPUI5 Repository* ▶ *SAPUI5 Application Index* ▶
       Alternatively, you can launch the *Calculation of SAPUI5 Application Index for SAPUI5 Repositories* report (`/UI5/APP_INDEX_CALCULATE`) from Customizing under ▶ *SAP NetWeaver* ▶ *UI Technologies* ▶ *SAP Fiori* ▶ *Initial Setup* ▶ *Schedule SAPUI5 Application Index Calculation* ▶.

4.2.5.3.12 Activate SAP Assortment Planning for Retail OData Services

Use

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 48] 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*.

OData Service
/DMF/CURRENCY_LIST_SRV
/DMF/LOCATION_CLUSTERSET_SRV
/DMF/MODULE_MANAGEMENT_SRV
/DMF/OBJ_ATTRIBUTE_SRV
/DMF/SEARCH_LOCATIONS_SRV
/DMF/SEARCH_PRODUCTS_SRV
/DMF/SEASONS_SRV
/DMF/MASTER_DATA_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*.

OData Service
/RAP/ASSORT_AUTOMATIC_PROP_SRV
/RAP/ASSORT_LIST_MODULE_SRV
/RAP/ASSORTMENT_PLAN_SRV
/RAP/OPTION_PLAN_SRV
/RAP/PHP_MATCH_SRV
/RAP/SADL_PROD_LIST_KPI_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 http://help.sap.com/nw-uiaddon20 *Application Help* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP Gateway OData Services*.

For SAP NetWeaver 7.4, see the documentation on SAP Help Portal at http://help.sap.com/nw74 *Application Help* > *UI Technologies in SAP NetWeaver with SAP_UI 740* > *SAP Fiori Launchpad* > *Setting Up the Launchpad* > *Activating SAP Gateway OData Services*.

4.2.5.3.13 Activate SAP Assortment Planning for Retail ICF Services

Use

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 48] and Configure Central UI Component [page 51] 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/locclsts_v2/`**
4. Choose *Execute*.
5. To activate the service, choose *Service/host Activate*.
6. Repeat steps 3 to 5 to ensure that **all** of the following services are activated:
   - `/sap/bc/ui5_ui5/sap/attribmgmt_v2/`
   - `/sap/bc/ui5_ui5/sap/assortmodule_v2/`
   - `/sap/bc/ui5_ui5/sap/assortplan_v2/`
   - `/sap/bc/ui5_ui5/sap/ddfreuse_v2/`
   - `/sap/bc/ui5_ui5/sap/locclsts_v2/`
   - `/sap/bc/ui5_ui5/sap/modulemgmt_v2/`
   - `/sap/bc/ui5_ui5/sap/optionplan_v2/`

- /sap/bc/ui5_ui5/sap/phpmatch_v2/

4.2.5.3.14 Define System Alias for Back-End Transactions

Use

A number of SAP Assortment Planning for Retail SAP Fiori apps, installed on your front-end system, launch transactions directly on the back-end system. For example, the *Manage Products* tile actually launches the Demand Data Foundation (DDF) `POWL_EASY` WebDynpro application.

To enable this behavior, you need to create a dedicated RFC connection between the front-end 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).
   Ensure to maintain all of the settings required to connect to your back-end system, in particular, the *Target Host* entry on the *Technical Settings* tab.
4. Create another RFC connection with the RFC Destination set to `SAP_ERP_ISR_CARAB` and *Connection Type* set to `H` (HTTP connection).
   Ensure to maintain all of the settings required to connect to your front-end system to the SAP ERP system, in particular, the *Target Host* entry on the *Technical Settings* tab.
5. Save your changes.
6. Open *Launchpad Customizing* (transaction `LPD_CUST`).
7. Select the SAP Assortment Planning for Retail role (`UIRAP001`), and choose *Display*.
   The two catalogs, *Assortment Planner* and *Planning Administrator*, are displayed.
8. In each of the catalogs, selecting one app at a time, make the following settings:

Catalog	App	System Alias	Description
Assortment Planner	*View Log*	`SAP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `SLG1` on the back-end system. **i Note** This application is only used to configure a link to the back-end system, you do not need to add this app to your SAP Fiori launchpad.

Catalog	App	System Alias	Description
	View ExtAssort Listing Conditions	`SAP_ERP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `WSL10` on the connected SAP ERP system. **i Note** This application is only used to configure a link to the SAP ERP system, you do not need to add this app to your SAP Fiori launchpad.
	View External Assortments	`SAP_ERP_ISR_CARAB`	This setting allows the *My Assortment Plans (Version 2)* app to launch transaction `WRF_WSOA3` on the connected SAP ERP system. **i Note** This application is only used to configure a link to the SAP ERP system, you do not need to add this app to your SAP Fiori launchpad.
Assortment Planner	*Manage Category responsibilities*	`SAP_ISR_CARAB`	This setting allows the *Manage Category Responsibilities* app to launch the corresponding DDF WebDynpro application.
	Manage Products	`SAP_ISR_CARAB`	This setting allows the *Manage Products* app to launch the corresponding DDF WebDynpro application.
	Manage Locations	`SAP_ISR_CARAB`	This setting allows the *Manage Locations* app to launch the corresponding DDF WebDynpro application.

4.2.5.3.15 Troubleshoot Front-End Server Upgrade

Use

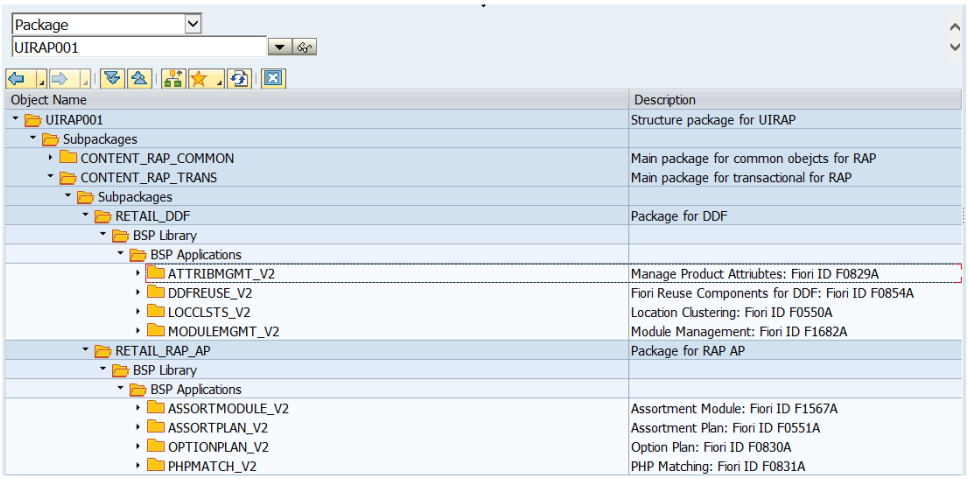
Following the upgrade of the product version on the front-end server, you may not be able to see some of the SAP Assortment Planing for Retail 1.0 FP3 SAP Fiori tiles in your launchpad. This section outlines how to troubleshoot these issues, should you experience them.

These steps are also listed in the *Troubleshooting* section of the *SAP Assortment Planing for Retail Administrator's Guide* available on the SAP Help Portal at http://help.sap.com/rap > *<Your Release>* > *System Administration and Maintenance Information* > *Administrator's Guide* > .

Process

Do the following:

1. Check that all of the required BSP applications are listed in the `UIRAP001` package.
   1. Log on to your front-end system (your SAP Gateway system).
   2. Launch the *Object Navigator* (transaction `SE80`).
   3. In the *Repository Browser*, open package `UIRAP001`.
   4. Expand all of the embedded packages of embedded package `CONTENT_RAP_TRANS`.
   5. Verify that the following *BSP Applications* are listed:



BSP Applications

   6. If you do not see one or more of the BSP applications listed above, right-click on each of the `RETAIL_DDF` and `RETAIL_RAP_AP` packages, and select *Other Functions* > *Rebuild Object List*.

> ⚠ Caution
>
> Do not rebuild objects on a higher package level.

2. Clean the cache.
   1. Log on to your front-end system (your SAP Gateway system).
   2. In Customizing (transaction `SPRO`), navigate to *SAP NetWeaver* > *UI Technologies* > *SAP Fiori* > *Data Administration* > *Invalidate Caches*.
      This activity launches the `/UI2/INVALIDATE_GLOBAL_CACHES` report. This report invalidates all server-side caches in SAP NetWeaver user interface services, which can become out-of-date following an upgrade.
   3. If necessary, implement instructions listed in SAP Note 2147669.
3. Remove any previously customized versions of the `UIRAP001` launchpad.
   1. Log on to your front-end system (your SAP Gateway system).
   2. Launch the *Overview for Launchpads* (transaction `LPD_CUST`).

3. Search for *Role* `UIRAP001`, and see whether any instances exist where the *User Name* is not *SAP*. If so, this means that customized versions of the `UIRAP001` launchpad exist, and these take precedence over the standard launchpad instance delivered by SAP.
4. Delete all but the launchpad instance delivered by SAP.

4.2.6 Previous Releases to 1.0 SP5

This section is intended for existing SAP Customer Activity Repository or SAP Promotion Management for Retail customers who have never configured or used SAP Assortment Planning for Retail and would like to upgrade to SAP Assortment Planning for Retail 1.0 SP5.

> ⚠ Caution
>
> We do not recommend using SAP Assortment Planning for Retail application versions lower than SAP Assortment Planning for Retail 1.0 FP1. If you would like to upgrade to SAP Assortment Planning for Retail 1.0 FP1, see http://help.sap.com/apr *SAP Assortment Planning for Retail 1.0 FP1* *Installation and Upgrade Information* *Upgrade Guide*.
>
> If you have an existing implementation of SAP Customer Activity Repository or SAP Promotion Management for Retail, we recommend that you upgrade directly to the SAP Assortment Planning for Retail 1.0 SP5 release. This requires you to upgrade your back-end system to the `CAR RETAIL APPL BUNDLE 1.0 SPS6` release and your front-end server to the `SAP FIORI FOR SAP CARAB 2.0 SPS1` release.

4.2.6.1 Quick Guide

This section includes a checklist with all actions that you have to perform. The actions are in chronological order, so that you can work through them like a checklist.

Checklist

Prerequisites

Mandatory Steps

- ☐ Ensure that you have implemented the necessary SAP Notes listed in the *SAP Notes for the Upgrade* section.
- ☐ Ensure that your landscape meets the requirements outlined in the *Prerequisites* section.

Preparation

Mandatory Steps

- ☐ Verify that you have all of the required SAP HANA users and privileges. See Verify SAP HANA Users and Privileges [page 83].

☐ Configure AFL and OFL usage. See Enable Usage of PAL Functions [page 86] and Check the OFL Installation [page 87].

Upgrade Process

Mandatory Steps

☐ Upgrade your back-end system product version.

☐ Upgrade the application function libraries (`UDFAFL_INST 100`, `POSAFL_INST 100`).

☐ Although not recommended, if you were previously using an application version lower than SAP Assortment Planning for Retail 1.0 FP1, clear back-end system tables.

☐ Upgrade or install product-specific SAP Fiori UI components on the front-end server.

Follow-Up Activities

Mandatory Steps

☐ Create SAP ERP tables.

☐ Carry out all of the post-installation steps listed in the *Common Installation Guide* under http://help.sap.com/rap *SAP Assortment Planning for Retail 1.0 FP2* > *Installation and Upgrade Information* > *Installation Guide* > *Common Installation Guide* > *Implementation Scenarios* > *SAP Assortment Planning for Retail* > *Post-Installation* >.

Optional Steps

☐ If required, troubleshoot front-end server upgrade.

4.2.6.2 Upgrade Process

4.2.6.2.1 Implement SAP Note 2298340

Use

Prior to upgrading the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack (SPS) to a newer one, you need to verify the SAP NetWeaver 7.40 SPS in your system landscape. Important corrections, relevant for Core Data Services (CDS) views, and required by the latest SPS of `CAR RETAIL APPL BUNDLE 1.0`, are only available as of SAP NetWeaver 7.40 SPS 15.

Procedure

1. Verify your SAP NetWeaver 7.40 support package stack.
   If your landscape contains SAP NetWeaver 7.40 SPS 12, SPS13, or SPS14, you will need to implement SAP Note 2298340 to apply corrections relevant for CDS views.
   If your landscape has been upgraded to SAP NetWeaver 7.40 SPS 15, you do not need to implement SAP Note 2298340, and you can go to the next procedure.

2. Read and implement SAP Note 2298340 **prior** to upgrading the back-end system product version.

More Information

http://help.sap.com/hana_platform ▶ *Development and Modeling* > *SAP HANA Modeling Guide (For SAP HANA Studio)* >

4.2.6.2.2 Upgrade SAP Customer Activity Repository Retail Applications Bundle

Use

This procedure describes how to upgrade the `CAR RETAIL APPL BUNDLE 1.0` back-end product version from an older support package stack to a newer one.

Procedure

1. Check your upgrade scenario:
   1. Navigate to the Product Availability Matrix (PAM) at http://support.sap.com/pam.
   2. For information about the available support package stacks (SPS), search for the `CAR RETAIL APPL BUNDLE 1.0` product version, and choose *Support Package Stacks*.
   3. For information about the supported upgrade paths, choose *Related Product Versions*.
   4. For information about the software components in the SPS, choose *Technical Release Information* and consult the subsections, such as *Database Systems*.
   5. To navigate directly to the download area for the SPS, choose ▶ *SAP Software Download Center* > *CAR RETAIL APPL BUNDLE 1.0 - Support Packages & Patches* >.
      Alternatively, you can get there from the SAP Support Portal by choosing http://support.sap.com/swdc ▶ *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0* >.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information about this tool, see SAP Help Portal at http://help.sap.com/spmanager ▶ *Application Help* >, as well as SAP Note 1803986.

To finalize the upgrade of the back-end product version, you must additionally do some manual steps. Continue with the next section.

Download and Install the Application Function Libraries (AFLs)

There are two components that you cannot upgrade using Support Package Manager.

- Unified Demand Forecast application function library (UDF AFL, software component version `UDFAFL_INST 100`, provides the demand modeling and forecasting services in SAP Customer Activity Repository, runs directly in the SAP HANA database)
- On-Shelf Availability application function library (POS AFL, software component version `POSAFL_INST 100`, provides the On-Shelf Availability services in SAP Customer Activity Repository, runs directly in the SAP HANA database)

You need to download one UDF AFL revision and one POS AFL revision manually and install them together in your SAP HANA database.

Where to Download

Both AFLs are provided as part of the `CAR RETAIL APPL BUNDLE 1.0` product version on the SAP Support Portal under http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *C* > *CAR RETAIL APPLICATIONS BUNDLE* > *CAR RETAIL APPL BUNDLE 1.0* > *Entry by Component* > *Analytics AFL*.

For a successful upgrade, you need to be aware of the following dependencies.

Dependencies Between the AFLs and the SAP HANA Database

The AFLs are released independently of the releases of SAP Customer Activity Repository retail applications bundle. This is because the AFLs follow the release cycle of the SAP HANA database. The releases are called "revisions". Whenever a new revision of the SAP HANA database is released, a new revision of each AFL is released. As a result, multiple revisions of each AFL are available on the SAP Support Portal at any one time.

> ⚠ Caution
>
> For each revision of an AFL, there is **only one** compatible revision of the SAP HANA database. For example, you can only use revision 112.20 of the UDF AFL with revision 112.02 of the SAP HANA database. Whenever you upgrade an AFL, you must also upgrade the database and any other AFLs to the compatible revisions. Reversely, whenever you upgrade the database, you must upgrade the AFLs.
>
> Note that this dependency applies not only to the UDF AFL and the POS AFL but also to the generic SAP HANA AFL. Both the SAP HANA AFL and the SAP HANA database are components of the SAP HANA Platform (see Prerequisites [page 16]).
>
> When you download an AFL revision from the SAP Support Portal, the compatible revision of the SAP HANA database is indicated.

Nomenclature

The following table explains how you can see the dependencies by looking at the release numbers:

Release of ...	Released as ...	Example	Guideline
SAP HANA Platform	<Support Package Stack>	SAP HANA Platform SPS **11**	The number of the support package stack determines the first digits of the revisions.

Release of ...	Released as ...	Example	Guideline
SAP HANA Database	<Revision>.<Patch>	SAP HANA Database **11**2.0 **2**	All 11x.xx database revisions belong to the SPS 11 platform stack. The patch number determines the first digit of the AFL patch.
UDF AFL	<Revision>.<Patch>	UDF AFL **11**2. **2**0	
POS AFL		POS AFL **11**2. **2**0	
SAP HANA AFL		SAP HANA AFL **11**2. **2**0	

→ Recommendation

We recommend that you upgrade all the AFLs **at the same time**. This means:

- UDF AFL and POS AFL, which you must both install for a successful upgrade of SAP Customer Activity Repository retail applications bundle
- SAP HANA AFL, which is one of the mandatory prerequisites
- if applicable, other AFLs provided with SAP HANA that might be relevant for your scenario

Focus on the AFL that provides the most important functionality for your scenario (for example, demand forecasting with the UDF AFL). Select the best revision of that AFL for your scenario. This in turn will give you the compatible revision of the SAP HANA database and the compatible revisions of the other AFLs. Then install all the AFLs together.

Download and Install the UDF AFL (Focus: Demand Forecasting)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your Unified Demand Forecast scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2050229: Gives you an overview of all UDF AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the UDF AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database

2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2050229.

> **i Note**
>
> To use the UDF functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure Unified Demand Forecast (Optional) [page 64].

Download and Install the POS AFL (Focus: On-Shelf Availability)

1. Select an AFL revision.
   Multiple revisions are available on the SAP Support Portal. For guidance on selecting the best revision for your On-Shelf Availability scenario, see the following:
   - Prerequisites [page 16]: Indicates the minimum revision of the AFL and the SAP HANA Platform for this release.
   - SAP Note 2088924: Release Information Note (RIN) for SAP Customer Activity Repository retail applications bundle 1.0.
   - SAP Note 2056102: Gives you an overview of all POS AFL revisions as of revision 82 and provides instructions for downloading, installing, and upgrading the POS AFL.
   - SAP-HANA-related information:
     - Release and maintenance strategy of the SAP HANA Platform at http://support.sap.com/swdc *Support Packages and Patches* > *Software Downloads* > *SUPPORT PACKAGES & PATCHES* > *By Alphabetical Index (A-Z)* > *H* > *SAP HANA Platform Edition* > *Info*
     - SAP Note 2021789: SAP HANA Revision and Maintenance Strategy
     - SAP Note 2227464: SAP HANA Platform SPS 11 Release Note
     - SAP Note 1948334: SAP HANA Database Update Paths for Maintenance Revisions
     - SAP Note 1914052: Dependencies between SAP NetWeaver and the SAP HANA Database
2. Download and install your AFL revision (together with the other AFLs) as described in SAP Note 2056102.

> **i Note**
>
> To use the On-Shelf Availability functionality in your implementation scenario, you must additionally do some post-installation steps. For more information, see Configure On-Shelf Availability (Optional) [page 53].

Result

You have successfully upgraded the `CAR RETAIL APPL BUNDLE 1.0` back-end product version to the current SPS. Continue with the next section.

4.2.6.2.3 Clear Back-End System Tables

Use

Although not recommended, if you were previously using an application version lower than SAP Assortment Planning for Retail 1.0 FP1, you need to purge all data created by previous application versions following the upgrade. Due to data model incompatibilities of the FP1 version and previously shipped versions, you cannot use previously created data following an upgrade to SAP Assortment Planning for Retail 1.0 FP2.

Procedure

1. Log on to your back-end system.
2. Read SAP Note 2189353, create and run the report described in the note.

4.2.6.2.4 Upgrade Product-Specific SAP Fiori UI Component

Use

This procedure describes how to upgrade the `SAP FIORI FOR SAP CARAB` front-end product version from an older support package stack to a newer one.

The ABAP front-end server contains the complete UI layer, which consists of the SAP Gateway, the central SAP Fiori UI component, and the product-specific SAP Fiori UI component. The product-specific SAP Fiori UI component contains all the SAP Fiori user interfaces for the applications provided for the SAP Customer Activity Repository retail applications bundle.

Procedure

1. Identify the support package stack on the SAP Support Portal at http://support.sap.com *Software Downloads* *Support Packages and Patches* *Software Downloads* *By Alphabetical Index (A-Z)* *F* *SAP FIORI* *SAP FIORI FOR SUITE* *SAP FIORI FOR SAP CARAB* *SAP FIORI FOR SAP CARAB 2.0 SPS01*.
   For more information on support package stacks, see http://support.sap.com/sp-stacks.
2. Patch the support package stack using the Support Package Manager tool (transaction `SPAM`).
   For more information, see SAP Help Portal at http://help.sap.com/spmanager *Application Help*, as well as SAP Note 1803986.

> ⚠ Caution
>
> As of the FP3 release, software components `UISCAR01` and `UIRAP001` have been merged into one, `UICAR001`, software component.

3. If you are using SAP Assortment Planning for Retail, consult SAP Note 2077357, which lists the SAP Notes relevant for your release.

4.2.6.3 Follow-Up Activities

4.2.6.3.1 Create SAP ERP Tables

> ⚠ Caution
>
> Following an upgrade, it is important to remember to create any additional tables required by the new release.

Tables required to be created as of the SAP Assortment Planning for Retail are listed in SAP Note 2263205. Ensure that **all** tables listed in this note have been created.

4.2.6.3.2 Complete Post-Installation

Carry out all of the post-installation steps listed in the *Common Installation Guide* under http://help.sap.com/rap *<Your Release>* > *Installation and Upgrade Information* > *Installation Guide* > *Common Installation Guide* > *Implementation Scenarios* > *SAP Assortment Planning for Retail* > *Post-Installation*.

> ⚠ Caution
>
> Following the software upgrade, you must carry out the post-installation steps to complete the application upgrade.

4.2.6.3.3 Troubleshoot Front-End Server Upgrade

Use

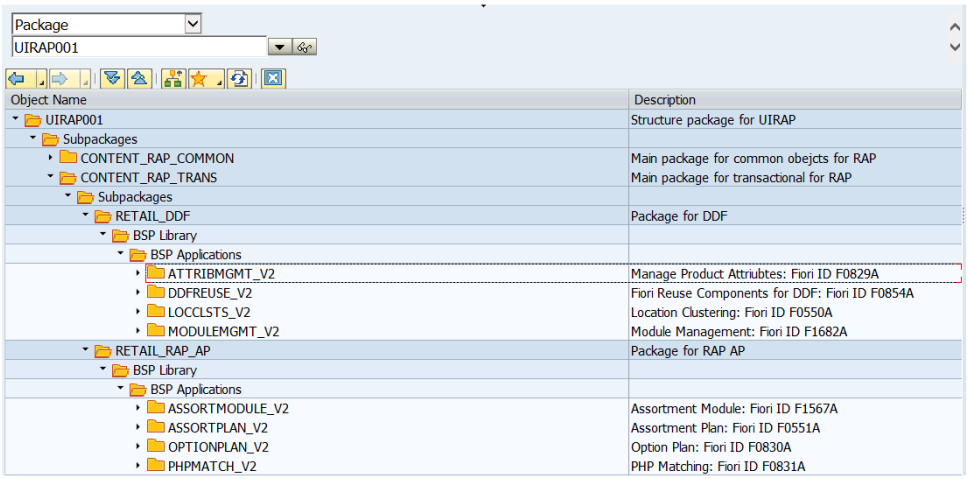
Following the upgrade of the product version on the front-end server, you may not be able to see some of the SAP Assortment Planing for Retail 1.0 FP3 SAP Fiori tiles in your launchpad. This section outlines how to troubleshoot these issues, should you experience them.

These steps are also listed in the *Troubleshooting* section of the *SAP Assortment Planing for Retail Administrator's Guide* available on the SAP Help Portal at http://help.sap.com/rap *<Your Release>* > *System Administration and Maintenance Information* > *Administrator's Guide*.

Process

Do the following:

1. Check that all of the required BSP applications are listed in the `UIRAP001` package.
    1. Log on to your front-end system (your SAP Gateway system).
    2. Launch the *Object Navigator* (transaction `SE80`).
    3. In the *Repository Browser*, open package `UIRAP001`.
    4. Expand all of the embedded packages of embedded package `CONTENT_RAP_TRANS`.
    5. Verify that the following *BSP Applications* are listed:



BSP Applications

    6. If you do not see one or more of the BSP applications listed above, right-click on each of the `RETAIL_DDF` and `RETAIL_RAP_AP` packages, and select *Other Functions* > *Rebuild Object List*.

> ⚠ Caution
>
> Do not rebuild objects on a higher package level.

2. Ensure that you have activated all of the ICF services listed in the *Activate SAP Assortment Planning for Retail ICF Services* section of the *Common Installation Guide* under http://help.sap.com/rap > *<Your Release>* > *Installation and Upgrade Information* > *Installation Guide* > *Common Installation Guide* > *Implementation Scenarios* > *SAP Assortment Planning for Retail* > *Post-Installation*.

> ⚠ Caution
>
> Following an upgrade, it is important to remember to activate any new SAP Fiori apps made available in the release.

3. Clean the cache.
    1. Log on to your front-end system (your SAP Gateway system).
    2. In Customizing (transaction `SPRO`), navigate to *SAP NetWeaver* > *UI Technologies* > *SAP Fiori* > *Data Administration* > *Invalidate Caches*.

This activity launches the `/UI2/INVALIDATE_GLOBAL_CACHES` report. This report invalidates all server-side caches in SAP NetWeaver user interface services, which can become out-of-date following an upgrade.

3. If necessary, implement instructions listed in SAP Note 2147669.

4. Remove any previously customized versions of the `UIRAP001` launchpad.
   1. Log on to your front-end system (your SAP Gateway system).
   2. Launch the *Overview for Launchpads* (transaction `LPD_CUST`).
   3. Search for *Role* `UIRAP001`, and see whether any instances exist where the *User Name* is not *SAP*. If so, this means that customized versions of the `UIRAP001` launchpad exist, and these take precedence over the standard launchpad instance delivered by SAP.
   4. Delete all but the launchpad instance delivered by SAP.

4.3 SAP Promotion Management for Retail

4.3.1 SAP Promotion Management for Retail Upgrade and Migration

Prerequisites

- You have upgraded to SAP Customer Activity Repository 2.0.

Procedure

The Promotions server (component `RTLPROMO`) contains all necessary ABAP classes and libraries required for the promotions processing required by SAP Promotion Management for Retail. You can use the SAP Add-on Installation Tool (transaction `SAINT`) to install the component.

> **i Note**
>
> For complete information on `SAINT` see: *SAP Service Marketplace* > *SAP Support Portal* > *Release & Upgrade Info* > *Installation and Upgrade Guides* > *Industry Solutions* > *Add-On Components* > *SAINT Documentation*

To upgrade from SAP Promotion Management for Retail 8.0 on SAP Customer Activity Repository 1.0 to SAP Promotion Management for Retail 8.1 on SAP Customer Activity Repository 2.0 you must:

1. Log on to your ABAP system.
2. Upgrade from `RTLPROMO 801` to component `RTLPROMO 810` using transaction `SAINT` as described in SAP Note 2026580.

4.4 SAP Merchandise Planning for Retail Upgrade

SAP Merchandise Planning for Retail 1.0 SP4 has no functional updates for this version.

If you did not load inventory history in the previous version you can use an ABAP report to load inventory history. Use the ABAP report *BI Interface for Historical Inventory Time Series.* To execute the report, use transaction code `SE38`. To view the documentation, enter the report name `/DMF/BI_IF_INV_HIST` in the *Program* input field and select the radio button *Documentation*. Select the *Display* button. To execute the report use the execute button.

> ⚠ Caution
>
> You must complete upgrade steps for SAP Customer Activity Repository.

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.
About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
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