Project Systems Overview

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What is a Project

What is a Project?

According to the PMBOK Guide, First Edition, Version 1.0, June 2003:

- "A project is a temporary endeavor undertaken to create a unique product or service..."
- "Temporary means that every project has a definite beginning and a definite end date. The end is reached when the project's objectives have been achieved, or ... cannot be met, or the need for the project no longer exists..."

According to SAP:

- A project is a summary of certain business processes within an enterprise that can be defined by the uniqueness of its conditions:
  - Precise goals
  - Time, money, or personnel restrictions
  - Use or defined resources
  - Complexity
  - Cross departmental processing
  - Typically follow the order of concept, rough cut planning, detailed planning, approval, execution, completion
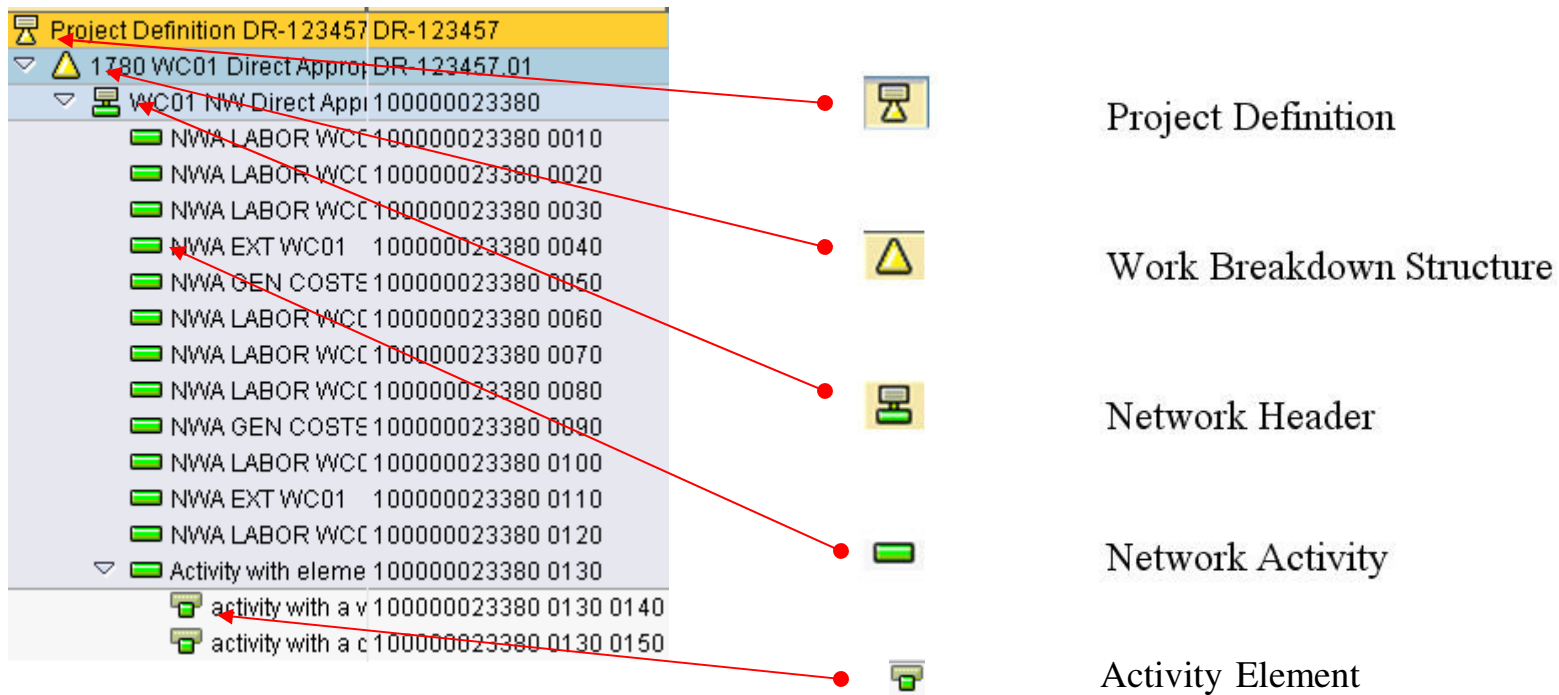
Project Functions

Functions of a Project:

- Define the purpose or product to be completed
- Organize the work to be accomplished
- Separate the work into smaller, manageable pieces and activities
- Provide a framework on which to plan the project requirements, using both internal and external resources
- Capture actual performance data on the same framework, which can be used for comparisons
- Provide a consistent format for tracking and reporting project information for management decision making
- Provide a permanent record of project performance which can be analyzed for future performance improvements

Project Types

- **Direct Projects** – Are used to plan and manage reimbursable work for customers within and outside of the organization. Planning is performed on network activities/elements. Exist at Echelon II and Echelon III. Sales Order present
- **Overhead (Non-Statistical) Projects** – Are used to plan for and manage work funded with overhead – planning is performed on network activities/elements. Exist at Echelon II and Echelon III. No Sales Order
- **Service Center Projects** – Are used as cost collectors for Service Centers and other Cost Redistribution Accounts (CRAs) – planning is performed on network activities/elements. Exist at Echelon II and Echelon III. No Sales Order
- **Statistical Overhead Projects** – Are used to plan for and track organizational overhead expenses – planning is performed on the statistical WBS elements. There are no network activities/elements for this type of project. Exist at Echelon II and Echelon III. No Sales Order
- **Budget Structures –** Are used at Echelon II commands to support the Planning, Programming, Budgeting, and Execution System (PPBES) and to support the creation of Budget Exhibits. These structures will also be used to pass funds to field activities and prime contractors/OEMs and to capture Expense Operating Budget (EOB) employee labor hours/costs. No networks are included in this structure. Exist at Echelon II only. No Sales Order
- **Capital (CPP) Projects –** Are used for the modernization and improvement of Working Capital Fund (WCF) activities, functions and equipment items. Capital assets are items such as automated data systems, software tools, and minor construction - planning is performed on network activities/elements. Exist at Echelon II and Echelon III. No Sales Order

Project Structure

▽ ⬛ Project Definition DR-123457 DR-123457	
▽ △ 1780 WC01 Direct Appro DR-123457 01	
▽ 🖥 WC01 NW Direct App 100000023380	
⬛ NWA LABOR WC0 100000023380 0010	
⬛ NWA LABOR WC0 100000023380 0020	
⬛ NWA LABOR WC0 100000023380 0030	
⬛ NWA EXT WC01 100000023380 0040	
⬛ NWA GEN COSTS 100000023380 0050	
⬛ NWA LABOR WC0 100000023380 0060	
⬛ NWA LABOR WC0 100000023380 0070	
⬛ NWA LABOR WC0 100000023380 0080	
⬛ NWA GEN COSTS 100000023380 0090	
⬛ NWA LABOR WC0 100000023380 0100	
⬛ NWA EXT WC01 100000023380 0110	
⬛ NWA LABOR WC0 100000023380 0120	
▽ ⬛ Activity with eleme 100000023380 0130	
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🔲 activity with a c 100000023380 0130 0150	

⬛   Project Definition

△   Work Breakdown Structure

🖥   Network Header

⬛   Network Activity

🔲   Activity Element

Project Definition

Identification and view selection	
Project def.	DR-123456 ⊡ Project Definition DR-123456 ✎
Detail:	⧗
Overview(s):	⚠ 🖳

| Basic data | Control data | Administration | Long txt | Navy Data |

Project Profile   Direct Projects   ⊟   ☐ Transfer to proj.def

Planning dates

Network profile	Direct Project Netw ⊟
WBS sched. prof	Navy WBS Schedu ⊟
Sched. scenario	Bottom-up scenar ⊟
Plan.meth/basic	Bottom-up (taking ⊟
Plan.meth/fcst	Bottom-up (taking ⊟

Default Values for New WBS Elements

☐ Statistical

WBS status profile

Project stock

○ No project stock
○ Non-valuated stock   Distribution profile
⦿ Valuated stock

Establishes defaults for the WBS elements to be created

Key Information –

Project ID

Project Profile

Company Code

Business Area

Plant

Person Responsible

WBS Structure

- Serves as a model of the project that shows the project deliverables in hierarchical form
- Thereby represents the structure organization of the project and provides a phase, function, or product-oriented description of the project
- Outlines the project in manageable sections
- Individual elements of the WBS are called WBS elements
- Depending upon the project phase, you can break down the WBS elements further
- The WBS is the operative basis for:
  - Cost
  - Revenue
  - Payment planning
  - Time scheduling
  - Budget allocation in projects

WBS Element Hierarchy
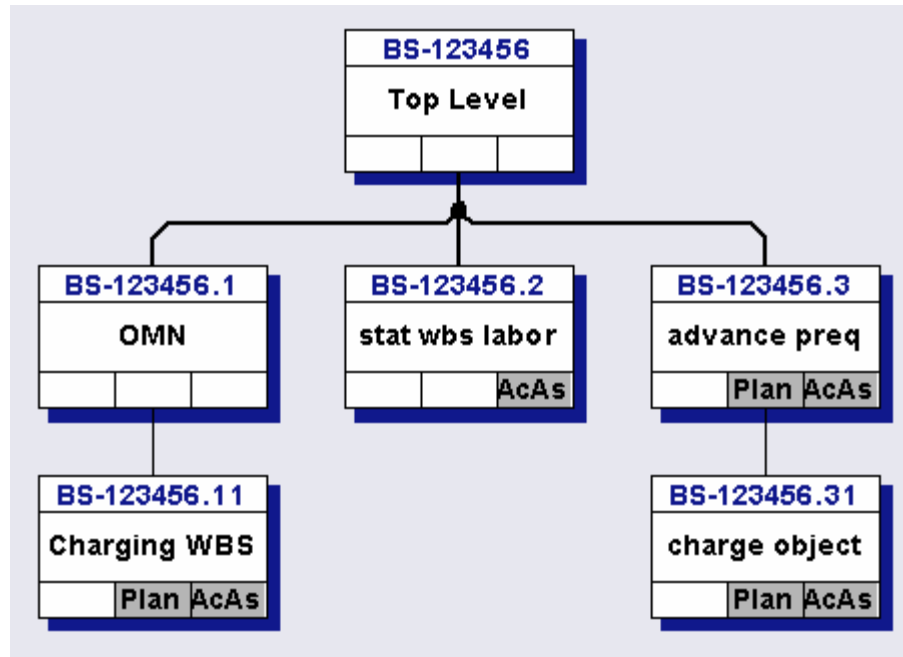
WBS elements are frequently established in an inverted tree structure. Only the lowest level WBS elements of the tree should collect costs (or network activities subordinate to these WBS elements). Billing elements can not be subordinate to another billing element.

Work Breakdown Structure

Four varieties:

- Place Holder – no operative indicators

- Planning – planning element operative indicator

- Billing – billing element operative indicator

- Account Assignment – acct asst elem. operative indicator

Place Holder WBS

- Generally top level of budget structure projects
- Does not receive any postings
- May be used for reporting purposes

Planning WBS
Used to plan costs and durations

Billing WBS

- Hold funding
- Connects project with sales order
- May identify budget structure to which it is attached

Account Assignment WBS

- Capture Expenditures through subordinate network activities

- Exist on lowest level of Statistical OH Projects

- Exist on lowest level of Budget Structure Projects

Network

- Describes the time sequence and dependencies of events and activities in a project and thereby represents the course of the project
- Consists of fundamental elements
  - Activities
  - Relationships
- Networks and their activities for capacity, materials, resources, and services that are required for carrying out a project and it's tasks

Network Header

- Basic Data: copies to subordinate elements
- Profile: determines functions and assignments
- Subordinate to a WBS element

Network Activity

- Activities can be scheduled using activity durations
- Activities have relationships with other activities
- When activities are assigned to WBS elements, the dates and costs can be defined in the individual activities and are aggregated at the WBS level and can be evaluated.
- Activity costs already assigned are checked against the budgets of the WBS elements.
- All expenditures in Direct, Capital, Service Center, and non-statistical Overhead Projects (General and Production) are posted to network activities or activity elements
- Activity elements
  - Subordinate to an Activity
  - Assumes Activity schedule
  - If present, becomes chargeable object
- Two types:
  - Internal
  - External
  - General Cost
- A.K.A. – JON

Internal Activity

Specifies the work required from an internal source
- Number of work hours
- By Work center
- Activity type (from CO: cost rate for the labor)
- Number of workers (can specify by individual)
- Duration (only at the Activity)

External Activity

Specifies the resources to be obtained externally

- Material/Components to be purchased
- Services to be purchased

General Cost Activity

Cost Activity specifies work to be performed for which there may be a primary cost estimate. An example of this type of activity might be project related travel or communication expenses.

Activity Element

- Provides further breakdown of network activity
- Allows assignment of personnel with different competencies to be assigned to the same activity (e.g. a plumber and an electrician)
- Allows different funding to be assigned to different portions of a network activity
- Looks and acts like a network activity
- Internal and external activity elements

Milestone

- A point in time defining a level of accomplishment or point of required action

Project Process Steps

- Establish: Create project structure
- Plan
  - Schedule and Dates
  - Costs-Internal requirements (Labor)
  - Costs-External requirements (Procurement)
  - Costs-General requirements (Incidental)
- Fund/Budget
- Execute
- Monitor & Control
- Complete
  - Physical
  - Financial
- Close

Project Budgeting

- **Direct Projects** – Funding PR/PO
- **Overhead (Non-Statistical) Projects** – XXXX
- **Service Center Projects** – XXXX
- **Statistical Overhead Projects** - None, budgeted to responsible cost center
- **Budget Structures** – Direct FMBB
- **Capital (CPP) Projects** – XXXX

Release

Within Standard SAP, actual postings can not occur until the receiver object has been released.

This SAP standard has almost **NO** relevance to ?????, ????? has developed procedures and techniques to assure that SAP conforms to ????? requirements

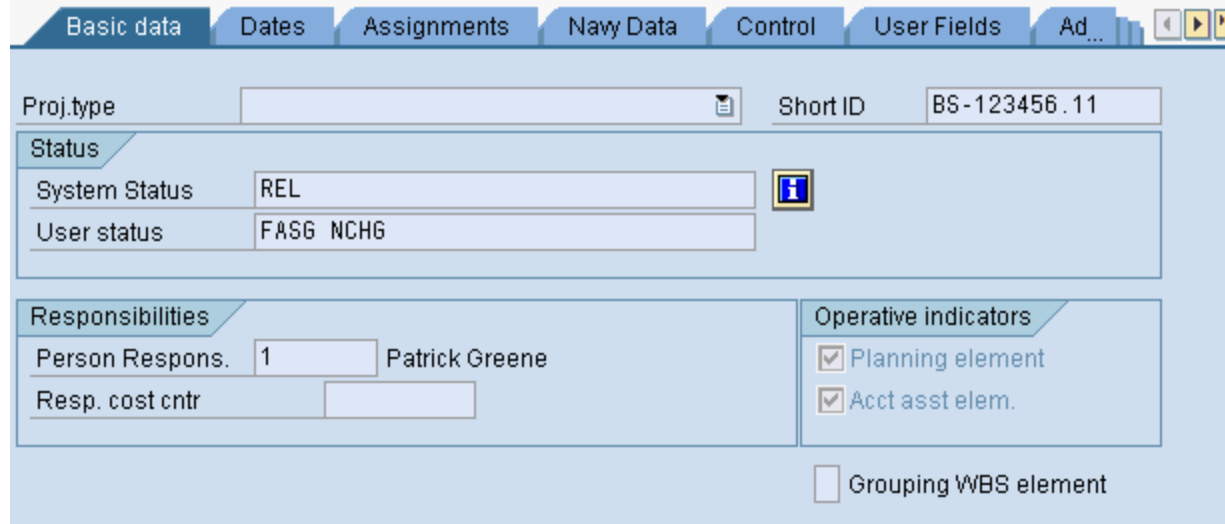Transaction XXXX will release the WBS to which budget is being assigned.

Transaction XXXX will release the WBS (in the case of budget structure projects) or network activities selected. This transaction will also assign User Status of **FASG** (funding assigned) to the objects selected.

A user status of FASG is required to charge expenditures to any cost object.

Transaction XXXX will release the billing WBS element identified in the Sales Order Line Item
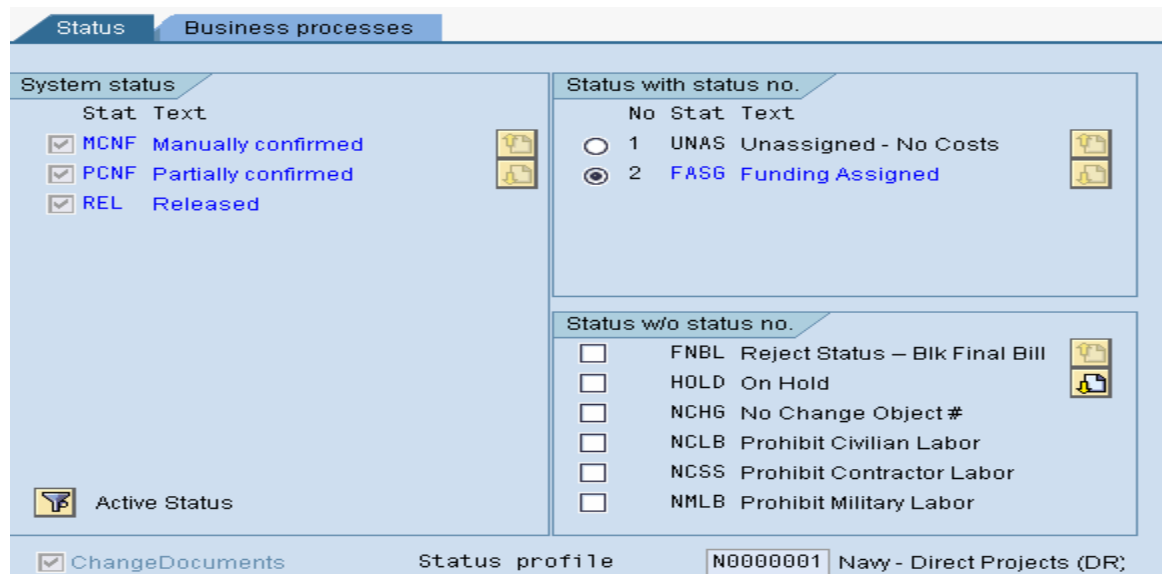
Release

WBS

For NWA, press the ⓘ button to see user status

Long Text

Users may enter as much text as they like on the project header, WBS elements, network headers and network activities.

There are very limited formatting capabilities.

Use the Document Management System to attach nicely formatted documents to your WBS elements and network activities.

Project Cost Planning

- WBS element planning
  - Budget Structure WBS
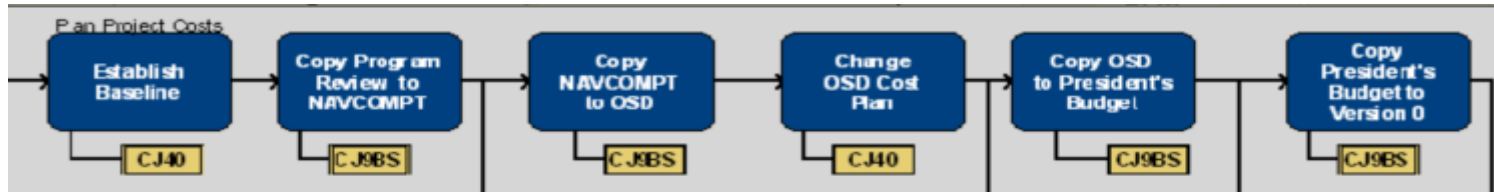
  - Overhead WBS
- Network Activity planning
- Versions –
  - 0 Current Active Plan Version
  - 001 through 099 – What if Versions
  - 200 – Performance Management Baseline – Used in Direct projects where Earned Value Management is utilitized.
  - *300 through 399 – OSD Budget Versions – Used for Budget Structures only. These are formal cost plan
  - versions representing the annual OSD budget submittal. Budget Exhibits will be created from data in these
  - versions.
  - *400 through 499 – President's Budget Versions – Used for Budget Structures only. These are formal cost plan
  - versions representing the annual President's Budget submittal. Budget Exhibits will be created from data in
  - these versions.
  - *500 through 599 – POM/Program Review Versions – Used for Budget Structures only. These are formal cost plan versions representing the annual POM/Program Review submittal. Budget Exhibits will be created from data in these versions.
  - 600 through 699 – Cash Quarter (OM&N) Versions – Used for Budget Structures only. These can be used to plan OM&N spending by quarter if desired.

WBS Element Planning

- WBS Planning may be used for statistical overhead projects and budget structure projects
- Structure Planning – total lump sum for WBS element, may be used for statistical overhead projects
- Unit Cost Planning – planning by vendor, must be used for budget structure projects

WBS Structure Planning

Change Cost Planning: WBS Element Overview

| | Annual Overview | | Primary Costs | Activity Input |

Proj.def.   OP-123456   statistical project
Period   2008   ◀ ▶

Annual Values

	E...	Lev	WBS element	Cost plan	Tra...	P...	Distributed	Distributable	Planned total
		1	OP-123456.1	10.00	USD			10.00	10.00
		1	OP-123456.2	20.00	USD			20.00	20.00
		1	OP-123456.3	30.00	USD			30.00	30.00

Enter total planned expenditures for each WBS element. If there is a WBS element hierarchy, only enter the amounts for the lowest level WBS elements and 'Total Up'

WBS Unit Cost Planning

Continue Processing Unit Cost Estimate: List Screen - 1

WBS Element   OP-123456.1

Costing Items - Basic View

M	Item	C	Resource	Plant/...	Pur...	Quantity	U...	L	Value - Total	Description	Price - Total	Price...	Cost Elem...	Ori...
X	1	B	000000			1	EA		100,000.00	Good Company	100,000.00	1	6100.3050	

After saving and back arrow

Change Cost Planning: WBS Element Overview

Annual Overview   Primary Costs   Activity Input

Proj.def.   OP-123456   statistical project
Period   2008   ◀ ▶

Annual Values

E	Lev	WBS element	Cost plan	Tra...	P...	Distri...	Distribu...	Planned total	Costing	C...
	1	OP-123456.1		USD	U			100,000.00	100,000.00	
	1	OP-123456.2		USD						
	1	OP-123456.3		USD						

Network Cost Planning

- Internal Activity Planning
  - Quantity based
  - Work center (competency)
  - Activity type
  - Activity type rate
- External Activity Planning
  - Dollar based

Internal Activity Cost Planning

External Activity Cost Planning