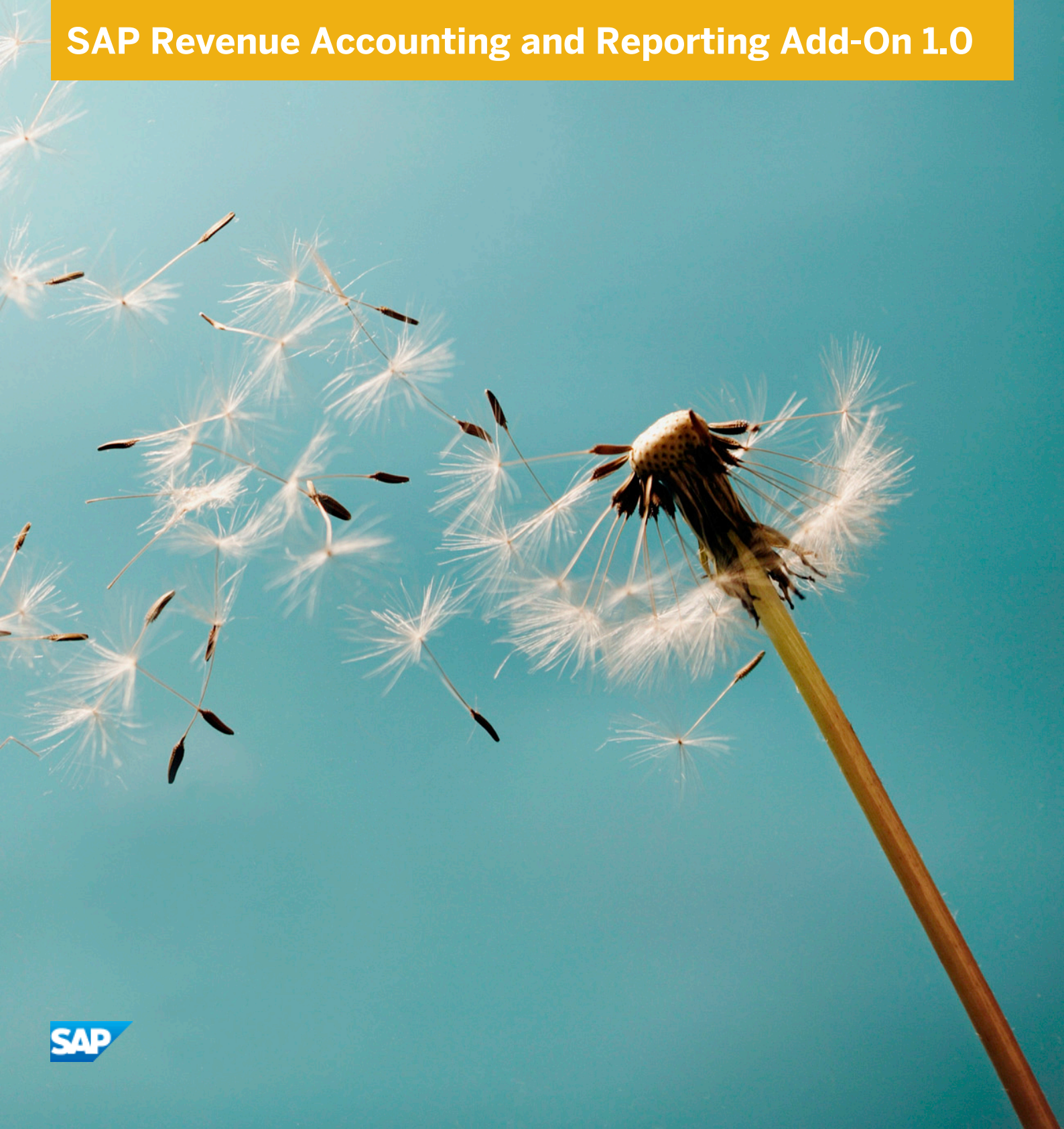


# SAP Revenue Accounting and Reporting Add-On 1.0



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# Document History

## Caution

Before you start the implementation, make sure you have the latest version of this document. You can find the latest version at the following location: [service.sap.com/instguides](https://service.sap.com/instguides).

The following table provides an overview of the most important document changes.

Table 1

Version	Date	Description
1.0	2014-09-08	Document created.

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# 1 Getting Started

## 1.1 About this Document

This document is a single source of information for the implementation of *SAP Revenue Accounting and Reporting*. It contains implementation information as well as security and operation information, and is divided into the following main sections:

- Introduction with references to related documents and relevant SAP notes
- Installation Information  
This chapter gives you an overview of the installation components and the sequence in which they are installed.
- Configuration Information  
This chapter provides technical details that are required for the configuration of *SAP Revenue Accounting and Reporting*.
- Migration Information  
This chapter provides information that you need for migrating from an existing system to *SAP Revenue Accounting and Reporting*.
- Operation Information  
This chapter provides you with the most relevant information needed for the operation of *SAP Revenue Accounting and Reporting*.
- Security Information  
This chapter provides you with the information that you require to operate *SAP Revenue Accounting and Reporting*.
- Extensibility Information  
This chapter provides information that you need for enhancing your implementation of *SAP Revenue Accounting and Reporting*.

### **i** Note

You can find the most current version of this document on SAP Service Marketplace at [service.sap.com/instguides](https://service.sap.com/instguides).











We strongly recommend that you use the document available there. The guide will be updated according to updates of the software.

## 1.2 Related Information

### 1.2.1 Planning Information

For more information about implementation topics not covered in this guide, see the following content on SAP Service Marketplace:





Table 2

Content	Location on SAP Service Marketplace
Latest versions of installation and upgrade guides	<a href="https://service.sap.com/instguides">service.sap.com/instguides</a> 
General information about SAP Revenue Accounting and Reporting	<a href="https://service.sap.com/">service.sap.com/</a> 
Sizing, calculation of hardware requirements-such as CPU, disk and memory resource-with the Quick Sizer tool	<a href="https://service.sap.com/quicksizer">service.sap.com/quicksizer</a> 
Released platforms and technology-related topics such as maintenance strategies and language support	<a href="https://service.sap.com/platforms">service.sap.com/platforms</a>  To access the Platform Availability Matrix directly, enter <a href="https://service.sap.com/pam">service.sap.com/pam</a> 
Network Security	<a href="https://service.sap.com/securityguide">service.sap.com/securityguide</a> 
High Availability	<a href="http://www.sdn.sap.com/irj/sdn/ha">www.sdn.sap.com/irj/sdn/ha</a> 
Performance	<a href="https://service.sap.com/performance">service.sap.com/performance</a> 
Information about Support Package Stacks, latest software versions and patch level requirements	<a href="https://service.sap.com/sp-stacks">service.sap.com/sp-stacks</a> 
Information about Unicode technology	<a href="http://www.sdn.sap.com/irj/sdn/i18n">www.sdn.sap.com/irj/sdn/i18n</a> 

### 1.2.2 Further Useful Links

The following table lists further useful links on SAP Service Marketplace:

Table 3

Content	Location on SAP Service Marketplace
Information about creating error messages	<a href="https://service.sap.com/messages">service.sap.com/messages</a> 
SAP Notes search	<a href="https://service.sap.com/notes">service.sap.com/notes</a> 
SAP Software Distribution Center (software download and ordering of software)	<a href="https://service.sap.com/swdc">service.sap.com/swdc</a> 
SAP Online Knowledge Products (OKPs)-role-specific learning maps	<a href="https://service.sap.com/rkt">service.sap.com/rkt</a> 



## 1.2.3 Related Guides

You can find more information about the relevant applications in the following documents:

Table 4

Title	Location
SAP NetWeaver 7.0	▶ <a href="https://service.sap.com/installNW70">service.sap.com/installNW70</a> ▶ Planning ▶ Master Guide – SAP NetWeaver 7.0
SAP NetWeaver 7.3	▶ <a href="https://service.sap.com/installNW73">service.sap.com/installNW73</a> ▶ Planning ▶ Master Guide – SAP NetWeaver 7.3
SAP NetWeaver 7.4	▶ <a href="https://service.sap.com/installNW74">service.sap.com/installNW74</a> ▶ Planning ▶ Master Guide – SAP NetWeaver 7.4
SAP ERP 6.0	▶ <a href="https://service.sap.com/erp-inst">service.sap.com/erp-inst</a> ▶ SAP ERP 6.0 ▶ Planning ▶ Master Guide for SAP ERP 6.0
SAP Enhancement Package 5 for SAP ERP 6.0	▶ <a href="https://service.sap.com/erp-inst">service.sap.com/erp-inst</a> ▶ SAP ERP 6.0 ▶ SAP Enhancement packages for SAP ERP 6.0 ▶ SAP Enhancement package 5 for SAP ERP 6.0 ▶ Master Guide SAP Enhancement package 5 for SAP ERP 6.0
SAP Enhancement Package 6 for SAP ERP 6.0	▶ <a href="https://service.sap.com/erp-inst">service.sap.com/erp-inst</a> ▶ SAP ERP 6.0 ▶ SAP Enhancement Packages for SAP ERP 6.0 ▶ SAP Enhancement Package 6 for SAP ERP 6.0 ▶ Master Guide SAP Enhancement Package 6 for SAP ERP 6.0
SAP Enhancement Package 6 for SAP ERP 6.0 (SAP HANA version)	▶ <a href="https://service.sap.com/erp-inst">service.sap.com/erp-inst</a> ▶ SAP ERP 6.0 ▶ SAP Enhancement Packages for SAP ERP 6.0 ▶ SAP Enhancement Package 6 for SAP ERP 6.0 (SAP HANA version) ▶ Administrator's Guide for SAP ERP 6.0 (SAP HANA version)
SAP Enhancement Package 7 for SAP ERP 6.0 (SAP HANA version)	▶ <a href="https://service.sap.com/erp-inst">service.sap.com/erp-inst</a> ▶ SAP ERP 6.0 ▶ SAP Enhancement Packages for SAP ERP 6.0 ▶ SAP Enhancement Package 7 for SAP ERP 6.0 ▶ Master Guide SAP Enhancement Package 7 for SAP ERP 6.0
Smart Financials	▶ <a href="https://service.sap.com/erp-inst">service.sap.com/erp-inst</a> ▶ SAP ERP Add-Ons ▶ Smart Financials ▶ Smart Financials 1.0 ▶ Administrator's Guide for Smart Financials 1.0

## 1.3 Important SAP Notes

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

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

Table 5

SAP Note Number	Title	Description
<a href="#">1987012</a>	Release Strategy Note for REVREC 100	This note provides information about planning the installation of the add-on REVREC 100
<a href="#">1841471</a>	Release strategy for ABAP add-ons for interface components	This note provides information about planning the installation of Integration Components – needed for the installation of REVRECSO 100
<a href="#">1960535</a>	SD Core Changes for the Integration with Revenue Accounting and Reporting	This note contains some important changes to SD to enable the integration to Revenue Accounting and Reporting. It is required for the functionality delivered in software component REVRECSO 100.
<a href="#">2025378</a>	Profitability Object Number missing for order item	
<a href="#">1992006</a>	CO-PA Activation for Add-On “Revenue Accounting and Reporting”	

## 1.4 Technical System Landscape

The following diagram provides an overview of the system landscape for *Revenue Accounting and Reporting*.

*SAP Revenue Accounting and Reporting* is delivered as product version SAP REVENUE ACCOUNTING 1.0 which consists of two parts:

- Instance Revenue Accounting with software component version REVREC 100 contains the main functional part of *SAP Revenue Accounting and Reporting*.
- Instance Rev. Accounting Integration with software component version REVRECSO 100 contains functions to integrate Sales and Distribution documents with *SAP Revenue Accounting and Reporting*.

Both instances are installed on an SAP ERP 6.0 stack, but they require different minimum underlying software versions. REVREC 100 requires at least an SAP ERP 6.0, Enhancement Package 5 environment. Therefore, the software component version REVRECSO 100 can also be installed in an SAP ERP 6.0 environment without installed Enhancement Packages.

Instance Revenue Accounting always needs to be installed on top of your Financials system while instance Rev. Accounting Integration needs to be installed on top of your Sales and Distribution system. Depending on whether Sales and Distribution and Financials applications run on the same system, you have the following deployment options.

### Deployment in Different Systems

Sales and Distribution is not managed in the same system as Financials. You install instance Rev. Accounting Integration on top of your Sales and Distribution system. It can be installed from SAP ERP 6.0 or higher.



Therefore, if your Sales and Distribution system is already on SAP ERP 6.0, you do not have to upgrade the system.

Instance Revenue Accounting can be installed on SAP ERP 6.0 Enhancement Package 5 or higher. If your Financials system is below that system level, you must first upgrade the system to at least SAP ERP 6.0 Enhancement Package 5.

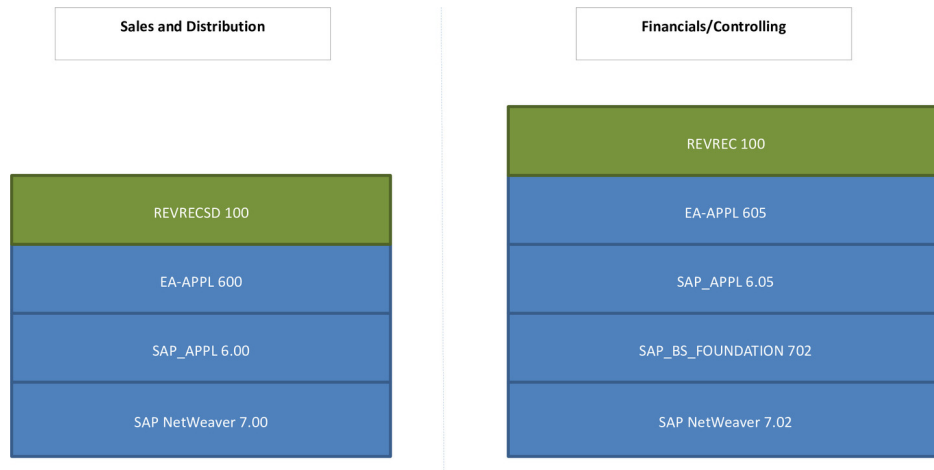


Figure 1: Revenue Accounting and Reporting in a distributed System Landscape

### Data Harmonization Requirements

If instances Rev. Accounting Integration and Revenue Accounting are installed on different systems, it is required that the systems have harmonized master data and configuration. This is because Revenue Accounting and Reporting has neither key-mapping nor value-mapping functions in its portfolio. In particular, the following data and settings must be harmonized in both systems:

- Company Codes, including company code currencies and currency settings
- CO-PA configurations (structures, value fields and operations concern) if used
- Customers, Business Partners
- Accounts and Account Assignments (such as Profit Centers and Business Areas)

### Deployment in One System

In many cases, Sales and Distribution runs in the same system as Financials and Controlling. In this case, the instance Rev. Accounting Integration has to be installed on the same stack.

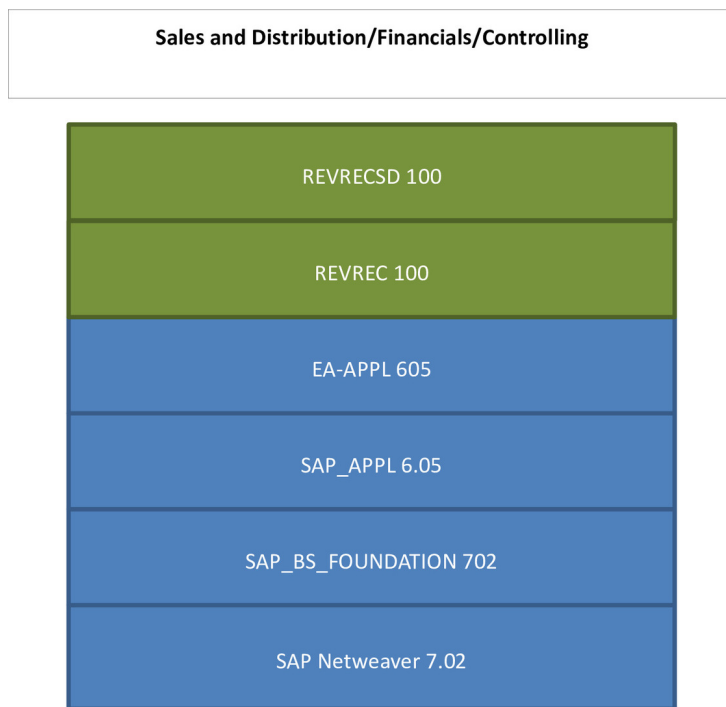


Figure 2: Revenue Accounting and Reporting in a single System Landscape

Required alternative Product Versions, Instances and minimal Support Package Stacks for Revenue Accounting:

Table 6

Product Version	Instance	Support Package
EHP5 FOR SAP ERP 6.0	Central Applications	10
EHP6 FOR SAP ERP 6.0	Central Applications	06
EHP6 FOR SAP ERP 6.0 ON HANA	Central Applications	01
EHP7 FOR SAP ERP 6.0	Central Applications	01
SAP SFINANCIALS 1.0	Smart Financials	Initial Shipment Stack

Required alternative Product Versions, Instances and minimal Support Package Stacks for Rev. Accounting Integration:

Table 7

Product Version	Instance	Support Package
SAP ERP 6.0	SAP ECC Server	15
EHP2 FOR SAP ERP 6.0	Central Applications	06
EHP3 FOR SAP ERP 6.0	Central Applications	05
EHP4 FOR SAP ERP 6.0	Central Applications	05
EHP5 FOR SAP ERP 6.0	Central Applications	10
EHP6 FOR SAP ERP 6.0	Central Applications	06
EHP6 FOR SAP ERP 6.0 ON HANA	Central Applications	01

Product Version	Instance	Support Package
EPH7 FOR SAP ERP 6.0	Central Applications	01
SAP SFINANCIALS 1.0	Smart Financials	Initial Shipment Stack

The following software components are either mandatory or optional, as indicated below, for the technical implementation of *SAP Revenue Accounting and Reporting*.

Table 8

Component	Mandatory	Optional
REVREC 100	yes	
REVRECS 100	yes	

## 2 Installation Information

### Preparation

Before you install Instance Rev. Accounting Integration, make sure that the following notes are installed:

Table 9

Note	Title
<a href="#">1960535</a>	SD Core Changes for the Integration with Revenue Accounting and Reporting
<a href="#">2025378</a>	Profitability Object Number missing for order item

Before you install software component Revenue Accounting, make sure that the following notes are installed:

Table 10

Note	Title
<a href="#">1992006</a>	CO-PA Activation for Add-On "SAP Revenue Accounting and Reporting"

### Installation Sequence

The Instances Revenue Accounting and Rev. Accounting Integration can be installed independently, and in any order. However, neither of these two components can work alone. Read all necessary information about the technical installation in the following notes:

Table 11




Note	Title
<a href="#">1987012</a>	Release Strategy Note for REVREC 100
<a href="#">1841471</a>	Release strategy for ABAP add-ons for interface components

The add-on REVREC 100 needs to be installed with minimum support package stack 01.

### Related Guides

Table 12

Upgrade and Update Guide for SAP ERP 6.0	<a href="http://service.sap.com/erp-inst">http://service.sap.com/erp-inst</a>
Upgrade and Update Guide for SAP ERP 6.0 Enhancement Package 5	<a href="http://service.sap.com/erp-ehp5-inst">service.sap.com/erp-ehp5-inst</a>
Upgrade and Update Guide for SAP ERP 6.0 Enhancement Package 6	<a href="http://service.sap.com/erp-ehp6-inst">service.sap.com/erp-ehp6-inst</a>
Upgrade and Update Guide for SAP ERP 6.0 Enhancement Package 7	<a href="http://service.sap.com/erp-ehp7-inst">service.sap.com/erp-ehp7-inst</a>
Installation & Upgrade Guide SAP Netweaver 7.0	<a href="http://service.sap.com/installNW70">service.sap.com/installNW70</a>

Upgrade and Update Guide for SAP ERP 6.0	<a href="http://service.sap.com/erp-inst">http://service.sap.com/erp-inst</a>
Installation & Upgrade Guide SAP Netweaver 7.0 Enhancement Package 2	<a href="http://service.sap.com/installNW70">service.sap.com/installNW70</a> 
Installation & Upgrade Guide SAP Netweaver 7.3	<a href="http://service.sap.com/installNW73">service.sap.com/installNW73</a> 
Installation & Upgrade Guide SAP Netweaver 7.4	<a href="http://service.sap.com/installNW74">service.sap.com/installNW74</a> 

## Post-Installation

In transaction SICF, activate all Web Dynpro applications whose name starts with FARR\_, such as FARR\_JOB\_MONITOR. Web Dynpro applications are activated in SICF under default\_host/sap/bc/webdynpro/sap.

Revenue Accounting Integration and Revenue Accounting communicate by using RFC function calls. If these two instances are installed in different systems, you need to define an RFC destination with connection type 3 (Connection to ABAP System) in the system where Rev. Accounting Integration is installed, pointing to the system where Revenue Accounting is installed. The solution tries to establish a bgRFC connection as the preferred connection type. You should therefore create an RFC destination that supports the bgRFC protocol. To do this, run transaction SM59, choose the *Special Options* tab, and then select *Classic with bgRFC* as the *Transfer Protocol*.

## 3 Upgrade Information

SAP Revenue Accounting and Reporting 1.1 supports granular posting, which means the system can transfer revenue to FI on contract level. The data structure of the Reconciliation Key table ( `FARR_D_RECON_KEY` ) is enhanced in the following ways:

- Field `RECON_KEY` is enlarged from NUMC 10 to CHAR 14.
- Field `CONTRACT_ID` is added as key field of the table.

### 3.1 Preparation

Before the technical upgrade (so still with Revenue Accounting and Reporting 1.0), you must first run the program `FARR_DATA_MIGRATION_PRECHECK` (available via Note 2114560) to check whether the following prerequisites are met:

- All the reconciliation keys before the upgrade period are closed (status “C”) or originally created during initial load (status “M”).
- All revenue accounting periods before the upgrade period are closed under all combination of company code and accounting principle (via table `FARR_C_CLOSE`).

If there is any error, you must fix the error before the upgrade; if there is no error in the report, then you can start the upgrade from release 1.0 to 1.1. Technically, the controlling table `FARR_C_MIG_RA11` will have one entry whose `MIGRATION_STATUS` set to “R”.

After running the check program, you should not open previous periods in Revenue Accounting before the upgrade was successfully done.

#### **i** Note

Before you implement the upgrade to Revenue Accounting and Reporting 1.1, you also should have done the Billing Plan Item migration as described in note 2163395.

### 3.2 Quick Guide

#### Implement pre-check Notes

Table 13

Activity
Implement note 2163395 (Migrate SDBP billing plan items to SDPI and aggregated SDOI items)
Implement Note 2119123
Execute report <code>FARR_NOTE_2119123</code>



#### Activity

Implement Note 2114560

### Run pre-check program

Table 14

#### Activity

Run program FARR\_DATA\_MIGRATION\_PRECHECK

### Upgrade from release 1.0 to 1.1

Table 15

#### Activity

Upgrade from release 1.0 to 1.1

### Upgrade Reconciliation Key Table

Table 16

#### Activity

Run program FARR\_RK\_MIG\_TO\_RA11 to upgrade the reconciliation key table

Run program FARR\_RK\_MIG\_TO\_RA11\_SET\_STATUS to mark the table is upgraded successfully Re-Generate RAI Classes

Set Completion Status for Performance Obligations

## 3.3 Upgrade Process

After the technical upgrade to 1.1 (the installation of software component REVREC 110) was successfully performed, you need to take the following steps to accomplish the data upgrade:

1. Maintain the pluralization settings for the migration program FARR\_RK\_MIG\_TO\_RA11 under [Revenue Accounting > Revenue Accounting Postings > Configure Parallel Processing for Revenue Posting](#). The application type for this step is FARR\_PARK.
2. Run program FARR\_RK\_MIG\_TO\_RA11 to migrate table FARR\_D\_RECON\_KEY. The program enriches contract ID for all non-closed reconciliation keys

#### Note

This program will first backup the reconciliation key table into a backup table FARR\_L\_RECKEY\_BK.

3. After upgrading the reconciliation key table, perform some manual check. If you found anything wrong, you can run the program FARR\_RK\_MIG\_TO\_RA11\_ROLLBACK to roll back the changes to the reconciliation key table (copy the backup data from FARR\_L\_RECKEY\_BK to FARR\_D\_RECON\_KEY) and start the migration again. Please be aware that the program FARR\_RK\_MIG\_TO\_RA11\_ROLLBACK has no selection screen, which means it will start the rollback directly when you execute it.

- 
4. If everything is OK, then you should run the program `FARR_RK_MIG_TO_RA11_SET_STATUS` to mark the migration as “completed”(in the controlling table `FARR_C_MIG_RA11`, the entry `MIGRATION_STATUS` will be set to “C”).

## 3.4 Follow-up Activities

## 4 Configuration Information

### 4.1 Revenue Accounting and Reporting IMG Paths

Most of the Customizing activities required for this solution are available in the following locations:

For SAP Revenue Accounting and Reporting: ▶ [Financial Accounting \(New\)](#) ▶ [Revenue Accounting](#) ▶

For SD Integration Component: ▶ [Sales and Distribution](#) ▶ [Revenue Accounting and Reporting](#) ▶

### 4.2 Application Integration

Revenue Accounting Integration Component and Revenue Accounting communicate by using RFC function calls. If these instances are installed in different systems, you need to define an RFC destination with connection type 3 (Connection to ABAP System) in the system where Rev. Accounting Integration is installed, pointing to the system where Revenue Accounting is installed as the target system. The solution tries to establish a bgRFC connection as the preferred connection type. Therefore, you should create an RFC destination that supports the bgRFC protocol. To do this, run transaction SM59, open tab *Special Options*, and then select *Classic with bgRFC* as the *Transfer Protocol*.

To use the Integration Component for Revenue Accounting, you must activate the component in the following Customizing activity: ▶ [Sales and Distribution](#) ▶ [Revenue Accounting and Reporting](#) ▶ [Integrate with Revenue Accounting](#) ▶

#### **i** Note

Here you also maintain the RFC destination for the background RFC.

For more information about General Background Communication (transaction bgRFC), see the following documentation on the [help.sap.com](http://help.sap.com) site:

▶ [SAP Business Suite](#) ▶ [SAP Supply Chain Management](#) ▶ [SAP SNC, UI Add-On for Purchase Order Collaboraiton](#) ▶ [SAP SNC, UI Add-On for Purchase Order Collaboration 1.0](#) ▶ [Connectivity](#) ▶ [Components of SAP Communication Technology](#) ▶ [Classic SAP Technologies \(ABAP\)](#) ▶ [RFC](#) ▶ [Background Communication](#) ▶ [bgRFC \(Background Remote Function Call\)](#) ▶

To enable *SAP Revenue Accounting and Reporting* to store data sent from the SD Integration Component, three RAI-classes must be configured in the system where *SAP Revenue Accounting and Reporting* is installed. To do this, complete the following tasks:

1. Define RAI-classes in the following Customizing activity:

▶ [Financial Accounting \(New\)](#) ▶ [Revenue Accounting](#) ▶ [Inbound Processing](#) ▶ [Revenue Accounting Items](#) ▶ [Maintain Revenue Accounting Item Classes](#) ▶

To create a new RAI-class, choose *New Class*, complete the settings as listed in the following table, and then save and activate the class.

Table 17

RAI Class	Rev. Acc. Itm Class	Name	Class Type
RAI-class SD01 for SD Order Items	SD01	SD Order Items	01
RAI-class SD02 for SD Fulfillment Items	SD02	SD Fulfillment Items	02
RAI-class SD03 for SD Order Items	SD03	SD Invoice Items	03

2. Generate the three accounting item classes in the following Customizing activity:

► [Financial Accounting \(New\)](#) ► [Revenue Accounting](#) ► [Inbound Processing](#) ► [Revenue Accounting Items](#) ► [Generate Interfaces for Revenue Accounting Item Classes](#) ►

To do this, mark each RAI-class (RAI-class SD01, RAI-class SD02, and RAI-class SD03 respectively), and then choose *Generate*.

## 4.3 Revenue Accounting Roles

*SAP Revenue Accounting and Reporting* is designed to run with SAP NetWeaver Business Client (NWBC) and provides a set of standard PFCG roles (with prefix `SAP_SR_FFARR_`) tailored for SAP NWBC.

### ➔ Recommendation

Use SAP NetWeaver Business Client (NWBC) for all business user roles that use the Revenue Accounting and Reporting applications (minimum version 4.0).

For a detailed list of NWBC roles delivered for *Revenue Accounting and Reporting*, see the [Security Information \[page 36\]](#) chapter in this document.

### i Note

You can run transaction `PFCG` to add the NWBC roles to the SAP Easy Access.

## 4.4 CO-PA Integration

*SAP Revenue Accounting and Reporting* integrates with CO-PA using the SD entry into CO-PA, which means it behaves like SD billing documents. The actual value flow is therefore defined by an assignment of condition types to value fields, similar to SD billing documents. This assignment uses the same customizing as SD billing documents:

► [Controlling](#) ► [Profitability Analysis](#) ► [Flow of Actual Values](#) ► [Transfer of Billing Documents](#) ► [Assign Value Fields](#) ► [Maintain Assignment of SD Conditions to CO-PA Value Field](#) ►





### Caution

As *SAP Revenue Accounting and Reporting* by nature delivers positive and negative values to CO-PA, it is required that the "Transfer +/-" flag is set for the assignment of the condition type to the value field. Carefully read the documentation for this flag and consider possible implications to existing data.

## 4.5 Browser Requirements

Depending on your Business Suite release, see the following notes regarding browser requirements and restrictions.

Table 18

Note	Title
<a href="#">1566444</a> 	Main Browser Note for BS7i2010
<a href="#">1574357</a> 	Main Browser Note for BS7i2011
<a href="#">1853989</a> 	Main Browser Note for BS7i2013
<a href="#">1098009</a> 	WebDynpro ABAP – List of known Restrictions and Browser Support

---

# 5 Migration Information

## 5.1 System Landscape

After you install all required components of the Revenue Accounting and Reporting solution, you have to load data of your existing open contracts into the new system. This process is referred to as migration or initial load.

This chapter describes how to transfer data of existing contracts from operational applications and from legacy revenue accounting systems into Revenue Accounting and Reporting. A typical setup of your system landscape may have one or more operational applications that manage the operational processes of delivery and billing of goods or services to customers. This guide describes only migration from SAP Sales and Distribution (SAP SD), for which a program is available for initial load. To load data from an operational application other than SAP SD, you have to develop your own initial load program to perform data processing described in this chapter.

You may have one or more legacy systems where you manage valuation for revenue recognition. This includes the SAP SD Revenue Recognition solution or some spreadsheet applications. If you use your own operational applications to manage valuation for revenue recognition, you must transfer operational data and revenue recognition legacy data in separate steps as described here.

## 5.2 Data Migration Overview

Revenue Accounting manages data for contracts with customers and their performance obligations. Data from contracts and items in operational applications are transferred to Revenue Accounting so that the Revenue Accounting system can create contracts and performance obligations.

You can start using Revenue Accounting at the start of a defined financial period. Then you have to take over data from all contracts that are open at the end of the previous period. That last day of the previous period is the transfer date. The data that you have to transfer from the operational applications to Revenue Accounting includes the following:

- Attributes of operational items (the attributes that are also transferred for new and updated items)
- Historic cumulated invoices up to the transfer date
- Historic cumulated fulfillments up to the transfer date

If attributes have already been maintained for revenue recognition in your legacy revenue accounting system, such as standalone selling prices and allocated prices, and if recognized revenue has been calculated, this data also has to be transferred into Revenue Accounting.



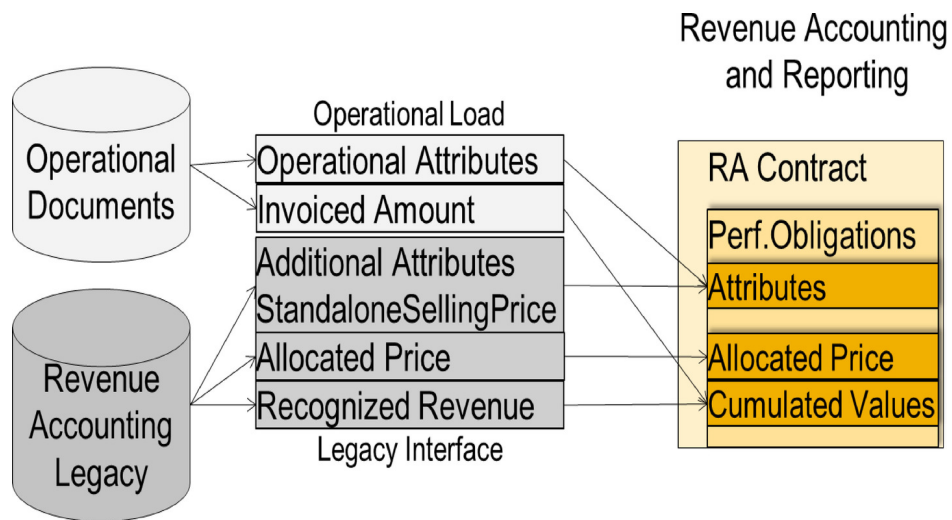


Figure 3: Migration Data Flow

The historic cumulated values cannot be changed in Revenue Accounting anymore. Therefore, the data migration can occur only when the period of the transfer date has already been closed in the operational application and in the revenue accounting legacy system.

Closing of a period usually takes some time. Therefore, after the transfer date and before the execution of the initial load, data for new contracts, contract changes, fulfillment events, and invoices is still being generated in the operational applications. Any changes of operational items between the transfer date and the execution of the initial load are processed as if they had already occurred before the transfer date. Any fulfillments and invoices that have been posted between the transfer date and the execution of the initial load are also loaded during the initial load, but they are only stored for later processing after the takeover of cumulated values is complete.

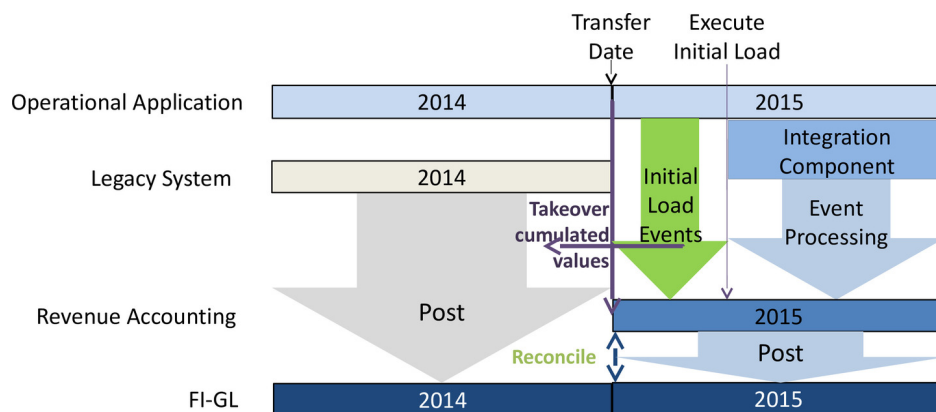


Figure 4: Initial Load: Cumulated Values and Events

Documents created before the transfer date are taken over as cumulated values. Revenue Accounting does not create any postings for cumulated values, because they have already been posted from the operational application and the legacy revenue accounting system. Therefore, they are already included in the balances of the corresponding G/L accounts. You have to reconcile the cumulated values up to the transfer date.

Documents created between the transfer date and the execution of the initial load are loaded separately by the Initial Load and stored for processing. These documents are processed only when the takeover of cumulated values is complete. They are processed in the same way as new events coming in after the execution of the Initial Load.

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Documents created after the execution of the Initial Load are sent by the Integration Component to Revenue Accounting for processing and posting.

## 5.3 Prerequisites for Migration

Before you can run the initial load to transfer existing contracts into Revenue Accounting, some prerequisites must be completed.

### 5.3.1 Data in the Operational Application and in Legacy System

Data of contracts, for which events are still expected to occur after the initial load (including reversal of complete fulfillments), has to exist in the connected operational application (such as SD). This includes the following data:

- Fulfilled quantity on the transfer date (for event-based fulfillments)
- Invoiced amount on the transfer date

Additional data may exist in a separate (legacy) revenue accounting system, including the following:

- Standalone selling price
- Allocated price
- Recognized revenue on the transfer date

Along with the data migration of revenue accounting data, if you want to move a legacy operational system to a new operational application (such as SAP SD), you must first complete the migration of operational data, before starting the initial load into Revenue Accounting. For example, you may have a single legacy system that handles both operational processes and revenue accounting and want to switch operations to SAP SD. In this scenario, you must first load data that is relevant to operations from the legacy system into SAP SD. Then you can load operational data from SAP SD and revenue recognition data from their legacy system into Revenue Accounting.)

### 5.3.2 Consistency before Initial Load

You must make sure that the following data is consistent before the initial load:

- Fulfilled quantity in operational application and in legacy system and recognized revenue in legacy system
- For time-based fulfillment, the recognized revenue must match the elapsed duration up to the transfer date. Revenue Accounting calculates revenue for time-based fulfillment for every period based on this formula:

$$\text{Revenue} = (\text{Elapsed Duration} / \text{Total Duration}) * \text{Allocated Price} - \text{Historic Recognized Revenue}$$

If the historic recognized revenue does not correspond to the relation of previously expired duration / complete duration, then Revenue Accounting calculates and posts an according backlog correction. You can avoid such a backlog correction by implementing a specific deferral method in BAdI (FARR\_BADI\_DEFERRAL\_METHOD.)

- Invoiced amount in the operational application and in FI-GL

- Recognized revenue in the legacy system and in FI-GL
- Aggregated negative differences per contract of recognized revenue minus invoiced amount must be equal to balance of the corresponding Deferred Revenue accounts in FI-GL
- Aggregated positive difference per contract of recognized revenue minus invoiced amount must be equal to balance of corresponding Unbilled Receivable accounts in FI-GL

Even if the aggregated difference between recognized revenue minus invoiced amount per contract equals the balance of the corresponding accounts of Deferred Revenue and Unbilled Receivables in contract currency, deviations may exist in local currency, if the legacy system has transferred invoiced amounts and revenue in foreign currencies with different exchange rates into the local currency. For example, this situation may occur if your legacy revenue accounting system is based on SD Revenue Recognition. You must either adjust the historic recognized revenue in local currency and the historic invoice amount in local currency, or post adjustments to the affected G/L accounts of Deferred Revenue and Unbilled Receivables. Otherwise, future fulfillments and invoices posted by Revenue Accounting do not clear the existing balance in local currency.

If you do not want to manage ontracts within Revenue Accounting and therefore do not load all of the existing contracts into Revenue Accounting, the balances of the accounts of deferred revenue and unbilled receivables may not match the aggregated balances of the contracts that are loaded into Revenue Accounting. In this case, you must separate the aggregated balances of those contracts that are loaded into revenue accounting from those that are not loaded, in order to reconcile balances after the initial load.

In general, we recommend that you use separate accounts for revenue, deferred revenue, and unbilled receivable for those contracts that are managed by Revenue Accounting and for those that are not.

SAP does not offer any special reports or tools to check consistency of revenue data in a legacy revenue accounting system and FI-GL before initial load, but only reports to show the relevant amounts in Revenue Accounting.

### 5.3.3 Configuration in SAP SD

You must complete configurations in Sales and Distribution that are required for *SAP Revenue Accounting and Reporting*.

- Revenue Accounting Item settings:  
These settings determine which items are relevant to Revenue Accounting. Initial Load only selects items that are relevant according to this configuration.
- Integrating with Revenue Accounting:  
The integration component has to be activated before the productive execution of the initial load, so that any event that occurs for an SD document afterward is processed by initial load and is transferred to Revenue Accounting by the Integration Component.

### 5.3.4 Configuration in Revenue Accounting

You can perform Initial Load for one or several company codes at a time. The general configuration of Revenue Accounting must be finalized for the company codes to be loaded. All accounting principles that are relevant to the company codes must be completely implemented.

We recommend that you define all BRFplus rules before the execution of the initial load. Any changes made to operational items after the execution of the initial load also trigger new derivation of performance obligation

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attributes by BRFplus. Therefore, if BRFplus rules are already tested at initial load, you can detect and resolve undesired results of the defined rules beforehand.

In the configuration of accounting principles, you can define the transfer date per company code. However, the operational load can only be executed once for all accounting principles of a company code.

To start initial load, the status of the company codes has to be set to "Migration" for all accounting principles. After the execution of the initial load, the status has to be set to "Productive" to enable the processing of events.

## 5.4 Execution of Initial Load

### 5.4.1 Testing the Initial Load

The Initial Load needs to be tested completely. We recommend that you test the initial load with a complete set of productive data into a test system. Operational Load in simulation mode only performs technical checks of data that is to be loaded. Complete testing requires that data is actually loaded into a test system so that further processes can be tested with the loaded data:

Processing of events from the operational application between the transfer date and the execution date and of events after execution date must also be tested. In a test system, you can also execute an accrual run for a company code in status "Migration". You must test the accrual run for at least the first period after the transfer date, to make sure that valuation in Revenue Accounting is consistent with valuation in the legacy system. In case of discrepant valuation, the first accrual run would post according positive or negative backlog of revenue from old contracts.

For testing purposes, you can delete all data per company code with program `RFARR_IL_CLEANUP`. Then you can correct faulty source data or configurations and rerun the initial load. The deletion can only be executed for company codes in status "Migration".

### 5.4.2 Operational Load

The initial load of data from SD is performed by using program `FARRIC_OL`. It creates Revenue Accounting Items (RAIs) that can then be processed with transaction `FARR_RAI_PROC_LOAD`.

You can run the operational load for specific company codes at a time. The program provides additional selections that allow you to select specific sets of contracts per company code at a time, particularly for testing purposes. If you use these additional selections for a productive migration, you have to make sure that every relevant sales document is selected exactly once.

The program always loads order items and their related fulfillment and billing documents together. Therefore, fulfillment and billing documents can be de-selected only for testing purposes. The operational load from SD loads all historic fulfillment and invoice events separately. However, the data is all consolidated on the transfer date.

The "Create Legacy Data" flag can be set only if you do not have a legacy revenue recognition system. If it is set, the historic invoiced amounts up to the transfer date are taken over from SD as cumulated recognized revenue. No other legacy data can then be transferred.

If this flag is not set, legacy data must be delivered for every selected operational item with the legacy interface.

The "Synchronous Online Processing" flag should only be set for a test run with selection of a small number of sales documents, for example, for debugging purposes.

## 5.4.3 Loading Data from a Legacy System

To transfer data from a legacy revenue recognition system, you have to develop your own program. This program has to call function module `FARR_LEGACY_DATA_CREATE_API` with RFC (remote function call).

Legacy data can be transferred by using the following interfaces:

- `IT_LEGACY_MAIN`: line type `FARR_S_LEGACY_API`
- `IT_LEGACY_COND`: line type `FARR_S_LEGACYC_API`
- `IT_LEGACY_SF`: line type `FARR_S_LEGACYF_API`

### Data in `IT_LEGACY_MAIN`

This interface should deliver 1 line per performance obligation (POB). You can only deliver 1 performance obligation for 1 sales order item, except for items with billing plans, where you can have different performance obligations per billing plan item. (The initial load creates either separate performance obligations per billing plan item or one aggregated performance obligation for a complete billing plan, depending on the configuration in BRF + that is also used for processing new items that are created with billing plans.)

The standard interface cannot create linked performance obligations.

The key fields (`SRCDOC_*`) have to be set identical to those in the operational load from SD. You can transfer almost every attribute of performance obligations.

For performance obligations with time-based fulfillment, the `QUANTITY_FULFILL` field has to be filled. For performance obligations with event-based fulfillment, the fulfilled quantity should be delivered by the operational load. For performance obligations with manual fulfillment, you have to create fulfillment RAIs for the historic fulfillments in the legacy system.

The `NO_RECOG` flag must be set only if you do not deliver historic recognized revenue in the interface but in an additional program.

The `ALLOC_DIFFERENCE` field must contain the difference between the allocated price from the legacy system and the contractual price from SD. To prevent Revenue Accounting from re-calculating the allocated price automatically on future contract changes, you can set the `MANUAL_ALLOCATION` flag. With this flag set, any changes from SD that would trigger a re-calculation of the allocated price put the contract into a work list for manual check.

For local currencies other than the contract currency, the fixed exchange rate should be delivered in fields `EXCHANGE_RATE`, `EXCHANGE_RATE2`, and `EXCHANGE_RATE3`.

### Data in `IT_LEGACY_COND`

This interface should deliver the historic cumulated recognized revenue on the transfer date in contract currency and in local currency per condition type. The local currency amount must not be zero. It can be processed only if a corresponding entry in `IT_LEGACY_MAIN` with identical corresponding key fields has been delivered.

If the field `ALLOC_DIFFERENCE` in `IT_LEGACY_MAIN` is not zero, the recognized revenue must be split between the original condition and the allocation effect (allocation difference). The recognized allocation effect has to be delivered with the condition type that is defined in the Global Parameters Customizing.

### Data in `IT_LEGACY_SF`

This interface is required only if you have already defined special revenue schedules for time-based fulfillment after the transfer date in your legacy system, which you want to continue to use. It can be processed only if a corresponding entry in `IT_LEGACY_MAIN` with identical corresponding key fields has been delivered. The amounts of revenue to be recognized have to be delivered in contract currency. You also have to deliver a quantity

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that corresponds to the amount. The sum of all amounts plus the historic recognized revenue must add up to the allocated price of the performance obligation, and the sum of all quantities plus the historic fulfilled quantity must add up to the complete quantity of the performance obligation.

#### 5.4.4 Processing RAIs from Initial Load

You can start RAI processing for specific accounting principles by using transaction `FARR_RAI_PROC_LOAD`. It processes only the RAIs that have been created by operational load. In addition, it does not process any RAIs that may have already been created from the integration component. When RAIs with an order item RAI class are processed, the corresponding legacy data that has been transferred by the function module `FARR_LEGACY_DATA_CREATE_API` is also taken into account.

The RAIs are processed in principally the same way as RAIs that will later be transferred from the integration component. Therefore, BRFplus rules are used to derive performance obligation attributes and standalone selling prices from attributes in the operational data. You can define special rules for RAIs that have the `INITIAL_LOAD` flag set. If the legacy interface has delivered deviating attributes or standalone selling prices, a message is issued and the data from the legacy interface is taken over.

All historic fulfillment events (such as goods issue) and invoices are loaded with separate RAIs, so that within Revenue Accounting an audit trail is still possible for the complete history of a contract.

#### 5.4.5 Reconciliation of Loaded Data

After the processing of all RAIs is complete, the balances of the loaded contracts have to be reconciled with the balances of G/L accounts of Deferred Revenue and Unbilled Receivable:

- Aggregated negative differences per contract of recognized revenue minus invoiced amount must be equal to balance of corresponding Deferred Revenue accounts in FI-GL
- Aggregated positive differences per contract of recognized revenue minus invoiced amount must be equal to balance of corresponding Unbilled Receivable accounts in FI-GL

The absolute amounts of historic recognized revenue and of historic invoiced amounts can be reconciled with the corresponding amounts in your legacy system, only if the legacy system offers a report with selection of open contracts that should have been transferred to Revenue Accounting.

#### 5.4.6 Marking Company Codes as Productive

When all RAIs from the operational load for a company code have been processed successfully and cumulated values have been reconciled successfully for an accounting principle, you can set the company code for the accounting principle to the status "Productive".

If the operational load has created RAIs that cannot be processed without errors and that should not have been created in the first place, you have to delete all data for that company code with transaction `RFARR_IL_CLEANUP` and rerun the complete initial load for the company code.

When the status is productive, you can start processing RAIs from events that have occurred after the execution of the operational load, by using transaction `FARR_RAI_PROC`, and you can start an accrual run in posting mode.



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The contracts and performance obligations from initial load can then be managed in the same way as newly created contracts and performance obligations that are transferred from the integration component.

# 6 Operation Information

This document provides you with the most important information regarding the operations of the *Revenue Accounting and Reporting add-on*.

Technical requirements for integrating Revenue Accounting with Revenue Accounting Integration:

Revenue Accounting and Revenue Accounting Integration is available for the following software platforms.

- enhancement package 5 SAP ERP 6.0 (SAP\_APPL SPS 10)  
[help.sap.com/erp605?current=erp606](http://help.sap.com/erp605?current=erp606)
- enhancement package 6 SAP ERP 6.0 (SAP\_APPL SPS 6)  
[help.sap.com/erp606?current=erphana616](http://help.sap.com/erp606?current=erphana616)
- enhancement package 7 SAP ERP 6.0 (SAP\_APPL SPS 1)  
[help.sap.com/erp\\_607](http://help.sap.com/erp_607)
- SAP SFINANCIALS 1.0  
[help.sap.com/sfin100?current=erp607](http://help.sap.com/sfin100?current=erp607)

## 6.1 Monitoring

### 6.1.1 Alert Monitoring

Proactive, automated monitoring is the basis for ensuring reliable operations for your SAP system environment. SAP provides you with the infrastructure and recommendations needed to set up your alert monitoring to recognize critical situations for *SAP Revenue Accounting and Reporting* as quickly as possible. *Revenue Accounting and Reporting* does not offer specific data in the Computer Center Management System (CCMS) for alert monitoring. Nevertheless general monitoring options can be used.

Table 19

SAP Enhancement Package 3 for SAP NetWeaver 7.0	<a href="http://help.sap.com/nw703">help.sap.com/nw703</a> > System Administration and Maintenance Information > Technical Operations for SAP NetWeaver > Administration of SAP NetWeaver Systems > Application Server ABAP (AS ABAP) > Monitoring and Administration Tools for Application Server ABAP
SAP Enhancement Package 1 for SAP NetWeaver 7.3	<a href="http://help.sap.com/nw731">help.sap.com/nw731</a> > System Administration and Maintenance Information > Technical Operations for SAP NetWeaver > Administration of Application Server ABAP > Monitoring and Administration Tools for Application Server ABAP

In order to enable the auto-alert mechanism of CCMS, see SAP Note [617547](http://support.sap.com/617547).

## 6.1.2 Background RFC Communication

You can use the Background RFC (bgRFC) Monitor to monitor background communication. You can start the bgRFC Monitor by using transaction `SBGRFCMON`. Authorization object `S_BGRFC` is required for monitoring or customizing activities.

Troubleshooting and Monitoring for background communication:

Visit [help.sap.com](https://help.sap.com) and then choose ► *SAP Business Suite* ► *SAP Supply Chain Management* ► *SAP SNC, UI Add-On for Purchase Order Collaboration* ► *SAP SNC, UI Add-On for Purchase Order Collaboration 1.0* ► *Connectivity* ►.

### Caution

Background communication requires that you have note [2013706](#) (Destination unlocking does not trigger bgRFC scheduler) applied.

## 6.1.3 Application Log

*SAP Revenue Accounting and Reporting* uses the Application Log to report issues during processing. You can use transaction `SLG1` to open the Application Log and use transaction `SLG2` to remove expired Application Log items. *SAP Revenue Accounting and Reporting* uses Application Log object `FARR` with the following sub-objects:

- `ACCRUAL`: for messages issued during an accrual run (revenue posting)
- `CHECK_IC_DATA`: for messages issued during Revenue Accounting Integration Consistency check
- `CLEANUP`: for messages issued during the cleanup
- `CONTR_MGMT`: for messages issued during contract processing
- `RAI_CHANGE`: for messages issued during Revenue Accounting Item change (via bgRFC)
- `RAI_CREATE`: for messages issued during Revenue Accounting Item creation (via bgRFC)
- `RAI_GEN`: for messages issued during Revenue Accounting Item Class generation.
- `RAI_LOAD`: for messages issued during Initial Load of Revenue Accounting Items
- `RAI_PROCESS`: for messages issued during Revenue Accounting Item processing (RAI2->RAI4)
- `RAI_TRANSFER`: for messages issued during Revenue Accounting Item transfer (RAIO->RAI2)
- `RECON_RAI_ENGINE`: for messages issued during reconciliation of revenue accounting items with revenue accounting contracts.

For more information about the maintenance of the Application Log, see the following documentation resources:

- Displaying log

Visit [help.sap.com](https://help.sap.com) and then choose ► *SAP Business Suite* ► *SAP Supply Chain Management* ► *SAP SNC, UI Add-On for Purchase Order Collaboration* ► *SAP SNC, UI Add-On for Purchase Order Collaboration 1.0* ► *Connectivity* ► *Application Log (BC-SRV-BAL)* ► *Displaying log* ►

- Analyze log

Visit [help.sap.com](https://help.sap.com) and then choose ► *SAP Business Suite* ► *SAP Supply Chain Management* ► *SAP SNC, UI Add-On for Purchase Order Collaboration* ► *SAP SNC, UI Add-On for Purchase Order Collaboration 1.0* ► *Connectivity* ► *Application Log (BC-SRV-BAL)* ► *Analyze log* ►

- Deleting log

Visit [help.sap.com](https://help.sap.com) and then choose ► *SAP Business Suite* ► *SAP Supply Chain Management* ► *SAP SNC, UI Add-On for Purchase Order Collaboration* ► *SAP SNC, UI Add-On for Purchase Order Collaboration 1.0* ► *Connectivity* ► *Application Log (BC-SRV-BAL)* ► *Deleting log* 📄

- Archiving Object BC\_SBAL

Visit [help.sap.com](https://help.sap.com) and then choose ► *SAP Business Suite* ► *SAP Supply Chain Management* ► *SAP SNC, UI Add-On for Purchase Order Collaboration* ► *SAP SNC, UI Add-On for Purchase Order Collaboration 1.0* ► *Connectivity* ► *Application Log (BC-SRV-BAL)* ► *Archiving Object BC\_SBAL* 📄

## 6.1.4 Revenue Accounting Monitor (RAI Monitor)

Sales order items are sent from the Integration Component to the Adapter Reuse Layer, where they are then processed into revenue accounting items (RAI).

You can use the Revenue Accounting Monitor (transaction `FARR_RAI_MON`) to track the processing of revenue accounting items. The RAI Monitor allows you to control the following types of items:

- Items that have already been sent (either successfully or incorrectly)
- Items that have to be sent to Revenue Accounting

The monitor allows you to perform these tasks:

- Change revenue accounting items, with the required authorizations
- Manually process or transfer revenue accounting items
- Monitor errors issued during the creation of revenue accounting items
- Monitor errors issued during the transfer of revenue accounting items
- Monitor errors issued during the processing of revenue accounting items

Manual changes can be displayed in the change history.

The application log of transfer or processing run can be displayed by click on the error field.

## 6.2 Backup and Restore

You need to back up your system landscape regularly to ensure that you can restore and recover it in case of failure.

*SAP Revenue Accounting and Reporting* is based on EHP5 for SAP ERP 6.0, which is based on SAP NetWeaver technology. All related SAP NetWeaver backup procedures also work for EHP5 for SAP ERP 6.0. Therefore, there is no special procedure for EHP5 for SAP ERP 6.0.

For more information, see the best practices document at ► [service.sap.com/bp-roadmap](https://service.sap.com/bp-roadmap) ► *Backup and Restore for SAP System Landscapes* 📄.

## 6.3 Reconciliation

*SAP Revenue Accounting and Reporting* integrates with other components, but is only loosely coupled. Additionally, *SAP Revenue Accounting and Reporting* itself includes two major components that work

independently from each other. In this loosely coupled architecture, different components have to manage their own data. This requires reconciliation between the components. The following figure provides an overview of the integration scenario and the components between which data has to be reconciled:

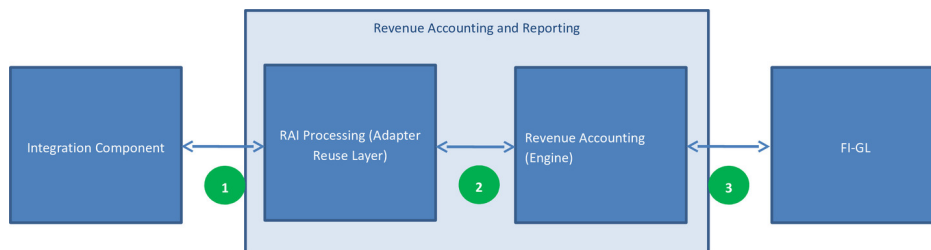


Figure 5

*SAP Revenue Accounting and Reporting* supports the following types of reconciliation:

- Reconciliation between operational documents, such as sales orders and invoices, and the resulting revenue accounting items in the Adapter Reuse Layer. This type of reconciliation is also called Revenue Accounting Integration Consistency Check.
- Reconciliation between revenue accounting items and revenue accounting contracts.
- Reconciliation between revenue accounting contracts (including revenue accounting postings) and FI-GL.

## 6.3.1 Reconciliation Reports

Reconciliation reports are available that allow you to check whether the sales order items that are relevant to revenue recognition are transferred and processed successfully in Revenue Accounting.

### 6.3.1.1 Reconciliation Type 1

Reconciliation between sales order items and revenue accounting items in the adapter reuse layer (transaction `FARRIC_CHECK`)

The reconciliation can be carried out either by date or by sales document.

The reconciliation report checks the following data:

- Whether items are transferred from the sender system
- Whether items are completely processed in the receiver system
- Whether revenue accounting items are reported
- Whether different item values occur
- Whether different condition type values occur

This report uses the Application Log to report the results of the reconciliation.

## 6.3.1.2 Reconciliation Type 2

Reconciliation between revenue accounting items and Revenue Accounting (transaction `FARR_RECON_RA12E`)

This reconciliation processes updated orders, invoices, and delivery documents that are dated from a specified date to now. The start date can be one of the following: At first run, the reconciliation report checks all data.

A date before the last run, which didn't find differences: only data which was changed after the date will be reconciled;

If no difference is found, the reconciliation report marks the current time as a cutoff time up to which all data is verified as correct.

The reconciliation report checks the following data:

- Order quantity, transaction price per condition
- Fulfill quantity
- Invoice amount per condition type

The reconciliation results are displayed on performance obligation level. All differences are marked in yellow.

However, the following data is not checked:

- Order quantity of value based performance obligations (for example, billing plan)
- Invoice quantity
- Fulfillment of specific types of performance obligations:
  - Time-based performance obligations whose fulfillment is not triggered by events;
  - Value-based performance obligations
  - Manual fulfillment performance obligations

If differences are found, you have the following options to resolve the differences:

1. You can run the RAI monitor to check unprocessed revenue accounting items, if the corresponding performance obligations have been generated

Transaction: `FARR_RA1_MON`.

Kinds of Selection: All Items Related to Order Items.

Item Status: Processable Items

Company Code: Specified in Reconciliation Report

POB: Specified in Reconciliation Report

2. You can check the related database tables to identify the root cause. The following figure illustrates the tables that are involved in the processing:



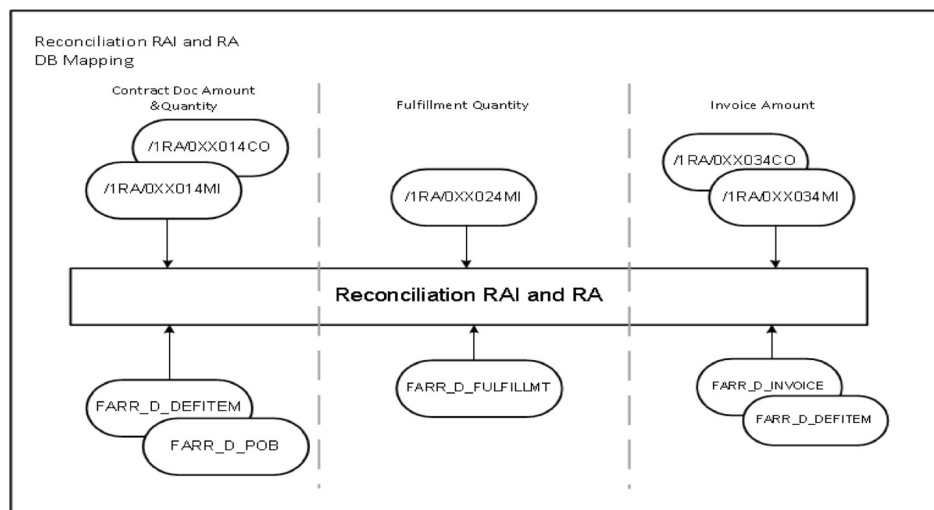


Figure 6: Type-2 Reconciliation

You can choose to reprocess accounting items that have inconsistencies to reprocess.

### 6.3.1.3 Reconciliation Type 3

The following reconciliation reports are available that allow you to perform reconciliation between FI-GL and Revenue Accounting:

#### Reconciliation between Revenue Postings and the General Ledger

Required role: SAP\_SR\_FARR\_REV\_ACCOUNTANT

In the NetWeaver Business Client (NWBC), choose ► *Reconciliation* ► *Revenue Postings and General Ledger* ►

This report detects differences between the posting table and the general ledger. The processing is mainly based on reconciliation keys. This report does not check differences related to accrual runs and posting errors. Instead, this report focuses on differences between the posting table and posting results.

Users can have several selection criteria, but company code, fiscal year, period, and accounting principle are mandatory and single-value fields. For better performance, users now can only perform reconciliation for one period at a time.

The reconciliation report detects the following differences:

- Different document amounts between posting table and general ledger records
- Different local amounts between posting table and general ledger records
- Different G/L accounts between posting table and general ledger records

If differences are found, you can run a reverse posting and run a revenue posting again.

To run a reverse posting, in the NetWeaver Business Client (NWBC), choose ► *Revenue Posting Run* ► *Revenue Reconciliation Key Status and Reversal* ►.

#### Reconciliation between FI Documents and Revenue Accounting Contracts

Required role: SAP\_SR\_FARR\_REV\_ACCOUNTANT

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In the NetWeaver Business Client (NWBC), choose ► [Reconciliation](#) ► [FI Documents and Revenue Accounting Contracts](#) ►

For FI business users, reports are available that explain the results of revenue posting runs. Revenue posting runs aggregate postings by account assignment, condition type, and other attributes. Therefore, you need these reports to understand what kinds of contracts and performance obligations are included in the revenue posting run.

The reconciliation report performs the following processing:

- The report disaggregates the posting table by contract. It helps you trace contracts to the corresponding performance obligations, condition types, account assignments, amounts, and all the way to G/L documents.
- The reports disaggregate posting data by G/L document, contract, performance obligation, condition type, account assignment, and amount.

## Reconciliation of Accounts Between Revenue Accounting and the G/L

Required role: SAP\_SR\_FARR\_REV\_ACCOUNTANT

In the NetWeaver Business Client (NWBC), choose ► [Reconciliation](#) ► [Accounts Between Revenue Accounting and G/L](#) ►

This report performs reconciliation of revenue recognition related accounts. It compares the posted amount between the revenue recognition sub-ledger and the General Ledger. If differences are found, you can check posting history to identify the cause.

The reconciliation report detects different posted amounts between the revenue recognition sub-ledger and the General Ledger. When it does this, it only compares revenue recognition related accounts.

## 6.4 Software Change Management

Software Change Management standardizes and automates software distribution, maintenance, and testing procedures for complex software landscapes and multiple software development platforms. These functions support your project teams, development teams, and application support teams.

The goal of Software Change Management is to establish consistent, solution-wide change management that allows for specific maintenance procedures, global rollouts (including localizations), and open integration with third-party products.

### Transport and Change Management

All components of [Revenue Accounting and Reporting](#) are client-enabled.

For transport and change management issues, the procedures of SAP NetWeaver apply. For more information, see SAP NetWeaver documentation.

### Development Requests and Development Release Management

The standard procedures of SAP NetWeaver apply. See the Technical Operations Manual for SAP NetWeaver on SAP Help Portal under SAP NetWeaver.







### Support Packages and Patch Implementation

We recommend that you implement Support Package Stacks (SP Stacks), which are sets of support packages and patches for the respective product version that must be used in the given combination. The technology for

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applying support packages and patches will not change. You can find detailed information about the availability of SP-Stacks for EHP6 for SAP ERP 6.0 on the SAP Service Marketplace at [service.sap.com/sp-stacks](http://service.sap.com/sp-stacks).

Read the corresponding Release and Information Notes before you apply any support packages or patches of the selected SP Stack. Use the Maintenance Optimizer (transaction `DSWP`) of the SAP Solution Manager to select, download, and install the needed usages, or software components and required support packages. For more information, see the following:

- SAP Solution Manager documentation on SAP Help Portal at [help.sap.com](http://help.sap.com)  [SAP Solution Manager](#)  [Change Management Maintenance Optimizer](#) 
- SAP Service Marketplace at [service.sap.com/solman-mopz](http://service.sap.com/solman-mopz) 
- The documentation for transaction SAINT (SAP Add-On Installation Tool)
- For more information about the implementation of support packages as well as possible side effects, see [service.sap.com/patches](http://service.sap.com/patches)  [SAP Support Packages in Detail](#) 
- For more information about the tools necessary for implementing patches, see SAP NetWeaver documentation

# 7 Security Information

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

## About this Document

The Security chapter provides an overview of the security-relevant information that applies to the *SAP Revenue Accounting and Reporting*. This chapter comprises the following main sections:

- **Before You Start**  
This section contains information about why security is necessary, how to use this document, and references to other Security Guides that build the foundation for this Security chapter.
- **Technical System Landscape**  
This section provides an overview of the technical components and communication paths that are used by the *SAP Revenue Accounting and Reporting*.
- **User Administration and Authentication**  
This section provides an overview of the following user administration and authentication aspects:
  - Recommended tools to use for user management
  - User types that are required by the *SAP Revenue Accounting and Reporting*
  - Overview of how integration into Single Sign-On environments is possible
- **Authorizations**  
This section provides an overview of the authorization concept that applies to the *SAP Revenue Accounting and Reporting*.
- **Session Security Protection**  
This section provides information about activating secure session management, which prevents JavaScript or plug-ins from accessing the SAP logon ticket or security session cookie(s).
- **Network and Communication Security**  
This section provides an overview of the communication paths used by the *SAP Revenue Accounting and Reporting* and the security mechanisms that apply. It also includes our recommendations for the network topology to restrict access at the network level.

## 7.1 Before You Start

### Fundamental Security Guides

The *SAP Revenue Accounting and Reporting* is based on the SAP ERP 6.0. Therefore, the corresponding Security Guides also apply to the *SAP Revenue Accounting and Reporting*. Pay particular attention to the most relevant sections or specific restrictions as indicated in the table below.

Table 20: Fundamental Security Guides

Scenario, Application or Component Security Guide	Most Relevant Sections or Specific Restrictions
SAP NetWeaver Application Server ABAP Security Guide	SAP Authorization Concept
WebDynpro ABAP Security Guide	
SAP Security Guides for SAP ERP	

For a complete list of the available SAP Security Guides, see SAP Service Marketplace at [service.sap.com/securityguide](https://service.sap.com/securityguide).

### Important SAP Notes

The most important SAP Notes that apply to the security of the *SAP Revenue Accounting and Reporting* are shown in the table below.

Table 21

Title	SAP Note	Comment
Resolve the issue of accrual run posting authorization check	2048281	Missing check of "Create or Generate"

For a list of additional security-relevant SAP Hot News and SAP Notes, see also SAP Service Marketplace at [service.sap.com/securitynotes](https://service.sap.com/securitynotes).

### Additional Information

For more information about specific topics, see the Quick Links as shown in the table below.

Table 22

Content	Quick Link on SAP Service Marketplace or SDN
Security	<a href="https://sdn.sap.com/irj/sdn/security">sdn.sap.com/irj/sdn/security</a>
Security Guides	<a href="https://service.sap.com/securityguide">service.sap.com/securityguide</a>
Related SAP Notes	<a href="https://service.sap.com/notes">service.sap.com/notes</a> <a href="https://service.sap.com/securitynotes">service.sap.com/securitynotes</a>
Released platforms	<a href="https://service.sap.com/pam">service.sap.com/pam</a>
Network security	<a href="https://service.sap.com/securityguide">service.sap.com/securityguide</a>
SAP Solution Manager	<a href="https://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a>
SAP NetWeaver	<a href="https://sdn.sap.com/irj/sdn/netweaver">sdn.sap.com/irj/sdn/netweaver</a>

## 7.2 Technical System Landscape

The figure below shows an overview of the technical system landscape for the *SAP Revenue Accounting and Reporting*.

The information about technical system landscape is provided in the [Technical System Landscape \[page 8\]](#) section.

For more information about the technical system landscape, see the resources listed in the table below.

Table 23

Topic	Guide/Tool	Quick Link on SAP Service Marketplace or SCN
Technical description for SAP ERP and the underlying components such as SAP NetWeaver	<i>Master Guide</i>	<a href="http://service.sap.com/instguides">service.sap.com/instguides</a>
High availability	<i>High Availability for SAP Solutions</i>	<a href="http://scn.sap.com/docs/DOC-7848">scn.sap.com/docs/DOC-7848</a>
Technical landscape design	See applicable documents	<a href="http://scn.sap.com/docs/DOC-8140">scn.sap.com/docs/DOC-8140</a>
Security	See applicable documents	<a href="http://scn.sap.com/community/security">scn.sap.com/community/security</a>

## 7.3 Security Aspects of Data, Data Flow and Processes

The figure below shows an overview of the data flow and processes for the *SAP Revenue Accounting and Reporting*.

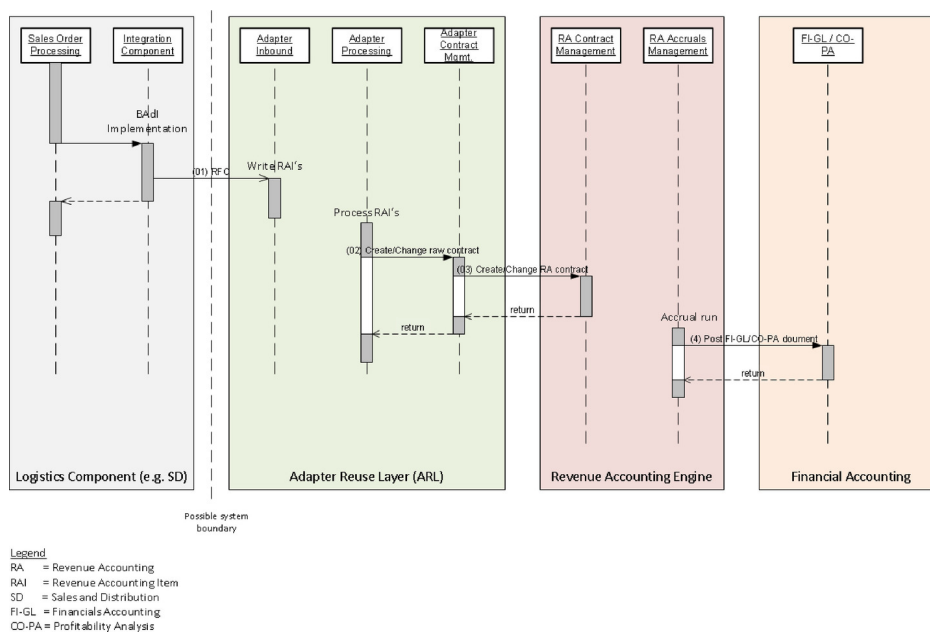


Figure 7: Technical System Landscape of SAP Revenue Accounting and Reporting

## 7.4 User Administration and Authentication

The *SAP Revenue Accounting and Reporting* uses the user management and authentication mechanisms provided with the SAP NetWeaver platform, in particular the SAP NetWeaver Application Server ABAP and Java. Therefore, the security recommendations and guidelines for user administration and authentication as described in the *SAP NetWeaver Application Server ABAP Security Guide* [external document] and the *SAP NetWeaver Application Server Java Security Guide* [external document] also apply to the *SAP Revenue Accounting and Reporting*.

In addition to these guidelines, information about user administration and authentication that specifically applies to the *SAP Revenue Accounting and Reporting* is included in the following topics:

- [User Management \[page 39\]](#)  
This topic lists the tools to use for user management, the types of users required, and the standard users that are delivered with the *SAP Revenue Accounting and Reporting*.
- [Integration into Single Sign-On Environments \[page 40\]](#)  
This topic describes how the *SAP Revenue Accounting and Reporting* supports Single Sign-On mechanisms.

### 7.4.1 User Management

User management for the *SAP Revenue Accounting and Reporting* uses the mechanisms provided with the SAP NetWeaver Application Server ABAP and Java, for example, tools, user types, and password policies. For an overview of how these mechanisms apply for the *SAP Revenue Accounting and Reporting*, see the sections below.

#### User Administration Tools

The table below shows the tools to use for user management and user administration with the *SAP Revenue Accounting and Reporting*.

Table 24: User Management Tools

Tool	Detailed Description	Comment
User maintenance for ABAP-based systems (transaction SU01)	You use the user maintenance transaction to generate users in the ABAP-based systems.  For more information, see <i>User and Role Administration of Application Server ABAP</i> [external document].	Used for all deployment options of the <i>SAP Revenue Accounting and Reporting</i>
Role maintenance (transaction PFCG)	You use the role maintenance transaction to generate profiles for users.  For more information, see <i>User and Role Administration of Application Server ABAP</i> [external document].	Used for all deployment options of the <i>SAP Revenue Accounting and Reporting</i>
User Management Engine with SAP NetWeaver AS Java	You use this User Management Engine for creating Portal users.	Used for deployment option SAP NetWeaver Portal

Tool	Detailed Description	Comment
	For more information, see <i>User Management Engine</i> [external document].	

## User Types

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

The user types that are required for the *SAP Revenue Accounting and Reporting* include:

- Individual users:
  - Dialog users are used for SAP GUI for Windows and WebDynpro ABAP.
- Technical users:
  - Background users are used for RFC destinations and background jobs like RAI processing and Accrual Run.

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

## Standard Users

No standard users are delivered for the *SAP Revenue Accounting and Reporting*.

## 7.4.2 Integration into Single Sign-On Environments

The *SAP Revenue Accounting and Reporting* supports the Single Sign-On (SSO) mechanisms provided by SAP NetWeaver. Therefore, the security recommendations and guidelines for user administration and authentication as described in the *SAP NetWeaver Security Guide* [external document] also apply to the *SAP Revenue Accounting and Reporting*.

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

## 7.5 Authorizations

The *SAP Revenue Accounting and Reporting* uses the authorization concept provided by the SAP NetWeaver AS ABAP or AS Java. Therefore, the recommendations and guidelines for authorizations as described in the SAP NetWeaver AS Security Guide ABAP or SAP NetWeaver AS Security Guide Java also apply to the *SAP Revenue Accounting and Reporting*.

The SAP NetWeaver authorization concept is based on assigning authorizations to users based on roles. For role maintenance, use the profile generator (transaction `PF03`) on the AS ABAP and the User Management Engine's user administration console on the AS Java.



## **i** Note

For more information about how to create roles, see Role Administration [SAP Library]

## Standard Roles

The table below shows the standard roles that are used by the *SAP Revenue Accounting and Reporting*.

Table 25: Standard Roles

Role	Description
SAP_SR_FARR_REV_ACCOUNTANT	Revenue Accountant
SAP_SR_FARR_REV_ACCOUNTANT_A	Revenue Accountant (Authorization)
SAP_SR_FARR_REV_ADMIN	Revenue Accounting Administrator
SAP_SR_FARR_REV_ADMIN_A	Revenue Accounting Administrator (Authorization)
SAP_SR_FARR_REV_AUDITOR	Revenue Accounting Auditor
SAP_SR_FARR_REV_AUDITOR_A	Revenue Accounting Auditor (Authorization)
SAP_SR_FARR_REV_RFCUSER_A	Revenue Accounting RFC User (Authorization)  This authorization role for revenue accounting RFC users allows sending Revenue Accounting Items (RAIs) from non-SAP source systems. The role must be adjusted for the allowed authorization objects and assigned to an RFC user only.

For more information about roles delivered for *SAP Revenue Accounting and Reporting*, see the documentation at [help.sap.com](https://help.sap.com) > *SAP Business Suite* > *SAP ERP Add-Ons* > *SAP Revenue Accounting and Reporting* > *Application Help* > *SAP Revenue Accounting and Reporting Add-On* > *Administration and Maintenance* > *Roles*

## Standard Authorization Objects

The table below shows the security-relevant authorization objects that are used by the *SAP Revenue Accounting and Reporting*.

Table 26: Standard Authorization Objects

Authorization Object	Field	Value	Description
F_RRAI Revenue Accounting Items	ACTVT	01 Create or generate 03 Display	Activity
	BUKRS		Company Code
F_RRAIADM Change Revenue Accounting Items	ACTVT	02 Change	Activity
F_RRAICON Configuration and Generation of RAI Classes	ACTVT	02 Change 07 Activate, generate	Activity
F_RRAITST	ACTVT	01 Create or Generate	Activity

Authorization Object	Field	Value	Description
Test Data Creation			
F_RR_ACCR Accrual Run and Reconciliation Reporting	BUKRS		Company Code
	ACTVT	03 Display 10 Post 48 Simulate	Activity
	ACCRULE		Accounting Principle (AP)
F_RR_ACCTD Decision Table of Account Determination	ACTVT	02 Change 03 Display	Activity
F_RR_CONTR Contract	ACTVT	01 Create or generate 02 Change 03 Display A3 Change status	Activity
	BUKRS		Company Code
	FARR_VKORG		Sales Organization (Compatible with SD, CRM, ...)
F_RR_INITD Initial Load Data	ACTVT	06 Delete	Activity
	BUKRS		Company Code
	ACCRULE		Accounting Principle (AP)
F_RR_MFUFI Manual Fulfill	ACTVT	16 Execute	Activity

## 7.6 Session Security Protection

To increase security and prevent access to the SAP logon ticket and security session cookie(s), we recommend activating secure session management.

We also highly recommend using SSL to protect the network communications where these security-relevant cookies are transferred

### Session Security Protection on the AS ABAP

To activate session security on the AS ABAP, set the corresponding profile parameters and activate the session security for the client(s) using the transaction `SICF_SESSIONS`.

For more information, a list of the relevant profile parameters, and detailed instructions, see [Activating HTTP Security Session Management on AS ABAP](#) in the AS ABAP security documentation.

## Session Security Protection on the AS Java

On the AS Java, set the HTTP Provider properties as described in *Session Security Protection* [external document].

## 7.7 Network and Communication Security

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

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

- [Communication Channel Security \[page 43\]](#)

This topic describes the communication paths and protocols used by the *SAP Revenue Accounting and Reporting*.

- [Network Security \[page 44\]](#)

This topic describes the recommended network topology for the *SAP Revenue Accounting and Reporting*. It shows the appropriate network segments for the various client and server components and where to use firewalls for access protection. It also includes a list of the ports needed to operate the *SAP Revenue Accounting and Reporting*.

- [Communication Destinations \[page 45\]](#)

This topic describes the information needed for the various communication paths, for example, which users are used for which communications.

For more information, see the following sections in the SAP NetWeaver Security Guide:

- Network and Communication Security
- Security Guides for Connectivity and Interoperability Technologies

### 7.7.1 Communication Channel Security

Operational applications send information to *SAP Revenue Accounting and Reporting* in the form of revenue accounting items. Tables that store the items are generated using the namespace `/1RA/`. Additionally, an RFC-enabled function module is generated, which creates revenue accounting items that are named like `/1RA/xxxx_RAI_CREATE_API`, where `xxxx` represents the four-character name of the revenue accounting item class.

To integrate SAP Revenue Accounting and Reporting with SAP Sales and Distribution, you must use the following revenue accounting item classes:

Table 27

Name of Class	Description
SD01	Order Items
SD02	Fulfillment Items
SD03	Invoice Items

You can also integrate *SAP Revenue Accounting and Reporting* with external order entry and billing systems. When you do this, you must create your new revenue accounting item classes by using the Y- and Z- name spaces.

The communication between order entry and billing systems and *SAP Revenue Accounting and Reporting* uses background RFC (bgRFC). After receiving revenue accounting items, *SAP Revenue Accounting and Reporting* processes them and creates revenue accounting contracts.

The table below shows the communication channels used by the *SAP Revenue Accounting and Reporting*, the protocol used for the connection, and the type of data transferred.

Table 28

Communication Path	Protocol Used	Type of Data Transferred
Integration Component to SAP Revenue Accounting and Reporting	RFC	Revenue Accounting Items (RAI)
SAP Revenue Accounting and ReportingSAPGUI Applications	DIAG	UI control data
SAP Revenue Accounting and Reporting WebDynpro Applications	HTTP(S)	UI control data
3rd party to SAP Revenue Accounting and Reporting	RFC	Legacy Data

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

### ➔ Recommendation

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

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

## 7.7.2 Network Security

### Ports

The *SAP Revenue Accounting and Reporting* runs on SAP NetWeaver and uses the ports from the AS ABAP or AS Java. For more information, see the topics for *AS ABAP Ports* [SAP Library] and *AS Java Ports* [SAP Library] in the corresponding SAP NetWeaver Security Guides. For other components, for example, SAPinst, SAProuter, or the SAP Web Dispatcher, see also the document *TCP/IP Ports Used by SAP Applications*, which is located on SAP

## 7.7.3 Communication Destinations

The table below shows an overview of the communication destinations used by the *SAP Revenue Accounting and Reporting*.

Table 29

Destination	Delivered	Type	User, Authorizations	Description
Integration Component to SAP Revenue Accounting and Reporting	No	RFC	User-based authorizations	Revenue Accounting Item creation
3rd Party to SAP Revenue Accounting and Reporting	No	RFC	User-based authorizations	Transfer of Legacy Data from 3rd Party Systems to SAP Revenue Accounting and Reporting

## 7.8 Internet Communication Framework Security

You should only activate services that are required for the applications running in your system. For *SAP Revenue Accounting and Reporting* the following services are required:

- FARR\_ACCR\_RUN: Accrual run for testing online or run in background
- FARR\_ACCT\_DETERMINATION\_OVP: Account determination
- FARR\_ADD\_CONT\_TO\_REVIEW\_LIST: Add Contracts to Review List
- FARR\_ALLOC\_PRICE\_OVP: Price Allocation
- FARR\_BRF\_UI\_DT\_OVP\_APPLN: BRF+ UI Decision Table Web Dynpro Application for OVP
- FARR\_BRF\_UI\_LAUNCHER: BRF+ UI decision table launcher
- FARR\_CONFLICT\_OVP: Resolve Change Conflicts
- FARR\_CONTRACT\_ALL\_OVP: Contract Comprehensive View
- FARR\_CONTRACT\_CHANGE\_DOCUMENTS: Change History
- FARR\_CONTRACT\_DOC\_SEARCH\_OVP: Search Contract with document
- FARR\_CONTRACT\_MANAGEMENT\_OVP: Contract Management OVP
- FARR\_CONTRACT\_MAN\_FULFILL\_OVP: Contract manual fulfillment application
- FARR\_CONTRACT\_MAN\_FUL\_OVP: Manual Fulfillment Contract Management OVP
- FARR\_CONTRACT\_MAN\_HIS\_OVP: Manual Fulfillment Contract POB History
- FARR\_CONTRACT\_MGMT\_OVP: Revenue Accounting Contract

- FARR\_CONTRACT\_SEARCH\_OVP: Search Contract OVP
- FARR\_DISAGGR\_REVENUE\_CUSTOMER: Dissaggregation of revenue by customer
- FARR\_DISAGGR\_REVENUE\_CUST\_GRP: Dissaggregation of revenue by customer group
- FARR\_DISAGGR\_REVENUE\_POB\_TYPE: Dissaggregation of revenue by POB type
- FARR\_JOB\_MONITOR: List: Job monitor for posting
- FARR\_MANUAL\_COMBINE\_OVP: Manual Contract Combination
- FARR\_PERIODIC\_RUN: Accrual Periodic Run
- FARR\_POB\_ADD\_OVP: POB Add OVP
- FARR\_POB\_DETAIL\_OVP: Performance Obligation
- FARR\_POB\_FULFILL\_OVP: POB Fulfill Page
- FARR\_POB\_MGMT\_OVP: Performance Obligation Structure
- FARR\_POB\_REASSIGN\_OVP: POB Reassign OVP
- FARR\_POB\_REV\_RECOG\_OVP: Revenue Schedule
- FARR\_POSTED\_AMOUNT\_CONTRACT: Posted Amount By Contract Report
- FARR\_POSTED\_AMOUNT\_POB\_TYPE: Posted Amount By POB Type Report
- FARR\_RECON\_ACCOUNT\_RA\_GL: Reconciliation for G/L Accounts Between RA and GL
- FARR\_RECON\_FI\_USER: Reconciliation for FI User
- FARR\_RECON\_KEY\_STATUS: Reconciliation Key Status Report
- FARR\_RECON\_POSTING\_GL: Reconciliation: Posting Table and G/L Accounting
- FARR\_SPREADING\_CHANGE\_OVP: Change POB revenue spreading

Use the transaction SICF to activate these services.

If your firewall(s) use URL filtering, also note the URLs used for the services and adjust your firewall settings accordingly.

For more information, see [Activating and Deactivating ICF Services](#) in the SAP NetWeaver Library documentation.

For more information about ICF security, see the [RFC/ICF Security Guide](#).

## 7.9 Services for Security Lifecycle Management

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

### Security Chapter in the EarlyWatch Alert (EWA) Report

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

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

- Whether standard users with default passwords have been identified on your system.  
In this case, change the corresponding passwords to non-default values.

### Security Optimization Service (SOS)

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

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

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

### Security Configuration Validation

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

### Security in the RunSAP Methodology / Secure Operations Standard

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

## More Information

For more information about these services, see:

- EarlyWatch Alert: [service.sap.com/ewa](https://service.sap.com/ewa)
- Security Optimization Service / Security Notes Report: [service.sap.com/sos](https://service.sap.com/sos)
- Comprehensive list of Security Notes: [service.sap.com/securitynotes](https://service.sap.com/securitynotes)
- Configuration Validation: [service.sap.com/changecontrol](https://service.sap.com/changecontrol)
- RunSAP Roadmap, including the Security and the Secure Operations Standard: [service.sap.com/runsap](https://service.sap.com/runsap)  
(See the RunSAP chapters 2.6.3, 3.6.3 and 5.6.3)

# 8 Extensibility Information

The *SAP Revenue Accounting and Reporting* solution can be enhanced in several ways.

- **Field Extensibility**  
This solution provides an end-to-end field extensibility. You can route fields from operational documents (such as sales orders) through various components of this solution up to the final general ledger postings. This section describes the different types of field extensibility that are supported and the steps to implement them.
- **Business Add-Ins**  
This solution provides several Business Add-Ins (BAI) that allow you to change the default behavior. This section describes the Business Add-Ins that are available.

## 8.1 Field Extensibility

*SAP Revenue Accounting and Reporting* provides an end-to-end (field) extensibility. End-to-end means that information entered in a sales order can be passed to *SAP Revenue Accounting and Reporting* and used there for several purposes. The field extensibility concept of *SAP Revenue Accounting and Reporting* assigns each custom field to one of the following categories, depending on where the field is actually needed in the solution:

- **Fields that are only needed in revenue accounting item processing**  
These are typically fields needed to define rules for contract combinations or contract composition in BRF+ (such as defining performance obligations and standalone selling prices) but do not need to be displayed in revenue accounting contracts. These fields only extend the Revenue Accounting Item tables.
- **Fields that are also needed in revenue accounting contracts (on performance obligation level)**  
These fields can be added to the contract user interface and are available to various Business Add-Ins (such as the BAI for price allocation). These fields extend Revenue Accounting Item tables as well as the performance obligation table.
- **Fields that are also needed for reporting purposes**  
These fields extend the Revenue Accounting Item tables, the performance obligation table, and the Revenue Accounting postings table. These fields can also be passed to general ledger documents.

The extensibility concept of *SAP Revenue Accounting and Reporting* is based on the extensibility concept of the SAP Easy Enhancement Workbench (EEW), which uses so-called extension include structures to provide field extensibility. These include structures are included in all relevant tables and internal structures. Therefore, a field added to one of the structures is automatically made available in all relevant components. Custom fields are added by creating append structures to the extension includes.

Depending on the categories mentioned above, each field needs to be added to one of following extension include structures:

- INCL\_EEW\_FARR\_ARL for fields only used in revenue accounting item processing
- INCL\_EEW\_FARR\_POB for fields also used in revenue accounting contracts
- INCL\_EEW\_FARR\_REP for fields also used in reporting

It may seem safe to add all custom fields to the INCL\_EEW\_FARR\_REP include so that they are available throughout the solution. However, we recommend that you only include fields where they are needed. If



unnecessary fields are included, they may cause a negative impact on the performance. For example, the posting table may become very large.

If a field is assigned to the wrong include, you can move it to another include. However, to avoid database conversions, you must make the move operation only in one direction. Specifically, none of the tables should have less fields after the move. For example, it is possible to delete a field from `INCL_EEW_FARR_ARL` and add it to `INCL_EEW_FARR_POB`.

## 8.1.1 Field Extensibility in the Integration Component

*SAP Revenue Accounting and Reporting* comes with an Integration Component that enables the integration with Logistics documents, such as sales orders and invoices. To extend revenue accounting contracts, this Integration Component allows information that is available in sales orders to be passed to *SAP Revenue Accounting and Reporting*. All fields that need to be available throughout the flow of data must be added to the extension include structure `INCL_EEW_FARRIC_SD01MI`.

To transfer information from sales orders to the extension include structure, create a BAdI (Business Add-In) implementation for Enhancement Spot `FARRIC_SD`, BAdI `FARRIC_BADI_ORDER` and method `ORDER_DATA_TO_ARL_CUSTOM` with transaction `SE19`. Parameter `IT_RAI_MAIN_ITEM` contains all revenue accounting items that are created in Revenue Accounting. Copy all items that need to be enhanced with custom information to `ET_RAI_MAIN_ITEM`, and then fill in the required information there.

Do not use parameters `IT_RAI_CONDITIONS` and `ET_RAI_CONDITIONS`.

## 8.1.2 Field Extensibility in Revenue Accounting Item Processing

You can add custom fields to revenue accounting items. If you enhance revenue accounting items, the interface for creating revenue accounting items is enhanced. In addition, the database tables that store revenue accounting items are enhanced.

To do this, add the custom fields to one of the extension includes. After the fields are added, they are available for revenue accounting item configuration.

By using the Configuration of Revenue Accounting Item classes (`FARR_RAI_CONF`), you can add and activate the custom fields for all the three statuses. In general, fields should be extended for all the three statuses evenly.

1. Select the Revenue Accounting Item class to which you want to add the fields.
2. Choose *Customer Fields* and select the fields that you want to add.
3. Mark them for use for items in status raw or items in status processable or processed.
4. Save and activate your changes.
5. Generate the Revenue Accounting Item class by using transaction `FARR_RAI_GEN` or by using the menu option **Environment > Generation**.

After you have completed this procedure, the custom fields are part of all internally used structures and the database tables that store revenue accounting items. The fields may be displayed in the monitor for revenue accounting items. In the layout of the list, add the custom fields to the list of displayed fields in the respective layout.

## 8.1.3 Field Extensibility for Revenue Accounting Contracts

Only performance obligation can have custom fields. Fields that you want to be displayed or edited in revenue accounting contracts must be added to structure `INCL_EEW_FARR_POB` or `INCL_EEW_FARR_REP`.

### 8.1.3.1 Add Custom fields to Performance Obligation UI

The default performance obligation user interface does not contain any custom fields. To add custom fields to the user interface, you must edit the configurations of the corresponding Web Dynpro applications and components.

In Revenue Accounting, the following application configurations can be edited to include custom fields:

- `FARR_ACCT_DETERMINATION_OVP`
- `FARR_ADD_CONT_TO_REVIEW_LIST`
- `FARR_ALLOC_PRICE_OVP`
- `FARR_CONFLICT_OVP_AC`
- `FARR_CONTRACT_ALL_OVP`
- `FARR_CONTRACT_MAN_FULFILL_OVP`
- `FARR_CONTRACT_SEARCH_OVP`
- `FARR_MANUAL_CONTRACT_COMBINE_OVP`
- `FARR_POB_DETAIL_OVP`
- `FARR_POB_MGMT_OVP`
- `FARR_POB_REV_RECOG_OVP`

You can find all relevant application configurations in the package `FARR_CONTRACT_UI`, included in the following folders:

- Web Dynpro\Application Configurations (up to SAP NetWeaver 7.3)
- Web Dynpro\FPM Application Configurations (since SAP NetWeaver 7.4)

To customize the application configuration:

1. Double-click the application configuration.
2. Choose *Start Configurator* to open the application configuration.
3. Open the component configuration
4. Choose *Deep-Copy* to copy configurations to local a name space (the target configuration ID must start with the letter Z). By using the check box on the *Copy* column, you can select the configurations that you want to edit.
5. Choose *Start Deep-Copy* to copy the configuration. Specify your local package when you are prompted for a target package.
6. After the configurations are copied, open the new application configuration, and then for each component configuration make sure that the configuration name points to the corresponding configuration that you previously copied with a name starting with Z.
7. Choose *Configure UIBB* to add custom fields to the UI.

If the application is referenced in the launch pad customizing, you also have to modify the corresponding launch pad entry to point the application name to the application that you previously copied with a name starting with Z.

To do this, run transaction `LPD_CUST`, edit the corresponding launch pad entry, and then change the application name in the *Application field* in the *Application related Parameters* section.

The following sections list the details of the applications to which you can add custom fields.

## Application Configuration FARR\_ACCT\_DETERMINATION\_OVP

This application configuration is used for the Account Determination customizing UI (Customizing activity path:

► *Revenue Accounting* ► *Revenue Accounting Postings* ► *Configure Account Determination for Specific Transactions* ►)

► *Component FPM\_OVP\_COMPONENT* ► *Component Configuration FARR\_ACCT\_DETER\_MAIN\_OVP\_CC* ► *SECTION\_1* ► *Tabbed UIBB* ► *Configuration FARR\_ACCT\_DETER\_DT\_CC* ►:

1. For the *Recognized Revenue* tab:

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/FARR\_COLUMN\_REC\_REV* ► *Configuration FARR\_ACCT\_DETER\_REC\_REV\_TAB\_CC* ► *Tab 1* ► *List UIBB* ► *Configuration FARR\_ACCT\_DETER\_REC\_REV\_CC* ►

2. For the *Receivable Adjustment* tab:

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/RECEIVABLE\_ADJUSTMENT* ► *Configuration FARR\_ACCT\_DETER\_RADJ\_TAB\_CC* ► *Tab 1* ► *List UIBB* ► *Configuration FARR\_ACCT\_DETER\_RADJ\_CC* ►

3. For the *Deferred Cost* tab:

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/FARR\_DEFERRED\_COGS* ► *Configuration FARR\_ACCT\_DETER\_DCOGS\_TAB\_CC* ► *Tab 1* ► *List UIBB* ► *FARR\_ACCT\_DETER\_DCOGS\_CC* ►

4. For the *Recognized Cost* tab:

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/FARR\_COLUMN\_REC\_COST* ► *Configuration FARR\_ACCT\_DETER\_REC\_CST\_TAB\_CC* ► *Tab 1* ► *List UIBB* ► *FARR\_ACCT\_DETER\_REC\_CST\_CC* ►

5. For the *Revenue Adjustment for Allocation Effect* tab:

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/ALLOC\_DIFF* ► *Configuration FARR\_ACCT\_DETER\_CORR\_CC* ►

6. For the *Revenue Adjustment for Linked POB* tab:

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/ADD\_ALLOC\_DIFF* ► *Configuration FARR\_ACCT\_DETER\_CORR\_A\_CC* ►

7. For the *Rights of Return* tab:

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/ROR* ► *Configuration FARR\_ACCT\_DETER\_ROR\_CC* ►

Launch pads to be changed: none

## Application Configuration FARR\_ADD\_CONT\_TO\_REVIEW\_LIST

This application configuration is used for the dialog box that appears when you choose *Add Contract to List* in the Regular Monitoring worklist.

► *Component FPM\_OIF\_COMPONENT* ► *Component Configuration FARR\_ADD\_CONT\_TO\_LIST\_CC* ►:

1. ► *UIBB for component FPM\_SEARCH\_UIBB* ► *Configuration FARR\_ADD\_CONT\_TO\_LIST\_SEARCH\_CC* ►

(Here you can edit the search attributes and result list field catalog.)

2. ► *List UIBB for component FPM\_LIST\_UIBB* ► *Configuration FARR\_ADD\_CONT\_TO\_LIST\_RESULT\_CC* ► (Here you can configure the columns.)

Launch pads to be changed: none

## Application Configuration FARR\_ALLOC\_PRICE\_OVP

This application configuration is used for the Price Allocation UI (the *Performance Obligations* section).

► *Component FPM\_OVP\_COMPONENT* ► *Component Configuration FARR\_ALLOC\_PRICE\_OVP\_CC* ► *SECTION 1* ► *Tabbed UIBB* ► *Configuration FARR\_POB\_TAB\_CC* ►

### 1. List View

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/TITLE\_LIST\_VIEW* ► *Configuration FARR\_POB\_MGMT\_LIST\_TABBED\_CC* ►

1. Navigate to ► *POB\_LIST* ► *Configuration FARR\_POB\_LIST\_ON\_ALLOC\_CC* ►
2. Navigate to ► *POB\_RENDING\_ALV* ► *Configuration FARR\_POB\_LIST\_ON\_ALLOC\_ALV\_CC* ►

### 2. Hierarchical View

Navigate to ► *Tab: \$OTR:FARR\_CONTRACT\_UI/TITLE\_HIERARCHICAL\_VIEW* ► *Configuration FARR\_POB\_MGMT\_LIST\_HIER\_CC* ►

1. Navigate to detailed view: ► *\$OTR:/BCV/UIF/VIEW\_HIERARCHICAL* ► *Configuration FARR\_ALLOC\_POB\_TREE\_CC* ►
2. Navigate to detailed view: ► *detailed view \$OTR:FARR\_CONTRACT\_UI/VIEW\_BY\_OPS\_DOC* ► *Configuration FARR\_ALLOC\_POB\_DOC\_TREE\_CC* ►
3. Navigate to detailed view: ► *detailed view \$OTR:FARR\_CONTRACT\_UI/VIEW\_BY\_POB\_TYPE* ► *Configuration FARR\_ALLOC\_POB\_PTYPE\_TREE\_CC* ►

Launch pads to be changed:

- Role FARR\_CONTR, instance IDENTIFY\_TO\_ALLOC
- Role FARR\_CONTR, instance LINK\_TO\_ALLOC

## Application Configuration FARR\_CONFLICT\_OVP\_AC

This application configuration is used for the new window that appears when you choose the Contract ID from the Contacts with Conflicts worklist.

► *Component FPM\_OVP\_COMPONENT* ► *Component Configuration FARR\_CONFLICT\_OVP\_CC* ►

### 1. Tab *Change Conflicts*

Navigate to ► *List UIBB* ► *Configuration FARR\_CONFLICT\_POB\_LIST\_CC* ►

### 2. Tab *Price Allocation Conflict*

Navigate to ► *Tabbed UIBB* ► *Configuration FARR\_CONFLICT\_TAB\_ON\_POB\_CC* ► *List UIBB* ► *Configuration FARR\_CONFLICT\_PRICE\_LIST\_CC* ►

### 3. Tab *Added/Deleted Performance Obligation*

Navigate to ► *List UIBB* ► *Configuration FARR\_CONFLICT\_POB\_ADD\_DEL\_CC* ►

Launch pads to be changed: none

## Application Configuration FARR\_CONTRACT\_ALL\_OVP

This application configuration is used for the new window that appears when you choose *Comprehensive View* from the contact search result list.

► *Component FPM\_OVP\_COMPONENT* ► *Component Configuration* ►

► *FARR\_CONTRACT\_ALL\_OVP\_CC* ► *Tabbed UIBB* ► *Configuration FARR\_POB\_LIST\_ALL\_TABBED\_CC* ►

1. ► *Tab 1* ► *List UIBB* ► *Configuration FARR\_POB\_LIST\_ON\_CONTR\_ALL\_CC* ►
2. ► *Tab 2* ► *List UIBB* ► *Configuration FARR\_POB\_ALV\_ON\_CONTR\_ALL\_CC* ►

Launch pads to be changed: role FARR\_CONTR, instance SEARCH\_TO\_ONE\_SCREEN

## Application Configuration FARR\_CONTRACT\_MAN\_FULFILL\_OVP

This application configuration is used for the Manual Fulfillment UI (for contract search and search result list).

▶ *Component FPM\_OVP\_COMPONENT* ▶ *Component Configuration* ▶

FARR\_CONTRACT\_MAN\_FULFILL\_OVP\_CC:

1. ▶ *Search UIBB* ▶ *Configuration FARR\_CONT\_MAN\_SEARCH\_GUIBB\_CC* ▶
2. ▶ *List UIBB* ▶ *Configuration FARR\_CONT\_MAN\_SEARCH\_RST\_LIST\_CC* ▶

## Application Configuration FARR\_CONTRACT\_MAN\_FUL\_OVP

This application configuration is used for the new window that appears when you choose *Fulfill Performance Obligation* from the Manual Fulfillment search result list.

▶ *Component FPM\_OVP\_COMPONENT* ▶ *Component Configuration* ▶

▶ *FARR\_CONTRACT\_MAN\_FUL\_OVP\_CC* ▶ *Component FPM\_TREE\_UIBB* ▶ *Configuration FARR\_POB\_MANUAL\_FULFILL\_CC* ▶

Launch pads to be changed: none

## Application Configuration FARR\_CONTRACT\_SEARCH\_OVP

This application configuration is used for the Contract Search UI (for contract search and search result list).

▶ *Component FPM\_OVP\_COMPONENT* ▶ *Component Configuration* ▶

FARR\_CONTRACT\_SEARCH\_OVP\_CC:

1. ▶ *Search UIBB* ▶ *Configuration FARR\_CONTRACT\_SEARCH\_GUIBB\_CC* ▶
2. ▶ *Tabbed UIBB* ▶ *Configuration FARR\_CONTR\_DOC\_TABBED\_GUIBB\_CC* ▶
  1. Navigate to detail view ▶ *\$OTR:FARR\_CONTRACT\_UI/VIEW\_CONTRACT\_SEARCH\_GENERAL* ▶ *Configuration FARR\_CONTRACT\_SRCH\_RST\_LIST\_CC* ▶
  2. Navigate to detail view ▶ *\$OTR:FARR\_CONTRACT\_UI/VIEW\_CONTRACT\_SEARCH\_BY\_CONTRACT* ▶ *Configuration FARR\_CONTRACT\_DOC\_RESULT\_TREE\_CC* ▶
  3. Navigate to detail view ▶ *\$OTR:FARR\_CONTRACT\_UI/VIEW\_CONTRACT\_SEARCH\_BY\_DOC* ▶ *Configuration FARR\_CONTRACT\_DOC\_RESUT\_TREE2\_CC* ▶

Launch pads to be changed: none

## Application Configuration FARR\_MANUAL\_CONTRACT\_COMBINE\_OVP

This application configuration is used for the new window that appears when you choose *Perform Contract Combination* from the contract search UI.

▶ *Component FPM\_OVP\_COMPONENT* ▶ *Component Configuration* ▶

FARR\_MANUAL\_CONTRACT\_COMBINE\_CC:

1. ▶ *Component FPM\_TREE\_UIBB* ▶ *Configuration FARR\_COMBINE\_POB\_TREE\_CC* ▶
2. *Tabbed UIBB*>>*Configuration FARR\_CONTR\_COMB\_TAB\_CC*
  1. ▶ *Component FPM\_SEARCH\_UIBB* ▶ *Configuration FARR\_CONTR\_COMB\_SEARCH\_GUIBB\_CC* ▶
  2. ▶ *List UIBB* ▶ *Configuration FARR\_CONTR\_COMB\_SRCH\_RST\_LIST\_CC* ▶

Launch pads to be changed: none

## Application Configuration FARR\_POB\_DETAIL\_OVP

This application configuration is used for the Display Performance Obligation UI.

▶ *Component FPM\_OVP\_COMPONENT* ▶ *Component Configuration FARR\_POB\_DETAIL\_OVP\_CC* ▶

1. [▶ Component FPM\\_FORM\\_UIBB ▶ Configuration FARR\\_POB\\_MGMT\\_DETAIL\\_CC ▶](#)
2. [▶ Component FPM\\_TREE\\_UIBB ▶ Configuration FARR\\_POB\\_DETAIL\\_HRCHY\\_CC ▶](#)
3. [▶ Component FPM\\_TABBED\\_UIBB ▶ Configuration FARR\\_POB\\_DETAIL\\_TABBED\\_ADD\\_CC ▶ Component FPM\\_FORM\\_UIBB ▶ Configuration FARR\\_POB\\_DETAIL\\_ADDITIONAL\\_CC ▶](#)

Launch pad to be changed: role FARR\_CONTR, instance POB\_LIST\_TO\_POB\_DETAIL

## Application Configuration FARR\_POB\_MGMT\_OVP

This application configuration is used for the Performance Obligation Structure UI.

[▶ Component FPM\\_OVP\\_COMPONENT ▶ Component Configuration FARR\\_POB\\_MGMT\\_OVP\\_C ▶](#)

1. Page POB\_MGMT>>Tabbed UIBB>>Configuration FARR\_POB\_TAB\_ON\_IDENT\_POB\_CC
  1. List View
    - [▶ Tab: \\$OTR:FARR\\_CONTRACT\\_UI/TITLE\\_LIST\\_VIEW ▶ Configuration FARR\\_POB\\_LIST\\_ON\\_IDENT\\_POB\\_CC ▶](#)
  2. Hierarchical View
    - [▶ Tab: \\$OTR:FARR\\_CONTRACT\\_UI/TITLE\\_HIERARCHICAL\\_VIEW ▶ Configuration FARR\\_IDENT\\_HRCH\\_TAB\\_CC ▶](#)
      1. Navigate to detail view [▶ \\$OTR:/BCV/UIF/VIEW\\_HIERARCHICAL ▶ Configuration FARR\\_IDENTIFY\\_POB\\_TREE\\_CC ▶](#)
      2. Navigate to detail view [▶ \\$OTR:FARR\\_CONTRACT\\_UI/VIEW\\_BY\\_OPS\\_DOC ▶ Configuration FARR\\_IDENTIFY\\_POB\\_DOC\\_TREE\\_CC ▶](#)
      3. Navigate to detail view [▶ \\$OTR:FARR\\_CONTRACT\\_UI/VIEW\\_BY\\_POB\\_TYPE ▶ Configuration FARR\\_IDENTIFY\\_POB\\_PTYPE\\_TREE\\_CC ▶](#)
2. [▶ Page NEW\\_COMPOUND\\_POB\\_DIALOG ▶ Configuration FARR\\_NEW\\_COMPOUND\\_POB\\_DIALOG\\_CC ▶](#)
3. [▶ Page POPUP\\_ADD\\_POB ▶ Configuration FARR\\_POB\\_MGMT\\_DETAIL\\_EDIT\\_CC ▶](#) (This configuration is used for the Add Manual Performance Obligations UI)

Launch pad to be changed:

- Role FARR\_CONTR, instance CONTR\_OVP\_TO\_POB\_OVP
- Role FARR\_CONTR, instance LINK\_TO\_POB\_IDENTIFY
- Role FARR\_CONTR, instance LIST\_TO\_OVP

## Application Configuration FARR\_POB\_REV\_RECOG\_OVP

This application configuration is used in the Revenue Schedule UI.

[▶ Component FPM\\_OVP\\_COMPONENT ▶ Component Configuration FARR\\_POB\\_REV\\_RECOG\\_OVP\\_CC ▶](#)

1. [▶ Page POB\\_REV\\_REC ▶ Tabbed UIBB ▶ Configuration FARR\\_POB\\_REV\\_RECOG\\_TABBED\\_CC ▶ List UIBB ▶ Configuration FARR\\_POB\\_REV\\_RECOG\\_AP\\_LIST\\_CC ▶](#)
2. [▶ Page CHANGE\\_SPREADING ▶ List UIBB ▶ Configuration FARR\\_CHANGE\\_SPREADING\\_LIST\\_CC ▶](#)

Launch pad to be changed:

- Role FARR\_CONTR, instance IDENTIFY\_TO\_FULFILL
- Role FARR\_CONTR, instance POB\_LIST\_TO\_REVREC

## 8.1.3.2 Custom Field Validation

Custom fields that can be changed by the user must be validated. You can validate custom fields by using enhancement spot `FARR_POB_CUST_VALIDATION`, Business Add-In `FARR_BADI_POB_CUST_VALIDATION`, and method `POB_VALIDATION`.

The importing parameter `IS_POB_DATA_BUFFER` contains all fields of one performance obligation (not only the custom fields). You can write code to validate any field on performance obligations by using this BAdI.

The importing parameter `IO_MSG_HANDLER` is an instance of a message handler. You can add your validation result as standard ABAP messages to the message handler. To understand adding messages to the message handler, you can refer to method `CL_FARR_CONTRACT_CHECKER ->CHECK_POB_COMPANY_CODE`.

## 8.1.4 Field Extensibility for Revenue Reporting

Fields needed for reporting must be added to structure `INCL_EEW_FARR_REP`. This include also extends the Revenue Accounting Posting table (`FARR_D_POSTING`).

### 8.1.4.1 Passing Information to General Ledger Documents

To include custom fields in the general ledger documents that are created by Revenue Accounting and Reporting, you must extend the Revenue Accounting and Reporting (`INCL_EEW_FARR_REP`) and General Ledger (`CI_COBL`) structures with the same set of fields (the field names must be the same). To extend the general ledger document and ledgers, define custom fields in the following Customizing activity:

► *Financial Accounting (New)* ► *Financial Accounting Global Settings (New)* ► *Ledgers* ► *Fields* ► *Customer Fields* ✎. All fields that are included in both `CI_COBL` and `INCL_EEW_FARR_REP` are automatically transferred into general ledger documents.

To change standard general ledger document fields (fields that are not in the `CI_COBL` structure), you must complete the following tasks:

1. Enhance structure `INCL_EEW_FARR_POSTING`.
2. Implement BAdI `FARR_POSTING_ENHANCEMENT` in Enhancement Spot `FARR_ES_POSTING`.

The BAdI `FARR_POSTING_ENHANCEMENT` provides a method `PROCESS_CUST_FIELDS`. You can use this method to set non-custom fields in general ledger documents.

#### Caution

Be careful when you change standard fields. Changing standard fields may cause incorrect general ledger documents. You may make these changes at your own risk.

Method `PROCESS_CUST_FIELDS` has two parameters:

- `IS_RR_LINE_ITEM` contains all information for a Revenue Accounting posting item (including custom fields defined in `INCL_EEW_FARR_REP`)
- `CS_ACC_IT` contains all fields of the corresponding general ledger document item.

## 8.1.4.2 Activate Enhanced Fields in Datasources

The datasource `0FARR_RA_10`, which is based on the Revenue Accounting posting data (table `FARR_D_POSTING`), automatically includes all fields defined in the `INCL_EEW_FARR_REP` structure. Therefore, the datasource automatically fetches the fields that you have appended to this structure. Check the availability and visibility of your fields by using transaction `RSA6`. After running the transaction, select node `0FARR / Financial Accounting Revenue Recognition` in the hierarchy. The datasource `0FARR_POB_ATTR`, which is based on performance obligation data, automatically includes all fields defined in the `INCL_EEW_FARR_POB` structure. Therefore, the datasource automatically fetches the fields that you have appended to this structure. Check the availability and visibility of your fields by using transaction `RSA6`.

After you have made these changes, the enhanced fields in the datasources become visible to BW objects, such as Infoproviders and online data providers (ODP). For the data extraction to work, you must refresh the corresponding BI modeling.

## 8.2 Business Add-Ins

### 8.2.1 Integration Component Enhancements

The SD Integration Component provides two enhancement spots:

- `FARRIC_SD`  
This enhancement spot contains BAdIs for document processing
- `FARRIC_SD_OL`  
This enhancement spot contains a validation BAdI for the Operational Load (Migration).

#### 8.2.1.1 Order Enhancements

BAdI `FARRIC_BADI_ORDER` provides the following methods for you to enhance the transfer of sales order information from the Integration Component to Revenue Accounting and Reporting:

- `ORDER_DATA_TO_ARL_CUSTOM`  
This method is to provide values for custom fields.
- `ORDER_DATA_TO_ARL`  
By using this method, you can change the values of standard fields. The fields that can be changed are defined in structure `FARRIC_S_SD01MI_ALLOW_MOD_FLDS` and changed fields must be returned with parameter `ET_RAI_MAIN_ITEM_ALLOW_MOD`, together with the key of the item to be changed.
- `CLEAR_RELTYPE_FLAG`  
You can use this method to clear the revenue accounting relevance indicator again after it is set by evaluating the customizing settings. As an additional parameter (compared to the available fields in customizing), the material number is available. You can use this method if you have your own logic for setting or resetting the revenue accounting relevance indicator.
- `EXCLUDE_CONDITIONS`



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This method allows you to exclude conditions from being transferred to Revenue Accounting and Reporting. In the exporting parameter `ET_EXCL_RAI_CONDITIONS`, you define for each Revenue Accounting Item key which conditions should be excluded from the transfer. Do not use extension include `INCL_EEW_FARRIC_SD01CO`.

For more information, see the documentation of BAdI `FARRIC_BADI_ORDER`.

## 8.2.1.2 Invoice Enhancements

BAdI `FARRIC_BADI_INVOICE` provides a `EXCLUDE_CONDITIONS` method for you to change the transfer of Invoice information from the Integration Component to *SAP Revenue Accounting and Reporting*.

This method allows you to exclude conditions from being transferred to *SAP Revenue Accounting and Reporting*. In the exporting parameter `ET_EXCL_SD03CO`, you define for each Revenue Accounting Item key which conditions should be excluded from the transfer. Do not use extension include `INCL_EEW_FARRIC_SD03CO`.

For more information, see the documentation of BAdI `FARRIC_BADI_INVOICE`.

## 8.2.1.3 Validations for Operational Load

BAdI `FARRIC_OL_VALIDATION` (in enhancement spot `FARRIC_SD_OL`) provides method `VALIDATE_SALES_DOCUMENT`. You can use this method to check if a Sales Order (Item) can be transferred to *SAP Revenue Accounting and Reporting*. You can perform your own checks, and if an issue is found with an item, you can add a message into parameter `CT_RETURN`. If the issue is as severe that the item cannot be transferred, you can exclude it with parameter `CT_VALIDATION` by setting the `NOT_RELEVANT` field.

## 8.2.2 Revenue Accounting and Reporting Enhancements

### 8.2.2.1 Validation of Status Change

By using enhancement spot `ES_FARR_FOUNDATION` and BAdI `FARR_ACPR_BUKR_CHECKS`, you can define custom-specific checks to validate the status switch for a specific combination of company code and accounting principle. The BAdI provides only one method `CHECK`. The `CHECK` method has parameters `IT_ACPR_BUKRS_OLD` and `IT_ACPR_BUKRS_NEW`, which denote the old and new status and transfer date for the selected company codes and accounting principles. Parameter `CS_ERROR_MESSAGE` is used to pass error messages that prevent the status switch.

## 8.2.2.2 Enhance Revenue Accounting Items (Raw Items)

By using enhancement spot `FARR_ARL` and BAdI `FARR_BADI_RAIO`, you can fill additional attributes of Revenue Accounting Items with status raw (RAIO ) depending on the Revenue Accounting Item class. You can also introduce additional checks that you want to perform before the raw items are saved to the database.

The `IF_FARR_BADI_RAIO` interface for this BAdI is used for Business Add-In (BAdI) implementation `FARR_BADI_RAIO` of enhancement spot `FARR_ARL`. It provides two methods:

- ENRICH

This method is executed before the enrichment functionality that SAP delivers for each interface component is executed.

You can implement checks for the Revenue Accounting Items per Revenue Accounting Item class in this method. It contains the following parameters:

Table 30

Parameter	Type	Data Type	Description
IV_RAIC	Importing	Type FARR_RAIC	Revenue Accounting Item Class
CT_RAIO_MI	Changing	Type FARR_TT_RAIO_MI_ALL	Table Type for FARR_S_RAIO_MI_ALL
CT_RAIO_CO	Changing	Type FARR_TT_RAIO_CO_ALL	Table Type for FARR_S_RAIO_CO_ALL
CT_MESSAGES	Changing	Type FARR_TT_RAI_MSG	Table Type for FARR_S_RAI_MSG

- CHECK\_BEFORE\_SAVE

This method is executed before raw Revenue Accounting Items (RAIO) are saved to the database. It contains the following parameters:

Table 31

Parameter	Type	Data Type	Description
IV_RAIC	Importing	Type FARR_RAIC	Revenue Accounting Item Class
IT_RAIO_MI	Importing	Type FARR_TT_RAIO_MI_ALL	Table Type for FARR_S_RAIO_MI_ALL
IT_RAIO_CO	Importing	Type FARR_TT_RAIO_CO_ALL	Table Type for FARR_S_RAIO_CO_ALL
CT_MESSAGES	Changing	Type FARR_TT_RAI_MSG	Table Type for FARR_S_RAI_MSG

### **i** Note

In case of errors, the changing parameter `CT_MESSAGES` has to be filled. The message structure contains attributes for the error message, as well as the key fields for the Revenue Accounting Item. It is crucial for the correct processing of the erroneous Revenue Accounting Items that these key fields are filled in the message structure.

Important: This BAdI is intended for custom Revenue Accounting Item classes only. The enrichment and checks of raw revenue accounting data that are delivered by SAP are implemented in class

CL\_FARR\_RAI\_IFCOMP.

For more information, see the documentation of BAdI FARR\_BADI\_RAI0.

### 8.2.2.3 Enhance Revenue Accounting Items (Processable Items)

By using enhancement spot FARR\_ARL and BAdI FARR\_BADI\_RAI2, you can fill additional attributes of Revenue Accounting Items with status raw (RAI2) depending on the Revenue Accounting Item class. You can also introduce additional checks you want to perform before the raw items are saved to the database.

The IF\_FARR\_BADI\_RAI2 interface for this BAdI is used for Business Add-In (BAdI) implementation FARR\_BADI\_RAI2 of enhancement spot FARR\_ARL. It provides two methods:

- ENRICH

This method is executed before the enrichment functionality that SAP delivers for each interface component is executed.

You can implement checks for the Revenue Accounting Items per Revenue Accounting Item class in this method. It contains the following parameters:

Table 32

Parameter	Type	Data Type	Description
IV_RAIC	Importing	Type FARR_RAIC	Revenue Accounting Item Class
CT_RAI2_MI	Changing	Type FARR_TT_RAI2_MI_ALL	Table Type for FARR_S_RAI2_MI_ALL
CT_RAI2_CO	Changing	Type FARR_TT_RAI2_CO_ALL	Table Type for FARR_S_RAI2_CO_ALL
CT_MESSAGES	Changing	Type FARR_TT_RAI_MSG	Table Type for FARR_S_RAI_MSG

- CHECK\_BEFORE\_SAVE

This method is executed before processable Revenue Accounting Items (RAI2) are saved to the database. It contains the following parameters:

Table 33

Parameter	Type	Data Type	Description
IV_RAIC	Importing	Type FARR_RAIC	Revenue Accounting Item Class
IT_RAI2_MI	Importing	Type FARR_TT_RAI2_MI_ALL	Table Type for FARR_S_RAI2_MI_ALL
IT_RAI2_CO	Importing	Type FARR_TT_RAI2_CO_ALL	Table Type for FARR_S_RAI2_CO_ALL

Parameter	Type	Data Type	Description
CT_MESSAGES	Changing	Type FARR_TT_RAI_MSG	Table Type for FARR_S_RAI_MSG

### **i** Note

In case of errors, the changing parameter CT\_MESSAGES has to be filled. The message structure contains attributes for the error message, as well as the key fields for the Revenue Accounting Item. It is crucial for the correct processing of the erroneous Revenue Accounting Items that these key fields are filled in the message structure.

For more information, see the documentation of BAdI FARR\_BADI\_RAI2.

## 8.2.2.4 Combination of Contracts

By using enhancement spot FARR\_ARL and BAdI FARR\_BADI\_CONTRACT\_COMBINATION, you can determine how Revenue Accounting Items are grouped into revenue accounting contracts. For all Revenue Accounting Items that belong to the same contract, the same contract ID needs to be set.

This BAdI is executed during processing of Revenue Accounting Items. It is only called for order item RAIs and only as long as no performance obligation exists in the RA-engine that represents this order item.

The IF\_FARR\_RAI2\_CONTR\_COMB interface for this BAdI is used for Business Add-In (BAdI) implementation FARR\_BADI\_CONTRACT\_COMBINATION of enhancement spot FARR\_ARL. It provides the method COMBINE\_CONTRACT.

This method is executed before Revenue Accounting Items of the order item type are processed. By default the example class implementation combines the contract by reference ID and reference type fields.

You can implement your own combination logic in this method.

The method contains the following parameters:

Table 34

Parameter	Type	Data Type	Description
IT_RAW_POB	Importing	Type FARR_TT_RAW_POB	Raw Data for Performance Obligation Creation
ET_COMBINED_CONTRACTS	Exporting	Type FARR_TT_CONTR_MAPPING	Table of Mapping entries of contract combination

In case of errors, the exception CX\_FARR\_MESSAGE has to be raised.

For more information, see the documentation of BAdI FARR\_BADI\_CONTRACT\_COMBINATION.

## 8.2.2.5 Price Allocation

SAP Revenue Accounting and Reporting provides two BAdIs for processing price allocation.

Enhancement spot `FARR_ALLOCATION_ENGINE` and BAdI `FARR_BADI_ALLOCATION_ENGINE` are defined to perform price allocation. The interface method `IF_FARR_ALLOCATION_ENGINE~PROCESS_ALLOCATION` has importing parameter `IT_POB_DATA`, which contains all performance obligation information (including the custom fields). You can write your own BAdI implementation to perform price allocation based on any information available in the performance obligations. The standard SAP implementation for price allocation is implemented in class `CL_FARR_ALLOCATION_ENGINE`. For more information about the method `PROCESS_ALLOCATION`, see the BAdI documentation.

Enhancement spot `FARR_ALLOCATION_METHOD` and BAdI `FARR_BADI_ALLOCATION_METHOD` allow you to define your own processes and calculations of price allocation at the level of a group (sub-structure) of performance obligations. Interface method `IF_FARR_ALLOCATION_METHOD~ALLOCATE_COND_TYPES` is used to allocate condition types from nodes to subnodes. The implementation determines how an amount on a node is allocated to its subnodes, and the process is repeated for each node of the tree. For more information about method `ALLOCATE_COND_TYPES` and its parameters, see the BAdI documentation.

The BAdI `FARR_BADI_ALLOCATION_METHOD` is called in the standard implementation of BAdI `FARR_ALLOCATION_ENGINE`. You can also use it in your own implementation of this BAdI to allocate amounts down the hierarchy.

## 8.2.2.6 Deferral Method

By using enhancement spot `FARR_DEFERRAL_METHOD` and BAdI `FARR_BADI_DEFERRAL_METHOD`, you can define your own spreading of revenue for time-based performance obligations. The BAdI provides method `GENERATE_FULFILL_ENTRY` to allocate the amount provided in parameter `IS_DEFERRAL_METHOD` to the periods in the duration. You must provide a value for each period of the contract lifecycle (the time between `START_DATE` and `END_DATE`).

For more information about how to implement the BAdI, see the BAdI documentation and example implementations, such as `FARR_DEFERRAL_METHOD_S`.

## 8.2.2.7 Account Assignment Derivation

By using enhancement spot `FARR_DERIVE_ACCT_ASSIGNMT` and BAdI `FARR_BADI_ACCT_ASSIGNMT` you derive account assignments for manually created performance obligations. The BAdI provides two methods:

- `DERIVE_DEFAULT_ACCT_ASSIGNMENT`:

This method is called when the system displays a dialog box for the user to create a new performance obligation. Here you can specify default account assignments based on other account assignments in the contract. Therefore, all contract data, including all performance obligations, is provided in this method.

- `DERIVE_PAOBJNR`:

This method is called when the user changes attributes of the manually created performance obligation that might affect the Profitability Segment of the performance obligation. In that case, the method should return a new Profitability Segment from the relevant characteristics. Additionally, all contract information is passed into the method.

For more information, see the BAdI documentation.

## 8.2.2.8 Custom Validations

By using enhancement spot `FARR_POB_CUST_VALIDATION` and BAdI `FARR_POB_CUST_VALIDATION`, you can add your own validations for performance obligations. The BAdI provides method `POB_VALIDATION` with the following parameters:

- `IS_POB_DATA_BUFFER`: the performance obligation to be checked
- `IO_MSG_HANDLER`: a reference to a message handler object

To understand adding messages to the message handler, you can refer to method `CL_FARR_CONTRACT_CHECKER->CHECK_POB_COMPANY_CODE`.

## 8.2.2.9 Posting Enhancements

Enhancement spot `FARR_POSTING_ENHANCEMENT` contains BAdI `FARR_POSTING_ENHANCEMENT` and its method `PROCESS_CUST_FIELDS`. You can use this BAdI to set standard fields, such as material number and transaction type, from other fields available in *SAP Revenue Accounting and Reporting* or available in include `INCL_EEW_FARR_REP`.

Be careful when you change standard fields. Changing standard fields may cause incorrect general ledger documents. You may make these changes at your own risk.

Method `PROCESS_CUST_FIELDS` has two parameters:

- `IS_RR_LINE_ITEM`  
This parameter contains all information for a Revenue Accounting posting item (including custom fields defined in `INCL_EEW_FARR_REP`).
- `CS_ACC_IT`  
This parameter contains all fields of the corresponding general ledger document item.

## 8.2.2.10 Compound Fulfillments

By using enhancement spot `FARR_COMPOUND_FULFILLMENT` and BAdI `FARR_BADI_COMPOUND_FULFILLMENT`, you can create fulfillment entries for fulfillment events that occur on non-distinct performance obligations.

Fulfillment events that occur on non-distinct performance obligations can only be accounted for on their corresponding compound performance obligations. This BAdI lets you apply your own logic to assess the completion of the compound performance obligation when events occur on its non-distinct Performance Obligations. For example, when a fraction of a non-distinct performance obligation is fulfilled, you can determine how this "partial" fulfillment should progress the compound performance obligation toward its completion.

The BAdI provides method `DERIVE_FULFILLMENT` to create the fulfillment for the compound performance obligation. Input parameters include the triggering event on the non-distinct performance obligation, the performance obligations of the contract, and the fulfillment history of the compound performance obligation. The method has to return the calculated fulfillment entries for the compound performance obligation.

For more information, see the BAdI documentation.

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## 8.2.2.11 Review Worklist Enhancements

By using enhancement spot `FARR_BADI_SET_REVIEW_WORKLIST` and BAdI `FARR_BADI_SET_REVIEW_WORKLIST`, you can perform additional checks when the user chooses *Mark as Reviewed* on the Regular Monitoring Worklist. You can also use this BAdI to define additional selection criteria for the worklist. The BAdI provides the following methods:

- `SET_CUSTOMER_FIELDS`:




This method is called when the user chooses *Mark as Reviewed* on the Regular Monitoring Worklist. You can add your own checks. The Input parameter is the ID of the corresponding performance obligation and output parameters include a table of messages and information about whether the review status has to be kept or can be changed to processable as requested by the user.

- `SET_CUSTOMER_SEL_CRITERIA`

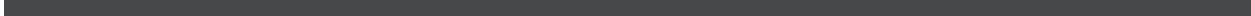
In this method, you can specify additional selection criteria for the Review Worklist.

# Typographic Conventions

Table 35

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





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