

Software Review

PSLink as Facilitator between SAP and MS Project

by Carsten Siegemund

Most companies today use an Enterprise Resource Planning (ERP) system to support their core business processes. Although these systems usually include modules for project management, in most cases these prove to be extremely accountancy-oriented and project managers almost always refuse to use them. Instead, they prefer to plan and monitor their projects with dedicated project management tools. As a result, many companies have ERP systems and PM software working side by side.

A widespread combination in mid-sized and large companies is SAP as the ERP system and Microsoft Project as the PM tool. Task sharing is obvious in most cases and corresponds to the needs of the relevant job function. Monitoring the project's progress from the business standpoint, setting budgets, and controlling costs, including the integration into the enterprise accounting system, are executed within SAP; whereas Microsoft Project is used for planning the deadlines, capacities, and time needed as well as for project-related reporting.

On the one side, Microsoft Project supplies the planning input for setting and allocating budgets in SAP; and on the other, the budget data approved within SAP need to be transferred to the project planned within Microsoft Project to ensure that the project keeps to the budgets. In this perspective, the question arises of how the two systems are integrated with each other. To avoid the additional work and expense of keeping data in both systems – and the risk of errors that that entails – companies need a system that links the two tools.

Back in 1998 the Munich, Germany based company The Project Group (TPG), a Microsoft Gold Partner, set about linking these two very different worlds by developing its product PSLink. TPG has continued to advance the tool ever since, and it is now in its third version with two variations available: the Standard Edition (SE) and the Controlling Edition (CE). PSLink enables a smooth coordination process between individual projects (or project portfolios) and the company's financial controlling function. As it is an add-in solution, it integrates itself into Microsoft Project's user interface, and synchronization can either be launched from there or scheduled to execute on the PSLink server.

PSLink Standard Edition

PSLink Standard Edition offers very close and detailed integration between individual SAP PS objects (WBS elements, network activities, activity elements etc.) and Project tasks and resource allocations, making it suitable for customers wanting tight dovetailing between the SAP PS module and Microsoft Project. At implementation, the customer can define which of the two products acts as the lead system and this decision can be broken down to the field level. However, this procedure requires the transfer of the multiple rules and restrictions in SAP to the Microsoft Project user interface. Examples include the rule that prevents tasks with a certain SAP status from being edited or deleted, the structural dependency of tasks, and much more. This has the effect of losing some of Project's familiar flexibility, although this might not only be seen as negative because having clear rules might also be considered as an advantage.

The primary purpose of this integration is being able to utilize the user-friendly interface of Microsoft Project to "externally" process SAP activities. This also enables staff to work on projects offline, which is not possible in SAP PS. The advantage for project planners is an increase in flexibility without having to forgo their highly valuable planning data, and enables them to be confident that they are working with the newest data once these have been synchronized.

Due to SAP rules as well as to the special characteristics of the SAP PS objects, the Standard Edition is very generic and can be adapted to customer needs. Customized solutions can be created using configuration and individual programming, which would open up a broad range of potential applications (see the Application Examples" section). The objective is always to keep the entire dataset synchronized in both systems, even if the deadline, resource and/or cost planning is being performed in both.

Examples of potential application scenarios (SAP PS and PSLink (SE)):

- **Process- and role-specific use of tools.** The process-specific nature of SAP and Project enables the strengths of each tool to be integrated with those of the other. From this perspective, SAP PS is used as a sort of data container. Depending on their role, people can work with one part of the data in SAP PS (e.g. overall quality assurance procedures), while project managers work with the other part within Microsoft Project.
- **Restrictive Utilization of Microsoft Project.** Many companies use Project as a sort of remote control tool to run SAP PS from outside. In this type of application, tasks and summary tasks are clearly linked to SAP PS objects like WBS elements and network activities. PSLink ensures that each new task in Microsoft Project has to become a new object in SAP PS and that all relevant SAP status rules are applied. This model enables staff to continue planning within SAP if they wish so. By the same token, the reverse is also possible (the flexible utilization of Microsoft Project).
- **Material components.** Material components are assigned to network activities in SAP to manage the provision, ordering, and delivery of materials needed to complete a task. PSLink can provide important information about material components within Microsoft Project, which facilitates planning of material provisions.
- **SAP elements.** In SAP, tasks are only classified one level lower into 'activity elements' to enable more detailed allocation of work and costs. With PSLink, activity elements can be shown as subtasks or as resource allocations, making detailed work and cost planning significantly easier, because it can be performed with the user friendly utilities included in Microsoft Project.

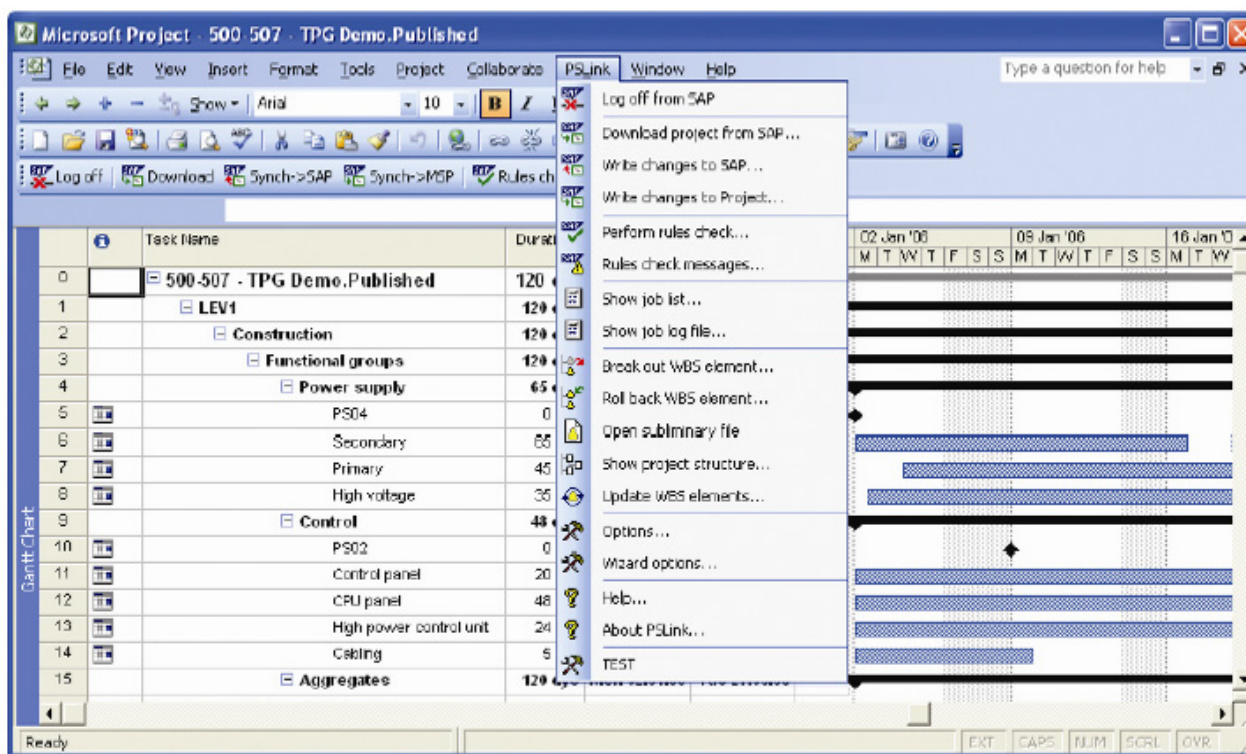


Diagram 1: PSLink's menu showing an adjustment to an implementation.

PSLink Controlling Edition

The Controlling Edition (CE) of PSLink is unlike the Standard Edition in that it is an extensively configurable product that covers clearly-defined use cases for financial accounting. Here, SAP serves as a pure project controlling instrument, whereas the detailed project planning is exclusively carried out in Microsoft Project. The product is intended for customers for whom these clearly-defined types of use are more important than the detailed dovetailing and leveraging of all capabilities supplied by the PSLink Standard Edition.

Contrary to the Standard Edition, PSLink CE does not depend on the SAP PS module. Exchanging information on work and costs can be done using internal orders from accounting, without using PS. However, if PS is used, the integration of the two products is mainly on the level of WBS elements. SAP WBS elements are used here as elements of a cost structure plan to consolidate work and costs, whereas staff can work with a partially or completely independent project structure in Microsoft Project. This approach accommodates the idea of using SAP PS as a financial controlling tool and Project for the detailed planning.

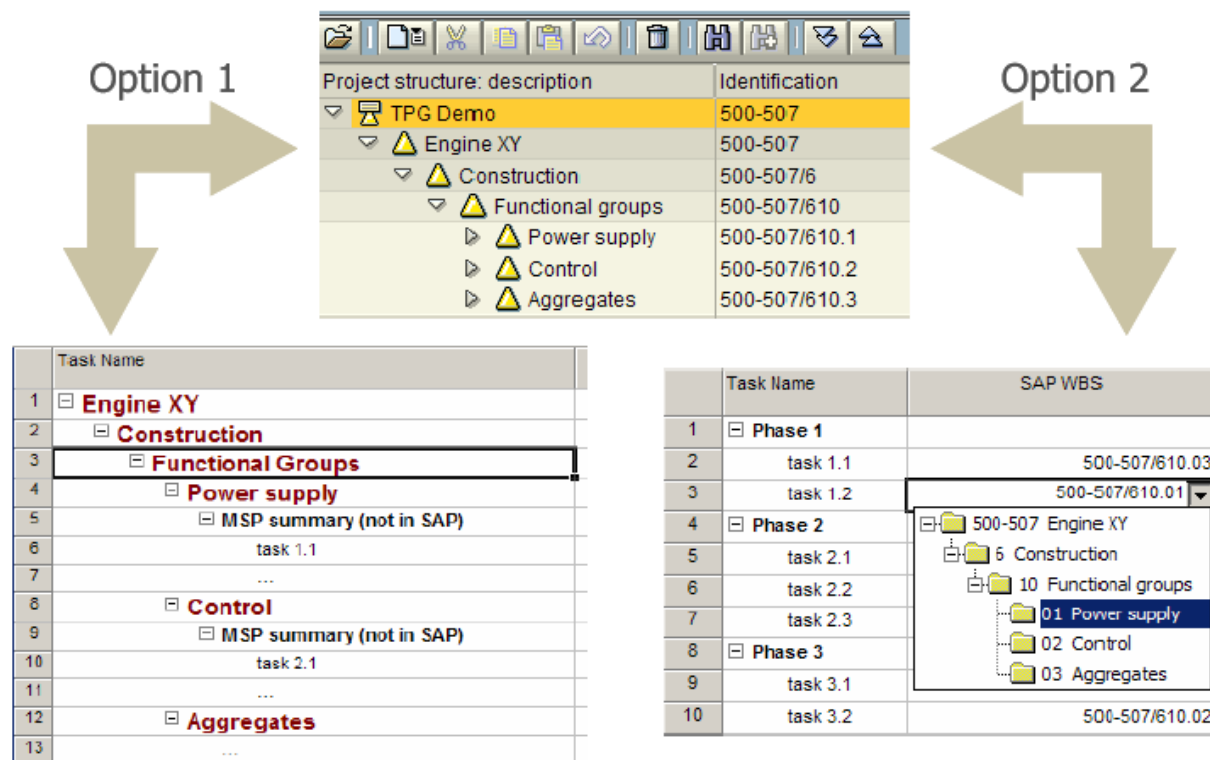


Diagram 2: SAP structures can also be connected using an outline code field (Option 2).

Examples of potential application scenarios (SAP PS and PSLink (CE)):

- **Independent project structures.** As a rule, projects are structured in SAP from a cost perspective, whereas Microsoft Project stipulates that projects are set up in phases. These two different approaches can be resolved with PSLink, because the SAP project structure plan can be linked to a separate outline code field and is synchronized as such. Diagram 2 illustrates this correlation.
- **Clear division of tasks between detailed project planning and financial controlling.** In many cases, project information within SAP is only relevant to budgets and costs. The details planned in Microsoft Project are not needed in SAP, so making them available in reserve is unnecessary. In these cases the SAP PS elements can be reduced to the minimum required for setting up budgets and tracking costs. Under certain circumstances, staff can do without SAP PS altogether and just create one order per project. In these cases PSLink will ensure that costs and work are intelligently consolidated into WBS elements or orders and that they are transferred to SAP each fiscal year at precisely the correct period.
- **Feedback in Project Web Access.** Microsoft Project includes a capability for recording work time to underpin the in-depth management of projects. SAP does not need all these details, but rather only the aggregated calculation of labor costs based on orders, cost centers, and activity type. PSLink can consolidate this information and transfer it to SAP.
- **Feedback in SAP CATS.** Conversely, many companies use SAP CATS as a tracking center for every type of activity in the enterprise. In these cases, PSLink can make the work lists available either via PS network activities or as direct updates to the CATS database. The hours registered are then imported into Microsoft Project.

Data Interchange in PSLink

The choice of tool to be used for managing master data will depend on where and by whom these are created and which master data are updated within which system. This in turn is dependent on the project participants' areas of responsibility. In practice there are diverse patterns in use; for example, structures are created in Microsoft Project and synchronized with SAP, then additional data are created in SAP and synchronized with Microsoft Project. The interface must be able to determine the lead system on the field level, because the administration of the master data is not confined to just one of the two systems. This is possible using PSLink.

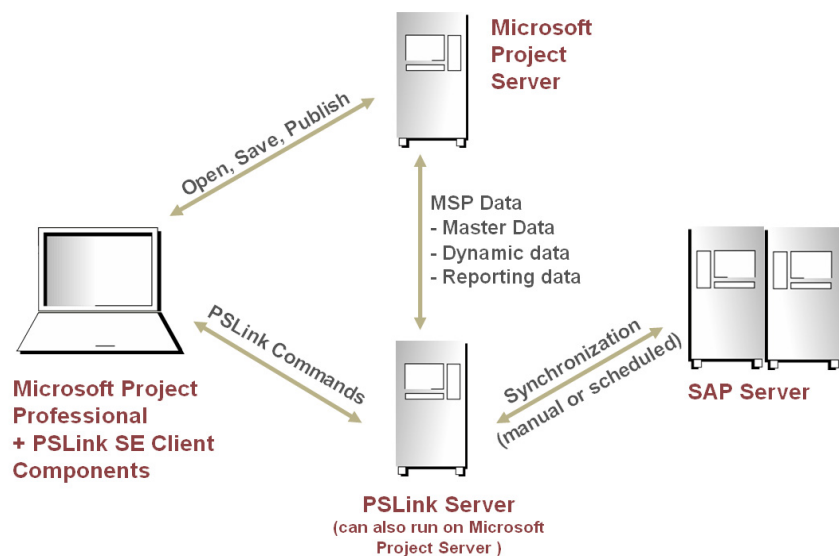


Diagram 3: Data interchange in PSLink Controlling Edition.

The administration and management of dynamic data is not confined to a single lead system either, but can be carried out on a case by case basis. Work planning is often performed in Microsoft Project and updated with the primary costs in SAP.

Transparency and Planning Reliability

This integration makes the project data available across the enterprise - without the need for doubling up on data administration and with no risk of discrepancies between plans – especially for accounting and financial controlling staff who mostly work with SAP systems nowadays. Because of the perpetual replication, planning changes are visible immediately and can be accounted for in the financial department's cost and budget plans. This increases the level of reliability for accounting and project managers because they are working with a better-quality data pool. For the same reason, reports generated from these data are more meaningful.

System Requirements and License Conditions

PSLink (SE) and PSLink (CE) are implemented on the client side as add-ins to Microsoft Project and the same system requirements apply to both products. The minimum requirement is for a Pentium PC with a 233 MHz processor or higher and 128 MB RAM (recommended: 512 MB). PSLink Server can be installed separately on its own computer or together with Microsoft Project Server. In the latter case, Project Server requirements can be used as a guide for the necessary system configuration. The minimum requirement is given as a Pentium III processor with 550 MHz and 256 MB RAM, but these specifications would need to be more generous anyway for the Project Server services. At least 1 GB RAM and fast processors are recommended, or, if the number of users requires it, scaling across several servers.

PSLink is sold as a package that includes implementation and maintenance as well as licenses. Costs are calculated based on the duration of the implementation, which depends on the product variant chosen (SE or CE), customer-specific modifications, and the implementation environment. It takes between two weeks and two months to configure and implement PSLink CE. As PSLink SE can be customized with programming work, the implementation timeframe is usually a little longer.

Not much user training is required because most activities run in the background and are invisible to users. The user will already be familiar with the interface because the functional elements are integrated into the Microsoft Project menu bar. A two-day course is recommended for administrators so that they can familiarize themselves with the product's administration, configuration, and log file specification.

PSLink comes in English and German as standard and other languages can be supplied upon request. The program includes online help as well as a printable manual. In the event of any difficulties customers are also provided with a support hotline.

Conclusion

PSLink is an interface between Microsoft Project and SAP/R3 that enables a bidirectional data interchange between the two worlds of enterprise financial controlling and project execution. The data are synchronized automatically, making it unnecessary to update data in both systems and reconcile the newest data sets by adding them manually. The higher level of data quality benefits users in both the project and the accountancy areas, while making planning figures, and the reports generated from them, more meaningful.

Further information about
PSLink is available at

[PSLink](#) ▶▶

The PSLink Controlling Edition product makes it easier for finance professionals to control costs and budgets due to its predefined processes based on best practices. Especially in companies strongly driven by financial control, PSLink CE enables a fast and easy implementation.

A desirable additional feature would be the extension of PSLink with additional data replication capabilities, such as resources, available in products like ResourceLink, a separate product from TPG.

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