

Note Language: English

Version: 2

Validity: Valid from 12.10.2006

Summary

Symptom

Recommendations related to SAP Project System (release 46C onwards)
Integration with SAP xRPM 4.0

More Terms

SAP xRPM 4.0, SAP Project System Integration, SAP Project System
Upload/Download

Cause and Prerequisites

This note provides recommendations for SAP Project System Upload and Download to/from SAP xRPM and is applicable for the customers with Service Package 7 of SAP xRPM 4.0 and SAP Project System release 46C onwards.

Solution

1 Pre-requisites for Project System Integration

- There should exist an Item in xRPM which is not linked to any project in Base Project System.
- There should exist a cProjects Project (referred to as "Operational Project") attached to the Item.
- Basic configuration steps should have been carried in SAP xRPM IMG and cProjects IMG.

2 Configuration

It is necessary that all the required configurations to create these objects have been carried upon before the integration takes place. To do the mentioned configuration, please go to cProjects IMG.

Once you complete the configuration, please go to Global Settings (SAP xRPM IMG -> Global Customizing -> Global Settings -> Override Default Global Settings) in xRPM IMG and define default values for the Area '0009'.

- | | | |
|------|---|--|
| 0001 | - | Default Status Profile for Portfolio Item Project Plan |
| 0002 | - | Default cProjects Project Type |
| 0003 | - | Default cProjects Task Type |
| 0004 | - | Default cProjects Role Type |
| 0005 | - | Default cProjects Phase Type |
| 0006 | - | Default cProjects Role Type for Integration |

2.1 Mapping Table

To access the Mapping Table in SAP xRPM 4.0 -
SAP Customizing Implementation Guide -> SAP xApp Resource and Portfolio Management (SAP xRPM) -> Base System Interfaces -> Application Object Settings -> Map Base System Object Fields to SAP cProjects Fields

Select appropriate Main Grouping and Sub Grouping and Select "Field Mapping". Here "Sub Object Field Name" represents the fields that are available from Project System and "cProjects Object Field Name" represents

the fields that are available from cProjects Project.

For example, to review the Project Header Mapping of PS Project and cProjects Project, Select Main Grouping as "PD" and Sub Grouping as "PD" and review the field mapping

For Project System, Main Grouping is always "PD" and sub grouping can be any of the following

- PD - SAP PS Project Definition
- AM - SAP PS Activity Milestone
- EL - SAP PS Network Activity Element:
- MLST - SAP PS Milestone
- NP - SAP PS Network Header
- NV - SAP PS Network Activity
- PDRR - SAP PS Role Resource Assignment
- PLPS - SAP PS Project Role (Network Activity)
- PR - SAP PS WBS Element
- PSPT - SAP PS Project Team (Work Center)

Please remember that mapping information of fields determines that what field of Project System is transferred to what field of cProjects Project. If in case you decide to alter the standard mapping delivered by SAP or you wish to add new mapping of fields, please note that conversion would be required from one field to another.

For SAP delivered mapping, conversions are provided by SAP and for any other addition, you must have custom implementation for BADI definition DPR_PLMPS_CUS_FIELD for the method CUST_MAP_PSINT2DPR_DATA. Please refer BADI interface method documentation for more details.

3 Uploading projects from Project System to xRPM

A PS Project can be imported to xRPM to transfer the project data to operational data and item data in xRPM. When an upload takes place, a link is established between the Project System project and the Item to which it is imported.

3.1 Project Header

Project definition of the PS project is imported as the name of operational cProjects project.

Object Mapping between Project System Project and Operational Project (cProjects project)

Project System Object		Operational (cProjects) Project
WBS element	->	Task
Network header	->	Task
Network activity	->	Task/Role
Network activity element	->	Task/Role
Milestone	->	Task
Activity milestone	->	Task
Resource	->	Resource
Work Centre	->	Team

All the Project System Objects which become tasks in the operational project in xRPM will be imported into the operational cProjects project

under a phase called 'TASK HIERARCHY'. This behavior is due to the fact that a task under a cProjects project cannot have sub tasks in cProjects while there is no such restriction in Project System.

Objects of type material are not imported.

3.2 Operational Project (cProjects) Object Types

The Project Type, Task Type, Role Type, Phase Type of the cProjects project linked to the item has default values maintained within the xRPM IMG: Global Customizing -> Check Global Settings

Area 0009 (Portfolio Item Project Integration)
Name 0002 (Default cProjects Project Type)
Name 0003 (Default cProjects Task Type)
Name 0003 (Default cProjects Role Type)
Name 0003 (Default cProjects Phase Type)

The standard delivery is 000000000000RPM. This value can be overridden by the IMG step: Override Default Global Settings.

These default values are used for various object types during the import/upload to xRPM.

3.3 Dates

The Dates are filled with Fixed Start Constraint and Fixed Finish Constraint during upload from Project System to xRPM. While transferring Date to cProjects, the time information attached to the date is ignored.

3.4 Duration

The duration is imported correctly for the tasks if the Calendar maintained in Project System is the same as the Calendar in cProjects Project.

3.5 Status

Only the following Project System status are supported:-

Project System Status		Operational(cProjects) System Status
'CRTD'	->	CRTE(Created)
'REL'	->	REL (Released)
'TECO'	->	CMPT(Completed)
'CLSD'	->	CMPT(Completed)

The standard status management of cProjects does not allow deletion of objects which have a status other than 'Created'. If this is to be allowed, a status profile for these projects have to be defined and assigned to the cProjects projects. The configurations required are:

- Define a status profile which allows deletion through adding a user status 'Delete' to the system status/ business transaction of a cProjects project element.

IMG -> Collaboration Projects -> Basic Settings -> Create/Change Status Profile for User Status

- Defining that this status profile should be added to all cProjects project elements on upload from PS.

xRPM IMG -> Global Customizing -> Check Global Settings

Area 0009 (Portfolio Item Project Integration) ->

Name 0001 (Default Status Profile for Portfolio Item Project Plan). A

customer specific status profile can be assigned in next IMG step (Override Default Global Settings).

3.6 Location Mapping

The plant in Project System is mapped to Location in xRPM and the corresponding area for this location is also populated. During upload, the item and cProjects attributes for area and location are modified based on the plant and location mapping maintained in the IMG:

Base System Interfaces -> SAP Product Lifecycle Management - Project System Integration -> Map SAP PLM PS System Locations to SAP xRPM Project Locations.

2 Downloading projects to Project System

An xRPM portfolio item can be downloaded to Project System only once to transfer the item and portfolio project data to PS. The new project is created by copying a Project System operative project.

2.1 Template Search

The template search performs an operative projects (known as standard projects in PS terminology) search during download from xRPM to Project System.

The search string entered to search for the project to be copied is used as the New Project ID for the project to be created in SAP Project System. This ID should be compliant with the Project System mask. Also, once the project is searched and selected, it is possible to change the Project ID with which you want to download, before clicking "Done". The New Project ID is automatically filled with this string.

The project description of the new project created in Project System is set to the xRPM portfolio item description.

2.2 Limitations related to download

As operative projects are copied during the download to Project System; Networks, Network activities and activity elements are not copied as part of download from xRPM to Project System.

2.3 Dates

The start and end date of the new project created in Project system come either from xRPM portfolio item or the associated cProjects project depending upon the mapping. The dates if coming from associated cProjects project override the xRPM dates.

3 Work Centre upload from Project System to xRPM system

During transfer of work centers from Project System to xRPM, teams are created in xRPM for each of the work centre being transferred to xRPM. One can do this from SAP PLM PS by running the report RPM_WRCNTR_UPLOAD, which transfers work centers to SAP xRPM and uses them to create team master data. The team name in xRPM is generated using a combination of plant and work center, because the work center ID is only unique within a plant and can be used again in a different plant.

The resources assigned to the work center are used to create the resources assigned to teams in SAP xRPM. The employee IDs of resources in SAP PLM PS are used to search for business partners in SAP xRPM with identical

employee IDs. If a match is found, the business partner is added to the team.

If the SAP PLM PS work center is created using organization units, the employees in the organization unit are derived during the transfer of the work center and used as the basis for creating teams. If new employees are added to the organization after you have run the report, these employees are not included in SAP xRPM system unless you run the program again. For this reason, you should run the program regularly (for example, weekly).

For further details read the documentation in the following xRPM IMG activity:-

SAP xApp Resource and Portfolio Management (SAP xRPM)

- > Base System Interfaces
- > SAP Product Lifecycle Management - Project System Integration
- > Data Distribution From SAP PLM PS to SAP xRPM
- > Upload Work Centers From SAP PLM PS

4 Configuration required to navigate to custom transaction for SAP PLMPS project link in xRPM UI: Process Overview

When the PS transaction is executed from the xRPM UI, then the transaction code PLM_PS_TRANS is called. In this transaction, there is a BAdI: PLM_PS_TRANS_TYPE, for which one can define that the PS project call is a customer driven transaction (ie. type 'C'). Once it is determined that a customer transaction is to be called, then BAdI: PLM_PS_CUST_TRANS is called. Here the application parameters are passed and this is where one needs to execute the custom transaction. Review the application transaction PLM_PS_TRANS for details on how the standard call is processed and executed for examples on how to customize ones call for execution.

The parameters passed by xRPM are:

AKTTYPE = CHANGE
INFOITEM = MASTER_DATA_PS
ATTR1 = BUS2001
ATTR2 = <Project ID>

These parameters are generated by a standard SAP application integration component. This is documented in note 857511 which can be used for further reference.

Header Data

Release Status:	Released for Customer
Released on:	19.10.2006 19:08:04
Priority:	Recommendations/additional info
Category:	Consulting

Main Component	XAP-RPM-INT Integration & Interfaces to composite apps
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Valid Releases

Software Component	Release	From Release	To Release	and Following
CPRXRPM	400	400	400	

Related Notes

Number	Short Text
869091	xRPM 4.0 Master Note