



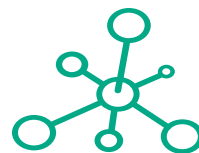
Project and Portfolio Management Center

Software Version: 9.40

Deployment Management Extension for SAP Solutions Guide

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Chapter 1: Getting Started

Introduction to the Extension for SAP Solutions

Deployment Management Extension for SAP Solutions (usually referred to hereafter as “the Extension”) helps organizations to automate deployment management in the SAP environment.

The Extension enhances the functionality of the Deployment Management application in Project and Portfolio Management Center (PPM Center) by providing predefined entities that are unique to SAP Solutions environments, such as specialized object types, request types, workflows, report types, portlets, special commands, validations, and tokens.

After PPM Center (the “base” software) has been installed at or upgraded to the current version, you can install the Extension or upgrade it to version 9.40 on the same system.

["Installing or Upgrading the Extension" on page 11](#) describes system requirements for installing the Extension or upgrading it to the current version, and the impacts of upgrading the Extension to the current version.

Module and File Support

["Table 1-1: Supported SAP modules and platforms"](#) lists the SAP modules and the associated SAP platforms supported.

Table 1-1: Supported SAP modules and platforms

Supported SAP Modules	SAP Platform
R/3 4.6B/4.6C ^a	Basis 4.6B/4.6C ^a
APO 3.10 ^a	Basis 4.6D ^a
R/3 4.7 ^a	Web Application Server 6.20 ^a
BW 3.50	NetWeaver 6.40
CRM 4.0.0	NetWeaver 6.40
ECC 5.0.0	NetWeaver 6.40

Table 1-1: Supported SAP modules and platforms, continued

Supported SAP Modules	SAP Platform
ECC 6.0.0	NetWeaver 7.00
CRM 7.0.0	NetWeaver 7.00
a. Functionality for BC Sets and patching is supported only on the SAP NetWeaver 6.40 platform. Other functionality is supported on all platforms.	

"Table 1-2: Supported SAP J2EE archives and platform" lists the SAP J2EE archives and the associated SAP platform supported.

Table 1-2: Supported SAP J2EE archives and platform

Supported SAP J2EE Archives	SAP Platform
Enterprise Archive files (.ear)	NetWeaver 6.40
Enterprise Portal files (.epa) ^a	NetWeaver 6.40
Portal Archive files (.par) ^a	NetWeaver 6.40
Software Component Archive files (.sca)	NetWeaver 6.40
Software Deployment Archive files (.sda)	NetWeaver 6.40
a. When deploying Enterprise Portal files (.epa) and Portal Archive files (.par), you must first convert the files to one of the J2EE file formats—Enterprise Archive files (.ear), Software Component Archive files (.sca), or Software Deployment Archive files (.sda). For more information, see SAP Note 6906084.	

About This Document

This document is intended for the following audiences:

- People responsible for installing, upgrading, configuring, and maintaining the PPM Center system and database environments where the Extension resides, for setting up and maintaining the PPM Center schema, and for integrating PPM Center with one or more SAP instances
- System or instance administrators who maintain access and security for, or support use of the Extension
- Application developers or configurators
- Database administrators

- SAP Basis and NetWeaver administrator
- This guide provides information about installing or upgrading to the current version of Deployment Management Extension for SAP Solutions, and this guide provides conceptual, procedural, and reference information about the product.

This guide is organized as follows:

- ["Getting Started" on page 7](#) provides an introduction to the Extension, including module and file support, information about the intended audiences for this document, related information, and prerequisite knowledge.
- ["Installing or Upgrading the Extension" on page 11](#) provides overview and detailed information about installing or upgrading the Extension, including information about the impacts of upgrading the Extension.
- ["Configuring the Extension" on page 30](#) provides information about configuring the Extension after installing or upgrading it.
- ["Extension Entities" on page 38](#) provides information about the Extension's object types, request types, workflows, report types and reports, preconfigured Dashboard pages and portlets, special commands, validations, and tokens.

Related Information

The following documents for PPM Center also include information useful in managing Deployment Management Extension for SAP Solutions:

Installation and Administration Guide.

System Requirements and Compatibility Matrix

Security Model Guide and Reference

What's New and What's Changed

Demand Management Configuration Guide

Deployment Management User's Guide

If you are upgrading the Extension from a previous version, details about that release are available in the [Deployment Management Extension for SAP Solutions Guide](#).

Prerequisite Knowledge and Experience

To install, upgrade, configure, maintain, or use the Extension, you need to understand the following:

- Deployment management
- Environments
- Software deployment
- Packages
- PPM Dashboard pages and portlets
- PPM Workbench
- Object types
- Request types
- Workflows and workflow steps
- Report types
- Special commands
- Validations
- Tokens
- PPM Center entities installed by the Extension

In addition, you must have practical experience in the following:

- Installing, upgrading, configuring, and using PPM Center, if you are responsible for configuring the Extension
- Using SAP Solutions

Chapter 2: Installing or Upgrading the Extension

Overview of Installation and Upgrade

This section describes system requirements that must be met before installing or upgrading the Extension, and this section describes upgrade impacts.

System Requirements

Before you install the Extension or upgrade it to the current version, PPM Center of the current version must be installed. PPM Center and the Extension are installed on the same system and have the same system requirements.

For information about installing PPM Center, see the *Installation and Administration Guide*. For information about upgrading PPM Center, see the Upgrade Guide for the current version.

For information about version levels and other general system requirements,

see the *System Requirements and Compatibility Matrix*, available at the HPE Software Product Manuals Web site:

<https://softwaresupport.hpe.com/group/softwaresupport>

General Upgrade Impacts and Guidelines

Each new version or service pack of the Extension provides the following types of entities, which the Extension upgrade process installs or does not install in the PPM Center instance, as described:

- **Reference entities.** The names of reference entities start with (REFERENCE).

You cannot edit reference entities. However, you can copy and rename them and then edit the copies as non-reference entities, as appropriate for your environment.

The upgrade process deletes all of the Extension's existing (previously installed) reference entities, such as its object types, and then the process installs a new set of reference entities for the new version. The new set of reference entities can be identical to the previous set or, to support changes in functionality, the new set can have new, deleted, renamed, or modified reference entities.

- **Non-reference entities.** The non-reference entities and corresponding reference entities that the version or service pack provides are identical, except that the names of the reference entities start with (REFERENCE).

You can edit (or copy and edit) non-reference entities, as appropriate for your environment. The currently installed version of the Extension might include non-reference entities that have been edited (customized).

To preserve all existing customizations, the upgrade process compares the names of the non-reference entities delivered with the new version to the names of existing non-reference entities in the instance, and if the process finds an existing non-reference entity with the same name, the process does not overwrite or modify that entity in the instance. If the new version introduces reference entities with new names along with non-reference copies of those entities, then the upgrade process adds both the reference and non-reference copies.

In general, if an upgrade changes an Extension's reference entities, you must evaluate how those changes should affect the associated, previously customized non-reference entities. After the upgrade is performed, you can revise those non-reference entities or create new ones as necessary.

Preparing for Installation or Upgrade

Prepare for installation or upgrade of the Extension as described in the following sections.

Note:

During installation or upgrade, the PPM Server must run in restricted mode.

General Preparations for Installation or Upgrade

To prepare for installation or upgrade of the Extension:

1. Obtain the Extension software.
2. Collect the following information, which you will need to supply during the installation procedure:

- The logon username and password for the Extension's server (the same server on which PPM Center is or will be installed). The username (typically "admin") must belong to a security group that has the following access grants:
 - Sys Admin: Migrate PPM Objects
 - Sys Admin: Server Administrator
 - The database password for the server's schema.
3. Log on to the PPM Server.
 4. Verify that the system requirements have been met. See ["System Requirements" on page 11](#).
 5. Save the Extension installation file (ppm-940-SAP.jar) to one of the following directories:
 - `<PPM_Home>`(the recommended location).
 - `<PPM_Home>` represents the path where your PPM Center instance is installed. For example: xyzserver/E/PPMServer.
 - A subdirectory of `<PPM_Home>`. If a subdirectory of `<PPM_Home>` is specified in the `ITG_DEPLOYMENT_HOME` environment variable, the installation script finds and uses the installation file in that subdirectory. If you want to save the installation file to a subdirectory of `<PPM_Home>`, make sure the value of the `ITG_DEPLOYMENT_HOME` environment variable is `<PPM_Home>` followed by that subdirectory, for example, `<PPM_Home>/Extension`.
 - Any directory (with, optionally, any subdirectories) you choose, for example, dirA/sub1/sub2.

Performing Backup and Restarting the PPM Server in Restricted Mode

The steps in this section are recommended but not required.

Note:

For more information about the steps in this procedure, see the *Installation and Administration Guide*.

For a new installation or an upgrade, do the following:

1. Back up the database and file system for the PPM Server.
2. To stop the PPM Server and restart it in restricted mode:

- a. Stop the PPM Server.
- b. Run the following script:

```
sh ./setServerMode.sh RESTRICTED
```

- c. Start the PPM Server.

Installation Procedure

Perform the procedures in the following sections to install the Extension.

Running the Installation Script and Check the Logs

To run the installation script to install the Extension, and to check the logs:

1. Be sure you have completed all the steps in ["Preparing for Installation or Upgrade" on page 12](#).
In particular, be sure the PPM Server is running in restricted mode. See ["Performing Backup and Restarting the PPM Server in Restricted Mode" on the previous page](#).
2. On the PPM Server, navigate to the bin subdirectory of the <PPM_Home> directory (or other directory as described in ["Save the Extension installation file \(ppm-940-SAP.jar\) to one of the following directories:" on the previous page](#)).
3. Start the installation or upgrade. In step 5 on page 18, if you saved the installation file to <PPM_Home>, which is the recommended directory, or to a subdirectory of <PPM_Home>, run the following script:

```
sh ./kDeploy.sh -i SAP
```

However, if you saved the installation file to a different directory, see the example in step 5 on page 18 and specify that directory in the script command, as in the following example:

```
sh ./kDeploy.sh -i SAP -D dirA/sub1/sub2
```

4. Follow the script's on-screen prompts to complete the installation. Prompts can include the database password for the schema and the logon name and password for the server.

Files are installed in various subdirectories under <PPM_Home>. Data is also placed in the database. When the installation script is complete, the following message appears:

Deployment SAP has been successfully installed.

5. Use a Web browser to check the installation summary report, which is located at:

`<PPM_Home>/logs/deploy/920/SAP/<Log_x>/installLog.html`

where `<Log_x>` is initially a random number generated by `kDeploy.sh` during installation. The number increments by one each time the installation script is run, so the installation summary report for the most recent run is in the directory with the highest number. The installation summary report lists all the entities that are installed as part of the Extension installation process. Each entity that was installed correctly is marked as Complete. If there is an error for a particular entity, the report contains a direct link to another log file (HTML page) with additional information.

If necessary, correct any errors and repeat the installation process.

Installation of the Extension generates the logs that are described in ["Logs Generated During Installation"](#), depending on the installation options.

Logs Generated During Installation

Depending on the installation options that were chosen, the logs listed and described in ["Table 2-1. Logs generated during installation"](#) below can be generated during installation and saved in the following directory:

`<PPM_Home>/logs/deploy/920/SAP`

The log number (`<#####>`) shown in ["Table 2-1. Logs generated during installation"](#) below is a random number (generated by `kDeploy.sh`) that makes each log file name unique.

Table 2-1. Logs generated during installation

File Name	Description
<code>ddlDriver.<#####>.log</code>	Contains information about data model changes made during installation
<code>jarxvf.<#####>.log</code>	Contains information from the procedure that unpacks the <code>.jar</code> file
<code>packageDriver.<#####>.log</code>	Contains information about the installation of database code; for example, reports
<code>postXMLDriver.<#####>.log</code>	Contains information about the application of SQL scripts required after the installation of HPE-supplied data
<code>preXMLDriver.<#####>.log</code>	Contains information about the application of SQL scripts required before the installation of HPE-supplied data, such as the definition for Deployment Management Extension for SAP Solutions

Verifying the Installation

To verify correct installation:

1. Verify file installation on the PPM Server as follows:

- a. On the PPM Server, make sure the `ITGSAP_Extension.war` file is in the following directory:

`<PPM_Home>/server/<PPM_Server_Name>/deploy/`

where `<PPM_Server_Name>` represents the value specified for the `com.kintana.core.server.KINTANA_SERVER_NAME` parameter in the `server.conf` file during installation. (This value is not necessarily the actual host name of the server.)

For example:

`/PPM/server/HP/deploy/ITGSAP_Extension.war`

- b. On the PPM Server, make sure the `itgsapextensionclient.jar` file is in the following directory:

`<PPM_Home>/server/<PPM_Server_Name>/deploy/itg.war/WEB-INF/lib`

For example: `/PPM/server/HP/deploy/itg.war/WEBINF/libitgsapextensionclient.jar`

2. HPE strongly recommends that you verify that Extension for SAP Solutions is listed among the installed Extensions. Navigate to the `<PPM_Home>/bin` directory and run the following script:

```
sh ./kDeploy.sh -l
```

where the last character in the command is the lowercase letter “l.”

The name SAP should appear in the list of installed Extensions.

For example, if both Deployment Management Extension for SAP Solutions and Deployment Management Extension for Oracle E-Business Suite are now installed, the following table entries are displayed:

Deployment	Deployed	Description
SAP	<i><date and time></i>	SAP Extension
OracleApps	<i><date and time></i>	Oracle Apps Extension

Post-Installation Procedures

If you have performed an upgrade from an earlier version of the Extension, skip to ["Restarting the PPM Server in Normal Mode" on page 19](#).

If this is a new installation of the Extension, perform the post-installation procedures in the following sections.

After the Extension has been running successfully for a substantial period of time, you can optionally delete all of the installation files. However, HPE recommends that you retain (or copy) the log files.

Updating the `server.conf` File

Add the following two lines to the `server.conf` file:

```
com.kintana.core.server.SAP_TR_LOG_INTERFACE=JCO  
com.kintana.core.server.SAP_MIDDLEWARE_URL=http://<Host>:<Port>/ITGSAP_  
Extension/ITGSAPServlet
```

where

`<Host>` represents the host name or IP address where your PPM Center instance is accessed.

`<Port>` represents the port number where your PPM Center instance is accessed.

`<Host>:<Port>` corresponds to the value of the `BASE_URL` parameter in the `server.conf` file, and is typically followed by `/itg`.

Downloading and Installing the SAP Java Connector

To download and install the SAP Java™ connector (JCo):

1. Download the SAP JCo installation file (version 2.1.7 or later) that is appropriate for your platform. The file is located at:

`service.sap.com/connectors`

To access this site, you must be a registered user.

2. Install the SAP JCo. Follow the instructions appropriate for your platform. These SAP instructions include important information and must be followed. For example, set environment variables as in the following examples:

For Windows®:

```
PATH <SAP_JCo_Installation_Directory>CLASSPATH <SAP_JCo_Installation_
Directory>\sapjco.jar
```

where <SAP_JCo_Installation_Directory> represents the path where SAP JCo is installed.

For UNIX® or Linux:

```
LD_LIBRARY_PATH <SAP_JCo_Installation_Directory> CLASSPATH <SAP_JCo_
Installation_Directory>/sapjco.jar
```

where <SAP_JCo_Installation_Directory> represents the path where SAP JCo is installed.

3. Copy the `sapjco.jar` file to the following PPM Server directory:

```
<PPM_Home>/server/<PPM_Server_Name>/deploy/ITGSAP_Extension.war/WEB-INF/lib
```

Copying the SAP SDM API JAR Files

Copy the following SAP SDM API JAR files from the SAP NW04 Developer Studio to the PPM Server:

- `SDMClient.jar`
- `Net.jar`
- `SDMutil.jar`

Copy the files as follows:

1. On the SAP NetWeaver Developer Studio system, navigate to the following subdirectory

```
:JDT/eclipse/plugins/com.sap.sdm.api/lib
```

2. Copy `SDMClient.jar` and `Net.jar` to the following directory on the PPM Server:

```
<PPM_Home>/server/<PPM_Server_Name>/deploy/itg.war/WEB-INF/lib
```

3. On the SAP NetWeaver Developer Studio system, navigate to the following subdirectory:

```
JDT/eclipse/plugins/com.sap.ide.eclipse.jarsap/lib
```

4. Copy `SDMutil.jar` to the following directory on the PPM Server:

```
<PPM_Home>/server/<PPM_Server_Name>/deploy/itg.war/WEB-INF/lib
```

5. Verify that the `SDMClient.jar`, `Net.jar`, and `SDMutil.jar` SDM API JAR files were successfully installed in the following PPM Server directory:

```
<PPM_Home>/server/<PPM_Server_Name>/deploy/itg.war/WEB-INF/lib
```

Restarting the PPM Server in Normal Mode

Note:

For more information about the steps in this procedure, see the *Installation and Administration Guide*.

After you have completed all installation or upgrade procedures, if you previously restarted the PPM Server in restricted mode, to stop and restart it in normal mode:

1. Stop the PPM Server.
2. Run the following script:

```
sh ./setServerMode.sh NORMAL
```

3. Start the PPM Server.

Note:

If your SAP platform is NetWeaver 7.00 or if this is a new installation of the Extension, proceed to the following sections.

If your SAP platform is not NetWeaver 7.00 and you performed an upgrade from an earlier version of the Extension, the upgrade is complete—you do not need to perform the procedures in the following sections of this section.

Importing the RFCs to the SAP Systems

The appropriate set(s) of Remote Function Calls (RFCs) provided by HPE must be imported on every SAP system in the transport migration landscape, regardless of whether you are performing a new

installation (that is, the Extension has not been installed in the past) or any upgrade.

The RFCs are developed in the following namespaces:

- /HPSPM for RFCs that support the NetWeaver 7.00 SAP platform
- /KINTANA for RFCs that support all other SAP platforms

You can install the RFCs on your SAP systems without any risk of overwriting existing code. For more information about each RFC, see ["Purposes of the RFCs" on page 22](#).

The following directories contain .zip files of the RFCs for the indicated functions:

- For transport management:

`<PPM_Home>/deploy/920/SAP/phases/transport/TMS`

- For BC sets:

`<PPM_Home>/deploy/920/SAP/phases/transport/BC_Set`

- For patches:

`<PPM_Home>/deploy/920/SAP/phases/transport/Patches`

The file names of the .zip files indicate the SAP Basis version to which the files apply and whether they are for Unicode or non-Unicode.

The RFCs you need to import into your SAP systems are in the .zip file that has the appropriate name, in the appropriate directory for the function you need to implement.

Caution:

Import only the particular set(s) of RFCs you need, based on their function. For more information about the types of RFCs in each of the transport files, see the README.txt file in the `<PPM_Home>/deploy/920/SAP/phases/transport` directory.

Contact HPE Software Support before importing RFCs for BC sets or patches.

To install the RFCs on the SAP systems:

1. Determine the Basis version of your SAP systems and whether they are Unicode or non-Unicode. You will import only the set of RFCs from the associated .zip file into each SAP system.
2. Unzip the appropriate .zip file, based on its file name. One of the following pairs of directories is created:
 - SAP_Unicode/cfiles *and* SAP_Unicode/dataor

- SAP_NonUnicode/cofiles *and* SAP_NonUnicode/data

In either case, after the file is unzipped, the K* transport files are located in the cofiles directory, and the R* transport files are located in the data directory.

3. Copy these transport files to the appropriate directories in the sap/trans directory on the SAP system.
4. Add the RFC files to the buffer (queue) for importing into the target SAP system. At a command prompt from the /bin directory of the SAP system, do the following:

- a. Test the connection to the target system, using the following command:

```
tp connect <target_SID> pf=/usr/sap/trans/bin/TP_DOMAIN_SID.PFL
```

where <target_SID> represents the ID of the SAP system.

- b. Test the functioning of the Change and Transport System (CTS), using the following command:

```
tp checkimpdp <target_SID> pf=/usr/sap/trans/bin/ TP_DOMAIN_SID.PFL
```

There might be an error within the transport system if the system response is something other than the following:

```
RDDIMPDP is scheduled
```

Correct any error before continuing.

- c. Add the requests from the cofiles and data directories to the buffer, using the following command, in the sequence specified in the sequence.txt file:

```
tp addtobuffer <TR#> <target_SID> pf=/usr/sap/trans/bin/ TP_DOMAIN_SID.PFL
```

where <TR#> represents the transport number.

Repeat this command for all files in the cofiles and data directories.

- d. Check that the transport number has been added to the buffer, using the following command:

```
tp showbuffer <target_SID> pf=/usr/sap/trans/bin/ TP_DOMAIN_SID.PFL
```

5. Import the transports in the order specified in the sequence.txtfile, using the following command:

```
tp import <TR#> <client> <target_SID> pf=/usr/sap/trans/bin/ TP_DOMAIN_SID.PFL
```

where <client> represents the SAP client of the target SAP system.

Note: During the installation of the RFCs, the following message may appear:

```
No valid development license available for namespace
```

You can ignore this message.

6. Use the SE37 screen on the SAP system to verify that the following RFCs are installed on each SAP system:
 - The RFCs listed in ["Table 2-2. RFCs included in the Extension"](#)
 - The following SAP-supplied RFCs:
 - CTS_API_CREATE_CHANGE_REQUEST
 - CTS_API_IMPORT_CHANGE_REQUEST
 - CTS_API_READ_CHANGE_REQUEST

Purposes of the RFCs

The RFCs provided with the Extension perform the functions described in ["Table 2-2. RFCs included in the Extension"](#) below. The RFCs are categorized as used for transport management, for BC Sets, or for patching.

Caution:

Extension provides all the RFCs shown in Table 2-2 for the /KINTANA namespace. The Extension also provides a duplicate set of RFCs for the /HPSPM namespace, for use with NetWeaver 7.00. If your SAP platform is NetWeaver 7.00, use the RFCs in the /HPSPM namespace.

For upgrades from Extension version 9.30 to version 9.40, if the SAP platform is NetWeaver 7.00, replace the /KINTANA namespace with the /HPSPM namespace wherever /KINTANA is used in object types, validations, portlets, and workflows. Otherwise, continue to use the /KINTANA namespace.

Table 2-2. RFCs included in the Extension

RFC Name	Purpose
RFCs for Transport Management	
/KINTANA/RFC_CHECK_TR_OBJECTS	Determines whether a particular transport number contains objects specified in the Environment window's Critical Objects field , which can include any combination of OBJECT , OBJ_NAME , and OBJFUNC
/KINTANA/RFC_	Checks the SAP release number

Table 2-2. RFCs included in the Extension, continued

RFC Name	Purpose
CK_SAP_RELEASE01	
/KINTANA/RFC_GET_TR_TYPE	Gets the type of transport (CUST or SYST), so that, depending on the type of transport request, the user can make decisions in the workflow
/KINTANA/RFC_TP_COMMAND01	Performs migrations in the SAP environment—export, add to buffer, import, and other operations—that could also be implemented with a tp command in SAP
/KINTANA/RFC_TP_READ_LOGFILE	Checks the transport log for the export and import migration operations
/KINTANA/RFC_TR_OBJECTLIST01	Gets the object list for the transport request
/KINTANA/RFC_TR_PICKLIST01	From an SAP source system, obtains and displays a list of transports based on the following value of the TRTASKSTATUS parameter: <ul style="list-style-type: none"> • RELE includes only transports that have all of their tasks released • UNREL includes only transports that have no tasks or have at least one unreleased task • ALL includes all transports
/KINTANA/RFC_TR_PICKLIST02	Improves the performance of retrieving the transport list by using selection criteria to filter the list of transports
/KINTANA/RFC_STRF_OPEN_PROT	Opens and reads a file
RFCs for BC Sets	
/KINTANA/SCV1_BC_SET_CREATE	Creates BC Sets
/KINTANA/SCV1_BC_SET_DISPLAY	Displays BC Sets
/KINTANA/SCV1_BC_SET_INSERT	Inserts changes into BC Sets
/KINTANA/SCV1_BC_SET_SAVE	Saves BC Set data

Table 2-2. RFCs included in the Extension, continued

RFC Name	Purpose
/KINTANA/SCV1_ BCSET_DETAIL_ GET	Gets the details for BC Sets
/KINTANA/SCV1_ CREATE_ VERSION	Creates BC Sets from transport requests
/KINTANA/SCV1_ DB_COMP_ CUST_GET	Gets current customizing data for all existing BC Sets
/KINTANA/SCV1_ DISPLAY_XML	Displays the RFC output as XML in a popup
/KINTANA/SCV1_ VERSION_XML_ GET	Returns data of one or more BC Sets as an XML string
RFCs for Patching	
/KINTANA/SPD1_ CLIENT_CHECK	Checks whether the SAP Service Package Manager (SPAM) function has been executed on client 000
/KINTANA/SPD1_ DATA_SPLIT	Splits complex OCS data of the /KINTANA/ SPD1_OCS_DATA_GET module into two flat files
/KINTANA/SPD1_ OCS_DATA_GET	Gets the patch details for each component
/KINTANA/SPD1_ QUEUE_ CALCULATE	Gets all the predecessors for a dedicated patch in a sorted queue
/KINTANA/SPD1_ QUEUE_ CONFIRM	Confirms the patch queue
/KINTANA/SPD1_ QUEUE_DEFINE	Defines the patch queue
/KINTANA/SPD1_ QUEUE_ EVALUATE	Evaluates the queue status and sets process status
/KINTANA/SPD1_ QUEUE_ EXECUTE	Applies the patches in a queue
/KINTANA/SPD1_ 	Gets the status of a queue

Table 2-2. RFCs included in the Extension, continued

RFC Name	Purpose
QUEUE_STATUS_GET	
/KINTANA/SPD1_SPAM_FIX_GET	Gets the current version of SPAM/SAINT for the SAP system and updates the SPAM
/KINTANA/SPD1_SPAM_UPDATE	Updates the SPAM
/KINTANA/SPD1_VERSION_GET	Gets the current version of SPAM/SAINT for the SAP system

Importing the BAdi to the SAP DEV System

Note:

If the CTS_REQUEST_CHECK BAdi has already been implemented on the instance, do not import the BAdi provided by HPE as described in this section. Instead, go to ["Modifying an Existing BAdi"](#).

The BAdi provided by HPE must be imported on only your SAP DEV system, regardless of whether you are performing a new installation (that is, the Extension has not been installed in the past) or any upgrade.

From the PPM Server, import the BAdi on your SAP DEV system as follows:

1. Import the BAdi. The name of the BAdi is CTS_REQUEST_CHECK, its method is IF_EX_CTS_REQUEST_CHECK~CHECK_BEFORE_RELEASE, and it is located in the following directory:

```
<PPM_Home>/deploy/920/SAP/phases/imports
```

Importing the BAdi is analogous to importing RFCs on SAP systems, but you import the BAdi on only your SAP DEV system.
2. Use the SE19 screen on the SAP DEV system to verify that the BAdi was successfully installed in the following class on your SAP DEV system:
 - /HPSPM/SCV for the NetWeaver 7.00 SAP platform
 - /KINTANA/SCV for all other SAP platforms

Note:

If this is a new installation of the Extension, go to ["Configuring TMS on the SAP Systems"](#) on page 27

If you upgraded the Extension from an earlier version, the upgrade is complete—the procedures in later sections in this section should have been performed previously.

Modifying an Existing BAdi

If the CTS_REQUEST_CHECK BAdi has already been implemented on the instance, do not import the BAdi provided by HPE. The BAdi is not enabled for multiple use and can execute only a single implementation. To use the functionality HPE provides, modify the CHECK_BEFORE_RELEASE method as follows:

```
DATA:
lo_badi TYPE REF TO if_ex_cts_request_check.

* Create BAdi instance having HP implementation.
CREATE OBJECT go_badi TYPE /kintana/scv1_cl_im.

* Call HP implementation of the CHECK_BEFORE_RELEASE method
CALL METHOD go_badi->check_before_release
EXPORTING
    request =request
    type =type
    owner =owner

OBJECTS =OBJECTS
    keys =keys
    dialog =dialog

CHANGING
    text =text
    attributes =attributes

EXCEPTIONS
    cancel = 1
    others = 2.

IF sy-subrc <> 0.
* MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
* WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.
```

Note:

For NetWeaver 7.00 SAP platforms, use

```
CREATE OBJECT go_badi TYPE /hpspm/scv1_cl_im.
```

in the third line instead of

```
CREATE OBJECT go_badi TYPE /kintana/scv1_cl_im.
```

Note:

If this is a new installation of the Extension, proceed to the following sections.

If you upgraded the Extension from an earlier version, the upgrade is complete—the procedures in the following sections in this section should have been performed previously.

Configuring TMS on the SAP Systems

Register all SAP systems in the Transport Management System (TMS) domain. Extended transport control must be activated in all systems. Only one consolidated route into a virtual system can be defined for each development client.

"[Table 2-3. Example setup of SAP systems to support TMS](#)" below shows an example of how to set up a basic three-system SAP landscape with the Extension to support TMS. In this example, DEV should be assigned to be the transport domain controller.

Table 2-3. Example setup of SAP systems to support TMS

SAP System	Routes
DEV	DEV > DUM (consolidation route)
QA	None
PRD	None
DUM (A virtual system)	None

Note:

Setting up the consolidation route into a virtual system (DUM) is a prerequisite to creating transportable change (transport) requests in the DEV system.

Authorizing Users to Use RFCs and TMS

Authorize SAP users to execute RFCs and perform transport functions, such as creating transport requests, creating tasks, and exporting and importing transport requests.

You can use and customize the standard authorizations `S_A_DEVELOP` and `S_CTS_ADMIN` as needed.

Note:

For detailed information about TMS and setting authorizations, see the printed and online product documentation from SAP.

Configuring a User in the Operating System on the SAP DEV Server

You must configure an SAP user in the operating system on the SAP DEV server to enable the Extension to communicate with that server. This user must have access to the files in the `cofiles` and `data` directories on the SAP DEV server so that the Extension can rearrange the transports in chronological order.

On the SAP DEV server, configure this user with the following properties:

- The user must have read/write access to the `/usr/sap/trans` directory.
- The user must have authorization to log on remotely to the SAP DEV server using telnet or ssh.
- If the SAP DEV server runs on UNIX, the default shell for the user must be the Bourne shell or K shell.

If the SAP DEV server runs on Windows, the default shell for the user must be the bash shell.

In addition, at the PPM Server, you must specify this user in the **Username** field in the **Server** section of the Host tab in the Environment window for the SAP DEV environment.

Importing the SAP -Business Configuration Sets Portlet Definition

To import the SAP - Business Configuration Set portlet definition (or verify that it has been imported):

1. Log on to PPM Center.
2. From the menu bar, select

Open > Administration > Portlet Definitions > Import Portlet Definition.

The Import Portlet Definition wizard appears.

3. Follow the on-screen instructions of the wizard. In step 1, select a portlet type of **Java Portlet**. In

step 2, select the **SAP -Business Configuration Sets** portlet.

The Import Portlet Definition page appears, with a message that the portlet has been successfully imported.

Go to ["Configuring the Extension" on page 30](#).

Chapter 3: Configuring the Extension

Overview of Configuration

To configure the Extension, you must do the following:

- Configure environments for each SAP instance in the landscape that will be a source or destination of migration, including, for example, host connection and database connection information
- Configure users
- Configure J2EE deployments, if this is a new installation
- Review the installed object types and other entities in your Extension, and if necessary, customize their logic

Note:

If you have performed an upgrade from an earlier version of the Extension, the procedures in this section should have been performed previously.

Configuring Environments

Before you can use the Extension, in the PPM Workbench you must configure the environment for each SAP instance in the landscape, as described in the following sections.

To configure an SAP environment:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**. The PPM Workbench opens.
3. From the shortcut bar, select **Environments > Environments**.

The Environment Workbench opens.

4. Open a new environment or, if the SAP environment of interest already exists, open it.

The Environment window opens to the Host tab by default.

5. As required for the SAP environment, do the following:
- Configure the Host tab. See "Configuring the Host Tab".
 - Click the Extension Data tab and then, at the bottom of the Environment window, click the **SAP** subtab and configure it. See "Configuring the Extension Data Tab, SAP Subtab".

Configuring the Host Tab

On the Host tab of the Environment window, complete the fields in the **Server** section. Figure 3-1 shows the **Host** tab of a sample environment. "Table 3-1. Host tab fields" lists the field names and their descriptions.

Figure 3-1. Host tab sample data Field Name

Environment : SAP KT8 Client 001

Environment Name: SAP KT8 Client 001 Description:

Location: Enabled: ☒ Yes ☐ No

Host Applications Extension Data Ownership User Access User Data

Server

Name: silicon.company.com Type: Sun Solaris

Username: kt8adm Password: *****

NT Domain: Base Path: usr/sap/trans

Connection Protocol: SSH Transfer Protocol: FTP

Stream Encoding: UTF-8

Enable Server: ☒

Client

Name: Type: UNIX (Generic)

Username: Password:

NT Domain: Base Path:

Connection Protocol: Telnet Transfer Protocol: FTP

Stream Encoding: UTF-8

Enable Client: ☐

Database

Server Type: Oracle Server

Host Name: Connect String:

Username: Password:

Oracle SID: Port Number:

DB Link: Version:

JDBC_URL

Enable Database: ☐

Check... OK Save Cancel

Ready

Table 3-1. Host tab fields

Field Name	Value or Description
Server section	
Enable Server	Select this check box so that fields in the Server section can be configured.

Table 3-1. Host tab fields, continued

Field Name	Value or Description
Name	Host name of the server for the Source or Destination environment.
Type	Type of hardware and operating system for the host.
Username	Valid username that has read/write access to the host specified in the Name field.
Password	Password for the Username .
NT Domain	Domain name for Windows environments.
Base Path	Locations of the trans directory. The user must have read/write access to the directory.
Connection Protocol	Connection protocol to use when connecting to this host.
Transfer Protocol	Transfer protocol to use when moving files.
Stream Encoding	Character encoding scheme used by the server.

Configuring the Extension Data Tab, SAP Subtab

In the PPM Workbench, environments for SAP instances are specified in the Environment window's **Extension Data** tab, SAP subtab. "Figure 3-2. Extension Data tab, SAP subtab sample data" below shows the Extension Data tab, SAP subtab of a sample environment. "Table 3-2. Extension Data tab, SAP subtab fields" on the next page lists the field names and their descriptions.

Figure 3-2. Extension Data tab, SAP subtab sample data

Table 3-2. Extension Data tab, SAP subtab fields

Field Name	Value or Description
Set as default Extension	Option to show SAP as the default subtab for this window's Extension Data tab.
Enabled	Yes (so that fields on this subtab can be configured).
ABAP Application Server section	
System Name	Name of the SAP system represented by this environment.
System Number	System number for the SAP system.
Client	Queue name for the SAP system.
Queue Name	Locations of the trans directory. The user must have read/write access to the directory.
SAP Username	Username in the SAP system to be used for all migrations to or from this environment.
Password	Password corresponding to the SAP Username.

Table 3-2. Extension Data tab, SAP subtab fields, continued

Field Name	Value or Description
TR Source System	List of the environments defined in PPM Center. Select the environment that corresponds to the domain controller for the SAP systems.
SAP Release Version	SAP release number.
TP Lock Dir Name	Name of the Lock Directory. Contains the log file that includes the Package ID and the Line ID that define this lock.
Group Name	SAP Router String.
Port Number	Port number at which the SAP server can be reached when the server is behind a firewall and accessed through a gateway.
Critical Objects	Environment-specific list used to identify objects of transports that are not allowed for that environment.
Server Internal IP Address	Internal IP address of the SAP Application Server used when the server is behind a firewall and accessed through a gateway. A slash (/) is used as a delimiter. For example: 62.2.175.166/162.166.60.162
TP Parameter File	Full pathname of the TPPARAM file, used in case the file is not stored in the default location. In SAP 46C and later versions, this file is named TP_DOMAIN_<SID>.PFL.
J2EE Application Server section	
SAP J2EE Server Name	Name of the SAP J2EE server represented by this environment.
Port	Port number at which the SAP J2EE server can be reached.
Server Password	Password for the SAP J2EE server.

Configuring Users

The Extension allows an organization to map an SAP Username to a particular PPM Center. This SAP Username allows you to track interactions with SAP, and it is reflected in any generated Trans Req Logs.

"Figure 3-3. User window, Extension Data tab, SAP subtab" below shows the User window, **Extension Data** tab, **SAP** subtab. "Table 3-3. User window, Extension Data tab, SAP subtab fields" on the next page provides field descriptions.

Figure 3-3. User window, Extension Data tab, SAP subtab

The screenshot shows a window titled 'User: d Jones' with several tabs: 'User Information', 'Security Groups', 'Access Grants', 'Ownership', 'Extension Data' (selected), and 'User Data'. Below the tabs, there are two radio button groups. The first group is 'Set as default Extension' with 'Yes' selected. The second group is 'Enabled' with 'Yes' selected. Below these is a large text area labeled 'SAP Username:'. At the bottom of the window, there are two subtabs: 'Oracle Applications' and 'SAP' (selected). Below the subtabs is an 'Edit Resource' button. At the very bottom, there are 'OK', 'Save', and 'Cancel' buttons. The status bar at the bottom left says 'Ready'.

Table 3-3. User window, Extension Data tab, SAP subtab fields

Field Name	Value or Description
Set as default Extension	Option to show SAP as the default subtab for this window's Extension Data tab.
Enabled	Yes (so that fields on this subtab can be configured).
SAP Username	SAP Username. If this field is left blank, all the transports are shown. To obtain a list of transport requests for multiple users, specify usernames separated by semicolons (;). For example: John;David;Jill

To access the SAP subtab on the Extension Data tab in the User Workbench window:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**. The PPM Workbench opens.
3. From the shortcut bar, select **Sys Admin > Users**. The User Workbench opens.
4. Open a new user or, if the user of interest already exists, open it. The User window opens.
5. Click the **Extension Data** tab and then, at the bottom of the window, click the **SAP** subtab.

For information about defining PPM Center users and their access grants, see the *Installation and Administration Guide*.

Configuring J2EE Deployments

To support both transport migrations and SAP J2EE archive deployments, the Extension provides various portlets, report types, object types, workflows, parameters for environments, special commands, validations, and tokens, as described in detail in ["Extension Entities" on page 38](#).

In standard Deployment Management and SAP ABAP deployment configurations, changes are initially developed on development (DEV) systems. When complete, these changes are collected in Deployment Management packages and these packages are migrated to other systems such as QA (QAS) systems and production (PRD) systems. Each Deployment Management package specifies the source and destination servers (set in the workflow) and the identified changes (set in the object types).

On the other hand, SAP J2EE archives must be created in the SAP NetWeaver Developer Studio, which automatically creates configuration information that is required by SAP Software Deployment Management (SDM). The SAP Extension integrates with SDM. The SAP J2EE archive must reside in a staging directory on the PPM Server, and not necessarily in an SAP Server (such as DEV).

The following bullets describe in more detail how to use Deployment Management to facilitate an SAP J2EE deployment:

- For SAP J2EE archives, create the change in SAP NetWeaver Developer Studio. The SAP J2EE archive file must be in one of the following formats:
 - Enterprise Archive files (.ear)
 - Software Component Archive files (.sca)
 - Software Deployment Archive files (.sda)

- After the SAP J2EE archive is created, copy the file to a temporary or staging directory, such as `<PPM_Home>/SAP_Stage`, in the PPM Server.
- In the Environment Workbench, verify that the KINTANA_SERVER environment is enabled.
(If the `com.kintana.core.server.SERVER_ENV_NAME` parameter in the `server.conf` file has been changed to specify an environment other than KINTANA_SERVER, then enable that environment instead.)
- In the workflow, specify the PPM Server as the source environment.
- Create your Deployment Management package for each deployment (DEV, QAS, or PRD).

Note:

When deploying Enterprise Portal files (.epa) and Portal Archive files (.par), you must first convert the files to one of the following J2EE file formats (see SAP Note 6906084):

- Enterprise Archive files (.ear)
- Software Component Archive files (.sca)
- Software Deployment Archive files (.sda)

Note:

The temporary or staging directory on the PPM Server is not automatically cleaned up after a deployment. You should monitor the size of the temporary or staging directory and manually delete out-of-date files.

Chapter 4: Extension Entities

Object Types

This section provides reference information about the SAP-specific object types provided in the Extension. These object types are listed and defined in ["Table 4-1. Object types included in the Extension" on the next page.](#)

Overview of Object Types

Migration and compilation of object types are driven by commands included within the object types. For more information about commands in the PPM Center environment, see the Commands, Tokens, and Validations Guide and Reference. For information about using object types in packages, see the *Demand Management Configuration Guide*.

You can view or modify an object type as follows:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**. The PPM Workbench opens.
3. From the shortcut bar, select **Deployment Mgmt > Object Types**.
The Object Type Workbench opens.
4. (Optional) Select a particular Extension from the **Extension** drop-down list.
5. Click **List**.
6. Select the object type of interest and click **Open**.
7. Edit the object type as desired. (On the **Fields** tab, the list of fields in the **Prompt** column is alphabetized.)

Subsequent figures in this section show screens you can use to revise object types in conjunction with adding package lines. You can access these screens as follows:

1. From the PPM Workbench, select **Deployment Mgmt > Packages**. The Package Workbench opens.
2. Add a new or open an existing package, as necessary.
3. Select a workflow.
4. Add a line.
5. Select the object type of interest.

Reference Object Types

Reference object types cannot be edited, but you can copy and rename them and edit the copies to meet your needs. You can also use existing non-reference object types as is or configure them further to meet your needs.

List of Object Types

"Table 4-1. Object types included in the Extension" below lists and defines the object types included in the Extension. Each is described in subsequent sections.

Table 4-1. Object types included in the Extension

Object Type Name	Description
SAP - 1 Step Migration	Performs single-step Export and Import.
SAP - 2 Step Migration	Performs two-step Export and Import.
SAP - 2 Step Migration Select TRs with Unreleased Tasks	Shows how transports with unreleased tasks are to be listed in the pick list.
SAP - 2 Step Migration With Critical Objects Check	Checks whether the transport contains objects that are specified as critical in the Extension Environment window.
SAP - 2 Step Migration with Selection Criteria and Exclusion List	Performs two-step migration with different combinations of selection criteria for getting all transports that are not exported and not saved in another package.
SAP - 2 Step Migration With Selection Criteria for Transports	Performs two-step migration with different combinations of selection criteria for transports.
SAP - Cofile Datafile ADO	Performs SAP transport migration in two steps. Also migrates the

Table 4-1. Object types included in the Extension, continued

Object Type Name	Description
File Migrator	transport files (cofile, datafile, and ADO files) when the trans directory is not shared between instances.
SAP - Create, Get Object List, Import Change Req	Lets users describe, create, and import transport requests.
SAP - Deploy J2EE Archives	Deploys J2EE archives from one J2EE server to another J2EE server.
SAP - Mig using Picklist02 and Getting the TR Type	Performs standard migrations and allows users to specify the criteria for viewing the list of transports that are eligible for migration.
SAP - Patch Applicator	Specifies a patch you want to apply (or simulate), corresponding to a package line.
SAP - Reorder Pkg Lines on Export Time and Import All	Exports the transport, registers the export time of the transport, cleans the system buffer, resequences the package lines in the order of the export time, builds the buffer of the destination system, and imports all transports in the buffer.
SAP - Transport Migration using JCo	Used for standard migrations of SAP modules.
SAP - Transport Migration with Release Management	Performs SAP transport migration from a Dev to a Test environment and, with QA approval, adds the package to a release to import the transport into a Prod environment.
SAP - Undeploy J2EE Archives	SAP - Undeploy J2EE Archives
SAP - Undeploy J2EE Archives	Performs standard J2EE file undeployments from a J2EE server.

Unconditional Mode

Many object types use the **UMODE** (Unconditional Mode) field. The values specified in this field are used when importing transports. In this field, you can specify one or more of the values shown in "[Table 4-2. Unconditional Mode \(UMODE\) values](#)". Do not separate multiple values with any other characters. For example, **18** is a valid value.

Table 4-2. Unconditional Mode (UMODE) values

Value	Description
0	Import from buffer without deleting and then use unconditional mode 1 to allow another

Table 4-2. Unconditional Mode (UMODE) values, continued

Value	Description
	import into the correct location.
1	During export, ignore any incorrect status of the transport control file. During import, execute the request even if it has already been imported.
2	During import, overwrite original objects.
3	During import, overwrite system-specific objects.
4	Import into system other than the target system that was defined in the transport request.
6	During import, overwrite objects that are unconfirmed repairs.
8	During import, ignore transport restrictions based on table classes.
9	Import into system even if the object is locked against this type of transport.

SAP -1 Step Migration Object Type

The Extension performs migrations using CTS in SAP. The SAP -1 Step Migration object type performs this function.

Each migration consists of two steps—Export and Import. The Export step submits and exports the transport request (TR). The Import step completes the migration by importing the contents of the TR to the destination client.

"[Figure 4-1. SAP - 1 Step Migration object type](#)" shows the default screen when adding a package line that uses the SAP -1 Step Migration object type. "[Table 4-3. SAP - 1 Step Migration object type fields](#)" [on the next page](#) provides field descriptions for the object type.

Figure 4-1. SAP - 1 Step Migration object type

The screenshot shows a dialog box titled "Add Line" with a blue header bar. Inside, there's a section "Object Type Information" with a dropdown menu set to "SAP - 1 Step Migration". Below this, "Sequence" is set to "1" and "Application Code" is set to "None". There are two tabs: "Parameters" and "User Data". The "Parameters" tab is active, showing four fields: "SAP Module" (FI), "TR Number" (empty), "UMODE" (18), and "Migration Status" (NOT_EXPORTED). At the bottom, there are buttons for "Clear", "OK", "Add", and "Cancel". A status bar at the very bottom says "'SAP - 1 Step Migration' parameters loaded."

Table 4-3. SAP - 1 Step Migration object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
*TR Number	Transport request number to be migrated.
UMODE	Unconditional Mode. See Table 4-2 on page 48.
Migration Status	Status field reflecting the state of the migration.

SAP -2 Step Migration Object Type

The SAP - 2 Step Migration object type performs the Export in one workflow step and executes the Import action in a separate step. This object type needs to be customized for the workflow step name in

which the Export and the Import occur.

"Figure 4-2. SAP - 2 Step Migration object type" shows the default screen when adding a package line that uses the SAP - 2 Step Migration object type. "Table 4-4. SAP - 2 Step Migration object type fields" provides field descriptions for the object type.

Figure 4-2. SAP - 2 Step Migration object type

The screenshot shows a Windows-style dialog box titled "Add Line". It has a blue title bar with a close button. The dialog is divided into two main sections: "Object Type Information" and "Parameters".

Object Type Information:

- Object Type:** A dropdown menu showing "SAP - 2 Step Migration".
- Sequence:** A text input field containing the number "1".
- Application Code:** A dropdown menu showing "None".

Parameters: This section has a tab labeled "User Data". It contains several fields:

- SAP Module:** A dropdown menu showing "FI".
- TR Number:** A text input field.
- UMODE:** A text input field containing the number "18".
- Migration Status:** A text input field containing the text "NOT_EXPORTED".

At the bottom of the dialog, there are four buttons: "Clear", "OK", "Add", and "Cancel". Below the buttons, a status bar displays the message: "'SAP - 2 Step Migration' parameters loaded."

Table 4-4. SAP - 2 Step Migration object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.

Table 4-4. SAP - 2 Step Migration object type fields, continued

Field Name (*Required)	Description
*TR Number	Transport request number to be migrated.
UMODE	Unconditional Mode. See "Table 4-2. Unconditional Mode (UMODE) values" on page 40.
Migration Status	Status field reflecting the state of the migration.

SAP -2 Step Migration Select TRs with Unreleased Tasks Object Type

The SAP - 2 Step Migration Select TRs with Unreleased Tasks object type performs a migration. This object type also allows users to specify criteria, including the Status of Transport Tasks field, for viewing a subset of the list of transports that are eligible for migration.

"[Figure 4-3. SAP - 2 Step Migration Select TRs with Unreleased Tasks object type](#)" shows the default screen when adding a package line that uses the SAP - 2 Step Migration Select TRs with Unreleased Tasks object type. "[Table 4-5. SAP - 2 Step Migration Select TRs with Unreleased Tasks object type fields](#)" provides field descriptions for the object type.

Figure 4-3. SAP - 2 Step Migration Select TRs with Unreleased Tasks object type

Add Line

Object Type Information

Object Type: SAP - 2 Step Migration Select TRs with Unreleased Tasks

Sequence: 1 Application Code: None

Parameters User Data

SAP Module: FI

Client:

From Date:

To Date:

Client Dependence: All

From Transport:

To Transport:

Transport Function Type: All

Transport Status: Not Exported

Status of Transport Tasks:

TR Number:

Object List for Transport:

UMODE: 18

Migration Status: NOT_EXPORTED

Clear OK Add Cancel

'SAP - 2 Step Migration Select TRs with Unreleased Tasks' parameters loaded.

Table 4-5. SAP - 2 Step Migration Select TRs with Unreleased Tasks object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
Client	SAP client number.
From Date	Starting transport number.

Table 4-5. SAP - 2 Step Migration Select TRs with Unreleased Tasks object type fields, continued

Field Name (*Required)	Description
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.
To Transport	Ending transport number.
Transport Function Type	Transport type: <ul style="list-style-type: none">• Transportable Change Request (Workbench)• Customizing Request• Local Package• All
Transport Status	Transport status— Exported , Not Exported , or All .
Status of Transport Tasks	Transport tasks that have one of the following statuses: <ul style="list-style-type: none">• All transports• Transports that have all of their tasks released• Transports that have no tasks or that have at least one unreleased task For more information, see Purposes of the RFCs on page 28 .
*TR Number	Transport request number to be migrated, where the autocomplete list is limited by the selection criteria specified in other fields.

SAP -2 Step Migration With Critical Objects Check Object Type

The SAP - 2 Step Migration With Critical Objects Check object type allows users to specify criteria for viewing a subset of the list of transports that are eligible for migration.

This object type uses the value specified in the **Critical Objects** field in the Environment window, **Extension Data** tab, **SAP** subtab, to determine whether there is any risk in carrying out an import to that destination environment.

For a particular transport number, the `Critical Object Check` command in the object type checks whether any of the objects in the transport match any values in the Critical Objects field in the Environment window. If a match is found, the RFC issues a warning code of 4. An appropriate workflow step can then let the user decide whether to import the transport into the destination environment.

The **Critical Objects** field must be specified in the following format, otherwise results will be incorrect:

```
(Program ID1, Program ID2, Program ID3, ...) ; (Object1, Object2, ...) ; (Object Name1, Object Name2, ...)
```

The first set of parentheses always encloses the Program IDs that are to be queried, the second always encloses the Objects, and the third always encloses the Object Names. The sets of parentheses must be separated by semicolons (;), which can have spaces before or after. Multiple entries within parentheses must be separated by commas, which can also have spaces before or after. For example:

```
(LIMU) ; (XPRA , DTED) ; (V_TVTW , NRIV)
```

This example specifies that a warning should be issued before an attempt is made to import a transport with an object having a Program ID of LIMU, or an Object of XPRA or DTED, or an Object Name of V_TVTW or NRIV.

This object type should be used with a workflow that has steps similar to those of the SAP Critical Objects Check Workflow (see ["SAP -Critical Objects Check Workflow" on page 84](#)).

["Figure 4-4. SAP - 2 Step Migration With Critical Objects Check object type"](#) shows the default screen when adding a package line that uses the SAP - 2 Step Migration With Critical Objects Check object type. ["Table 4-6. SAP - 2 Step Migration With Critical Objects Check object type fields"](#) provides field descriptions for the object type.

Figure 4-4. SAP - 2 Step Migration With Critical Objects Check object type

Add Line

Object Type Information

Object Type: SAP - 2 Step Migration With Critical Objects Check

Sequence: 1 Application Code: None

Parameters | User Data

SAP Module: FI

Client:

From Date:

To Date:

Client Dependence: All

From Transport:

To Transport:

Transport Function Type: All

Transport Status: Not Exported

TR Number:

Object List for Transport:

UMODE: 18

Migration Status: NOT_EXPORTED

Transport Export Time:

Cofile:

Temporary Directory: tmp

Clear OK Add Cancel

'SAP - 2 Step Migration With Critical Objects Check' parameters loaded.

Table 4-6. SAP - 2 Step Migration With Critical Objects Check object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
Client	SAP client number.

Table 4-6. SAP - 2 Step Migration With Critical Objects Check object type fields, continued

Field Name (*Required)	Description
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.
To Transport	Ending transport number.
Transport Function Type	Transport type: <ul style="list-style-type: none">• Transportable Change Request (Workbench)• Customizing Request• Local Package• All
Transport Status	Transport status— Exported, Not Exported, or All.
*TR Number	Transport request number to be migrated.
Object List for Transport	Object list for the transports.
UMODE	Unconditional Mode. See "Table 4-2. Unconditional Mode (UMODE) values" on page 40.
Migration Status	Status field reflecting the state of the migration.
Transport Export Time	Time when the transport request was exported.
Cofile	Cofile from which the export time is taken.
Temporary Directory	Temporary directory to calculate such values as export time.

SAP -2 Step Migration with Selection Criteria and Exclusion List Object Type

The SAP - 2 Step Migration with Selection Criteria and Exclusion List object type performs standard migrations. This object type also allows users to specify criteria for viewing a subset of the list of transports that are eligible for migration. Only the transport requests that are not already saved in Deployment Management are displayed.

"Figure 4-5. SAP - 2 Step Migration with Selection Criteria and Exclusion List" below shows the default screen when adding a package line that uses the SAP - 2 Step Migration with Selection Criteria and Exclusion List object type. "Table 4-7. SAP - 2 Step Migration With Selection Criteria and Exclusion List object type fields" provides field descriptions for the object type.

Figure 4-5. SAP - 2 Step Migration with Selection Criteria and Exclusion List

Table 4-7. SAP - 2 Step Migration With Selection Criteria and Exclusion List object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
Client	SAP client number.
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.

Table 4-7. SAP - 2 Step Migration With Selection Criteria and Exclusion List object type fields, continued

Field Name (*Required)	Description
To Transport	Ending transport number.
Transport Function Type	Transport type: <ul style="list-style-type: none">• Transportable Change Request (Workbench)• Customizing Request• Local Package• All
Transport Status	Transport status— Exported , Not Exported , or All .
*TR Number	Transport request number to be migrated, where the autocomplete list is limited by the selection criteria specified in other fields.
Object List for Transport	Object list for the transports.
UMODE	Unconditional Mode. See " Table 4-2. Unconditional Mode (UMODE) values " on page 40.
Migration Status	Status field reflecting the state of the migration.
Transport Export Time	Time when the transport request was exported.
Cofile	Cofile from which the export time is taken.
Temporary Directory	Temporary directory to calculate such values as export time.

SAP - 2 Step Migration With Selection Criteria for Transports Object Type

The SAP - 2 Step Migration With Selection Criteria for Transports object type performs standard migrations. This object type also allows users to specify criteria for viewing a subset of the list of transports that are eligible for migration.

"[Figure 4-6. SAP - 2 Step Migration With Selection Criteria for Transports object type](#)" shows the default screen when adding a package line that uses the SAP - 2 Step Migration With Selection Criteria for Transports object type. "[Table 4-8. SAP - 2 Step Migration With Selection Criteria for Transport object type fields](#)" provides field descriptions for the object type.

Figure 4-6. SAP - 2 Step Migration With Selection Criteria for Transports object type

Add Line

Object Type Information

Object Type: P - 2 Step Migration With Selection Criteria for Transports

Sequence: 1 Application Code: None

Parameters User Data

SAP Module: FI

Client:

From Date:

To Date:

Client Dependence: All

From Transport:

To Transport:

Transport Function Type: All

Transport Status: Not Exported

TR Number:

Object List for Transport:

UMODE: 18

Migration Status: NOT_EXPORTED

Clear OK Add Cancel

'SAP - 2 Step Migration With Selection Criteria for Transports' parameters loa...

Table 4-8. SAP - 2 Step Migration With Selection Criteria for Transport object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
Client	SAP client number.
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.
To Transport	Ending transport number.
Transport Function Type	Transport type: <ul style="list-style-type: none"> • Transportable Change Request (Workbench) • Customizing Request

Table 4-8. SAP - 2 Step Migration With Selection Criteria for Transport object type fields, continued

Field Name (*Required)	Description
	<ul style="list-style-type: none">• Local Package• All
Transport Status	Transport status— Exported , Not Exported , or All .
*TR Number	Transport request number to be migrated.
Object List for Transport	Object list for the transports.
UMODE	Unconditional Mode. See "Table 4-2. Unconditional Mode (UMODE) values" on page 40 .
Migration Status	Status field reflecting the state of the migration.

SAP - Cofile Datafile ADO File Migrator Object Type

The SAP - Cofile Datafile ADO File Migrator object type migrates transport requests from one SAP system to another when the trans directory is not shared. For example, when development and test instances share the trans directory but the production instance resides on a different system and does not share the trans directory, this object type migrates the changes to the production instance. This object type migrates cofiles (whose names begin with K), datafiles (whose names begin with R), and ADO datafiles (whose names begin with D) to the destination instance.

Note:

This object type must be used with a workflow that has steps similar to those of the following workflow:

SAP Dev=>Test=> Prod does not share the trans directory

See ["SAP - Dev=>Test=> Prod does not share the trans directory Workflow" on page 85](#).

"[Figure 4-7. SAP - Cofile Datafile ADO File Migrator object type](#)" shows the default screen when adding a package line that uses the SAP - Cofile Datafile ADO File Migrator object type. "[Table 4-9. SAP - Cofile Datafile ADO File Migrator object type fields](#)" provides field descriptions for the object type.

Figure 4-7. SAP - Cofile Datafile ADO File Migrator object type

The screenshot shows a Windows-style dialog box titled "Add Line". It has a tabbed interface with "Parameters" and "UserData" tabs. The "Parameters" tab is active. Under "Object Type Information", the "Object Type" is "SAP - Cofile Datafile ADO File Migrator", "Sequence" is "1", and "Application Code" is "None". In the "Parameters" section, "SAP Module" is "FI", "TR Number" is empty, "UMODE" is "18", and "Migration Status" is "NOT_EXPORTED". At the bottom are "Clear", "OK", "Add", and "Cancel" buttons. A status bar at the very bottom says "'SAP - Cofile Datafile ADO File Migrator' parameters loaded."

Table 4-9. SAP - Cofile Datafile ADO File Migrator object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
*TR Number	Transport request number to be migrated, where the autocomplete list is limited by the selection criteria specified in other fields.
UMODE	Unconditional Mode. See Table 4-2 on page 48 .
Migration Status	Status field reflecting the state of the migration.

SAP - Create, Get Object List, Import Change Req Object Type

Changes in SAP are recorded in Transport Change Requests. For enhancements or bug fixes to SAP systems, transport requests need to be created. The object type called SAP - Create, Get Object List, Import Change Req creates a transport request in the SAP system, reads the object list of the released transport, and imports the transport into the destination system.

"Figure 4-8. SAP - Create, Get Object List, Import Change Req object type" shows the default screen when adding a package line that uses the SAP - Create, Get Object List, Import Change Req object type. "Table 4-10. SAP - Create, Get Object List, Import Change Req object type fields" provides field descriptions for the object type.

Figure 4-8. SAP - Create, Get Object List, Import Change Req object type

The screenshot shows a dialog box titled "Add Line" with a blue border. Inside, there's a section for "Object Type Information" with a text field for "Object Type" containing "SAP - Create, Get Object List, Import Change Req", a "Sequence" field with "1", and an "Application Code" dropdown set to "None". Below this are two tabs: "Parameters" (selected) and "User Data". The "Parameters" tab contains several fields: "Description" (text), "Category" (dropdown), "Source Client" (dropdown with "001"), "Owner" (dropdown with "MERCURY"), "Destination System" (dropdown with "KT8"), "Destination Client" (dropdown), "SAP Module" (dropdown), and "Request" (text). At the bottom are "Clear", "OK", "Add", and "Cancel" buttons. A status bar at the very bottom says "SAP - Create, Get Object List, Import Change Req' parameters loaded."

Table 4-10. SAP - Create, Get Object List, Import Change Req object type fields

Field Name (*Required)	Description
*Description	Description of the transport request. Words must be separated by an underscore.
*Category	Type of request— Customizing request or Workbench request .
*Source Client	Source SAP client where the transport request will be created.
*Owner	Owner of the transport request.
*Destination System	Destination SAP client where the transport request will be imported.

Table 4-10. SAP - Create, Get Object List, Import Change Req object type fields, continued

Field Name (*Required)	Description
*Destination Client	Destination SAP client where the transport request will be imported.
SAP Module	SAP module being used.
Request	Automatically generated transport request number.

SAP - Deploy J2EE Archives Object Type

The SAP - Deploy J2EE Archives object type deploys J2EE archives from one J2EE server to another J2EE server. "Table 4-11. Supported SAP file types and platform" lists the supported file types and their associated SAP platform.

Table 4-11. Supported SAP file types and platform

Supported SAP File Types	SAP Platform
Enterprise Archive files (.ear)	NetWeaver 6.40
Software Component Archive files (.sca)	NetWeaver 6.40
Software Deployment Archive files (.sda)	NetWeaver 6.40

The SAP - Deploy J2EE Archives object type is designed to be used with the SAP - Transport and J2EE Deployments workflow, which determines the source and destination J2EE servers, typically from DEV to QAS. This object type calls the special command `ksc_sap_j2ee_deploy_command` to perform the actual migration.

Note:

The SAP - Deploy J2EE Archives object type requires that the `KINTANA_SERVER` environment be configured.

"Figure 4-9. SAP - Deploy J2EE Archives object type" shows the default screen when adding a package line that uses the SAP - Deploy J2EE Archives object type. "Table 4-12. SAP - Deploy J2EE Archive object type fields" provides field descriptions for the object type.

Figure 4-9. SAP - Deploy J2EE Archives object type

The screenshot shows a dialog box titled "Add Line" with a blue header bar. It contains two tabs: "Parameters" and "User Data". The "Parameters" tab is active, showing the following fields:

- Object Type Information:**
 - Object Type:** SAP - Deploy J2EE Archives (with a list icon)
 - Sequence:** 1
 - Application Code:** None (with a dropdown arrow)
- Parameters:**
 - SAP Stage Area:** (empty text field with a folder icon)
 - File Name:** (empty text field with a document icon)
 - Object Version:** (empty text field with a list icon)
 - Version Handling:** A - UPDATE ALL VERSIONS (with a dropdown arrow)
 - Error Handling:** E - ON ERROR STOP (with a dropdown arrow)

At the bottom of the dialog are four buttons: "Clear", "OK", "Add", and "Cancel". A status bar at the very bottom reads: "SAP - Deploy J2EE Archives' parameters loaded."

Table 4-12. SAP - Deploy J2EE Archive object type fields

Field Name (*Required)	Description
*SAP Stage Area	Temporary or staging directory on the PPM Server where the SAP J2EE archive is copied, typically <PPM_Home>/SAP_Stage.
*File Name	Name of the J2EE archive file in the SAP Stage Area.
*Object Version	SAP J2EE archive version.
Version Handling	Version handling to use in the destination. The possible values are: <ul style="list-style-type: none"> • A - UPDATE ALL VERSIONS (the default) • L - UPDATE LOWER VERSIONS ONLY • S - UPDATE SAME AND LOWER VERSIONS ONLY
Error Handling	Action to be taken when an error is encountered. The possible actions are: <ul style="list-style-type: none"> • E - ON ERROR STOP (the default) • I - ON ERROR IGNORE • S - ON ERROR SKIP DEPENDING

SAP -Mig using Picklist02 and Getting the TR Type Object Type

The SAP - Mig using Picklist02 and Getting the TR Type object type performs a standard migration. This object type also allows users to specify criteria for viewing a subset of the list of transports that are eligible for migration.

Unlike the SAP - 2 Step Migration With Selection Criteria for Transports object type, the SAP - Mig using Picklist02 and Getting the TR Type object type calls the /KINTANA/RFC_TR_PICKLIST02 RFC (or, for the NetWeaver 7.00 SAP platform, the /HPSPM/RFC_TR_PICKLIST02 RFC).

In addition, this object type determines and displays the type of the transport (Client Dependent or Client Independent) in the **TR Type** field.

"Figure 4-10. SAP - Mig using Picklist02 and Getting the TR Type object type" shows the default screen when adding a package line that uses the SAP - Mig using Picklist02 and Getting the TR Type object type. "Table 4-13. SAP - Mig using Picklist02 and Getting the TR Type object type fields" provides field descriptions for the object type.

Figure 4-10. SAP - Mig using Picklist02 and Getting the TR Type object type

The screenshot shows the 'Add Line' dialog box with the following fields and values:

- Object Type Information:**
 - Object Type: SAP - Mig using Picklist02 and Getting the TR Type
 - Sequence: 1
 - Application Code: None
- Parameters:**
 - SAP Module: FI
 - Client: (empty)
 - From Date: (empty)
 - To Date: (empty)
 - Client Dependence: All
 - From Transport: (empty)
 - To Transport: (empty)
 - Transport Function Type: All
 - Transport Status: Not Exported
 - TR Number: (empty)
 - Object List for Transport: (empty)
 - UMODE: 18
 - Migration Status: NOT_EXPORTED

Buttons at the bottom: Clear, OK, Add, Cancel.

Footer text: 'SAP - Mig using Picklist02 and Getting the TR Type' parameters loaded.

Table 4-13. SAP - Mig using Picklist02 and Getting the TR Type object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
Client	SAP client number.
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.
To Transport	Ending transport number.
Transport Function Type	Transport type: <ul style="list-style-type: none">• Transportable Change Request (Workbench)• Customizing Request• Local Package• All
Transport Status	Transport status— Exported, Not Exported, or All.
*TR Number	Transport request number to be migrated, where the autocomplete list is limited by the selection criteria specified in other fields.
Object List for Transport	Object list for the transports.
UMODE	Unconditional Mode. See "Table 4-2. Unconditional Mode (UMODE) values" on page 40.
Migration Status	Status field reflecting the state of the migration.

SAP -Patch Applicator Object Type

The SAP - Patch Applicator object type specifies a patch you want to apply (or simulate), corresponding to a package line. The package lines in the package you build represent a series of patches to be applied.

"[Figure 4-11. SAP - Patch Applicator object type](#)" shows the default screen when adding a package line that uses the SAP - Patch Applicator object type. "[Table 4-14. SAP - Patch Applicator object type fields](#)" provides field descriptions for the object type.

Figure 4-11. SAP - Patch Applicator object type

The screenshot shows a dialog box titled "Add Line" with a close button in the top right corner. Inside the dialog, there is a section titled "Object Type Information" containing the following fields:

- Object Type:** A dropdown menu showing "SAP - Patch Applicator".
- Sequence:** A text field containing the value "3".
- Application Code:** A dropdown menu showing "None".

Below the "Object Type Information" section, there are two tabs: "Parameters" (selected) and "User Data". The "Parameters" tab contains the following fields:

- SPAM Version:** A text field.
- Component:** A text field.
- Patch ID:** A text field.
- Simulate before applying?:** A checkbox group with "Yes" selected and "No" unselected.

At the bottom of the dialog, there are four buttons: "Clear", "OK", "Add", and "Cancel". The "Add" button is highlighted. Below the buttons, a status bar displays the message: "SAP - Patch Applicator parameters loaded."

Table 4-14. SAP - Patch Applicator object type fields

Field Name (*Required)	Description
SPAM Version	Version of SAP Support Package Manager (SPAM) installed on the SAP system. An autocomplete field retrieved from the SAP system by the Extension.
*Component	Components installed on the SAP system. An autocomplete field retrieved from the SAP system by the Extension.
Patch ID	Patches available for the selected Component. An autocomplete field retrieved from the SAP system by the Extension.
Simulate before applying	Option to simulate application of the selected patch, to identify potential issues before the patch is actually applied.

This object type is associated with the SAP - Patch Deployment Workflow. For more information, see ["SAP -Patch Deployment Workflow and Its Subworkflows" on page 87](#).

SAP -Reorder Pkg Lines on Export Time and Import All Object Type

The SAP - Reorder Pkg Lines on Export Time and Import All object type can perform Export, Add to Buffer, Import, Clean Buffer, and Import All functions, depending on the workflow step source.

This object type also allows users to specify criteria for viewing a subset of the list of transports that are eligible for migration.

The object type gets the latest transport export time from the transport cofile and stores that time in the Transport Export Time parameter. The SQL script `kd1vac_sap_reorder_pkglines.sql` located in the `<PPM_Home>/scripts` directory is used to reorder the package lines into the correct sequence, according to their Transport Export Times.

The object type command Get Export Time requires temporary file creation rights on the `tmp` directory.

After reordering is complete, use **Window > Refresh** to view the package lines in ascending order of the transport's last export time.

This object type should be used with a workflow that has steps similar to those of the SAP - Reorder Package Lines and Import All Workflow (see ["SAP -Reorder Package Lines and Import All Workflow" on page 97](#)).

["Figure 4-12. SAP - Reorder Pkg Lines on Export Time and Import All object type"](#) shows the default screen when adding a package line that uses the SAP - Reorder Pkg Lines on Export Time and Import All object type. ["Table 4-15. SAP - Reorder Pkg Lines on Export Time and Import All object type fields"](#) provides field descriptions for the object type.

Figure 4-12. SAP - Reorder Pkg Lines on Export Time and Import All object type

Add Line

Object Type Information

Object Type: SAP - Reorder Pkg Lines on Export Time and Import All

Sequence: 1 Application Code: None

Parameters | User Data

SAP Module: FI

Client:

From Date:

To Date:

Client Dependence: All

From Transport:

To Transport:

Transport Function Type: All

Transport Status: Not Exported

TR Number:

Object List for Transport:

UMODE: 18

Migration Status: NOT_EXPORTED

Transport Export Time:

Cofile:

Clear OK Add Cancel

'SAP - Reorder Pkg Lines on Export Time and Import All' parameters loaded.

Table 4-15. SAP - Reorder Pkg Lines on Export Time and Import All object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
Client	SAP client number.
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.
To Transport	Ending transport number.
Transport Function Type	Transport type: <ul style="list-style-type: none"> • Transportable Change Request (Workbench) • Customizing Request • Local Package

Table 4-15. SAP - Reorder Pkg Lines on Export Time and Import All object type fields, continued

Field Name (*Required)	Description
	<ul style="list-style-type: none"> All
Transport Status	Transport status— Exported , Not Exported , or All .
*TR Number	Transport request number to be migrated, where the autocomplete list is limited by the selection criteria specified in other fields.
Object List for Transport	Object list for the transports.
UMODE	Unconditional Mode. See "Table 4-2. Unconditional Mode (UMODE) values" on page 40 .
Migration Status	Status field reflecting the state of the migration.
Transport Export Time	Time when the transport request was exported.
Cofile	Cofile from which the export time is taken.
Temporary Directory (Hidden by default)	Temporary directory to calculate such values as export time.

SAP -Transport Migration using JCoObject Type

The SAP - Transport Migration using JCo object type is used for standard migrations.

"[Figure 4-13. SAP - TR Migration using JCo object type](#)" shows the default screen when adding a package line that uses the SAP - Transport Migration using JCo object type. "[Table 4-16. SAP - TR Migration using JCo object type fields](#)" provides field descriptions for the object type. In particular, see the descriptions for the **SAP Module**, **Client Dependence**, and **Transport Function Type** fields you specify.

Figure 4-13. SAP - TR Migration using JCo object type

Add Line

Object Type Information

Object Type: SAP - Transport Migration using JCo

Sequence: 1 Application Code: None

Parameters User Data

SAP Module: FI

Client:

From Date:

To Date:

Client Dependence: All

From Transport:

To Transport:

Transport Function Type: All

Transport Status: Not Exported

TR Number:

Object List for Transport:

UMODE: 18

Migration Status: NOT_EXPORTED

Transport Export Time:

Cofile:

Temporary Directory: tmp

Clear OK Add Cancel

'SAP - Transport Migration using JCo' parameters loaded.

Table 4-16. SAP - TR Migration using JCo object type fields

Field Name (*Required)	Description
SAP Module	SAP module being migrated.
Client	SAP client number.
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.
To Transport	Ending transport number.
Transport Function Type	Transport type:

Table 4-16. SAP - TR Migration using JCo object type fields, continued

Field Name (*Required)	Description
	<ul style="list-style-type: none">• Transportable Change Request (Workbench)• Customizing Request• Local Package• All
Transport Status	Transport status— Exported , Not Exported , or All .
*TR Number	Transport request number to be migrated, where the autocomplete list is limited by the selection criteria specified in other fields.
Object List for Transport	Object list for the transports.
UMODE	Unconditional Mode. See "Table 4-2. Unconditional Mode (UMODE) values" on page 40 . You can specify multiple values, but do not separate them with any characters. For example, 18 is a valid value.
Migration Status	Status field reflecting the state of the migration.
Transport Export Time	Time when the transport request was exported.
Cofile	Cofile from which the export time is taken.
Temporary Directory	Temporary directory to calculate such values as export time.

SAP -Transport Migration with Release Management Object Type

The SAP - Transport Migration with Release Management object type can perform Export, Add to Buffer, Import, Clean Buffer, and Import All functions, depending on the workflow step source.

This object type is associated with the following two workflows:

- **SAP - Transport Migration with Release Management workflow.** Using this workflow, the SAP - Transport Migration with Release Management object type performs transport migration from a Dev environment to a Test environment and, with QA approval, then adds a package to a release for import into a Prod environment. See ["SAP -Transport Migration with Release Management Workflow" on page 102](#).
- **SAP - Distribute to Prod workflow.** In Deployment Management, packages are created for SAP transport requests (TRs), with one package line representing one TR. In an SAP landscape,

developers and consultants can work on different SAP modules, creating TRs that get released at various times. Regardless of how the potentially interdependent TRs are grouped into packages, the TRs must be imported into a destination system in the same order they were released, as indicated by the SAP Export time.

The SAP - Transport Migration with Release Management object type and the SAP - Distribute to Prod workflow allow you to import multiple packages in the chronological order that their individual package lines (TRs) were exported, accumulating a release for more efficient migration to a Prod environment. See ["SAP -Distribute to Prod Workflow" on page 85](#).

The object type command Get Export Time requires temporary file creation rights on the tmp directory.

["Figure 4-14. SAP - Transport Migration with Release Management object type"](#) shows the default screen when adding a package line that uses the SAP - Transport Migration with Release Management object type. ["Table 4-17. SAP - Transport Migration with Release Management object type fields"](#) provides field descriptions for the object type.

Figure 4-14. SAP - Transport Migration with Release Management object type

The screenshot shows a Windows-style dialog box titled "Add Line" with a blue header bar. The dialog is divided into two main sections: "Object Type Information" and "Parameters".

Object Type Information:

- Object Type:** A dropdown menu showing "SAP - Transport Migration with Release Management".
- Sequence:** A text input field containing the number "1".
- Application Code:** A dropdown menu showing "None".

Parameters: This section contains various input fields and dropdown menus for configuring the transport migration.

- Client:** A text input field.
- From Date:** A date picker field.
- To Date:** A date picker field.
- Client Dependence:** A dropdown menu showing "All".
- From Transport:** A text input field.
- To Transport:** A text input field.
- Transport Function Type:** A dropdown menu showing "All".
- Transport Status:** A dropdown menu showing "Not Exported".
- TR Number:** A text input field.
- Object List for Transport:** A text input field.
- UMODE:** A text input field containing "18".
- Migration Status:** A text input field containing "NOT_EXPORTED".
- Transport Export Time:** A text input field.
- Cofile:** A text input field.
- Temporary Directory:** A text input field containing "tmp".

At the bottom of the dialog, there are four buttons: "Clear", "OK", "Add", and "Cancel". Below the buttons, a status bar displays the text: "SAP - Transport Migration with Release Management parameters loaded."

Table 4-17. SAP - Transport Migration with Release Management object type fields

Field Name (*Required)	Description
Client	SAP client number.
From Date	Starting transport number.
To Date	Transport requests modified on or before this date.
Client Dependence	Client Specific, Client Independent, or All.
From Transport	Starting transport number.
To Transport	Ending transport number.
Transport Function Type	Transport type: <ul style="list-style-type: none"> • Transportable Change Request (Workbench) • Customizing Request • Local Package • All
Transport Status	Transport status— Exported, Not Exported, or All.
*TR Number	Transport request number to be migrated, where the autocomplete list is limited by the selection criteria specified in other fields.
Object List for Transport	Object list for the transports.
UMODE	Unconditional Mode. See Table 4-2 on page 48 .
Migration Status	Status field reflecting the state of the migration.
Transport Export Time	Time when the transport request was exported.
Cofile	Cofile from which the export time is taken.
Temporary Directory	Temporary directory to calculate such values as export time.

SAP -Undeploy J2EE Archives Object Type

The SAP - Undeploy J2EE Archives object type performs standard J2EE file undeployments from a J2EE server. "[Table 4-18. Supported SAP file types and platform](#)" lists the supported file types and their associated SAP platform.

Table 4-18. Supported SAP file types and platform

Supported SAP File Types	SAP Platform
Enterprise Archive files (.ear)	NetWeaver 6.40
Software Component Archive files (.sca)	NetWeaver 6.40
Software Deployment Archive files (.sda)	NetWeaver 6.40

The SAP - Undeploy J2EE Archives object type is designed to be used with the SAP - Undeploy J2EE Archives workflow, which determines the J2EE server that is the target of the undeployment, typically QAS or PRD. This object type calls the special command `ksc_sap_j2ee_undeploy_command` to perform the actual undeployment.

When adding a package line to an Deployment Management package, you must select the SAP - Undeploy J2EE Archives object type for that package line. At the same time, you must select the file to be undeployed from QAS or PRD.

"Figure 4-15. SAP - Undeploy J2EE Archives object type" shows the default screen when adding a package line that uses the SAP - Undeploy J2EE Archives object type. "Table 4-19. SAP - J2EE Undeploy Archive object type fields" provides field descriptions for the object type.

Figure 4-15. SAP - Undeploy J2EE Archives object type

The screenshot shows a dialog box titled "Add Line" with a close button in the top right corner. The dialog is divided into several sections. The "Object Type Information" section at the top contains a dropdown menu for "Object Type" set to "SAP - Undeploy J2EE Archives", a text field for "Sequence" with the value "3", and a dropdown menu for "Application Code" set to "None". Below this is a tabbed interface with "Parameters" and "UserData" tabs. The "Parameters" tab is active, showing two text input fields labeled "Target" and "Vendor". At the bottom of the dialog are four buttons: "Clear", "OK", "Add", and "Cancel". A status bar at the very bottom of the window displays the message "SAP - Undeploy J2EE Archives" parameters loaded."

Table 4-19. SAP - J2EE Undeploy Archive object type fields

Field Name (*Required)	Description
*Target	Target system defined for the undeployment
*Vendor	Vendor of the J2EE undeployment archive

Request Types

This section provides reference information about the SAP-specific request types provided in the Extension. These request types are listed and defined in ["Table 4-20. Request types included in the Extension" on the next page.](#)

Overview of Request Types

Migration and compilation of request types can be driven by commands included within the request types. For more information about commands in the PPM Center environment, see the *Commands, Tokens, and Validations Guide and Reference*. For more information about using request types in packages, see the *Deployment Management User's Guide*.

As an example, ["Figure 4-16. SAP - Bug/Enhancement Request creation" on the next page](#) shows a screen you can use to create requests from an existing SAP - Bug/Enhancement request type. You can access such a screen as follows:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**. The PPM Workbench opens.
3. From the shortcut bar, select **Demand Mgmt > Request Types**. The Request Type Workbench opens.
4. (Optional) Select a particular Extension from the **Extension** drop-down list.
5. Click **List**.
6. Select the request type of interest, click **Open**, and make sure the request type is enabled.
7. In the standard interface, select **Demand Management > Create a Request**. The Create New Request page appears.
8. Select the request type of interest from the drop-down list and click **Create**.

Reference Request Types

Reference request types cannot be edited, but you can copy and rename them and edit the copies to meet your needs. You can also use existing non-reference request types as is or configure them further to meet your needs.

List of Request Types

"Table 4-20. Request types included in the Extension" lists and defines the request types included in the Extension. Each is described in subsequent sections.

Table 4-20. Request types included in the Extension

Request Type Name	Description
SAP - Bug/Enhancement Request Type	Gathers information required to log and track changes to an SAP instance
SAP - Status Update Request Type	Automates the process of gathering and reviewing status reports

SAP -Bug/Enhancement Request Type

The SAP - Bug/Enhancement Request Type captures specific information needed to log and track changes to SAP instances. Once the appropriate resolution has been identified, a Deployment Management package can be generated and the SAP object types can be used to apply the required changes.

Use the SAP - Bug/Enhancement Workflow as the default workflow for this request type.

"Figure 4-16. SAP - Bug/Enhancement Request creation" shows the screen for creating an SAP - Bug/Enhancement Request based on the provided request type. "Table 4-21. SAP - Bug/Enhancement Request Type fields" provides field descriptions for the request type.

Figure 4-16. SAP - Bug/Enhancement Request creation

Create New SAP - Bug/Enhancement Request Type

Jump To

- Summary
- Bug
- Notes
- References

Expand All | Collapse All

+ Summary

- Bug

* SAP Release

* SAP Module

SAP Component

* Request Description

Reproducible

☐ Yes ☐ No

Steps To Replicate

Impact

Category

Error Log

(No Document Atta...

Resolution Summary

Estimated Time To Complete

Difficulty

Resolution

+ Notes

+ References

Table 4-21. SAP - Bug/Enhancement Request Type fields

Field Name (*Required)	Description
Summary section*	
Workflow	SAP - Bug/Enhancement Workflow
Bug section	
*SAP Release	SAP release number
*SAP Module	SAP module being migrated.
SAP Component	SAP component
*Request Description	Problem being encountered with the application
Reproducible	Option to indicate whether the error is reproducible
Steps to Replicate	Text describing how to recreate the problem
Impact	Impact— Severe , Warning , Minor , or Cosmetic
Category	Request category—ABAP, Customizing, or ALL
Error Log	Attached error log
Estimated Time To Complete	Estimated time needed to address the bug or enhancement
Difficulty	Difficulty to fix— Easy , Medium , or Hard
Resolution	Resolution:

Table 4-21. SAP - Bug/Enhancement Request Type fields, continued

Field Name (*Required)	Description
	<ul style="list-style-type: none">• Fixed• Not Fixed• Not Reproducible• Duplicate• Process Fix
Resolution Summary	Description of the changes made for the bug or enhancement
a. The Summary section is not expanded in "Figure 4-16. SAP - Bug/Enhancement Request creation" .	

SAP -Status Update Request Type

Many organizations use manual status reports to gather information on project status, exceptions, and risks. However, the process can be inefficient due to the time and resources spent on updating and consolidating information and the need for managers to follow up with group members regarding task completion. Reviewers might not know when status reports are ready for review, who to contact, or how to access the most current versions of the reports.

The SAP - Status Update Request Type automates the process of gathering and reviewing status information. This request type allows managers to request information, automatically notifies group members of requirements for information, and monitors task progress to support timely completion. When tasks for completing a report are done, all reviewers are automatically notified. All involved parties have access to the latest version of the report.

This request type allows users to specify basic requestor information and determine which project teams need to provide status updates. The requestor can indicate the required date for the information and which individual is directly responsible for the update from each team (this responsibility can also have specified defaults). Once the request is submitted, the request goes through an Update Request process that routes the request to the appropriate teams and individuals. The status updates are attached to the request so that all individuals with appropriate access can use the request as the repository for the project status information for the given time period.

This request type works with the SAP - Status Update Req workflow.

To use the SAP - Status Update Request Type:

1. Decide which subteams will supply you with status reports.
2. Create new Status/Lead fields for the new teams not already defined.
3. Delete the Status/Lead fields that are not relevant for your project.
4. Decide the defaults for each status field (**Requested** or **Not Requested**).
5. If you have already identified the various Team Leads for the project, make their names the default values in the Team Lead fields.

"Figure 4-17. SAP - Status Update Request creation" shows the screen for creating an SAP - Status Update Request based on the provided request type. "Table 4-22. SAP - Status Update Request Type fields " provides field descriptions for the request type.

Figure 4-17. SAP - Status Update Request creation

Create New SAP - Status Update Request Type

Jump To

- Summary
- Status Request
- Notes
- References

Expand All | Collapse All

+ Summary

- Status Request

* Request Date:

* Project System Status:

Requested

* Finance Status:

Requested

* Mfg Status:

Requested

* HRMS Status:

Requested

* CRM Status:

Requested

* BW Status:

Requested

* APO Status:

Requested

* Basis Status:

Requested

* Testing Status:

Requested

Project System Team Lead:

Finance Team Lead:

Mfg Team Lead:

HRMS Team Lead:

CRM Team Lead:

BW Team Lead:

APO Team Lead:

Basis Team Lead:

Testing Team Lead:

+ Notes

+ References

Table 4-22. SAP - Status Update Request Type fields

Field Name (*Required)	Description
Summary section*	
Workflow	SAP - Status Update Req

Table 4-22. SAP - Status Update Request Type fields , continued

Field Name (*Required)	Description
Status Request tab	
*Request Date	Due date for the status reports requested by the request. This is a required field but it does not drive any specific notification or workflow logic.
*Project System Status	If the requestor wants a status report from the project system team, set this field to Requested . This activates the Project branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*Finance Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the Finance branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*Mfg Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the Mfg branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*Mfg Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the Mfg branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*HRMS Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the HRMS branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*CRM Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the CRM branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*BW Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the BW branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .

Table 4-22. SAP - Status Update Request Type fields , continued

Field Name (*Required)	Description
*APO Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the APO branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*Basis Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the Basis branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
*Testing Status	If the requestor wants a status report from the finance team, set this field to Requested . This activates the Testing branch in the workflow, prompting for and eventually collecting the project system team status report. If a status report is not required, set this field to Not Requested .
Project System Team Lead	Individual from the project system team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If Project System Status is set to Requested , this field must be specified.
Finance Team Lead	Individual from the finance team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If Finance Status is set to Requested , this field must be specified.
Project System Team Lead	Individual from the project system team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If Project System Status is set to Requested , this field must be specified.
Mfg Team Lead	Individual from the manufacturing team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If Mfg Status is set to Requested , this field must be specified.
HRMS Team Lead	Individual from the HRMS team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and

Table 4-22. SAP - Status Update Request Type fields , continued

Field Name (*Required)	Description
	acknowledging this activity in the workflow. If HRMS Status is set to Requested , this field must be specified.
CRM Team Lead	Individual from the CRM team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If CRM Status is set to Requested , this field must be specified.
BW Team Lead	Individual from the BW team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If BW Status is set to Requested , this field must be specified.
APO Team Lead	Individual from the APO team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If APO Status is set to Requested , this field must be specified.
Basis Team Lead	Individual from the Basis team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If Basis Status is set to Requested , this field must be specified.
Testing Team Lead	Individual from the Testing team whose status report is being requested. This person is notified of this request and is responsible for attaching the report to this request and acknowledging this activity in the workflow. If Testing Status is set to Requested , this field must be specified.
a. The Summary section is not expanded in " Figure 4-17. SAP - Status Update Request creation ".	

Workflows

This section provides reference information about the SAP-specific workflows provided in the Extension. These workflows are listed and defined in "[Table 4-23. Workflows included in the Extension](#)" on page 78.

Overview of Workflows

Some workflows are associated with object types and Deployment Management, and include package execution. Other workflows are associated with request types and Demand Management, and describe decision-making processes. For more information about Deployment Management and Demand Management, see the *Deployment Management Configuration Guide* and the *Demand Management Configuration Guide*.

Migration and compilation of entities using workflows are driven by commands included within the entities or workflow steps. For more information about commands in the PPM Center environment, see the *Commands, Tokens, and Validations Guide and Reference*.

To access a particular workflow:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**. The PPM Workbench opens.
3. From the shortcut bar, select **Configuration > Workflows**. The Workflow Workbench opens.
4. Click **List**.
5. Select the workflow of interest and click **Open**.

Reference Workflows

Reference workflows cannot be edited, but you can copy and rename them and edit the copies to meet your needs. You can also use existing non-reference workflows as is or configure them further to meet your needs.

List of Workflows

"[Table 4-23. Workflows included in the Extension](#)" lists and defines the workflows included in the Extension. Each is described in subsequent sections.

Table 4-23. Workflows included in the Extension

Workflow Name	Product Scope	Description
SAP - Bug/Enhancement Workflow	Demand Management	Logs and tracks requests for bugs and enhancements.
SAP - Change Request Workflow - Demand Management	Demand Management	Logs and tracks requests for enhancements or bugs.
SAP - Change Request Workflow - Deployment Management	Demand Management	Creates transport requests and imports them.
SAP - Critical Objects Check Workflow	Demand Management	Checks for any transports that are considered critical to the environment.
SAP - Dev=>Test=> Prod does not share the trans directory	Demand Management	Performs migrations of SAP transport files between unshared trans directories.
SAP - Distribute to Prod (calls SAP - Transport Packages to Prod Subworkflow)	Deployment Management	Works with the SAP - Transport Packages to Prod Subworkflow to migrate the package lines of multiple packages in chronological order by export time.
SAP - Patch Application Subworkflow	Deployment Management	Called by the SAP - Patch Deployment Workflow to apply a patch.
SAP - Patch Deployment Workflow (calls three subworkflows— SAP - Patch Application Subworkflow, SAP - Patch Simulation Subworkflow, and SAP - SPAM Update Subworkflow)	Deployment Management	From the PPM Server, imports patches into SAP systems and tracks and audits approvals in the patching process.
SAP - Patch Simulation Subworkflow	Deployment Management	Called by the SAP - Patch Deployment Workflow to simulate installation of a patch.
SAP - Reorder Package Lines and Import All Workflow	Deployment Management	Resorts package lines, cleans and builds the buffer, and imports all.
SAP - SPAM Update Subworkflow	Deployment Management	Called by the SAP - Patch Deployment Workflow to update the SAP Support Package Manager (SPAM) patch.
SAP - Status Update Req	Deployment Management	Provides a process to automatically notify group members, follow up with them until information is received, contact the appropriate reviewers, and distribute the latest version of the reports.

Table 4-23. Workflows included in the Extension , continued

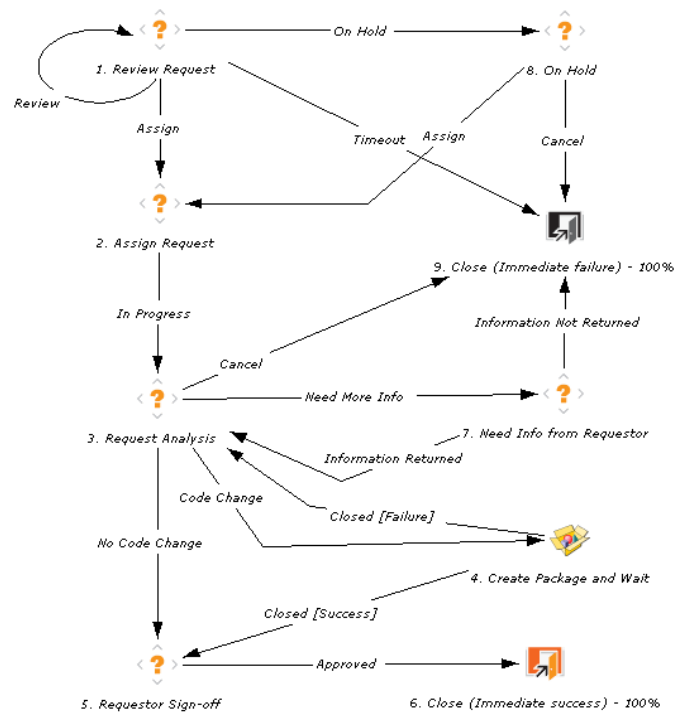
Workflow Name	Product Scope	Description
SAP - Transport and J2EE Deployments	Deployment Management	Works with the SAP - Transport Migration using JCo object type to migrate transports, and works with the SAP - Deploy J2EE Archives object type to migrate J2EE archives.
SAP - Transport Migration with Release Management	Deployment Management	Performs migrations from the Dev environment to the Test environment and adds a release for import into the Prod environment upon QA approval.
SAP - Transport Packages to Prod Subworkflow	Deployment Management	Called by the SAP - Distribute to Prod workflow to migrate the package lines of multiple packages in chronological order by export time.
SAP - Undeploy J2EE Archives	Deployment Management	Works with the SAP - Undeploy J2EE Archives object type to undeploy J2EE files from a J2EE server.
SAP - Using Picklist02, getting the TR type	Deployment Management	Logs and tracks changes to your SAP instances. This workflow uses the /KINTANA/RFC_TR_PICKLIST02 RFC (or, for the NetWeaver 7.00 SAP platform, the /HPSPM/RFC_TR_PICKLIST02 RFC) to get the list of transports. The workflow determines the type of the transport (Client Dependent or Independent).

SAP -Bug/Enhancement Workflow

The SAP - Bug/Enhancement Workflow is used with the SAP -Bug/Enhancement request type so that requests related to the SAP applications are resolved in a timely manner.

Submitted bugs and enhancements go through the process shown in "[Figure 4-18. SAP - Bug/Enhancement Workflow](#)" and described in the procedure that follows.

Figure 4-18. SAP - Bug/Enhancement Workflow



The workflow steps are described as follows:

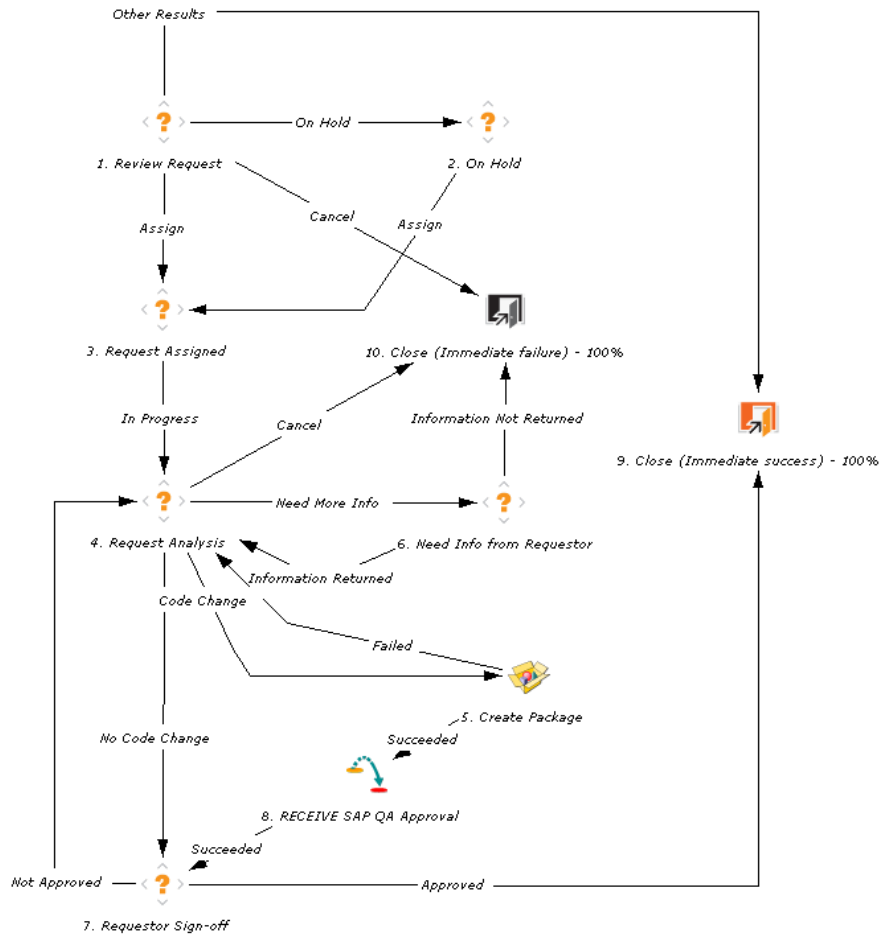
1. **Review Request.** A request is generated using Demand Management. Once submitted, the request becomes eligible for review. The request may then be assigned, placed on hold, or time out.
2. **Assign Request.** Once assigned, the request is placed In Progress and moves to the Request Analysis step.
3. **Request Analysis.** Analysis can lead to one of the following:
 - Cancellation and the Close (Immediate failure) step
 - The Need Info from Requestor step
 - A code change that leads to the Create Package and Wait step
 - No code change and the Requestor Sign-off step
4. **Create Package and Wait.** In this step, a package is generated and the appropriate object type and workflow are selected.
5. **Requestor Sign-off.** After completion of any required code change, the requestor approves the request.
6. **Close (Immediate success).** This step represents successful completion of the workflow.

7. **Need Info from Requestor.** The request remains in this state until the requestor provides more information and sets the status back to In Progress.
8. **On Hold.** The request remains on hold until it is assigned or cancelled.
9. **Close (Immediate failure).** If the request is cancelled, times out, or requires information from the requestor that is not provided, the workflow branches to this step.

SAP-Change Request Workflow -Demand Management Workflow

The SAP - Change Request Workflow - Demand Management workflow is used with the SAP - Bug/Enhancement request type so that requests related to SAP applications are resolved in a timely manner. Submitted bugs and enhancements go through the workflow shown in "[Figure 4-19. SAP - Change Request Workflow - Demand Management workflow](#)" and described in the procedure that follows.

Figure 4-19. SAP - Change Request Workflow - Demand Management workflow



The workflow steps are described as follows:

1. **Review Request.** A request is generated using Demand Management. Once submitted, the request becomes eligible for review. The request may then be assigned, placed on hold, or time out.
2. **On Hold.** The request remains on hold until it is assigned
3. **Assign Request.** Once assigned, the request is placed In Progress and moves to the Request Analysis step.
4. **Request Analysis.** Analysis can lead to one of the following:
 - Cancellation and the Close (Immediate failure) step
 - The Need Info from Requestor step
 - A code change that leads to the Create Package and Wait step
 - No code change and the Requestor Sign-off step
5. **Create Package.** In this step, a package is generated and the appropriate object type and

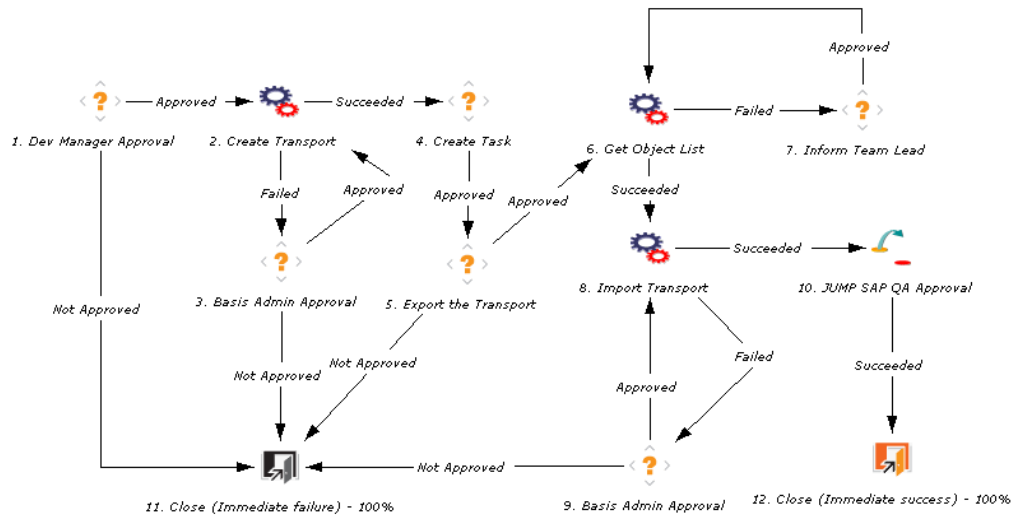
workflow are selected. Depending on the system environment, the following can be used to apply the changes:

- The SAP - Create, Get Object List, Import Change Req object type
 - The SAP - Change Request Workflow - Deployment Management workflow
6. **Need Info from Requestor.** The request remains in this state until the requestor provides more information and sets the status back to In Progress.
 7. **Requestor Sign-off.** After completion of any required code change, the requestor approves the request.
 8. **RECEIVE SAP QA Approval.** Approval is received from the JUMP SAP QA Approval step in the SAP - Change Request Workflow - Deployment Management workflow.
 9. **Close (Immediate success).** This step represents successful completion of the workflow.
 10. **Close (Immediate failure).** If the request is cancelled, times out, or requires information from the requestor that is not provided, the workflow branches to this step.

SAP-Change Request Workflow -Deployment Management Workflow

The SAP - Change Request Workflow - Deployment Management workflow can be used with the SAP - Change Request Workflow - Demand Management workflow. The SAP - Change Request Workflow - Deployment Management workflow is used to create a transport (change) request in SAP systems. Once the transport request is created, the developer has to create a task for this request in SAP and assign the changes to this transport request. When the transport request is released (exported) using Transport Organizer (Transaction /SE10) in SAP, the transport request can be imported into the destination system. This workflow can be used with an object type such as the SAP - Create, Get Object List, Import Change Req object type. The workflow is shown in "Figure 4-20. SAP - Change Request Workflow - Deployment Management workflow".

Figure 4-20. SAP - Change Request Workflow - Deployment Management workflow

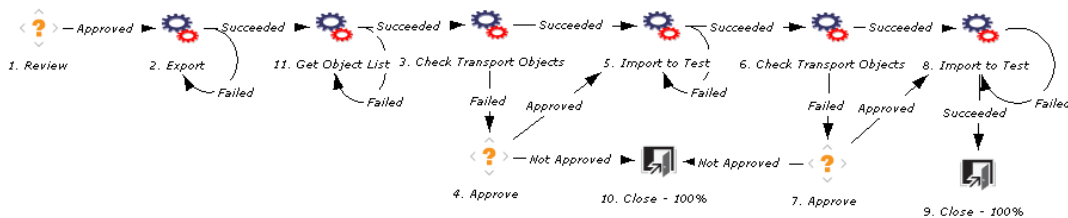


SAP -Critical Objects Check Workflow

The SAP - Critical Objects Check Workflow is used to determine whether to import a transport into an environment.

This workflow can be used with an object type such as SAP - 2 Step Migration With Critical Objects Check. The workflow is shown in ["Figure 4-21. SAP - Critical Objects Check Workflow"](#).

Figure 4-21. SAP - Critical Objects Check Workflow

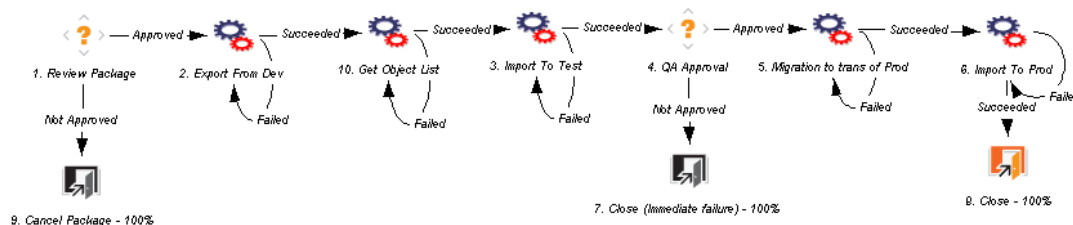


The Check Transport Objects steps are used by the object type to determine whether any values specified in the **Critical Objects** field in the Environment window, **Extension Data** tab, **SAP** subtab exist in the object list of the transport. If so, the user must approve or disapprove migrating the objects.

SAP - Dev=>Test=> Prod does not share the trans directory Workflow

The SAP - Dev=>Test=> Prod does not share the trans directory workflow is used for migrating transport files from the trans directory of one SAP system to that of another when the transport directories are not shared between the two systems. This workflow can be used with an object type such as SAP - Cofile Datafile ADO File Migrator. The workflow is shown in "Figure 4-22. SAP - Dev=>Test=> Prod does not share the trans directory workflow"

Figure 4-22. SAP - Dev=> Test=> Prod does not share the trans directory workflow



SAP -Distribute to Prod Workflow

The SAP - Distribute to Prod workflow migrates changes to the Prod environment. This workflow is used with the SAP - Transport Migration with Release Management object type. The workflow is shown in "Figure 4-23. SAP - Distribute to Prod workflow". It is the only workflow that calls the SAP - Transport Packages to Prod Subworkflow, which is shown in "Figure 4-24. SAP - Transport Packages to Prod Subworkflow".

Figure 4-23. SAP - Distribute to Prod workflow

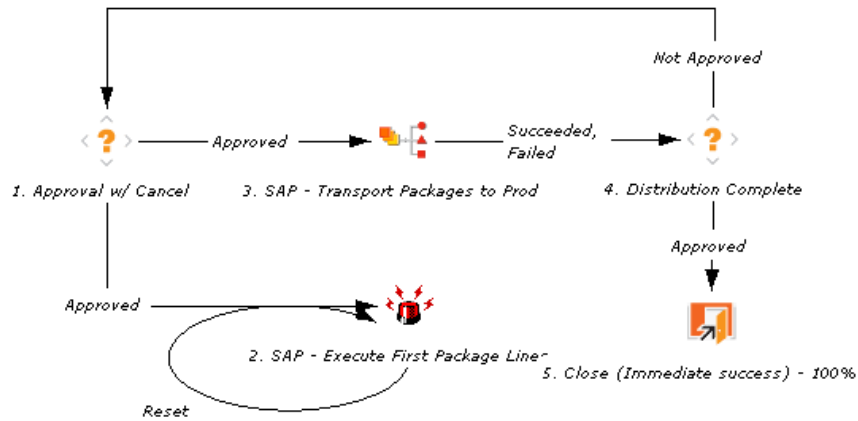
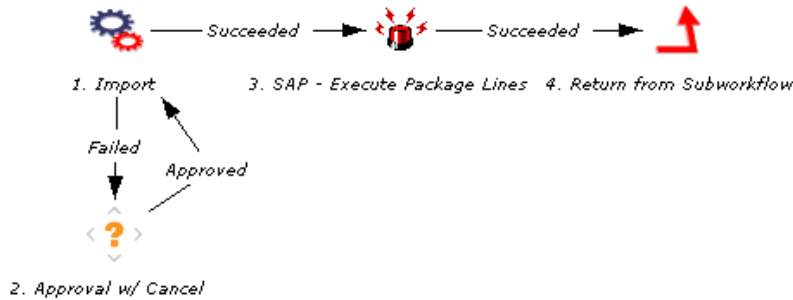


Figure 4-24. SAP - Transport Packages to Prod Subworkflow



After approval is given in the workflow's Approval w/ Cancel step, the SAP -Execute First Package Lines step and the SAP - Transport Packages to Prod Subworkflow are initiated simultaneously.

From the export times of all of the package lines in all of the packages, the SAP - Execute First Package Lines step identifies the first package line to be executed. Then the subworkflow performs the migration of that package line. Thereafter, the subworkflow repeatedly identifies the next package line in the sequence to be migrated, and migrates it, until all the package lines have been migrated in the chronological order of their export times.

The workflow's SAP - Execute First Package Lines step and the subworkflow's SAP - Execute Package Lines step use the special command

```
ksc_run_java com.kintana.core.server.execution.ExecuteDistPackageLineCommand
```

The input parameters for the command are described in **Table 4-24**

Table 4-24. Parameters for special command

Parameter Name (*Required)	Description
*STEP_LABEL	Workflow step's label for the subworkflow step that is to be executed
*PARAMETER_TOKEN	Object type's PARAMETER token that is to be used to sort

Parameter Name (*Required)	Description
	the package lines (in ascending order).
DEBUG	'true' to enable additional debugging. (Default is 'false'.)
DELAY_SECONDS	Delay before processing the command. If the command is initiated from the Distribution to Prod workflow, a default delay of 15 seconds is used to make sure the package lines have been initiated.
*ksc_end_of_parameters	End of the command input parameters.

SAP -Patch Application Subworkflow

The SAP - Patch Application Subworkflow is called by only the SAP - Patch Deployment Workflow. For information about this subworkflow, see ["SAP -Patch Deployment Workflow and Its Subworkflows"](#).

SAP -Patch Deployment Workflow and Its Subworkflows

Maintaining an SAP component involves deploying and tracking patches. SAP systems include capabilities to install patches to SAP components such as FI (Finance) and HR (Human Resources) while adhering to any required patching prerequisites and sequences.

Patches are applied independently to each SAP system, typically to a DEV (development) system first, then to a QAS (QA system) system, then to a PRD (production) system.

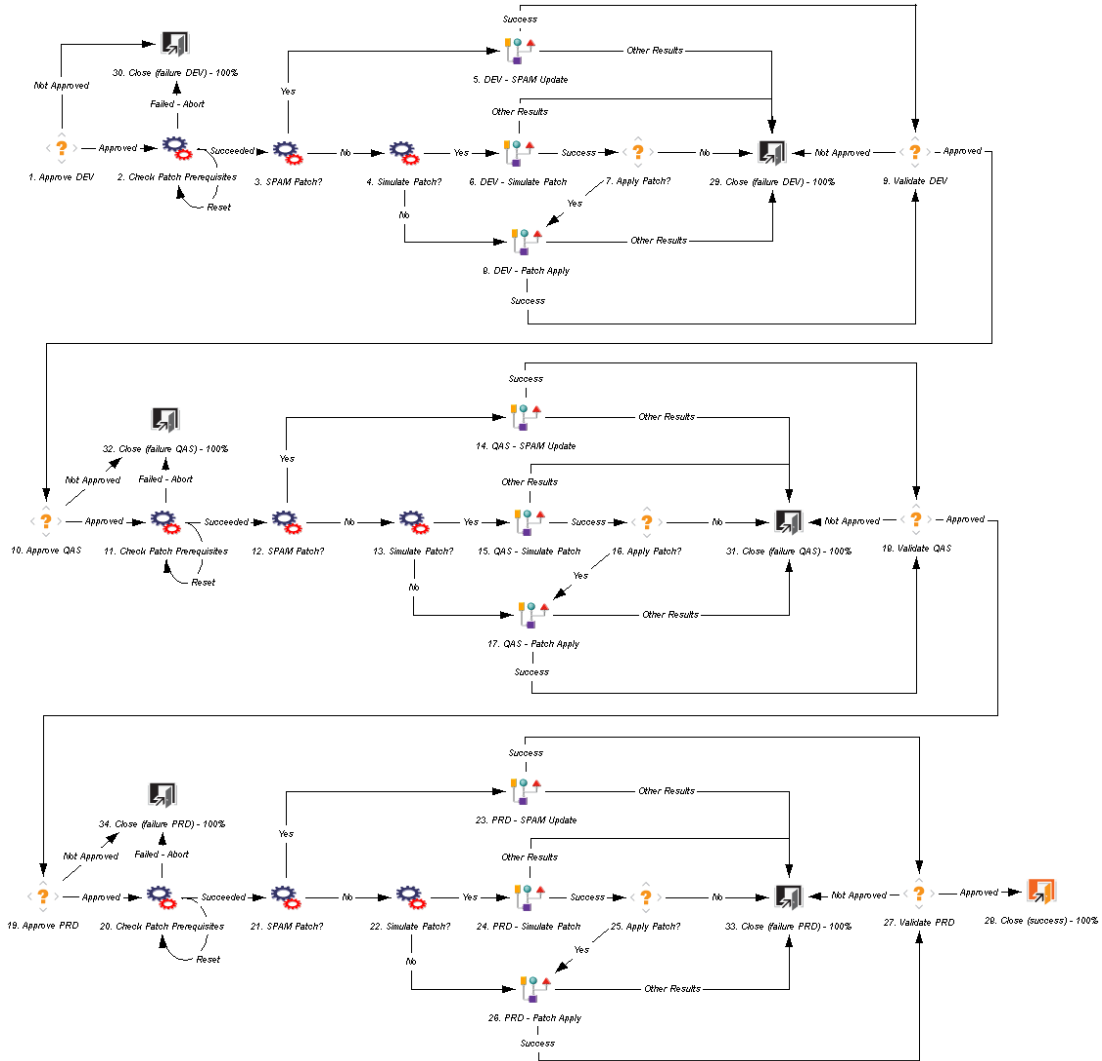
The SAP Support Package Manager (SPAM) software component manages the installation of patches on an SAP system. The SPAM component might need to be patched before any components are patched.

The Extension's SAP - Patch Deployment Workflow and its three subworkflows enable you to perform SAP patching functions from the PPM Server. Using these workflows, the Extension imports patches into SAP systems and tracks and audits the various approvals in the patching process.

HPE recommends that you run the SAP - Component Information report to determine which components and patch levels are installed on an SAP system that you plan to patch. See **SAP - Component Information Report on page 121**.

"Figure 4-25. SAP - Patch Deployment Workflow" shows the SAP - Patch Deployment Workflow. Its steps are described later in this section.

Figure 4-25. SAP - Patch Deployment Workflow



The steps for patching the components of interest in an SAP system are as follows:

1. Enable and configure the SAP - Patch Deployment Workflow (or your customization of it):
 - a. Specify the same **Dest Environment** for each step that requires one (for example, steps 2–6 and 8 in the DEV environment).

The workflow replicates steps 1–9 and 29–30 to enable you to patch a succession of environments—DEV, QAS, and PRD—if you want.

 - b. Specify the security and notifications for each step as desired.

- c. In the Environment Workbench, verify that the KINTANA_SERVER environment is enabled.

(If the `com.kintana.core.server.SERVER_ENV_NAME` parameter in the `server.conf` file has been changed to specify an environment other than KINTANA_SERVER, then enable that environment instead.)

2. Enable the SAP - Patch Applicator object type.
3. To create a package that uses the SAP - Patch Deployment Workflow and the SAP - Patch Applicator object type, and add one package line per patch:

- a. In the **PPM Workbench**, create a new package.
- b. In the **Workflow** field, select **SAP - Patch Deployment Workflow**.
- c. Click **New Line** to generate a new package line. The Add Line window opens.
- d. Click the autocomplete button for the **Object Type** field. The SAP - Patch Applicator object type is automatically selected.
- e. Click the autocomplete button for the **SPAM Version** field.

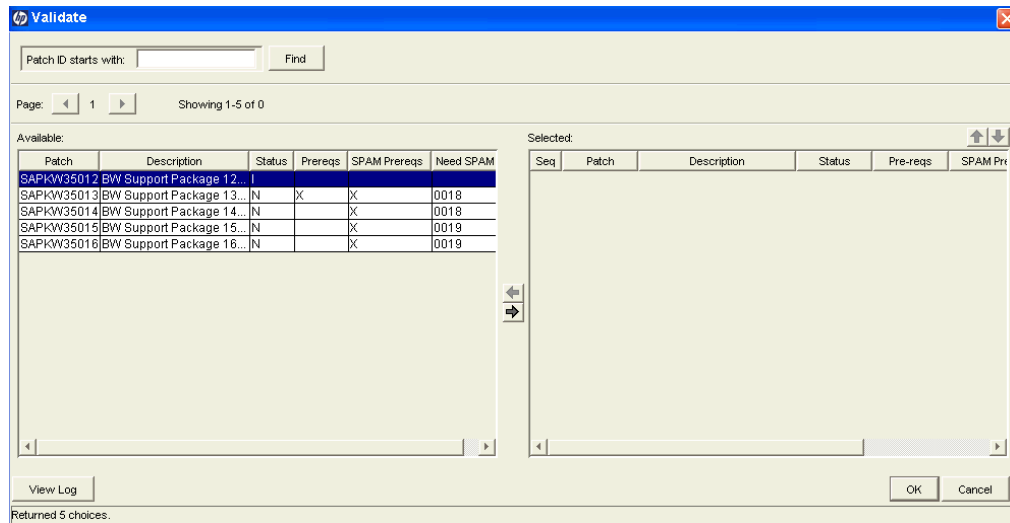
The Extension communicates with the SAP system specified in the workflow and completes the field with the current version of SPAM installed on that system.

- f. Click the autocomplete button for the Component field.

The Extension communicates with the SAP system and opens the Validate window with a list of the components installed on the system.

- g. Select the component for which you want to apply or simulate patches.
- h. Click the autocomplete button for the **Patch ID** field.

The Extension communicates with the SAP system and, based on the component you chose in step g, lists the patches that are available for that component in the Validate window.



In this example, the installed SPAM version was found to be 0019 in step e. (The example window was stretched and column widths in the **Available** section were adjusted to show the columns; you can scroll to the right in the **Available** section to view the columns.) The table shows one patch per row.

A status of **I** in the **Status** column indicates that the patch has already been imported to the system. In this case, prerequisite information is not indicated because it is not applicable. In the example, see the first patch (SAPKW35012).

A status of **N** in the **Status** column indicates that the patch has not been imported. Certain prerequisite status is also indicated as follows:

- For an uninstalled patch, if an **X** appears in the **Prereqs** column or the **SPAM Prereqs** column, *there are no unmet prerequisites* of that type (non-SPAM or SPAM) for that patch.
- For an uninstalled patch, if the **Prereqs** column or the **SPAM Prereqs** column is blank, *there are unmet prerequisites* of that type for that patch. They will be identified in a later step.

In the example shown, because SPAM version 0019 is installed and all the uninstalled patches require either version 0018 or 0019, the SPAM prerequisite is met in all cases, so the **SPAM Prereqs** column for each uninstalled patch shows an **X**.

In the example, only the first uninstalled patch (SAPKW35013) has its non-SPAM prerequisites met, as indicated by the **X** in the **Prereqs** column.

- From the available patches, select one or more that have not been imported (click the right arrow to move patches to the **Selected** section) and click **OK**.

The patch or patches are added to the **Patch ID** field in the Add Line window.

- j. For the **Simulate before applying** option in the Add Line window, specify whether or not you want to simulate applying the patches before actually applying them, to identify potential issues such as the possibility that the patch could overwrite customizations of SAP objects. HPE recommends selecting this option.
 - k. Click **OK** to close the Add Line window and add the lines to the package.
 - l. If this is the first package line, click **Submit** to submit the package. For subsequent lines, click **Save** to save the package.
 - m. To begin processing a patch (package line) through the workflow, as described later in the workflow details, approve the patch (workflow step 1) and then check patch prerequisites (workflow step 2). Workflow step 2 communicates with the SAP system, which automatically identifies all the prerequisites (met and unmet) for the patch in the Line Exec Log.

If no unmet prerequisites were found, the package line succeeds at workflow step 2 and can proceed through the workflow.

If any unmet prerequisites were found, the **Check Patch Prerequisites** column on the **Status** tab in the package window for that patch says **Failed**, and the package line does not proceed beyond workflow step 2. View the associated Line Exec Log to see a list of the specific unmet prerequisites.

If there are any unmet prerequisites, you must add them to the package and rearrange the package line sequence (using the up and down arrows) accordingly. This process can become iterative if SAP identifies further prerequisites to the initial prerequisites. The package line will not proceed beyond workflow step 2 until all of its prerequisites are met.
 - n. Repeat step c on page 99 through step m for each package line (patch) you want to add to the package.
4. Use the SAP - Patch Deployment Workflow and its three subworkflows to manage the installation or simulation of one patch at a time in the sequence specified in the package. Refer to the following:

"Figure 4-25. SAP - Patch Deployment Workflow" on page 88 for the SAP - Patch Deployment Workflow

"Figure 4-26. SAP - SPAM Update Subworkflow" on the next page for the SAP - SPAM Update Subworkflow

"Figure 4-27. SAP - Patch Simulation Subworkflow" on the next page for the SAP - Patch Simulation Subworkflow

"Figure 4-28. SAP - Patch Application Subworkflow" on the next page for the SAP - Patch Application Subworkflow

The descriptions of the workflow and subworkflow steps after "Figure 4-28. SAP - Patch Application Subworkflow" below

Figure 4-26. SAP - SPAM Update Subworkflow

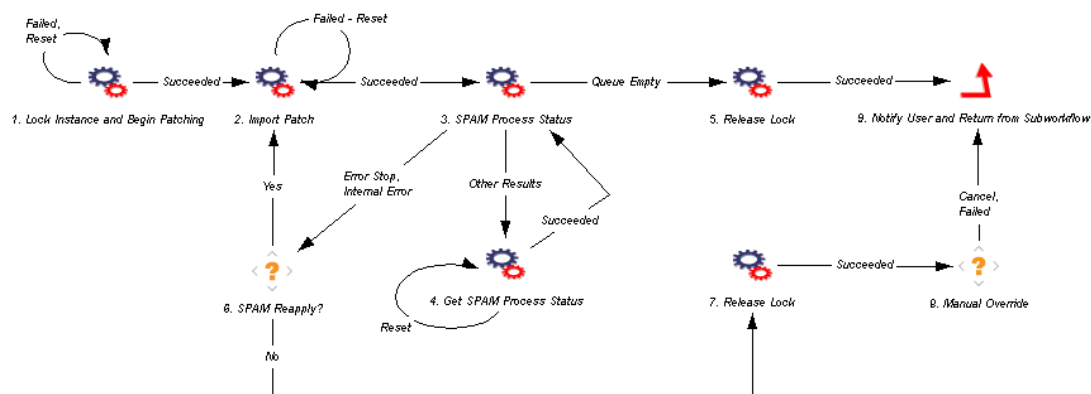


Figure 4-27. SAP - Patch Simulation Subworkflow

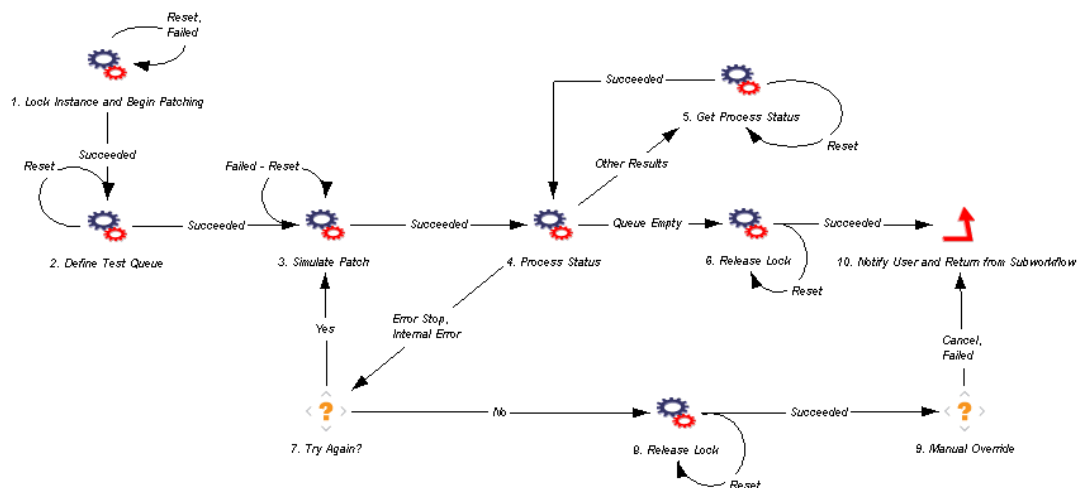
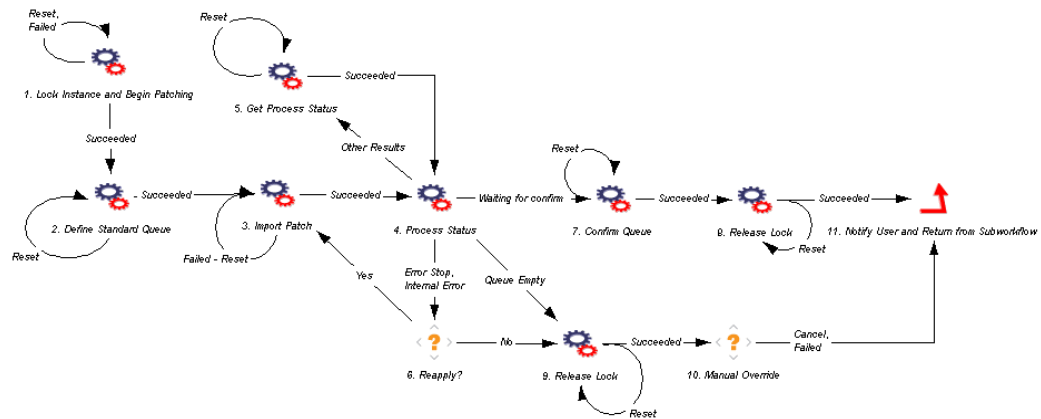


Figure 4-28. SAP - Patch Application Subworkflow



The patches are processed one by one through the SAP - Patch Deployment Workflow and subworkflow steps as follows (start with the SAP - Patch Deployment Workflow in **Figure 4-25 on page 98**):

1. **Approve DEV.** At this step, you manually approve proceeding with applying a patch to the DEV environment.
2. **Check Patch Prerequisites.** At this step, the Extension communicates with SAP to identify any prerequisites that must be met to install a particular patch, represented by a package line, on the specified DEV environment. The package line does not proceed through the workflow until all prerequisites for a patch are met.
3. **SPAM Patch?** At this step, the workflow branches to step 5 if this is a SPAM patch or step 4 if it is not.
4. **Simulate Patch?** At this step, the workflow branches to step 6 if the **Simulate before applying** field in the object type for this patch is set to **Yes**, or to step 8 if the field is set to **No**.
5. **DEV - SPAM Update.** At this step, the SPAM patch is updated by invoking the SAP - SPAM Update Subworkflow. If the subworkflow is successful, proceed to step 9.

The SAP - SPAM Update Subworkflow steps are as follows (see Figure 4-26 on page 103):

5.1. Lock Instance and Begin Patching. At this step, you manually lock the SAP system and initiate applying the SPAM patch. No other package line can lock that system until the lock is released.

5.2. Import Patch. At this step, the SPAM patch is imported to the system.

5.3. SPAM Process Status. At this step, the status of the import process is determined. If the patch has been successfully installed (the queue is empty), proceed to subworkflow step 5. If

there was an error in applying the patch, proceed to subworkflow step 6. For other errors, proceed to subworkflow step 4.

5.4. Get SPAM Process Status. At this step, the status is monitored until it is successful, then the subworkflow returns to step 3.

5.5. Release Lock. At this step, the lock for the SAP system is released and the subworkflow is set up for successful return to the workflow.

5.6. SPAM Reapply? At this step, you indicate whether the subworkflow should attempt to import the patch again (subworkflow step 2) or proceed to release the lock (subworkflow step 7) with a manual override.

5.7. Release Lock. At this step, the lock for the SAP system is released so that, even though importing the SPAM patch failed, other patches in the package can be applied or simulated.

5.8. Manual Override. At this step, you set up the subworkflow for return to the workflow with a failure status to indicate that the SPAM patch was not applied.

5.9. Notify User and Return from Subworkflow. At this step, the specified user is notified that the SPAM patch was or was not successfully installed, and the subworkflow returns to the workflow.

6. **DEV - Simulate Patch.** At this step, installation of the patch is simulated for the DEV system by calling the SAP - Patch Simulation Subworkflow. If the subworkflow is successful, proceed to step 7.

The SAP - Patch Simulation Subworkflow steps are as follows (see Figure 4-27 on page 103):

6.1. Lock Instance and Begin Patching. At this step, you manually lock the SAP system and initiate simulating the patch. No other package line can lock that system until the lock is released.

6.2. Define Test Queue. At this step, the patch to be simulated is set up in test mode.

6.3. Simulate Patch. At this step, the patch is simulated.

6.4. Process Status. At this step, the status of the simulation is determined. If the patch has been successfully simulated (the queue is empty), proceed to subworkflow step 6. If there was an error in simulating the patch, proceed to subworkflow step 7. For other errors, proceed to subworkflow step 5.

6.5. Get Process Status. At this step, the status is monitored until it is successful, then the subworkflow returns to step 4.

6.6. Release Lock. At this step, the lock for the SAP system is released and the subworkflow is set up for successful return to the workflow.

- 6.7. Try Again?** At this step, you indicate whether the subworkflow should attempt to simulate the patch again (subworkflow step 3) or proceed to release the lock (subworkflow step 8) with a manual override.
- 6.8. Release Lock.** At this step, the lock for the SAP system is released so that, even though the simulation failed, other patches in the package can be applied or simulated.
- 6.9. Manual Override.** At this step, you set up the subworkflow for return to the workflow with a failure status for the patch simulation.
- 6.10. Notify User and Return from Subworkflow.** At this step, the specified user is notified that the patch was or was not successfully simulated, and the subworkflow returns to the workflow.
7. **Apply Patch?** At this step, you decide whether to apply this particular patch after a successful simulation.
8. **DEV - Patch Apply.** At this step, if the patch was not to be simulated, or if it was successfully simulated and is now to be applied, the patch is applied to the DEV system by calling the SAP - Patch Application Subworkflow. If the subworkflow is successful, proceed to step 9.

The SAP - Patch Application Subworkflow steps are as follows (see **Figure 4-28 on page 104**):

- 8.1. Lock Instance and Begin Patching.** At this step, you manually lock the SAP system and initiate applying the patch. No other package line can lock that system until the lock is released.
- 8.2. Define Standard Queue.** At this step, the patch to be applied is set up in standard mode.
- 8.3. Import Patch.** At this step, the patch is imported.
- 8.4. Process Status.** At this step, the status of the patch application is determined. If the patch has been successfully applied, the status is “waiting for confirmation,” and the subworkflow proceeds to step 7. If the status is “queue empty,” an external operation has disturbed the queue; this is an error condition that sends the subworkflow to step 9. If there was an error in applying the patch, proceed to subworkflow step 6. For other errors, proceed to subworkflow step 5.
- 8.5. Get Process Status.** At this step, the status is monitored until it is successful, then the subworkflow returns to step 4.
- 8.6. Reapply?** At this step, you indicate whether the subworkflow should attempt to import the patch again (subworkflow step 3) or proceed to release the lock (subworkflow step 9) with a manual override.
- 8.7. Confirm Queue.** At this step, the subworkflow waits until the patch application is reported as successful, then proceeds to subworkflow step 8.

8.8. Release Lock. At this step, the lock for the SAP system is released and the subworkflow is set up for successful return to the workflow.

8.9. Release Lock. At this step, the lock for the SAP system is released so that, even though importing the patch failed, other patches in the package can be applied or simulated.

8.10. Manual Override. At this step, you set up the subworkflow for return to the workflow with a failure status for the patch application.

8.11. Notify User and Return from Subworkflow. At this step, the specified user is notified that the patch was or was not successfully imported, and the subworkflow returns to the workflow.

9. **Validate DEV.** At this step, at the SAP DEV system, perhaps using regression tests, you verify that installation of the patch was successful and did not cause any issues. If you approve this step, the provided workflow proceeds to analogous steps for the QAS system, then the PRD system.

A simplified custom workflow that installs patches on only the DEV system would, upon approval of this step, close this package line with a successful status, exit the workflow, and proceed to process the package's next line, that is, its next patch.

29. and 30. Close (failure DEV). At these steps, various failures during the workflow cause it to exit with failure status and close the package line.

10.–18. and 31.–32. These steps are analogous to steps 1–9 and 29–30, but for the QAS system. If the patch installation is verified as successful at step 18, the workflow proceeds to analogous steps for the PRD system.

19.–27. and 33.–34. These steps are analogous to steps 1–9 and 29–30, but for the PRD system. If the patch installation is verified as successful at step 27, the workflow proceeds to step 28.

28. Close (success). Upon successful completion of the workflow, the package line is closed and the workflow is exited, ready to process the package's next line, that is, its next patch.

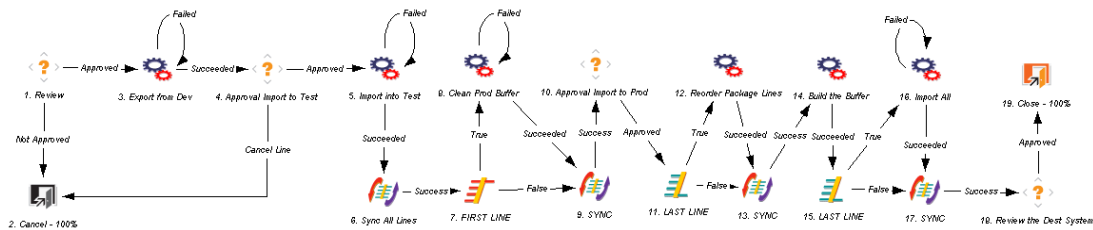
SAP -Patch Simulation Subworkflow

The SAP - Patch Simulation Subworkflow is called by only the SAP - Patch Deployment Workflow. For information about this subworkflow, see ["SAP -Patch Deployment Workflow and Its Subworkflows" on page 87](#).

SAP -Reorder Package Lines and Import All Workflow

The SAP - Reorder Package Lines and Import All Workflow is used to carry out the normal operations of Export and Import. In addition, the workflow carries out the operations of cleaning the buffer, re-sorting the package lines in the sequence of the transport's last export time, building the buffer in this new order, and carrying out an Import All into the destination system. This workflow can be used with an object type such as SAP - Reorder Pkg Lines on Export Time and Import All. The workflow is shown in "Figure 4-29. SAP - Reorder Package Lines and Import All Workflow".

Figure 4-29. SAP - Reorder Package Lines and Import All Workflow



After the initial tasks of exporting the transport and importing into the test system, all the package lines are synchronized before the production buffer is cleaned. The FIRST LINE step ensures that only the first line to reach that step actually initiates the Clean Prod Buffer step. After the import to Prod is approved, the LAST LINE step triggers re-sorting the package lines according to the transport export times and rebuilding the buffer. The LAST LINE is later used to trigger the Import All step.

SASAP -SPAM Update Subworkflow

The SAP - SPAM Update Subworkflow is called by only the SAP - Patch Deployment Workflow. For information about this subworkflow, see "SAP -Patch Deployment Workflow and Its Subworkflows" on page 87.

SAP -Status Update Req Workflow

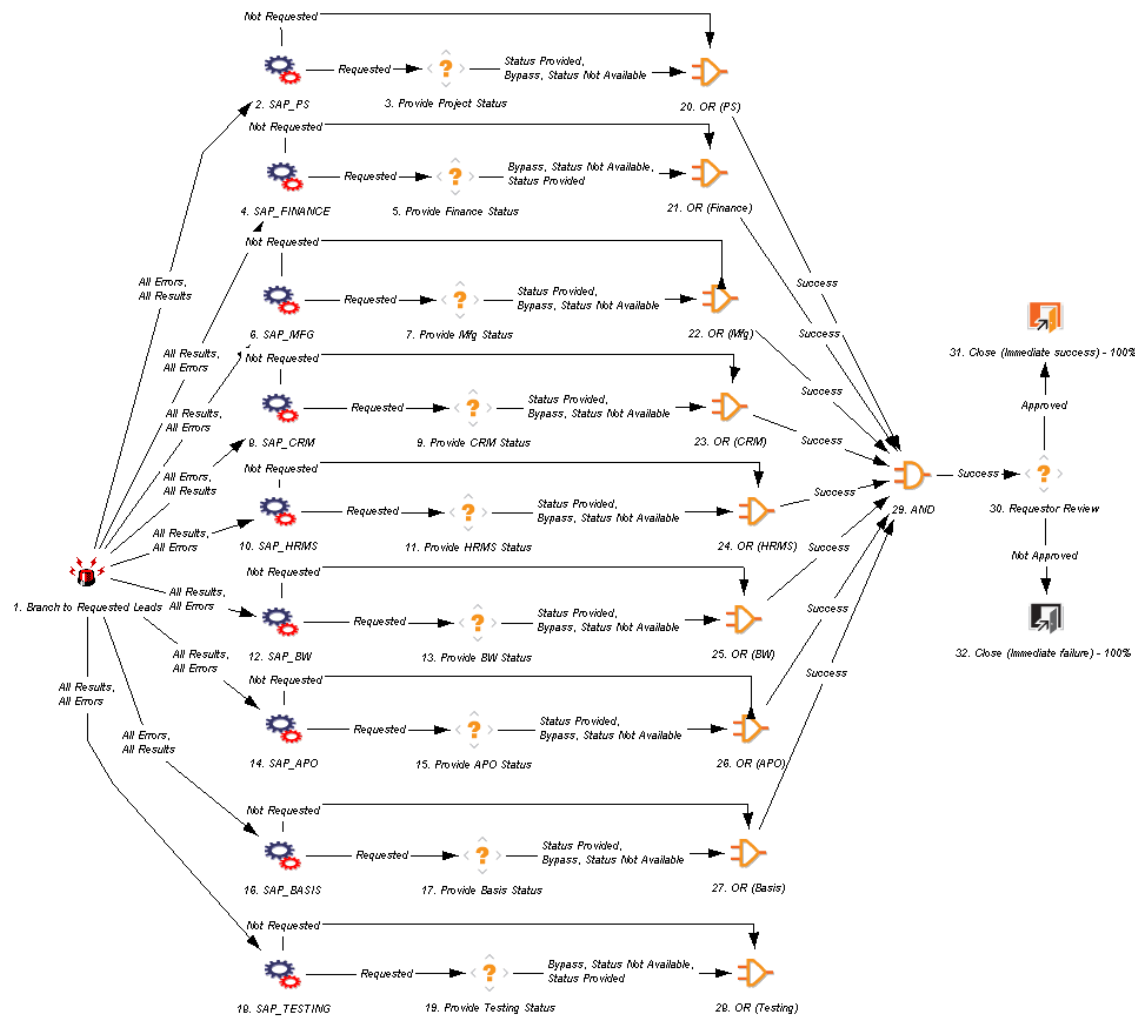
Projects involving SAP applications require cooperation among group members from various business areas such as Finance, Manufacturing, Human Resources (HR), Business Warehouse (BW), Advanced Planning and Optimization (APO), and specialized technical teams such as SAP Basis and Testing. The projects and tasks require that manual status reports be gathered and reviewed. This can divert resources from critical project activities to asking for updates, following up with group members to receive information, assigning reviews, and making sure that the latest versions of reports are provided.

The SAP - Status Update Req workflow provides a process to automatically notify group members, follow up with them until information is received, contact the appropriate reviewers, and distribute the latest versions of reports.

Once a Status Update Request is made, the SAP - Status Update Req workflow splits into parallel branches for each project subteam. If a status update is requested from the specific subteam, the designated team lead is notified of the request. The individual is then repeatedly reminded of the request until the information is provided.

At any time, the requestor can view the request to determine which teams have provided the requested information and which teams have not. There is no need for email or phone follow-up for status checks, because it is clear who currently owns the specific action items. The entire group of leads can be notified as others' reports are provided. When all the requested status updates are provided, the requestor is notified and can review the individual information directly from the request. Entire teams can review the information, as well. More collaboration points can also be added to the process for status feedback and sign-off. The workflow is displayed in "[Figure 4-30. SAP - Status Update Req workflow](#)".

Figure 4-30. SAP - Status Update Req workflow



Implementing the Workflow

To implement the SAP - Status Update Req workflow:

- Monitor the notifications and make appropriate modifications to the text and the list of notification recipients. For example, you might want to notify team leads when individual reports are completed.
- Verify the security groups for each step to determine whether updates are necessary.
- Remove workflow branches for any status fields or team-lead fields that have been removed from the request type.
- To add branches:

- Copy existing branches.
- Update the step names.
- Update the notifications.

Workflow Steps

The workflow steps are described as follows:

1. **Branch to Requested Leads.** This is an automatic execution step that starts each of the team branches in the workflow. Although the priority of the request is noted, the workflow branches regardless of the priority.
2. **SAP_PS** and analogous even-numbered steps through 18. **SAP_TESTING.** These are automatic token resolution steps that look at the value of the associated token (SAP_PS through SAP_TESTING). If the value is Requested, the workflow moves to the associated Provide <module> Status step, for example Provide Project Status. If the value is Not Requested, the workflow skips over the Provide <module> Status step.
3. **Provide Project Status** and analogous odd-numbered steps through **19. Provide Testing Status.** These steps notify the users who are specified in the various Team Lead fields that they each need to complete a status report and attach it to the request. This notification includes reminders until the task is done, every two days by default.

When the task is done, the team lead attaches the report and sets this step to Status Provided. The team lead or requestor can also choose to set this step to Bypass, Status Not Available in case no report is going to be provided but the workflow should move forward.

30. **Requestor Review.** Once all the branches are complete (either with the completion of the Provide Status step or by skipping the branch because the specific report was not requested), the original creator of the request gets a notification that the reports are ready. The requestor reviews the reports and either sets this step to Approved or Not Approved. Either result closes the request.
31. **Close (Immediate success).** If the requestor approves the report, the workflow branches to this step.
32. **Close (Immediate failure).** If the requestor does not approve the report, the workflow branches to this step.

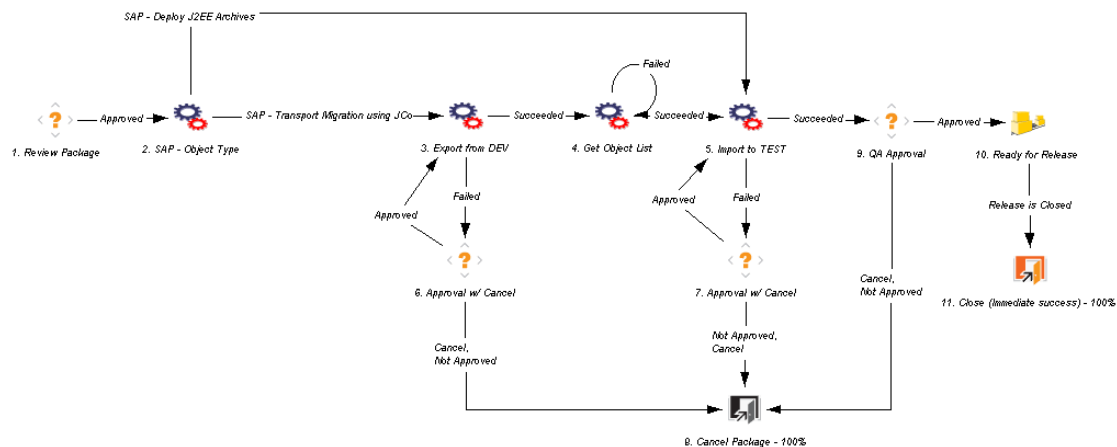
SAP -Transport and J2EE Deployments Workflow

The SAP - Transport and J2EE Deployments workflow migrates transports and deploys J2EE archives. For transports, this workflow works with the SAP -Transport Migration using JCo object type. For J2EE archives, this workflow works with the SAP - Deploy J2EE Archives object type.

The SAP - Transport and J2EE Deployments workflow is shown in "Figure 4-31. SAP - Transport and J2EE Deployments workflow". The workflow determines the source and destination servers, typically DEV and QAS. When selecting the source and destination environments, you must select SAP J2EE environments that have already been created in the Environment Workbench.

The workflow starts with a review of the package. After the package is reviewed and approved, it moves to the next step, where the type of change (transports or J2EE) is determined. The subsequent workflow step depends on that result. If any warnings are generated, approval is needed to proceed. Over time, all package lines accumulate in a release that becomes ready to import into the production environment, upon QA approval.

Figure 4-31. SAP - Transport and J2EE Deployments workflow

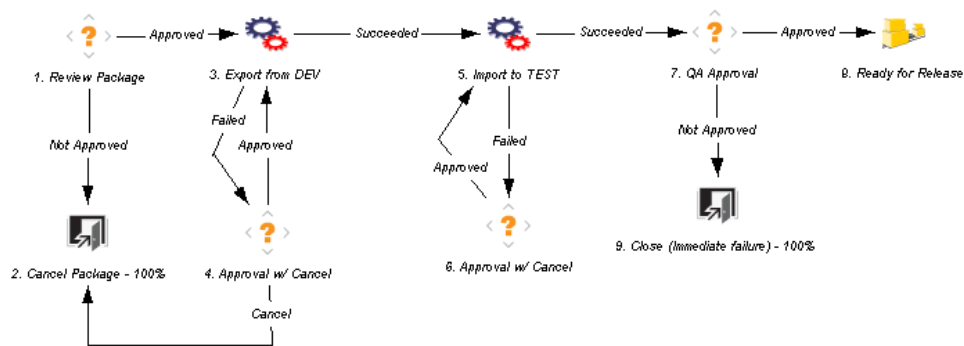


SAP -Transport Migration with Release Management Workflow

The SAP - Transport Migration with Release Management workflow migrates changes from the Dev environment to the Test environment. If any warnings are generated, approval is needed to proceed. Over time, all package lines (TRs) accumulate in a release that becomes ready for import into Production upon QA approval.

This workflow is used with the SAP - Transport Migration with Release Management object type. The workflow is shown in "Figure 4-32. SAP - Transport Migration with Release Management workflow" below.

Figure 4-32. SAP - Transport Migration with Release Management workflow



SAP -Transport Packages to Prod Subworkflow

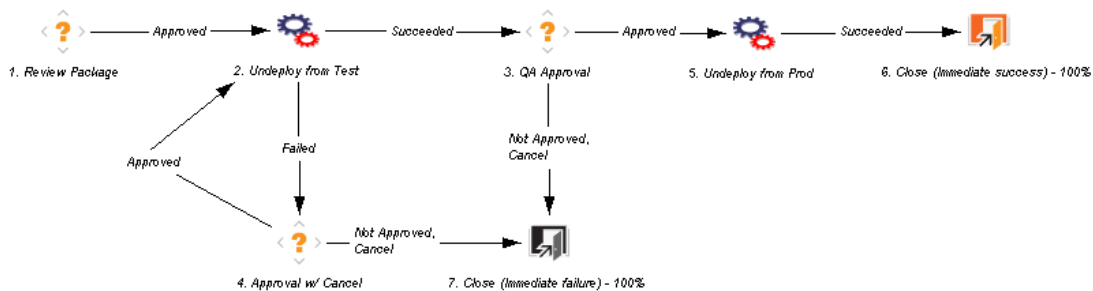
The SAP - Transport Packages to Prod Subworkflow is called by only the SAP -Distribute to Prod workflow. For information about this subworkflow, see **SAP -Distribute to Prod Workflow** on page 95.

SAP -Undeploy J2EE Archives Workflow

The SAP - Undeploy J2EE Archives workflow undeploys J2EE files from a J2EE server. This workflow works with the SAP - Undeploy J2EE Archives object type. The SAP - Undeploy J2EE Archives workflow determines the J2EE server that is the target of the undeployment, typically QAS or PRD. When selecting the environment, you must select an SAP J2EE environment that has already been created in the Environment Workbench.

The SAP - Undeploy J2EE Archives workflow is shown in "Figure 4-33. SAP - Undeploy J2EE Archives workflow". The workflow starts with a review of the package. After the package is reviewed and approved, it moves to an execution step, where the package is undeployed from a test system. If the undeployment is successful, the package moves to a QA approval step before moving on to the final execution step. In the final execution step, the package is undeployed from a production system. If an error occurs during the workflow, the package moves to a decision step, where the package can be considered and closed.

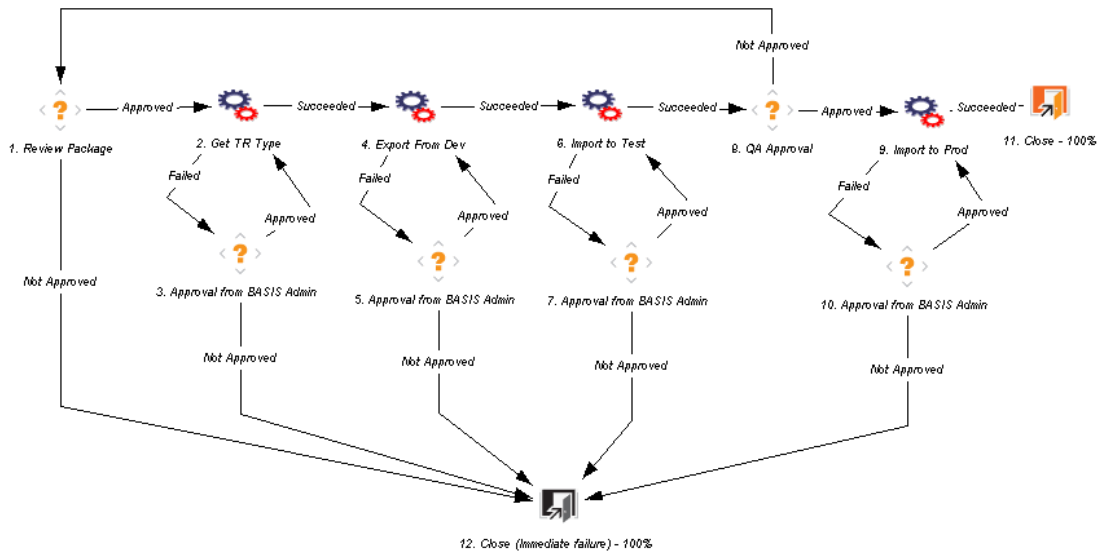
Figure 4-33. SAP - Undeploy J2EE Archives workflow



SAP -Using Picklist02, getting the TR type Workflow

The SAP - Using Picklist02, getting the TR type workflow is used for carrying out all normal operations of Export and Import. In addition, the workflow carries out the operation of finding the transport type (that is, whether the transport is Client Dependent or Client Independent). This workflow can be used with an object type such as SAP - Mig using Picklist02 and Getting the TR Type. The workflow is shown in "Figure 4-34. SAP - Using Picklist02 getting the TR type workflow".

Figure 4-34. SAP - Using Picklist02 getting the TR type workflow



Report Types and Reports

This section provides reference information about the SAP-specific report types provided in the Extension. These report types are listed and defined in ["Table 4-25. Report types included in the Extension" on page 106.](#)

Overview of Report Types and Reports

The Extension provides SAP-specific report types that you can edit in the PPM Workbench to meet your needs. Before you generate (submit) a report in the standard interface, the corresponding report type provides the set of fields that you can or must complete in the Submit Report window. When you complete these fields and then submit the report, your selections affect the report output (results). Some fields allow multiple entries. Some are hidden by default, but can be enabled to allow further control of the report output.

The following subsections describe the Submit Report windows and their fields when using the default report types.

Execution of reports is driven by commands included within the report types. For more information about commands in the PPM Center environment, see the [Commands, Tokens, and Validations Guide and Reference.](#)

To configure (edit) a report type:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**. The PPM Workbench opens.
3. From the shortcut bar, select **Configuration > Report Types**. The Report Type Workbench opens.
4. Click **List**.
5. Select the report type of interest and click **Open**.
6. Edit the report type as desired. (On the **Fields** tab, the list of fields in the **Prompt** column is alphabetized.)

To run a report:

1. In the menu bar in the standard interface, select **Reports > Submit New Report**.
2. In the **Report Category** field, select **Extension**.
All available Extension reports are listed.
3. Click the name of the Extension report to be run.
A Submit Report window is displayed.
4. Complete the appropriate fields in the Submit Report window and click **Submit**.

Note:

SAP report types are provided as non-editable reference copies. The report types must be copied and enabled to make them available to users.

For more information about running reports, see the *Reports Guide and Reference*.

Reference Report Types

Reference report types cannot be edited, but you can copy and rename them and edit the copies to meet your needs. You can also use existing non-reference report types as is or configure them further to meet your needs.

List of Report Types

"Table 4-25. Report types included in the Extension" lists and defines the report types included in the Extension. Each is described in subsequent sections.

Table 4-25. Report types included in the Extension

Report Type Name	Description
SAP - Business Configuration Sets Report	Lists the BC Sets that have the date range you specify and the BC Set name and table name you specify (with wildcards)
SAP - Component Information Report	Provides information about components, releases, and patch levels for the environment you specify
SAP - J2EE Deployments Matrix Report	Lists the SAP J2EE environments to which archives have been deployed
SAP - Patch Matrix Report	Provides information about patches that have been applied to the environments you specify
SAP - Released Transport List from DEV SAP System with Audit Data Report	Lists the transports of the SAP DEV environment you specify
SAP - Request Detail Report	Lists details of requests that use SAP request types, based on criteria you specify
SAP - Transports Matrix Report	Lists the environments to which a transport object type has been imported or exported

SAP -Business Configuration Sets Report

The SAP - Business Configuration Sets report provides a list of BC Sets that have the specified date range you specify and the BC Set name and table name you specify (with wildcards).

"Figure 4-35. Submit Report: SAP - Business Configuration Sets window" shows the Submit Report window you use to specify which BC Sets you want to see in the SAP - Business Configuration Sets report. "Table 4-26. Submit Report: SAP - Business Configuration Sets fields" describes the fields.

Figure 4-35. Submit Report: SAP - Business Configuration Sets window

Submit Report: SAP - Business Configuration Sets

Submit Cancel

Report Parameters Restore Default

*Customizing Environment:

*From Date:

*To Date:

BC Set Name Like:

Table Name Like:

Scheduling

☒ Run Report Immediately

☐ Run Report On:

☐ Repeat Every Hours Until

☐ Send email to: when report is finished

Advanced Notifications

Submit Cancel

Close Window

Table 4-26. Submit Report: SAP - Business Configuration Sets fields

Field Name (*Required)	Description
*Customizing Environment	Customizing environment to include in the report
*From Date	Earliest date of the transports to include in the report
*To Date	Latest date of the transports to include in the report
BC Set Name Like	Using the percent sign (%) as a wildcard symbol, filters for tables with names you specify, such as YUS1K%
Table Name Like	Using the percent sign (%) as a wildcard symbol, filters for tables with names you specify, such as ABC% or %ABC

SAP -Component Information Report

The SAP - Component Information report provides information about the components, releases, and patch levels for the environment you specify.

"Figure 4-36. Submit Report: SAP - Component Information window" shows the Submit Report window you use to specify the environment for which you want to see information in the SAP - Component Information report. "Table 4-27. Submit Report: SAP - Component Information field" describes the field.

Figure 4-36. Submit Report: SAP - Component Information window

Submit Report: SAP - Component Information

Submit Cancel

Report Parameters Restore Default

*SAP Environment: []

Scheduling

☒ Run Report Immediately

☐ Run Report On: []

☐ Repeat Every [] Hours [v] Until []

☐ Send email to: Admin User [] when report is finished

Advanced Notifications

Submit Cancel

Table 4-27. Submit Report: SAP - Component Information field

Field Name (*Required)	Description
*To Date	Latest date of the transports to include in the report

For the specified environment, the report lists each installed component, its release, and its patch level.

SAP -J2EE Deployments Matrix Report

The SAP - J2EE Deployments Matrix report provides a list of the SAP J2EE environments to which archives have been deployed.

"Figure 4-37. Submit Report: SAP - J2EE Deployments Matrix window" shows the Submit Report window you use to specify which archives you want to see in the SAP - J2EE Deployments Matrix report. "Table 4-28. Submit Report: SAP - J2EE Deployments Matrix fields" describes the fields.

Figure 4-37. Submit Report: SAP - J2EE Deployments Matrix window

Submit Report: SAP - J2EE Deployments Matrix

Submit Cancel

Report Parameters Restore Default

Object Type: SAP - Deploy J2EE Archives

Environment 1:

Environment 2:

Environment 3:

Environment 4:

Environment 5:

Deployment Date From:

Deployment Date To:

Archive Name like: %

Show Performed by: ☒ Yes ☐ No

Show Date Applied: ☒ Yes ☐ No

Show Deployment Info: ☐ Yes ☒ No

Show Heading: ☒ Yes ☐ No

Scheduling

☒ Run Report Immediately

☐ Run Report On:

☐ Repeat Every Hours Until

☐ Send email to: Admin User when report is finished

Advanced Notifications

Submit Cancel

Close Window

Table 4-28. Submit Report: SAP - J2EE Deployments Matrix fields

Field Name (*Required)	Description
*Object Type	Object type to include in the report. The default is SAP - Deploy J2EE Archives.
*Environment 1	Environment to include in the report.
Environment 2– Environment 5	Other environments to optionally include in the report.
Deployment Date From	Earliest date of the deployments to be listed in the report.
Deployment Date To	Latest date of the deployments to be listed in the report.
Archive Name like	Deployments to be listed in the report. The percent sign (%) is used as a wildcard symbol. For example: <ul style="list-style-type: none">• Using ABC% lists all deployments starting with ABC.• Using %ABC lists all deployments ending with ABC.• Using %ABC% lists all deployments that have the sequence ABC as part of the archive number.
Show Performed by	Option to display the name of the user who executed the package.
Show Date Applied	Option to display the date the transport was applied to the system.
Show Deployment Info	Option to display package or release information.
Show Heading	Option to display row titles for the previous three fields and for a field that indicates whether the archive has been deployed to the destination environment.

SAP -Patch Matrix Report

The SAP - Patch Matrix report provides information about patches that have been applied to the environments you specify.

"[Figure 4-36. Submit Report: SAP - Component Information window](#)" shows the Submit Report window you use to specify which data you want to see in the SAP - Patch Matrix report. "[Table 4-27. Submit Report: SAP - Component Information field](#)" describes the fields.

Figure 4-38. Submit Report: SAP - Patch Matrix window

Table 4-29. Submit Report: SAP - Patch Matrix fields

Field Name (*Required)	Description
*Object Type	Object type to include in the report. The default is SAP - Deploy J2EE Archives.
*Environment 1	Environment to include in the report.
Environment 2– Environment 5	Other environments to optionally include in the report.
Deployment Date From	Earliest date of the deployments to be listed in the report.
Deployment Date To	Latest date of the deployments to be listed in the report.
Patch ID like	Patch IDs to be listed in the report. The percent sign (%) is used as a wildcard symbol, as in SAPKFH% .

Table 4-29. Submit Report: SAP - Patch Matrix fields, continued

Field Name (*Required)	Description
*Show Performed by	Option to display the name of the user who executed the package.
*Show Date Applied	Option to display the date the transport was applied to the system.
*Show Deployment Info	Option to display package or release information.
*Show Heading	Option to display row titles for the previous three fields and for a field that indicates whether the archive has been deployed to the destination environment.

SAP -Released Transport List from DEV SAP System with Audit Data Report

The SAP - Released Transport List from DEV SAP System with Audit Data report provides a list of transports of the SAP DEV environment you specify.

"[Figure 4-39. Submit Report: SAP - Released Transport List from DEV SAP System with Audit Data window](#)" shows the Submit Report window you use to specify which transports you want to see in the SAP - Released Transport List from DEV SAP System with Audit Data report. "[Table 4-30. Submit Report: SAP - Released Transport List from DEV SAP System with Audit Data fields](#)" describes the fields.

Figure 4-39. Submit Report: SAP - Released Transport List from DEV SAP System with Audit Data window

Submit Report: SAP - Released Transport List from DEV SAP

Report Parameters

*SAP Environment:

Client Dependence:

*From Date:

*To Date:

From Transport:

To Transport:

Scheduling

☒ Run Report Immediately

☐ Run Report On:

☐ Repeat Every Until

☐ Send email to: when report is finished

Advanced Notifications

Table 4-30. Submit Report: SAP - Released Transport List from DEV SAP System with Audit Data fields

Field Name (*Required)	Description
*SAP Environment	Environment for which to generate the report
Client Dependence	Clients of the migration to include in the report: <ul style="list-style-type: none"> Client Specific for client-dependent changes Client Independent for client-independent changes All
*From Date	Earliest date of the transports to include in the report
*To Date	Latest date of the transports to include in the report
From Transport	Starting transport number of the transports to include in the report
To Transport	Ending transport number of the transports to include in the report

"Figure 4-40. Example SAP - Release Transport List from DEV SAP System with Audit Data report" shows an example of the report output. The check boxes in the **Tracked** column indicate which transports are tracked by the SAP Deployment Management Extension. This report helps in auditing transport requests that were processed using the SAP Extension and those that were not processed by the Extension.

Figure 4-40. Example SAP - Release Transport List from DEV SAP System with Audit Data report

Print

SAP - Released Transport List from DEV SAP System with Audit Data

HP : Run by Documentation User. On Mar 27, 2006 04:20:50 PM PST

Displays a list of all Released transports from the selected DEV SAP instance, including audit data to indicate whether SAP Extension tracks the transports.

Report Parameters for Report #32082
Environment Name: SAP-DEV-CUST - KT8
Client Dependence: All
From Transport: KT8K901010
From Date: Mar 1, 2005
To Date: Mar 1, 2006
Legend:
✓ Tracked in HP PPM SAP Extension

SAP Transport List from SAP-DEV-CUST - KT8					
Tracked	Transport #	Description	Owner	Type	Date
	KT8K901012	Distribtn Channel 04	KINTANA	CUST	2006-01-12
✓	KT8K901014	DC 05 - 01 12 2005	KINTANA	CUST	2006-01-12
	KT8K901016	DC 06 - 01 12 2005	KINTANA	CUST	2006-01-12
✓	KT8K901018	DC 07 - 01 12 2005	KINTANA	CUST	2006-01-12
✓	KT8K901020	DC 08 - 01 12 2005	KINTANA	CUST	2006-01-12
✓	KT8K901022	DC 09 - 01 12 2005	KINTANA	CUST	2006-01-12
✓	KT8K901024	DC 010 - 01 12 2005	KINTANA	CUST	2006-01-12
	KT8K901026	DC 11 - 01 13 2006	KINTANA	CUST	2006-01-13
✓	KT8K901028	SG 01 23 2006	KINTANA	CUST	2006-01-23


SAP - Released Transport List from DEV SAP System with Audit Data

SAP -Request Detail Report

The SAP - Request Detail report provides a detailed list of PPM Center requests that use the SAP request types, based on criteria you specify.


"Figure 4-41. Submit Report: SAP - Request Detail Report window" shows the Submit Report window you use to specify which requests you want to appear in the SAP - Request Detail report and which information you want to appear for each request. "Table 4-31. Submit Report: SAP - Request Detail Report fields" provides descriptions for the displayed fields.

Figure 4-41. Submit Report: SAP - Request Detail Report window

Close Window X

Submit Report: SAP - Request Detail Report

Submit Cancel

 Report Parameters Restore Default

Request Numbers:

SAP Request Type:

Status:

Assigned To:

Created By:

Department:

Workflow:

Contact:

Creation Date From:

Last Update Date From:

Description Contains:

Report Title:

*Show Header Fields: ☒ Yes ☐ No

*Hide Prompts for Empty Fields: ☒ Yes ☐ No

*Show Field Audit History: ☐ Yes ☒ No

*Show Notes: ☒ Yes ☐ No

*Show Status: ☒ Yes ☐ No

*Include Closed Requests: ☒ Yes ☐ No

Priority:

Assigned To Group:

Request Sub Type:

Application:

Request Group:

Company Name:

Creation Date To:

Last Update Date To:


*Order By:

*Show Detail Fields: ☒ Yes ☐ No

*Show Contents of Table Fields: ☐ Yes ☒ No

*Filter Notes:

*Show References: ☒ Yes ☐ No


 Scheduling

☒ Run Report Immediately

☐ Run Report On:

☐ Repeat Every Hours Until

☐ Send email to: when report is finished

 Advanced Notifications

Submit Cancel

Close Window X

Table 4-31. Submit Report: SAP - Request Detail Report fields

Field Name (*Required)	Description
Request Numbers	Request numbers
*Include Closed Requests	Option to include requests that have been closed or cancelled
SAP Request Type	Request type on which the report can be run
Status	Requests having this status
Priority	Requests having this priority
Assigned To	Requests assigned to this user
Assigned To Group	Requests assigned to this group
Created By	Requests created by this user
Request Sub Type	Requests having this sub-type
Department	Requests logged against this department
Application	Requests that are associated with this application
Workflow	Requests that are associated with this workflow
Request Group	Requests using request group(s)— Customization, Upgrade, or Setup
Contact	Requests having this contact name
Company Name	Requests having this company name
Creation Date From	Requests created on this date or later
Creation Date To	Requests created on this date or earlier
Last Update Date From	Requests last updated on this date or later
Last Update Date To	Requests last updated on this date or earlier
Description Contains	Requests having this description text string
Report Title	Title of the report
*Order By	Criterion to use to sort the requests in the report: <ul style="list-style-type: none"> • Application • Assigned To • Created By • Creation Date • Department

Table 4-31. Submit Report: SAP - Request Detail Report fields, continued

Field Name (*Required)	Description
	<ul style="list-style-type: none"> • Last Update Date • Priority • Request Group • Request Number • Request Sub Type • Request Type • Status
*Show Header Fields	Option for the report to show the full header fields of each request
*Show Detail Fields	Option for the report to show the detail fields of each request
*Hide Prompts for Empty Fields	Option for the report to hide prompts that have empty fields
*Show Contents of Table Fields	Option for the report to show table fields for requests that have table fields
*Show Field Audit History	Option for the report to show the transaction history of each request
*Show Note	Option for the report to show the notes attached to each request
*Filter Notes	Option for the report to show all notes or only user notes
*Show Status	Option for the report to show the workflow steps and current step status for each request
*Show References	Option for the report to show the references associated with each request

SAP -Transports Matrix Report

The SAP - Transports Matrix report provides a list of the environments to which a transport object type has been imported or exported.

"Figure 4-42. Submit Report: SAP - Transports Matrix window" shows the Submit Report window you use to specify which transport object type and which environments you want to see in the SAP - Transports Matrix report. "Table 4-32. Submit Report: SAP - Transports Matrix fields" describes the fields.

Figure 4-42. Submit Report: SAP - Transports Matrix window

Submit Report: SAP - Transports Matrix

Submit Cancel

Report Parameters Restore Default

*TR Object Type: SAP - Transport Migration using JCo

*Environment 1:

Environment 2:

Environment 3:

Environment 4:

Environment 5:

Deployment Date From:

Deployment Date To:

TR Name like %

*Show Performed by: ☒ Yes ☐ No

*Show Date Applied: ☒ Yes ☐ No

*Show Deployment Info: ☐ Yes ☒ No

*Show Heading: ☒ Yes ☐ No

Scheduling

☒ Run Report Immediately

☐ Run Report On:

☐ Repeat Every Hours Until

☐ Send email to: Admin User when report is finished

Advanced Notifications

Submit Cancel

Close Window

Table 4-32. Submit Report: SAP - Transports Matrix fields

Field Name (*Required)	Description
*TR Object Type	Object type to include in the report. The default is SAP - Transport Migration using JCo.
*Environment 1	Environment to include in the report.
Environment 2– Environment 5	Other environments to optionally include in the report.
Deployment Date From	Earliest date of the deployments to be listed in the report.
Deployment Date To	Latest date of the deployments to be listed in the report.
TR Name like	Transport request to be listed in the report. The percent sign (%) is used as a wildcard symbol. For example: <ul style="list-style-type: none"> Using ABC% lists all transport numbers starting with ABC. Using %ABC lists all transport numbers ending with ABC.

Table 4-32. Submit Report: SAP - Transports Matrix fields, continued

Field Name (*Required)	Description
	<ul style="list-style-type: none">Using %ABC% lists all transport numbers that have the sequence ABC as part of the archive number.
*Show Performed by	Option to display the name of the user who executed the package.
*Show Date Applied	Option to display the date the transport was applied to the system.
*Show Deployment Info	Option to display package or release information.
*Show Heading	Option to display row titles for the previous three fields and for a field that indicates whether the transport has been applied to the destination environment.

Preconfigured Dashboard Page and Portlets

You can add preconfigured Dashboard pages to your PPM Dashboard. Preconfigured pages include a set of portlets related to a function. These pages are generally configured for common usage but you can personalize them for your specific business needs. You can add only those pages for which you have been granted access by the PPM Center administrator.

The following sections describe the following SAP-specific preconfigured Dashboard page and portlets provided in the Extension:

- The Basis Administrator preconfigured Dashboard page, with ten portlets.
- The SAP - Business Configuration Sets drill-down portlet. This portlet is not associated with any preconfigured Dashboard page.

The Dashboard page and portlets shown in this document are samples. Their content and configuration can vary depending on how the Extension is used by your business.

Basis Administrator Preconfigured Dashboard Page and Its Portlets

The Basis Administrator page, with its ten portlets, is a preconfigured Dashboard page for the SAP Extension. ["Figure 4-43. Basis Administrator preconfigured Dashboard page"](#) shows an example of this

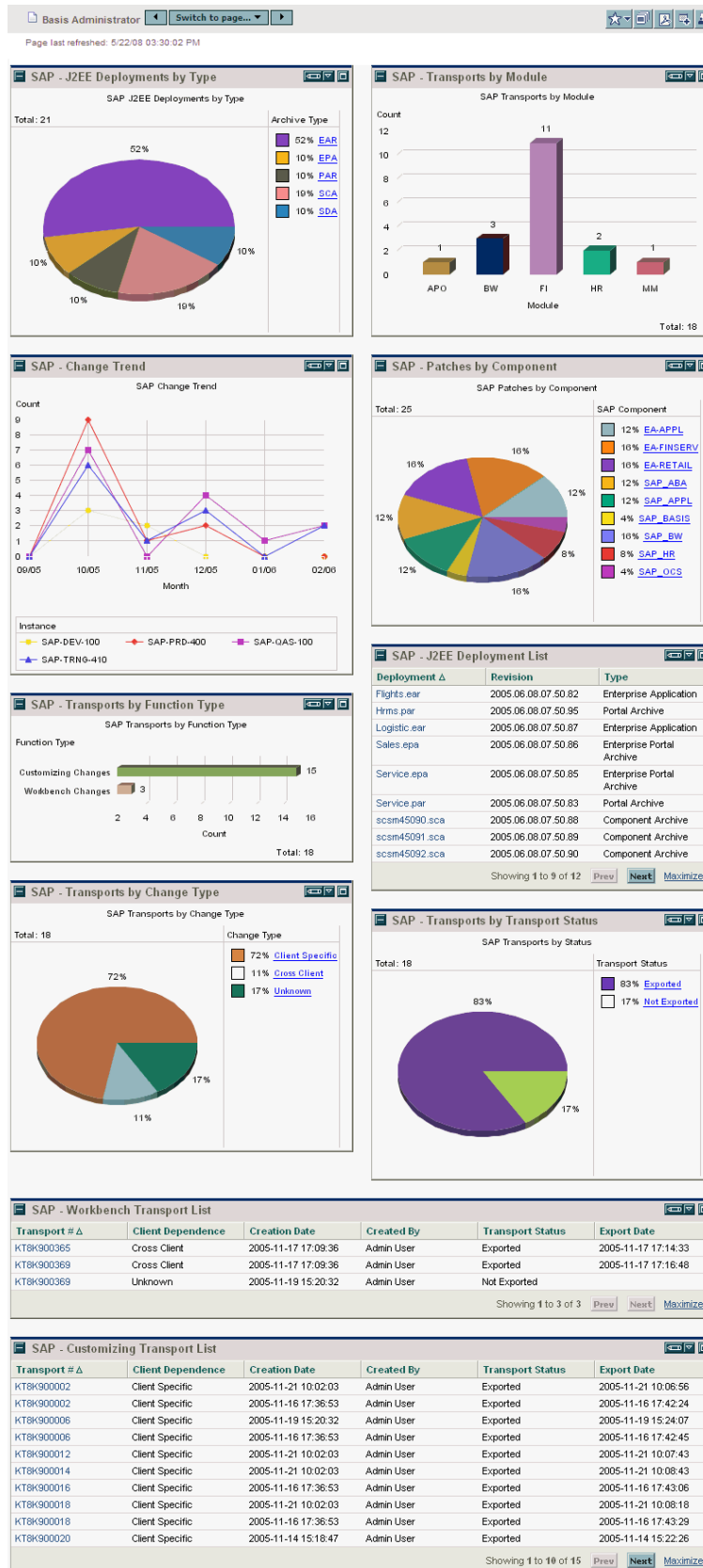
page and its portlets.

For information about adding the Basis Administrator preconfigured Dashboard page, see the *Getting Started* guide as necessary. The availability of particular preconfigured Dashboard pages depends on the security configuration established by your PPM Center administrator.

Figure 4-43. Basis Administrator preconfigured Dashboard page

Deployment Management Extension for SAP Solutions Guide

Chapter 4: Extension Entities



The following sections describe the individual portlets in the Basis Administrator preconfigured Dashboard page.

SAP -Change Trend Portlet

The SAP - Change Trend portlet is a line graph portlet that shows how many SAP changes were applied month by month for the specified period. Each line represents one environment, and you would typically specify the DEV, QAS, and PRD environments for display.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "Table 4-33. SAP - Change Trend portlet filter fields".

Table 4-33. SAP - Change Trend portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object types that have been used for migrating changes. The default is SAP - Transport Migration using JCo and SAP - Deploy J2EE Archives.
*Environments	Filters for the environments to be graphed.
*From Period	Filters for the starting month of the changes.
*To Period	Filters for the ending month of the changes.

SAP -Customizing Transport List Portlet

The SAP - Customizing Transport List portlet lists the transport numbers of the selected object type with a transport type of Customizing Changes. You can use the From Date and To Date filter fields to further restrict the list of transport numbers.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "Table 4-34. SAP - Customizing Transport List portlet filter fields".

Table 4-34. SAP - Customizing Transport List portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for migrating transports
Line Status	Filters for the status of the package line

Table 4-34. SAP - Customizing Transport List portlet filter fields, continued

Field Name (*Required)	Description
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation

SAP - J2EE Deployment List Portlet

The SAP - J2EE Deployment List portlet lists J2EE deployments based on the selected object type.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in ["Table 4-35. SAP - J2EE Deployment List portlet filter fields"](#).

Table 4-35. SAP - J2EE Deployment List portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for deploying SAP J2EE archives
Line Status	Filters for the status of the package line
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation
Package Number	Filters for the package number of the package line
Release	Filters for the release that includes the package line

SAP - J2EE Deployments by Type Portlet

The SAP - J2EE Deployments by Type portlet includes information about the type of J2EE deployment. The type of J2EE deployment is determined by the type of file being deployed by the package line, for example, an Enterprise Application file (.ear) or a Software Deployment Archive file (.sda).

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in ["Table 4-36. SAP - J2EE Deployments by Type portlet filter fields"](#).

Table 4-36. SAP - J2EE Deployments by Type portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for deploying SAP J2EE archives
Line Status	Filters for the status of the package line
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation
Package Number	Filters for the package number of the package line
Release	Filters for the release that includes the package line

SAP -Patches by Component Portlet

The SAP - Patches by Component portlet is a pie chart portlet that shows the total number of patches and what percentage of the patches has been applied to each component.

For example, SAP_OCS patches are for the SAP Support Package Manager (SPAM) software component, which manages the installation of patches on an SAP system.

Clicking links on the pie chart or the component names in the legend displays a list of individual patches that have been applied for that component, including details such as when each patch was applied and by whom.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "Table 4-37. SAP - Patches by Component portlet filter fields".

Table 4-37. SAP - Patches by Component portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the SAP system for which patch data is to be displayed
Package Number	Filters for the package number used to apply the patches
From Date	Filters for the earliest date a patch was imported (applied)
To Date	Filters for the latest date a patch was imported

SAP -Transports by Change Type Portlet

The SAP - Transports by Change Type portlet is a pie chart portlet that displays information about the breakdown of the transports based on the type of change done by the transport at the destination SAP system. Cross Client changes affect all the clients on the SAP system, whereas Client Specific changes affect only the specific client to which the transport is migrated.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "[Table 4-38. SAP - Transports by Change Type portlet filter fields](#)".

Table 4-38. SAP - Transports by Change Type portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for migrating transports
Line Status	Filters for the status of the package line
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation
Package Number	Filters for the package number of the package line
Release	Filters for the release that includes the package line

SAP -Transports by Function Type Portlet

The SAP - Transports by Function Type portlet is a pie chart portlet that displays information about the breakdown of the transports based on the function type for the selected object type. When a line is added to a package, the object type and the associated function type are selected. If the function type is not selected, it is derived before the export of the transport.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "[Table 4-39. SAP - Transports by Function Type portlet filter fields](#)".

Table 4-39. SAP - Transports by Function Type portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for migrating transports
Line Status	Filters for the status of the package line

Table 4-39. SAP - Transports by Function Type portlet filter fields, continued

Field Name (*Required)	Description
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation
Package Number	Filters for the package number of the package line
Release	Filters for the release that includes the package line

SAP -Transports by Module Portlet

The SAP - Transports by Module portlet is a vertical bar chart portlet that displays information about the breakdown of the transports based on the SAP module of the selected object type. When a line is added to a package, the object type is selected as well as the associated SAP module.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "[Table 4-40. SAP - Transports by Module portlet filter fields](#)".

Table 4-40. SAP - Transports by Module portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for migrating transports
Line Status	Filters for the status of the package line
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation
Package Number	Filters for the package number of the package line
Release	Filters for the release that includes the package line

SAP -Transports by Transport Status Portlet

The SAP - Transports by Transport Status portlet is a pie chart portlet that displays information about the breakdown of the transports based on the export status of the transport. A transport should be exported only after all the development for it is complete.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "[Table 4-41. SAP - Transports by Transport Status portlet filter fields](#)".

Table 4-41. SAP - Transports by Transport Status portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for migrating transports
Line Status	Filters for the status of the package line
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation
Package Number	Filters for the package number of the package line
Release	Filters for the release that includes the package line

SAP -Workbench Transport List Portlet

The SAP - Workbench Transport List portlet lists the transport numbers of the selected object type with a transport type of Workbench Changes. You can use the **From Date** and **To Date** fields to further restrict the list of transport numbers.

When you click the **Edit** icon on this portlet, a page appears with, among other portlet filter fields, the fields shown in "[Table 4-42. SAP - Workbench Transport List portlet filter fields](#)".

Table 4-42. SAP - Workbench Transport List portlet filter fields

Field Name (*Required)	Description
*Object Type	Filters for the object type used for migrating transports
Line Status	Filters for the status of the package line
From Date	Filters for the earliest date of package line creation
To Date	Filters for the latest date of package line creation

SAP -Business Configuration Sets Portlet

Business Configuration Sets (BC Sets) reside only in SAP DEV environments. Each BC Set corresponds to and represents a particular set of client-dependent (customizing) changes that were made to those environments when a Customizing Changes transport request was released, as described in more detail in this section.

The generation of BC Sets is optional in a standard SAP environment, and different developers might or might not use the option at different times. However, when the Business Add-in (BAdi) that HPE provides with the Extension is installed in an SAP DEV environment, a BC Set is *always* generated *automatically* whenever a Customizing Changes transport request is released in that environment. This feature ensures that all released customizing transports are archived in the SAP system. Thus, changes can be tracked and recovered from BC Sets if necessary.

Note:

The name of any BC Set that is created using the BAdi provided with the Extension starts with the letter Y, followed by the associated transport request number.

In SAP, different areas of functionality (for example, Plant Maintenance and Sales Prospects) are represented by tables and views. A collection of changes to the same table or different tables can accumulate in a single transport request (TR) before the TR is released. If the BAdi is installed, as soon as the TR is released, an associated BC Set is created. So, one BC Set can represent a TR that changes multiple tables. In addition, one table can be changed by multiple TRs, each of which is represented by an associated BC Set.

A BC Set represents one or more customizing changes that were released simultaneously in a TR. A BC Set is not a cumulative list of previous changes.

To keep track of changes in BC Sets and to keep track of which tables are affected by TRs represented by various BC Sets, the Extension provides the SAP - Business Configuration Sets portlet with drill-down capability. The Extension retrieves the portlet data from the SAP DEV environment that you specify as a portlet filter field, along with other filter criteria, as described in ["Editing the Portlet Filter Fields" on page 136](#). This portlet is not associated with any preconfigured PPM Dashboard page.

Note:

The Extension tracks only the BC Sets that are created using the BAdi that is provided with the Extension and installed on the SAP DEV environment. The Extension does not track any BC Sets that are otherwise created in the SAP DEV environment.

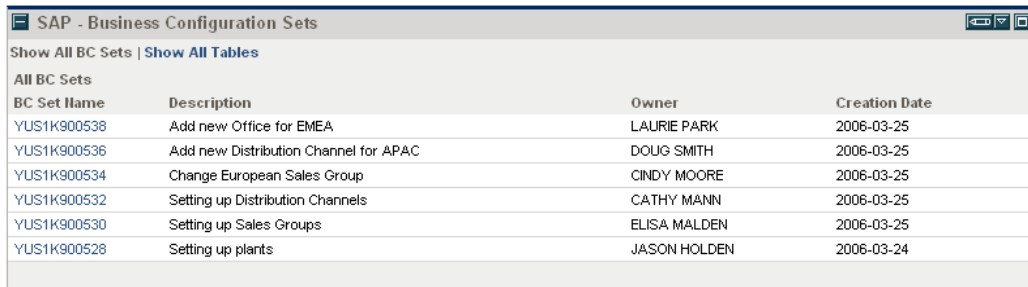
Before you can add the SAP - Business Configuration Sets portlet, its portlet definition must be imported. This procedure is part of the configuration process for the Extension. If you cannot add the portlet, see ["Importing the SAP -Business Configuration Sets Portlet Definition" on page 28](#).

You can view the data in BC Sets in various ways, as described in the following sections.

Viewing All BC Sets or Selected BC Sets

The SAP - Business Configuration Sets portlet initially displays the default Show All BC Sets page, which lists all the BC Sets that meet your filter criteria, with their names, descriptions, owners, and creation dates. "Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" shows an example of the SAP - Business Configuration Sets portlet's default Show All BC Sets page.

Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page



BC Set Name	Description	Owner	Creation Date
YUS1K900538	Add new Office for EMEA	LAURIE PARK	2006-03-25
YUS1K900536	Add new Distribution Channel for APAC	DOUG SMITH	2006-03-25
YUS1K900534	Change European Sales Group	CINDY MOORE	2006-03-25
YUS1K900532	Setting up Distribution Channels	CATHY MANN	2006-03-25
YUS1K900530	Setting up Sales Groups	ELISA MALDEN	2006-03-25
YUS1K900528	Setting up plants	JASON HOLDEN	2006-03-24

The BC Sets are sorted in reverse chronological order by their creation dates (see the **Creation Date** column), where the dates are in yyyy-mm-dd format.

To control which BC Sets are displayed, change the filter criteria by clicking the **Edit** icon (see "Editing the Portlet Filter Fields" on page 136).

Note:

When a TR is created, it is given a sequential number. After the TR is developed and released, a corresponding BC Set is created; its name is "Y" followed by the associated TR number. Multiple TRs can be developed simultaneously, but they are not necessarily released in the same order as they were created. Therefore, while the list is sorted in reverse chronological order by the BC Set creation dates, the BC Set names are not necessarily in any particular order.

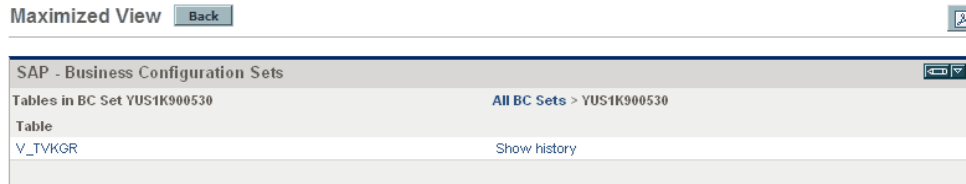
From the default Show All BC Sets page, you can navigate to various other pages in this portlet that present the BC Set data and table data in other useful ways, as described in the following subsections.

Viewing All Tables Affected by the TR Represented by a BC Set

You can click the name of any particular BC Set listed in "Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" above to view (drill down to) a list of all the tables that were

affected by the TR represented by that BC Set. For example, "Figure 4-45. Drill-down page showing a table affected by the TR for a BC Set" below shows the table affected by the TR US1K900530, represented by BC Set YUS1K900530. In this simple example, only one table, V_TVKGGR, was affected by the TR represented by the BC Set. In other cases, more than one table can be affected.

Figure 4-45. Drill-down page showing a table affected by the TR for a BC Set



The examples in the following subsections also use this BC Set and table.

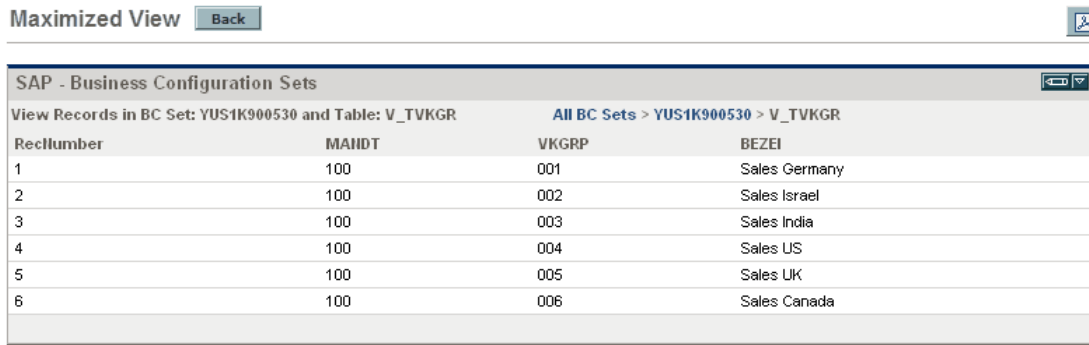
A navigation path appears below the portlet title bar. Clicking the **All BC Sets** link displays the Show All BC Sets page ("Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on the previous page).

In any drill-down page, clicking the **Back** button displays the portlet's Show All BC Sets page ("Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on the previous page).

Viewing All Changes to a Table Made in the TR Represented by a BC Set (Drilling Down from BC Set to Table)

You can click the name of any particular table listed in "Figure 4-45. Drill-down page showing a table affected by the TR for a BC Set" above to view a list of all the changes made to that table by the TR represented by the previously selected BC Set. For example, "Figure 4-46. Drill-down page showing changes to a table made in the TR for a BC Set" below shows the changes indicated in BC Set YUS1K900530 for table V_TVKGGR.

Figure 4-46. Drill-down page showing changes to a table made in the TR for a BC Set



The screenshot shows a web interface for SAP Business Configuration Sets. At the top, there is a 'Maximized View' label and a 'Back' button. Below this, the portlet title is 'SAP - Business Configuration Sets'. The main content area displays a table of records for the BC Set 'YUS1K900530' and Table 'V_TVKGGR'. The table has four columns: 'RecNumber', 'MANDT', 'VKGRP', and 'BEZEI'. The data rows show six records with values for each column. A navigation path 'All BC Sets > YUS1K900530 > V_TVKGGR' is visible above the table.

RecNumber	MANDT	VKGRP	BEZEI
1	100	001	Sales Germany
2	100	002	Sales Israel
3	100	003	Sales India
4	100	004	Sales US
5	100	005	Sales UK
6	100	006	Sales Canada

A navigation path appears below the portlet title bar. Clicking the **All BC Sets** link displays the Show All BC Sets page ("Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129). The BC Set number, YUS1K900530 in this example, is a link to the previous page ("Figure 4-45. Drill-down page showing a table affected by the TR for a BC Set" on the previous page).

In any drill-down page, clicking the **Back** button displays the portlet's Show All BC Sets page ("Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129).

Viewing the Change History of a Table

See "Figure 4-45. Drill-down page showing a table affected by the TR for a BC Set" on the previous page. To the right of each table name is a Show history link that you can use to display a page that shows the change history of that table, with regard to each BC Set that both met your filter criteria and represents a TR that affected the table. For example, "Figure 4-47. Drill-down page showing a table's change history" below shows the change history of table V_TVKGGR.

Figure 4-47. Drill-down page showing a table's change history

Maximized View [Back](#)

SAP - Business Configuration Sets

Change History of table: V_TVKGGR [All BC Sets > History of table: V_TVKGGR](#)

Actual Values: (2006-03-28)

RecNumber	MANDT	VKGRP	BEZEI
1	100	006	Sales Canada
2	100	001	Sales Germany
3	100	002	Sales Israel
4	100	003	Sales India
5	100	004	Sales US
6	100	005	Sales France
7	100	007	Sales Austria

BC Set: YUS1K900538 (2006-03-25)

RecNumber	MANDT	VKGRP	BEZEI
1	100	007	Sales Austria

BC Set: YUS1K900534 (2006-03-25)

RecNumber	MANDT	VKGRP	BEZEI
1	100	005	Sales France

BC Set: YUS1K900530 (2006-03-25)

RecNumber	MANDT	VKGRP	BEZEI
1	100	001	Sales Germany
2	100	002	Sales Israel
3	100	003	Sales India
4	100	004	Sales US
5	100	005	Sales UK
6	100	006	Sales Canada

The first section in the page is labeled **Actual Values: (<date>)**, where **<date>** is in yyyy-mm-dd format, and this section displays the entire current table. Subsequent sections show the change history in reverse chronological order for each BC Set that both met your filter criteria and represents a TR that affected this table. In this example, there are three such BC Sets—YUS1K900538 (the most recent), YUS1K900534, and YUS1K900530 (the oldest). The actual values in the current table reflect the chronological changes, as follows:

- First, YUS1K900530 represents a TR that added six records with **VKGRP** values from 001 to 006.
- Next, YUS1K900534 represents a TR that changed the value of **BEZEI** from Sales UK to Sales France for **VKGRP** 005.
- Most recently, YUS1K900538 represents a TR that added **VKGRP** 007.

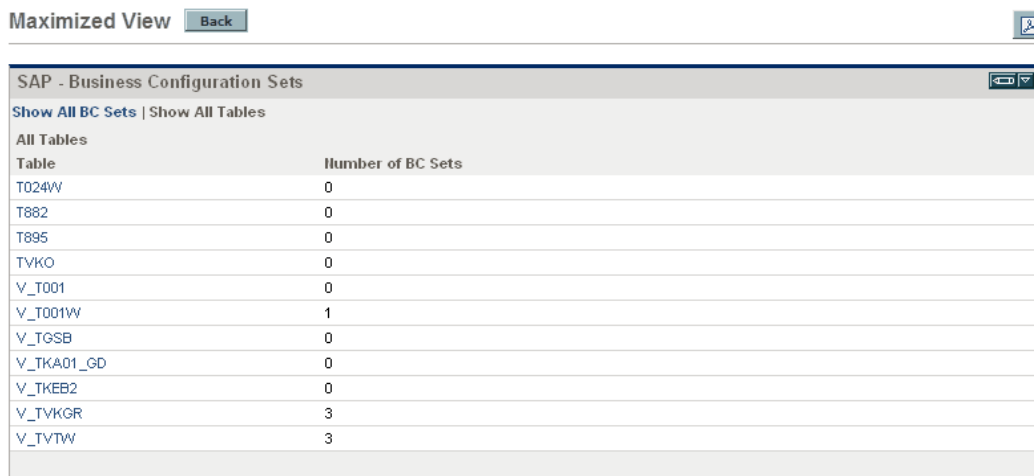
A navigation path appears below the portlet title bar. Clicking the **All BC Sets** link displays the Show All BC Sets page ("Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129).

In any drill-down page, clicking the **Back** button displays the portlet's Show All BC Sets page ("Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129).

Viewing All Tables Affected by the TRs Represented by Any BC Sets

If you click the Show All Tables link at the top of the default Show All BC Sets page for the SAP - Business Configuration Sets portlet (see ["Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129](#)), the Show All Tables page appears. This page lists all the tables that were affected by the TRs represented by any BC Sets. ["Figure 4-48. SAP - Business Configuration Sets portlet, Show All Tables page." below](#) shows an example.

Figure 4-48. SAP - Business Configuration Sets portlet, Show All Tables page.



Maximized View [Back](#)

SAP - Business Configuration Sets

[Show All BC Sets](#) | [Show All Tables](#)

All Tables

Table	Number of BC Sets
T024VV	0
T882	0
T895	0
TVKO	0
V_T001	0
V_T001W	1
V_TGSB	0
V_TKA01_GD	0
V_TKEB2	0
V_TVKGGR	3
V_TVTW	3

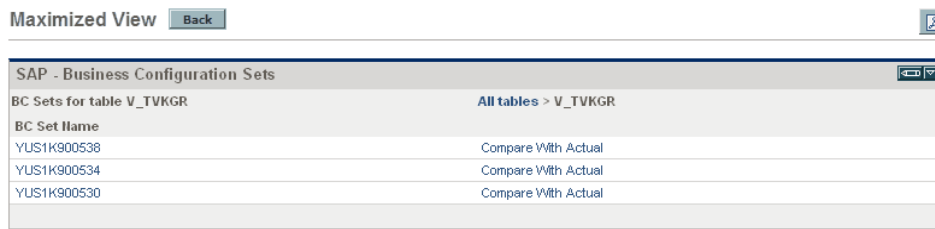
For each table, the list also shows the number of BC Sets that both met your filter criteria and represent a TR that affected that table. If you did not specify any BC Set filter criteria, each table in the list was affected by at least one TR represented by its BC Set, so the value of the **Number of BC Sets** for each table is at least 1. If you specified BC Set filter criteria (see ["Editing the Portlet Filter Fields" on page 136](#)), such as a date range (as was used in this example), those criteria can limit the value of the **Number of BC Sets** for a table, and that value can be 0.

Clicking the **Back** button displays the portlet's Show All BC Sets page (["Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129](#)).

Viewing the BC Sets Representing TRs that Affected a Table

From the Show All Tables page ("[Figure 4-48. SAP - Business Configuration Sets portlet, Show All Tables page.](#)" on the previous page), you can click the name of any table to view (drill down to) a list of all the BC Sets that both met your filter criteria and represent a TR that affected that table. For example, "[Figure 4-49. Drill-down page showing the BC Sets for TRs affecting a table](#)" below shows the three BC Sets for table V_TVKGGR.

Figure 4-49. Drill-down page showing the BC Sets for TRs affecting a table



SAP - Business Configuration Sets	
BC Sets for table V_TVKGGR	
All tables > V_TVKGGR	
BC Set Name	
YUS1K900538	Compare With Actual
YUS1K900534	Compare With Actual
YUS1K900530	Compare With Actual

This page can be useful when you want to know how the development work of various people over a period of time has affected a particular table. Make sure that you select appropriate filter criteria for the BC Sets to be considered (see "[Editing the Portlet Filter Fields](#)" on page 136).

A navigation path appears below the portlet title bar. Clicking the **All tables** link displays the Show All Tables page ("[Figure 4-48. SAP - Business Configuration Sets portlet, Show All Tables page.](#)" on the previous page).

In any drill-down page, clicking the **Back** button displays the portlet's Show All BC Sets page ("[Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page](#)" on page 129).

Viewing All Changes to a Table Made in the TR Represented by a BC Set (Drilling Down from Table to BC Set)

You can click the name of any particular BC Set listed in Figure 4-49 on page 148 to view all the changes made to the previously selected table by the TR represented by that BC Set. For example,

"Figure 4-50. Drill-down page showing changes to a table made in the TR for a BC Set" below shows the changes indicated in BC Set YUS1K900530 for table V_TVKGGR.

Figure 4-50. Drill-down page showing changes to a table made in the TR for a BC Set



Maximized View [Back](#)

SAP - Business Configuration Sets

View Records in BC Set: YUS1K900530 and Table: V_TVKGGR [All tables > V_TVKGGR > YUS1K900530](#)

ReclNumber	MAHDT	VKGRP	BEZEI
1	100	001	Sales Germany
2	100	002	Sales Israel
3	100	003	Sales India
4	100	004	Sales US
5	100	005	Sales UK
6	100	006	Sales Canada

A navigation path appears below the portlet title bar. Clicking the **All tables** link displays the Show All Tables page (Figure 4-48 on page 147).

Note:

As indicated in the bread crumbs, Figure 4-50 is accessed by displaying all tables, then a particular table, then a particular BC Set whose TR affected that table. By contrast, Figure 4-46 on page 145 is accessed by displaying all BC Sets, then a particular BC Set, then a particular table that is affected by the TR for that BC Set.

For the same combination of BC Set and table, as in the examples of Figure 4-46 on page 145 and Figure 4-50, the data is the same. Only the sets of links that were used to access the data (as reflected by the bread crumbs) are different.

In any drill-down page, clicking the **Back** button displays the portlet's Show All BC Sets page ("Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129).

Comparing a BC Set to a Current Table

See "Figure 4-49. Drill-down page showing the BC Sets for TRs affecting a table" on the previous page. To the right of each BC Set name is a **Compare With Actual** link that you can use to display a page that lists the latest actual values of the entire table (V_TVKGGR in this example), and that also lists the entries in that BC Set, which represents a TR that affected that table. For example, clicking the **Compare With Actual** link for BC Set YUS1K900530 displays the data in "Figure 4-51. Drill-down page comparing a BC Set to a current table" below.

Figure 4-51. Drill-down page comparing a BC Set to a current table

Maximized View [Back](#)

SAP - Business Configuration Sets

Compare Actual Values With YUS1K900530 for table: V_TVKGGR [All tables > V_TVKGGR > Diff for BC Set: YUS1K900530](#)

Actual Values

Reclumber	MANDT	VKGRP	BEZEI
1	100	006	Sales Canada
2	100	001	Sales Germany
3	100	002	Sales Israel
4	100	003	Sales India
5	100	004	Sales US
6	100	005	Sales France
7	100	007	Sales Austria

BC Set: YUS1K900530

Reclumber	MANDT	VKGRP	BEZEI
1	100	001	Sales Germany
2	100	002	Sales Israel
3	100	003	Sales India
4	100	004	Sales US
5	100	005	Sales UK
6	100	006	Sales Canada

Notice that the actual values for the table and the data for this BC Set are the same as shown in ["Figure 4-47. Drill-down page showing a table's change history" on page 131](#) for the more comprehensive change history of this table.

As you compare any BC Set to the current table, remember that any one BC Set represents one or more customizing changes that were released simultaneously in a TR. A BC Set is not a cumulative list of previous changes.

A navigation path appears below the portlet title bar. Clicking the **All tables** link displays the Show All Tables page (["Figure 4-48. SAP - Business Configuration Sets portlet, Show All Tables page." on page 133](#)). The table name, V_TVKGGR in this example, is a link to the previous page (["Figure 4-49. Drill-down page showing the BC Sets for TRs affecting a table" on page 134](#)).

In any drill-down page, clicking the **Back** button displays the portlet's All BC Sets page (["Figure 4-44. SAP - Business Configuration Sets portlet, Show All BC Sets page" on page 129](#)).

Editing the Portlet Filter Fields

When you click the **Edit** icon on any of the pages of the SAP - Business Configuration Sets portlet discussed in previous sections, a page appears with, among other portlet filter fields, the fields shown in ["Table 4-43. SAP - Business Configuration Sets portlet filter fields"](#). Collectively, these fields are filter criteria that control which BC Sets are displayed.

Table 4-43. SAP - Business Configuration Sets portlet filter fields

Field Name (*Required)	Description
*SAP Environment	Filters for the SAP environment on which BC Sets were generated
From date	Filters for the earliest date of BC Sets generation
To date	Filters for the latest date of BC Sets generation
From BC Set	Filters for BC Sets starting with the specified one, for example YUS1K900100
To BC Set	Filters for BC Sets ending with the specified one, for example YUS1K900250
BC Set Name like	Using the asterisk (*) as a wildcard symbol, filters for BC Sets with names you specify, such as YUS1K*

Note:

If you have generated many BC Sets over a period of time, you can back them up as flat files and delete them from the SAP system. BC Sets deleted from the SAP system are not displayed in the SAP - Business Configuration Sets portlet.

Special Commands

This section provides reference information about the SAP-specific special commands provided in the Extension. These special commands are listed and defined in ["Table 4-44. Special commands included in the Extension"](#).

For information about using and configuring special commands, see the *Commands, Tokens, and Validations Guide and Reference*.

Table 4-44. Special commands included in the Extension

Special Command	Description
ksc_sap_j2ee_deploy_command	Connects to the SAP SDM server to deploy J2EE archives.
ksc_sap_j2ee_undeploy_command	Connects to the SAP SDM server to undeploy J2EE archives.
ksc_sap_rfc_call	Connects to the SAP system using JCo and passes parameters to the remote function calls (RFCs). This special command can be used in object types and validations to call the RFCs provided by HPE.

Table 4-44. Special commands included in the Extension, continued

Special Command	Description
	The sets of parameters, (tokens), descriptions are as follows: <ul style="list-style-type: none">• SAPENV, (DEST_ENV.ENVIRONMENT_NAME), the SAP environment where the RFC should be executed• XMLINPUT, (XMLINPUT), the input XML• OUTPREFIX, (OUTPREFIX), the prefix for the output file
ksc_sap_rfc_xsltransform	Connects to the SAP system and runs the RFC. The output of the RFC is transformed using XSL.

Validations

This section provides reference information about the SAP-specific validations provided in the Extension for SAP object types, request types, and report types. These validations are listed and defined in "[Table 4-45. Validations included in the Extension](#)" below.

For information about using and configuring validations, see the *Commands, Tokens, and Validations Guide and Reference*.

Table 4-45. Validations included in the Extension

Validation Name	Description
SAP Approval	Approval or decision step for SAP.
SAP Category	Returns the category of SAP change— ABAP , Customizing , or ALL .
SAP Client	Returns a list of SAP clients.
SAP Client Dependent/Independent/All	Returns the type of SAP change— Client Specific , Client Independent , or All .
SAP Component	Returns the components in the SAP environment.
SAP Document Status	Returns the status of the SAP document.
SAP Environments All	Returns a list of all the SAP environments.
SAP - Error Handling	Describes the action to be taken when an error is encountered. The possible actions are as follows: <ul style="list-style-type: none">• E - ON ERROR STOP (the default)• I - ON ERROR IGNORE• S - ON ERROR SKIP DEPENDING

Table 4-45. Validations included in the Extension, continued

Validation Name	Description
SAP - Get Archive vendor	Returns the vendor of the archive during a undeployment.
SAP - Get Archive version	Returns the version number of the archive during a deployment.
SAP Module	Returns a drop-down list of SAP modules.
SAP - Object List using JCo	Uses the special command <code>ksc_sap_rfc_call</code> to connect to the SAP systems and get the object lists of transport requests.
SAP - Object Types	Returns a list of enabled SAP object types.
SAP Owner	Returns the owner of the Transport (Change) Request.
SAP - Package Line Status	Returns a list of package line statuses to be used in portlets.
SAP - Patch Components	Returns a list of SAP components.
SAP - Patch List	Returns a list of patches for the specified components.
SAP - Patch Process Status	Returns a list of statuses during the patch process.
SAP - Patch SPAM Version	Returns the current SPAM version for the SAP system.
SAP - Patch Subworkflow	Returns the set of valid codes for the subworkflow to present to the workflow.
SAP Provide Status	Provides the status of the SAP project.
SAP Release	Returns the SAP Release.
SAP Request Category	Returns the category of the Transport (Change) Request.
SAP - Request Numbers	Returns a list of request numbers for SAP request types.
SAP Request Types	Returns the SAP request types.
SAP System	Returns the name of the SAP system.
SAP - Target Undeployments	Returns a list of the objects to be undeployed.
SAP TR Function	Returns the category of the Transport Workbench— Customizing or Local .
SAP - TR List with Picklist02 using JCo	Returns a list of SAP transports that use the <code>/KINTANA/RFC_TR_PICKLIST02</code> RFC (or, for the NetWeaver 7.00 SAP platform, the <code>/HPSPM/RFC_TR_PICKLIST02</code> RFC). Uses the special command <code>ksc_sap_rfc_call</code> to connect to the SAP systems.
SAP - TR List with Rel/Unreleased Tasks using JCo	Returns a list of SAP transports for which the included tasks are released or unreleased, depending on the value of the <code>TRTASKSTATUS</code> parameter of the RFC. Uses the special command <code>ksc_sap_rfc_call</code> to connect to the SAP systems.

Table 4-45. Validations included in the Extension, continued

Validation Name	Description
SAP - TR Number using JCo	Returns a list of SAP transports that are not exported but for which all the included tasks are submitted for a particular Username specified in the User Workbench window, Extension Data tab, SAP subtab. Uses the special command <code>ksc_sap_rfc_call</code> to connect to the SAP systems.
SAP TR Status	Returns the status of the transport— Exported , Not Exported , or Both .
SAP - Transport List using JCo	Returns the list of SAP transports that have to be migrated to target SAP systems. Uses the special command <code>ksc_sap_rfc_call</code> to connect to the SAP systems.
SAP - Transport List (with Exclusion List) using JCo	Returns only those SAP transports that have not been selected in any other saved package with a NOT_EXPORTED status and that also meet the additional filtering criteria specified in the parameters of the object type. Uses the special command <code>ksc_sap_rfc_call</code> to connect to the SAP systems.
SAP Transport Tasks Status	Returns the status of the tasks of a transport— Released , Unreleased , or Both .
SAP - Version Handling	Defines the version handling to use in the destination. The possible values are as follows: <ul style="list-style-type: none"> • A - UPDATE ALL VERSIONS (the default) • L - UPDATE LOWER VERSIONS ONLY • S - UPDATE SAME AND LOWER VERSIONS ONLY
SAP - Y/N	Returns the values Yes and No for a drop-down list.

Tokens

While configuring certain features in PPM Center and the Extension, you must often refer to information that is undefined until it is used in a specific context. Instead of generating objects that are valid only in specific contexts, variables can be used to create general objects that can be applied to a variety of contexts. These variables are called tokens.

Tokens can be used in (but are not limited to) the following PPM Center entities:

- Object types
- Request types

- Validations and SQL statements
- Report types
- Workflow executions and notifications
- Workflow steps

This section provides reference information about the SAP-specific tokens provided in the Extension. These tokens are listed and defined in ["Table 4-46. Tokens included in the Extension" below](#).

For information about using and configuring tokens, see the *Commands, Tokens, and Validations Guide and Reference*.

Table 4-46. Tokens included in the Extension

Prefix	Token	Description
ENV.AC	SAP_CLIENT	Three-digit number for the SAP Client represented by this environment
ENV.AC	SAP_DOMAIN_CONTROLLER	TR source system
ENV.AC	SAP_GROUP_NAME	Group name
ENV.AC	SAP_INTERNAL_IP_ADDRESS	Internal IP address
ENV.AC	SAP_J2EE_PASSWORD	An encrypted password corresponding to the SAP_USERNAME for a particular J2EE server
ENV.AC	SAP_J2EE_PORT	Port number corresponding to a particular J2EE server
ENV.AC	SAP_J2EE_SERVER	Server name of a particular J2EE server
ENV.AC	SAP_OBJECT_RESTRICTION_LIST	SAP Objects Restriction List
ENV.AC	SAP_PASSWORD	Password corresponding to the SAP_USERNAME for a particular environment
ENV.AC	SAP_PORT_NUMBER	Port number
ENV.AC	SAP_QUEUE_NAME	Queue name for a particular environment
ENV.AC	SAP_SYSTEM_NAME	10-character system name for a particular environment

Table 4-46. Tokens included in the Extension, continued

Prefix	Token	Description
ENV.AC	SAP_SYSTEM_NUMBER	2-digit system number for a particular environment
ENV.AC	SAP_TP_LOCKFILE_NAME	TP Lock File Name
ENV.AC	SAP_TP_PARAMETER_FILE	TP Parameter File
ENV.AC	SAP_USER_NAME	Username that PPM Center uses for all SAP migrations to and from this environment
ENV.AC	SAP_VERSION	SAP release
ENV.AC	SAP_USER_NAME	SAP User Name

SAP Transaction Request Log

You can generate the SAP Transaction Request Log (as an HTML page), as follows:

1. Log on to PPM Center.
2. From the menu bar, select **Open > Administration > Open Workbench**. The PPM Workbench opens.
3. From the shortcut bar, select **Deployment Mgmt > Packages**. The Package Workbench opens.
4. Click **List**.
5. Select and open the package of interest.
6. Click the **Status** tab.
7. Select a single line item.
8. Click the drop-down list to the right of the **View** button and select **SAP Trans Req Log**.

The screenshot shows a window titled "Package: 30004". It contains a "Package Information" section with fields for Package No. (30004), Package Group, Description, Workflow (SAP - Transport and J2EE Deployments), Assigned User, Assigned Group, Package Type (Customization), Priority (Low), Created By (Admin User), Created On (February 22, 2007), Package Status (In Progress), Parent, and Priority Seq (50). Below this is a tabbed interface with "Package Lines", "Status", "Notes", "References", and "User Data". The "Package Lines" tab is active, showing a table with columns: Seq, Object Name, Object Type, Review Package, SAP - Object Type, and Ex. The table contains three rows of data, all with a status of "Succeeded".

Seq	Object Name	Object Type	Review Package	SAP - Object Type	Ex
1	KT8K901179	SAP - Transport Migration using JCo	Approved	SAP - Transport Migratio...	Succeeded
2	KT8K901169	SAP - Transport Migration using JCo	Approved	SAP - Transport Migratio...	Succeeded
3	KT8K901002	SAP - Transport Migration using JCo	Approved	SAP - Transport Migratio...	Succeeded

At the bottom of the window are buttons for "Refresh", "Select All", "View -->", "SAP Trans Req Log", "QA Approval", "Submit", "OK", "Save", and "Cancel". The status bar at the very bottom says "Ready".

9. Click **View**.

The log is generated and displayed as an HTML page.

10. View, print, or save the resulting HTML page.

Send documentation feedback

If you have comments about this document, you can [contact the documentation team](#) by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Deployment Management Extension for SAP Solutions Guide (Project and Portfolio Management Center 9.40)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to your_IE_team_PDL@hpe.com.

We appreciate your feedback!