

# Integration of Microsoft Project with SAP

## Use Cases with Standard and Controlling Edition

### White Paper PSLink 3.0

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## **1 Executive summary**

This document describes specific use cases of customers that are covered by PSLink 3.0 standard or controlling edition. The main focus is to show how these use cases require specific SAP configuration as well as how they fit best with PSLink Standard or with PSLink Controlling Edition.

## **2 SAP PS use cases with PSLink 3.0 Standard Edition**

PSLink 3.0 Standard Edition (SE) is built in a way to support most use cases regarding integration of Microsoft Project (MSP) with SAP PS. PSLink 3.0 Standard supports all PS objects, like WBS elements, networks, activities, activity elements, milestones, material components etc.

PSLink 3.0 SE enables to perform basic project management tasks like scheduling and resource planning as well as SAP related tasks like primary cost planning in MSP. However, it depends on the use case to identify what kind of planning tasks are to be performed in which system.

In general, PSLink 3.0 SE is designed for a detailed, rules based integration of Microsoft Project with SAP PS. For this purpose, PSLink 3.0 SE is build as a solution platform that can be customized to meet customer requirements by configuring and developing proper customer solutions.

Some of the most common use cases that require a tight integration on a detailed level (including also networks, activities etc.) are described in the following.

### **2.1 Use SAP for time capturing on activity level**

A common use case is the fact that companies have to perform time capturing in SAP on network activity or activity element level. It is also a requirement that captured work is used for project tracking. Employees are using PS time recording, CATS or ESS for entering their time.

Forecasts are based on work centers or employees assigned to network activities and elements. Some of these activities are owned and controlled by project managers, some by other roles like department leaders, quality managers, controllers etc.

In this scenario, project managers will plan activity work for their own tasks in Microsoft Project. A Project task will map to a network activity or activity element in SAP.

In order to be able to get actual work back into Microsoft Project and use it for project tracking, MSP will feed SAP with all detail activity information. This will ensure, that SAP will reflect the same assignment level and PSLink will update Microsoft Project the same way as if people would capture their time in Microsoft Project Web Access.

### **2.2 Process specific use of tools**

In some of the customer cases, the tools will be used from different roles and with different kind of data during the stages of project lifecycle. In general, a lot of details will be needed in both systems in order to perform the desired actions. Here are two examples

### Example 1 (Manufacturing)

Process step	Tool	Comment
Project initiation	SAP	WBS structure, networks, activities etc. will be created in SAP based on a template. The responsible person for that is somebody from controlling
Detailed planning	MSP	After releasing project in SAP, it can be extracted to MSP in order to be scheduled and planned in more detail. Project managers are the target group for this kind of operation. Their tool is Microsoft Project.
Change management	SAP	New WBS elements with default activities will be added in SAP and/or not needed WBSE will be deleted in SAP. Controllers or department managers are signing responsible for that.
Time capturing	SAP	Actual work will be tracked in SAP on activity level
Project tracking	MSP	Project plan will be updated and rescheduled in MSP
Reporting	MSP/SAP	Usually done in both tools based on data requirements of users.

### Example 2 (Automotive)

Process step	Tool	Comment
Customer request	SAP	New offers will be created within SAP (e.g. in SD)
Proposal creation	MSP	PSLink will transfer offer header-data and create new MSP projects based on a template. The proposal will be calculated in MSP.
Detailed planning	MSP/SAP	After customer order, PSLink will create the project in SAP with all required objects (WBS structure, networks, activities etc.). Detailed planning is done in MSP. Primary cost planning (materials, services etc.) is taking place in SAP.
Change management	MSP	No WBS changes here. New activities are entered in MSP
Time capturing	SAP	Actual work will be tracked in SAP and passed to MSP
Project tracking	MSP	Project plan will be updated and rescheduled in MSP
Reporting	MSP/SAP	Usually done in both tools based on data requirements of users.

In general, both examples require some redundancy in both systems.

## 2.3 Perform the same planning activities in both systems

Some enterprises have a company rule stating that all kind of project management related IT work must be possible inside SAP, without using other tools. In consequence, if business decides to use Microsoft Project for enterprise project management, everything that is done in Microsoft Project can be done also in SAP. That means:

- Planning in MSP integrated with SAP and stand-alone planning in SAP will have the same results
- All result data must be in SAP (even if there is a lot of redundancy)
- A project started in MSP integrated with SAP shall be able to be carried forward inside SAP only at any time

## **2.4 Work in both systems simultaneously based on role requirements**

In some use cases we find the requirement that some people will work in MSP while others in SAP on the same project. This is mainly based on the specific role of each person. For example, software development department will download the project into MSP to work out their tasks, while engineering department will plan their activities within SAP. Another example: Project managers will plan out internal activities in MSP while accountants will create and change external, service and cost activities in SAP.

In this scenario, PS serves as a container for project data to be utilized by several users. PSLink applies specific rules on what kind of tasks users may change in MSP. This might be based on WBS element assignment, on network information or on activity control keys.

## **3 SAP PS use cases with PSLink 3.0 Controlling Edition**

PSLink 3.0 Controlling Edition (CE) deals with Project definition, WBS elements and WBS milestones only. PS Networks, activities and other PS objects are not part of this solution. Use cases containing these objects are covered by PSLink 3.0 standard Edition (SE). PSLink CE can also operate with no PS at all – by updating SAP CO internal orders with values from Microsoft Project. One of the most important features of PSLink 3.0 CE is the flexible summarization of data on WBS or order level, in order to update work, primary costs or any other kind of controlling based information in SAP.

This approach removes most of the project management related work from SAP and transfers it into Microsoft Project EPM. SAP is considered as the accounting and budgeting tool.

Unlike the Standard Edition, PSLink 3.0 Controlling Edition is a packaged product that supports only specific use cases (as described below). It is delivered with powerful configuration options.

Some use cases for this model are described in the following. In general, these use cases will appear in combination at customers.

### **3.1 Keep MSP WBS independent from SAP WBS**

Some companies wish to maintain a different WBS structure in MSP as in SAP. The SAP WBS is often called a "CBS (Cost breakdown structure)" and does not reflect the work organization project managers need for planning their project.

In PSLink 3.0 CE there are two configuration options for that:

1. Only the top level Microsoft Project structure map with SAP WBS – the structure beneath is free. In this model, administrators can define down to which level MSP summaries shall be in synch with SAP.  
For the case that the WBS is first created in SAP and will be downloaded to MSP, administrators can also configure which elements to consider for synchronization. This is based on field configuration, for example: Load all WBSE with company code XXX or plant YYY.
2. SAP WBS is not mapped to Microsoft Project tasks at all but to a Microsoft Project outline code user field. This approach enables complete independency of WBS in SAP and MSP. Project managers will be able to assign their tasks to any SAP WBS by selecting the proper structure element from outline code field.

### 3.2 Fulfill all PM work in MSP and feed SAP with accounting data

In this use case all PM work will be performed in MSP. Data for accounting will be summarized to controlling parameters (WBS element or CO order, cost center, activity type etc.) and transferred to SAP.

In order to get accounting data for SAP, some settings must be done in MSP and PSLink configuration. The basic ones are:

<b>SAP setting</b>	<b>Description</b>
WBS element	This is achieved by <ul style="list-style-type: none"><li>- outline parent information (the high level tasks map with SAP WBS)</li><li>- outline-code user field</li></ul> See first use case for more details
Order number	Can be used alternatively to WBS elements. It is a user field (text or outline) on tasks or for the whole project and is used to summarize work or costs
Cost center	This is a user field (text or outline) on enterprise resources or on tasks and is used to summarize work
Activity type	This is a user field (text or outline) on enterprise resources or on tasks and is used to summarize work
Cost element	This is a user field (text or outline) on enterprise resources or tasks and is used to summarize costs for materials or services

The requirement in this use case is to summarize values for work and costs to unique keys like WBS-Element/Cost-Center/Activity-Type/FY-Period (e.g. month) and transfer the results to SAP CO for specific controlling version and fiscal year (activity input and primary cost input).

Summarization definitions can be configured in PSLink 3.0 CE configuration options containing all required settings like field mappings, CO-version, period definitions etc.

### 3.3 Use SAP as the budgeting tool for MSP

This use case is related to the one before. Project managers will transfer planned costs to some CO version. Accountants will consider this information to define a budget version for submitted budgets to the project.

### 3.4 Use MSP for planning and Web Access for time capturing

In this use case Microsoft Project is the tool for project planning and time recording. SAP only receives results for forecasts and for actuals. Actual time is transferred in a similar way as planned work by using activity allocation documents.

### 3.5 Use MSP for planning and SAP CATS for time capturing

With this scenario, all detail planning is performed in Microsoft Project. SAP contains only high level WBS structures or even only CO internal orders. SAP CATS is used for time tracking. One of the most important reasons to use CATS instead of Project Web Access is the ability to offer one interface to record time for projects (planned in Microsoft Project) as well as for any kind of non project activities (planned within SAP only).

Even if SAP does not contain all details of Microsoft Project, CATS should provide tracking rows recognized as MSP tasks by employees. PSLink enables this by creating CATS records based on MSP task-assignments.

All required SAP information like WBS element, CO order, employee number, cost center and activity type is passed to CATS, but also MSP related data like project name and task name will be viewable within CATS interface. Forecast work from Microsoft Project will be proposed and can be edited by employees.

PSLink ensures that this data is kept up to date and only records with specific status (like 30=confirmed) will be imported back to Microsoft project for task tracking.

### **3.6 Use SAP as the governance tool for MSP**

In many situations we face the requirement of ensuring project governance within SAP. One way to control process flow is to use SAP system and user status.

PSLink 3.0 loads status information from SAP into MSP fields. This information can be used with MSP event model to apply business rules. For example: It can be ensured, that feeding CATS with new records can only be done if the parent WBS element is released in SAP (status REL).