Project System (PS)

HELP.PS

Release 4.6C

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Icons

Icon	Meaning
	Caution
	Example
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Project System (PS)

Purpose

Both large scale projects, such as building a factory, and small-scale projects, such as organizing a trade fair, require precise planning of the many detailed activities involved. The project manager has the job of ensuring that the project is executed efficiently, on time, and within budget - which he or she achieves by ensuring that the required resources and funds are available as and when needed.

Projects are generally part of the internal processes of a company. To be able to control all tasks in project execution, you need an organizational form that is specific to the project and which is shared by all departments involved. Before you can carry out a project in its entirety, the project goals must be precisely described and the project activities to be carried out must be structured. A clear, unambiguous project structure is the basis for successful project planning, monitoring, and control.

You structure your project per the following points of view:

- By structures, using a work breakdown structure (WBS)
- By process, using individual activities (work packages)

Project managers usually distinguish between two types of project:

- Externally financed projects
  - Customer projects
- Internally financed projects
  - Overhead cost projects
  - Capital investment projects

For further information on capital investment projects, see Investment Management [Ext.].

Integration

The high degree of integration between the Project System (PS) and other R/3 application components means that you can plan, execute, and account for projects as part of your normal commercial procedures. This means the Project System has constant access to data in all the departments involved in the project.

Features

The R/3 Project System guarantees close and constant monitoring of all aspects of your project.

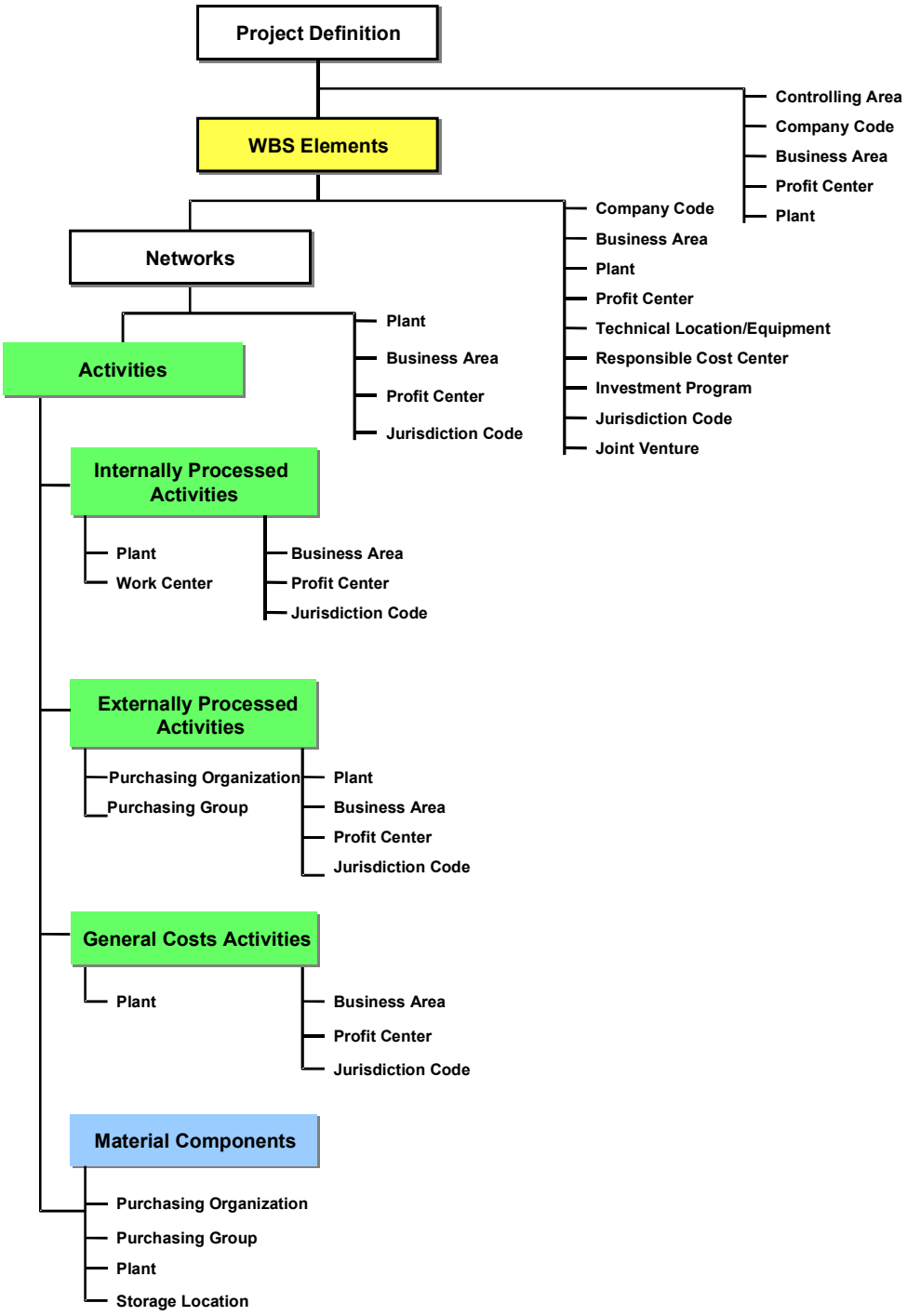
This includes both technical and commercial aspects of the project.

Organizational Structure

Use

Each project starts with the definition and classification of the structures required for processing and the incorporation of these into the existing enterprise structure.

The Project System has no organizational structures of its own; you incorporate it into the existing structure by making assignments to the organizational units in Accounting and Logistics. It is this which enables the Project System to present data clearly and in many different ways.


Project Definition
Controlling Area
Company Code
Business Area
Profit Center
Plant
WBS Elements
Company Code
Business Area
Plant
Profit Center
Technical Location/Equipment
Responsible Cost Center
Investment Program
Jurisdiction Code
Joint Venture
Networks
Plant
Business Area
Profit Center
Jurisdiction Code
Activities
Internally Processed Activities
Plant
Work Center
Business Area
Profit Center
Jurisdiction Code
Externally Processed Activities
Purchasing Organization
Purchasing Group
Plant
Business Area
Profit Center
Jurisdiction Code
General Costs Activities
Plant
Business Area
Profit Center
Jurisdiction Code
Material Components
Purchasing Organization
Purchasing Group
Plant
Storage Location

Currencies in the Project System

Use

All the currency-dependent data in the Project System is managed in three different currencies in parallel:

- Controlling area currency

  The whole project (work breakdown structure, along with the networks, activities, and orders assigned to it) must be in one controlling area. For this reason, the controlling area currency within a project is always uniform.

- Object currency

  You can assign any object currency you wish to the following objects in the Project System:

  - Project definition (default value for matching WBS elements)
  - WBS element
  - Network header
  - Network activity

    If you have assigned a number of company codes to a controlling area and the company codes have different currencies, you cannot allocate the object currency. The system automatically uses the local currency of the respective company code.

- Transaction currency

  Costs and revenues arising from different business transactions in the project are recorded in the currency of the appropriate business transaction - for example, the currency in which the purchase order was entered.

  Planning also takes account of the business transaction currencies. For example, for an externally-processed activity, the system takes the currency from the purchasing info record. If no currency has been maintained in the purchasing info record, you can maintain it manually in the business transaction. The planning finance flow is always displayed in the project by currency.

Every amount in the project is translated as appropriate when you enter it and recorded in the database in all three currencies. You stipulate the currency translation rates in the Project System implementation guide.

Reporting

The commercial information system offers reports in any currency you want, in addition to those described above. The system translates the data using the latest rates.

Prerequisites

Currency amounts are only updated in parallel if you activate the *All currencies* indicator for the relevant controlling area.

Multiple Valuation Approaches in Overhead Cost Controlling

Use

The SAP System enables you to work with multiple value flows.

For more information on the business theory of multiple value flows in the system and their portrayal in the Controlling component (CO), see the SAP Library, under *Accounting* → *EC Enterprise Controlling* → *EC Profit-Center Accounting* → Multiple Valuation Approaches/Transfer Prices [Ext.].

To make the necessary settings for multiple valuations, see the Implementation Guide (IMG) under *Controlling* → *General Controlling* → Multiple Valuation Approach / Transfer Prices [Ext.].

This section deals with the aspects of multiple valuation approaches that are relevant for Overhead Cost Controlling (CO-OM).

Features

Value Flow

Distribution, Assessment and Periodic Reposting

You execute actual distribution, assessment and periodic repostings in parallel in all valuations. The costs to be allocated are taken from the corresponding valuation. The tracing factor is always taken from the operational valuation. The values allocated may differ in the different valuation methods. An exception to this is assessment in Profitability Analysis (CO-PA). This can only be carried out using the operational valuation.

Internal activity allocation

Internal activity allocations [Ext.] are made in the operational valuation. The plan price used for allocation thus applies to all the valuations. A later release will allow different (manually defined) plan prices for the various valuations, dependent on the receiver.

You can determine actual prices, and revaluate on orders in all valuation views. Actual costs are split on the activity types, based on the planning for the operational valuation.

Accrual Costs and Overhead Rates

The operational valuation forms the basis for accrual calculations [Ext.] and overhead rates [Ext.]. The amounts determined are valid for all valuations.

Settlement

Settlement [Ext.] is executed in parallel in all valuation methods, except for settlement to fixed assets or to profitability segments. For settlement to fixed assets, the SAP system uses the company code currency. For settlement to profitability segments, it uses the operational valuation. Line item settlement to a fixed asset is possible only if you use legal valuation as your operational valuation.

Reposting

You can repost documents (with references) in each valuation for the amount updated when the document was originally posted.

It is not possible to repost values for multiple valuation approaches.

Documents and Line Items

When you post a document, the system creates separate line items for each valuation, all of which belong to the same document header.

Analyses and the Information System

You can only execute variance calculation [Ext.] in the operational valuation.

The information system in the Overhead Cost Controlling component can access all of your valuations. A ready-for-input field appears for the valuation in the selection screen, if you have activated the update for multiple valuation approaches in at least one controlling area of the current client. For more information see: *Financials* → *Controlling* → *Cost Center Accounting* → *Information System (CO-OM)* → *Report Definition* → Report Painter [Ext.]). In reporting, you can run target/actual comparisons between plan values in the operational valuation and the actual values in another valuations.

Availability control

Commitments [Ext.] are only executed with the operational valuation.

The active availability control compares the actual values for the operational valuation with the released budget. This means that you can only control availability for the operational valuation.

Reconciliation with Financial Accounting

All valuations are updated in the reconciliation ledger [Ext.]. When you enter reconciliation postings [Ext.], the system reports the values to Financial Accounting in all valuations. However, valuations that are not recorded in Financial Accounting are not considered. For more information see the *SAP Library* under: *Financials* → *Controlling* → *Cost Element Accounting* → *Information System* → Transfer Prices in the Reconciliation Ledger [Ext.].)

The default setting for the reconciliation reports and the cost flow report ensure that values are displayed in the legal valuation.

What is a Project?

Projects are tasks with special characteristics:

- They are generally complex, unique, and involve a high degree of risk.
- They have precise goals which are agreed on by you and the ordering party.
- They are limited in duration and are cost and capacity intensive.
- They are subject to certain quality requirements.
- They are mostly of strategic importance for the company carrying them out.

Projects are generally part of the internal processes of a company. To be able to control all tasks in project execution, you need an organizational form that is specific to the project and which is shared by all departments involved.

To be able to carry out a project in its entirety, the project goals must be precisely described and the project activities to be carried out must be structured. A clearly and unambiguously structured project is the basis for its planning, monitoring, control and success.

A project is structured:

- According to how it is organized
- According to the processes involved

Organization with the Work Breakdown Structure

One of the first steps in project planning is to break down the work into tasks and set up a hierarchy.

The criteria you use to classify and divide tasks vary depending on the type and complexity of the project.

In the Project System, you can plan the organization of the work and people in your project with the **work breakdown structure (WBS).**

Processes with the Network

One of the steps in project planning is determining the sequence in which the tasks will be performed. In this step, you determine which tasks are dependent on each other and which tasks require additional work or must be broken down further.

In the Project System, you can plan the processes and the sequence of tasks with **networks**.

What is a Work Breakdown Structure?

A work breakdown structure (WBS) is a model of the work to be performed in a project organized in a hierarchical structure. The WBS is an important tool which helps you keep an overview of the project:

- It forms the basis for organization and coordination in the project.
- It shows the amount of work, the time required, and the costs involved in the project..

It is the functional basis for further planning steps in a project, such as process planning, cost planning, scheduling, date and capacity planning, or costing, as well as project control.

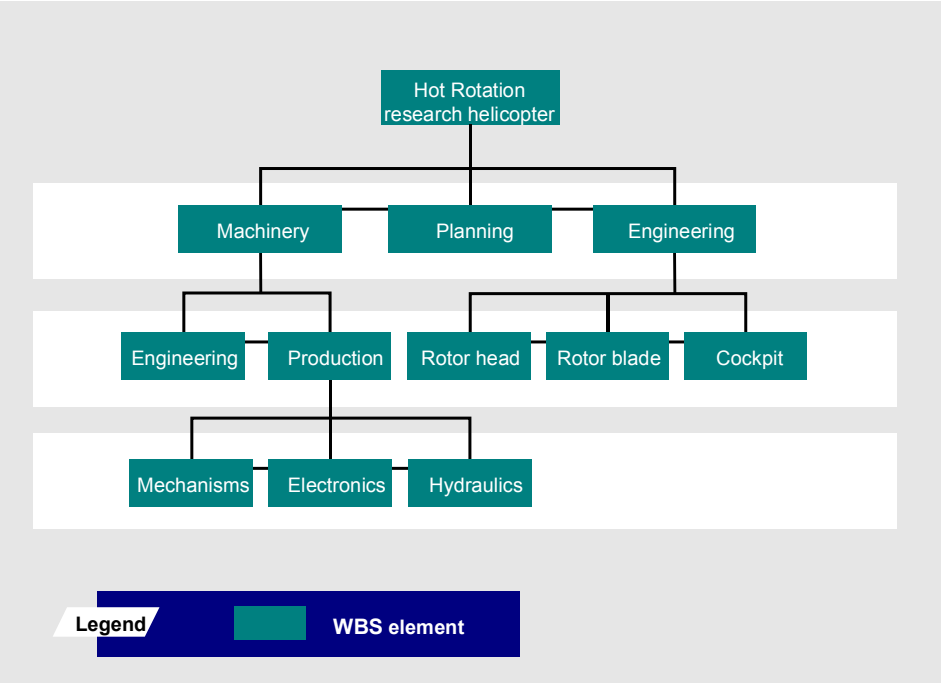
The project structure can be represented according to different criteria:

- By phase (logic-oriented)
- By function (function-oriented)
- By object (object-oriented)

What Makes Up a Work Breakdown Structure?

In a work breakdown structure (WBS), you describe the individual tasks and activities in the project as individual **elements** in a hierarchy.

Depending on the phase of your project, you continue to break down the tasks and activities in your project, step-by-step, until you reach the level of detail necessary to carry it out.



WBS Elements

The individual elements represent activities within the work breakdown structure. The elements are called **work breakdown structure elements (WBS elements)** in the Project System. WBS elements can be:

- Tasks
- Partial tasks which are subdivided further
- Work packages

What is a Network?

A network can represent the sequence of activities in a project or the sequence of a single activity within a project. You can graphically display various structural elements of a project and their interdependencies in the Project System.

During the life of a project, networks are used as a basis for planning, analyzing, controlling and monitoring schedules, dates, and resources.(such as personnel, machines, PRTs, materials, documents, and drawings).

The following are examples of the types of questions you can answer with the information you get from a network:

- Where are we unclear on the processes in the project and what are the possible consequences?
- Where are the scheduling uncertainties and how significant are they?
- When and in what amount do we incur costs and make expenditures for this project?
- When and in what quantity do resources have to be available so that we can keep to the schedule?

In the Project System networks are activity-on-mode networks.

The essential components of a network are:

- Activities
- Relationships between the activities

Activities

The most important data describing an activity in the Project System is:

- Work center in which the activity is to be carried out
- Duration of the activity
- Start and finish dates for the activity
- Resources required to carry out the activity
- Texts and documents describing the activity

Relationships

There is usually a reason for a specific sequence of activities in a network. For example, there may be technical dependencies between individual activities. These dependencies are represented by relationships in which one activity is the predecessor or the successor of another activity.

The relationship type specifies how the individual activities are linked with each other:

- Finish - Start (FS) Relationship

  Relationship between the finish of one activity and the start of its successor.

- Start - Start (SS) Relationship

  Relationship between the start of one activity and the start of its successor.

What is a Network?

- Finish - Finish (FF) Relationship

  Relationship between the finish of one activity and the finish of its successor.

- Start - Finish (SF) Relationship

  Relationship between the start of one activity and the finish of its successor.

What is a Work Package?

A work package is a quantitative and qualitative description of an activity to be carried out in the project - for example, the work to be done and the result to be achieved for a clearly defined task within the project.

How is a Work Package Organized?

A work package is **not** a separate function or data object in the Project System. You can create a work package according to your needs using a WBS element or an activity. Work packages can be on any level in the work breakdown structure and are characterized by:

- Start and finish dates
- Texts describing the work to be performed
- Responsible cost centers
- Cost centers carrying out the project