

Project Systems Overview

?????

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 of defined resources
 - Complexity
 - Cross departmental processing
 - Typically follow the order of concept, rough cut planning, detailed planning, approval, execution, completion

Project Functions

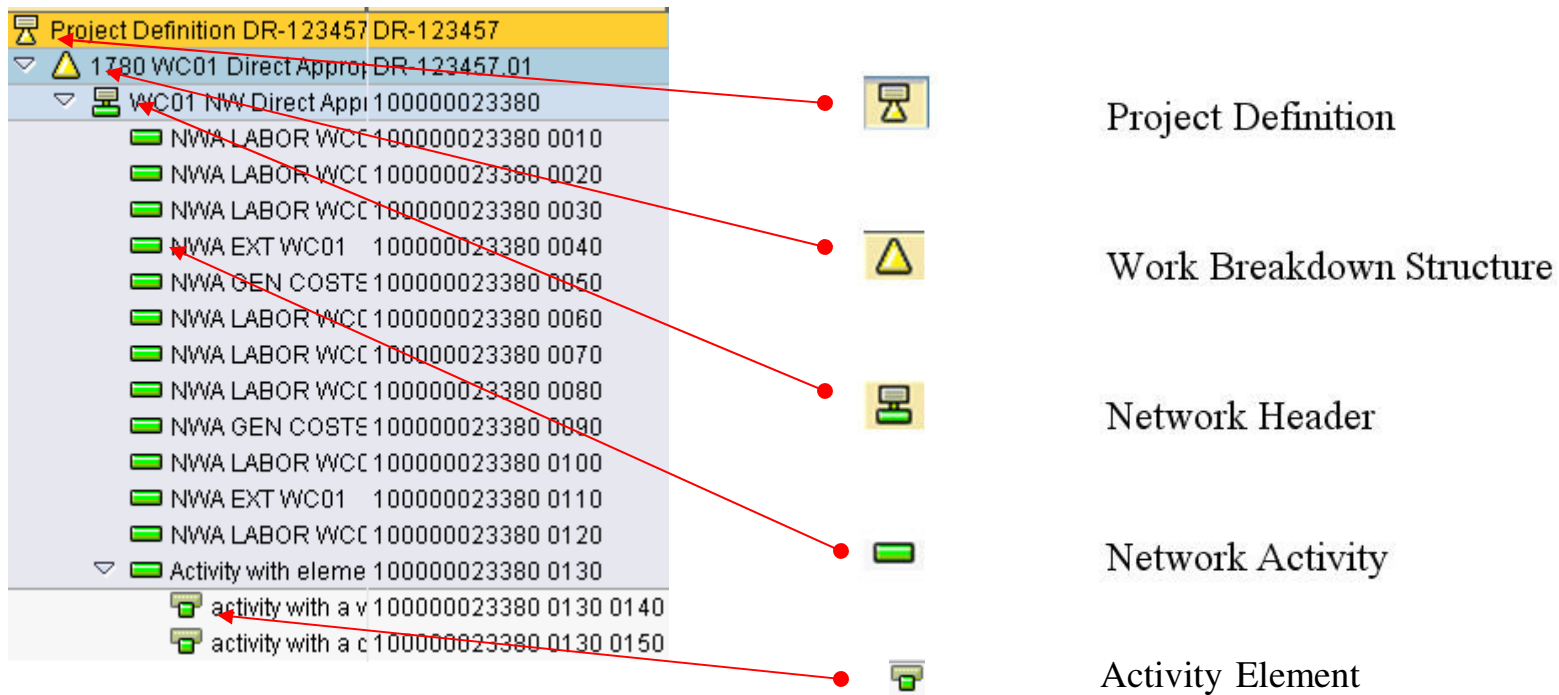
Functions of a Project:

- 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

The screenshot displays the SAP Project Definition configuration screen. At the top, the 'Identification and view selection' section shows the project ID 'DR-123456' and the project name 'Project Definition DR-123456'. Below this, there are tabs for 'Basic data', 'Control data', 'Administration', 'Long bt', and 'Navy Data'. The 'Basic data' tab is active, showing the 'Project Profile' set to 'Direct Projects'. A 'Transfer to proj.def' checkbox is present. The 'Planning dates' section contains a table of configuration options:

Planning dates	
Network profile	Direct Project Net
WBS sched. prof	Navy WBS Schedt
Sched. scenario	Bottom-up scenar
Plan.meth/basic	Bottom-up (taking
Plan.meth/fcst	Bottom-up (taking

Below the table, the 'Default Values for New WBS Elements' section includes a 'Statistical' checkbox and a 'WBS status profile' dropdown menu. The 'Project stock' section offers three radio button options: 'No project stock', 'Non-valuated stock', and 'Valuated stock' (which is selected). A 'Distribution profile' dropdown menu is also visible.

Establishes defaults for the WBS elements to be created

Key Information –

Project ID

Project Profile

Company Code

Business Area

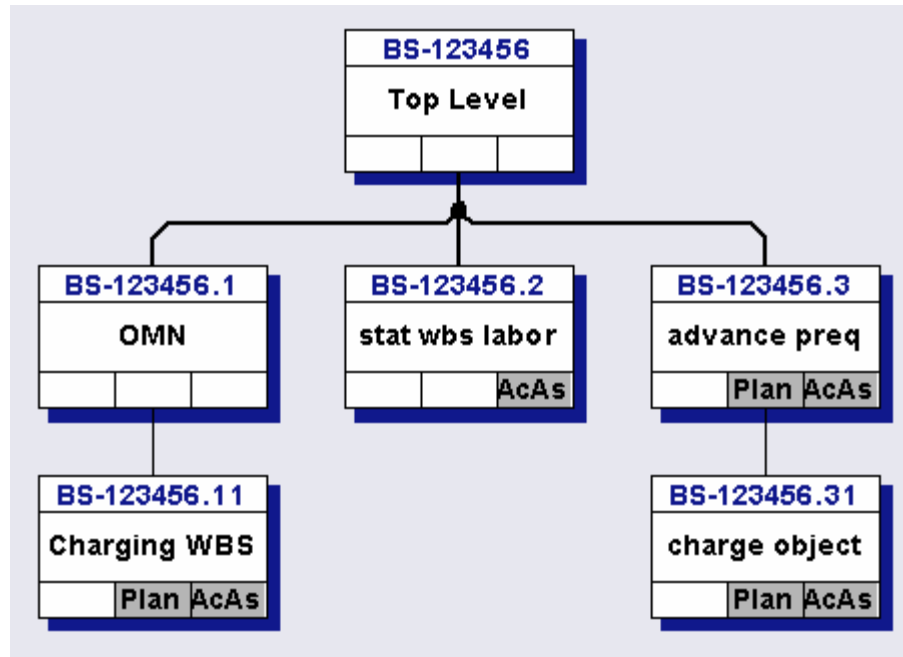
Plant

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

Display WBS Element

Project definition	BS-123456	Project Definition BS-123456
WBS element	BS-123456.1	OMN

Basic data | Dates | Assignments | Navy Data | Control | User Fields | Ad...

Proj.type Short ID BS-123456.1

Status

System Status REL ⓘ

User status UNAS NCHG

Responsibilities

Person Respons. 1 Patrick Greene

Resp. cost cntr

Operative indicators

Planning element

Acct asst elem.

Grouping WBS element

Planning WBS

Used to plan costs and durations

Display WBS Element

Project definition	BS-000700	CCMF BS	Project definition	BS-000700	CCMF BS
WBS element	BS-000700.1	WBS Element BS-000700.1	WBS element	BS-000700.1	WBS Element BS-000700.1

Basic data | Dates | Assignments | Navy Data | Control | User Fields

Basic data

Proj.type: [] Short ID: BS-000700.1

Status

System Status: CRTD

User status: UNAS

Responsibilities

Person Respons.: 2 Verantwortlicher B

Applicant no.: 0

Resp. cost cntr: []

Operative indicators

Planning element

Acct asst elem.

Grouping WBS elemen

WBS Element: BS-000700.1

Assignment: []

Fiscal Year: 2007 Add / Copy Year: 0 Delete

HQ Budget Data

Appropriation: APN1

Project Unit: 01010

Cost Category: AIRFRAME / CFE

Budg. Line Item: 014500

Res. Sponsor: []

Program Element: []

Product/ECP: []

Cont. Meth/Awrđ: []

Implementation Meth.: []

Basic data | Dates | Assignments | Navy Data | Control | User F

Activity Based Management (ABM) Fields:

ABM Level 1: 1 FORCE PLANNING & COMMAND MANAGEMENT

ABM Level 2: 1.3 OPERATION PLAN:

ABM Level 3: 1.3.2 PERSONNEL PLAN

End Item Product (EIP) Fields:

EIP Tier 1: SUBMARINES / SUB-SURFACE

EIP Tier 2: ADVANCED SEAL DELIVERY SYSTEM (ASDS)

EIP Tier 3: ASDS 1

EIP Tier 4: ARMAMENT

EIP Tier 5: CSA MK 3

Billing WBS

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

Display WBS Element

Project definition	DR-123456	Project Definition DR-123456
WBS element	DR-123456.01	1780 WC01 Direct Appropriated WBS

Basic data | Dates | Assignments | Nav Data | Control | User Fields | Ad...

Short ID: DR-123456.01

Status

System Status: REL ACPT

User status:

Responsibilities

Person Respons.: 1 Verantwortlicher A

Resp. cost cntr: 80A100000A PX 1.0

Operative indicators

Billing element

Grouping WBS element

Basic data | Dates | Assignments | Nav Data | Control | User Fields | Ad...

Organization

CO area	1000	Plant	WC01
Company code	1780	Factory calend.	US
Bus. area	80AD	Ref. Elem.	

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

The screenshot shows a software window titled "Display WBS Element" with a close button in the top right corner. The window contains a table with project information:

Project definition	CP-000011	C-00100 ERP FY2004
WBS element	CP-000011 . 01020103	Purchase Card Reconciliation Upgrade

Below the table is a tabbed interface with the following tabs: "Basic data", "Dates", "Assignments", "Navy Data", "Control", "User Fields", and "Ad...". The "Basic data" tab is active. It contains the following fields:

- Proj.type: 932.2511.XN
- Short ID: CP-000011 . 010201
- Status section:
 - System Status: CRTD
 - User status: (empty)
- Responsibilities section:
 - Person Respons.: 1 Patrick Greene
 - Applicant no.: 99999999 TBD
 - Resp. cost cntr: 8506291200 Old Org. Code Res

At the bottom right of the window, there is a checkbox labeled "Grouping WBS element" which is currently unchecked.

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 its tasks



Network Header

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

Identification and view selection

Network: 100000023360 WC01 NW Direct Appropriated

Detail:

Overview(s):

Scheduling Assignments Control Administr. Long bt Navy Data

Status

System Status: ACAS MANC NMAT PCNF PRC REL

User Status: UNAS NCHG

Dates

	Basic	Scheduled	Actual
Release			03/19/2008
Start date	03/17/2008	03/17/2008	03/19/2008
Finish date	03/17/2008	03/17/2008	

Scheduling

Planning type: Basic dates

Scheduling type: Forwards

Reduction ind.: No reduction carried out

Schedule automat.

Capacity reqmts

Scheduling Assignments Control Administr. Long bt Navy Data

Person Responsible: 1 Patrick Greene

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)

Identification and view selection

Activity: 100000023360 0010 NWA LABOR WC01 A

Detail:

Overview(s):

Internal Extnl Dates Assignments Navy Data User Fields Progress Qu

General data

System Status: MCNF PCNF REL Control key: NS01 Subntwk exists

WBS element: DR-123456.01

Work center: 513500A / WC01 DistKeyCapRqInt:

Work: HR Number: Percent:

Calculation key: Maintain manually

Activity Type: CR0007 Business Proc.:

Scheduling

Normal duration: DAY Calendar ID: US

Internal Extnl Dates Assignments Navy Data

ABC ID: 1.1 DEFINITION OF GOALS

Assignment: 5000000116.000010

Work Center: 513500A / WC01

Budget Structure WBS Element:

Budget WBS Element Desc:

Resource Sponsor:

Res Sponsor Name:

Appropriation:

Fiscal Year:

Fund Type: R

External Activity

Specifies the resources to be obtained externally

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

Identification and view selection

Activity: 100000023360 0040 NWA EXT WC01

Detail:

Overview(s):

Internal Extnl Dates Assignments Navy Data User Fields Progress Qu

External processing

System Status: REL Control key: NS02 Subntwk exists

WBS element: DR-123456.01 Subcontr.

Info record: Purchasing Org.: 1700 Material group: 81100000

Vendor: Purch. group: Sort string:

Outl. agreement: / Requisitioner:

Price: USD per 1 Recipient:

Cost Element: 6100.3252 FixPrice Tracking Number:

PInd dely time:

Activity qty: 1 EA

Received: 0.000 Unloading Point:

Requisition: / 0 Purc. ord exists Service exists

Res./Purc. req.: Never

Internal Extnl Dates Assignments Navy Data

ABC ID: 1.1 DEFINITION OF GOALS

Assignment: 5000000116.000010

Work Center: / WC01

Budget Structure WBS Element:

Budget WBS Element Desc:

Resource Sponsor:

Res Sponsor Name:

Appropriation:

Fiscal Year:

Fund Type: R

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.

The screenshot displays the SAP Cost Activity configuration interface. The left pane shows the 'Costs' tab with various fields for system status, WBS element, company code, plant, amount, and cost element. The right pane shows the 'Internal' tab with fields for ABC ID, assignment, work center, budget structure, and resource sponsor.

Identification and view selection	
Activity	100000023360 0090 NWA GEN COSTS A
Detail:	<input type="checkbox"/>
Overview(s):	

Costs	
System Status	REL <input type="checkbox"/> Control key NS03 <input type="checkbox"/> Subntwk exists
WBS element	DR-123456.01
Company Code	1780
Plant	WC01
Amount	<input type="text"/> USD <input type="checkbox"/> Cost Element 6100.3210
Distrib. costs	<input type="text"/>
Normal duration	<input type="text"/>

Internal	
ABC ID	1.1 DEFINITION OF GOALS
Assignment	5000000116.000010
Work Center	<input type="text"/> / WC01
Budget Structure WBS Element	<input type="text"/>
Budget WBS Element Desc	<input type="text"/>
Resource Sponsor	<input type="text"/>
Res Sponsor Name	<input type="text"/>
Appropriation	<input type="text"/>
Fiscal Year	<input type="text"/>
Fund Type	R

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

Identification			
Milestone no.	15		
<input type="checkbox"/> LT	Requirements Signoff		
Usage			
Usage			
WBS elem.	DR-000014.27		
	Project Milestones		
Usage			
<input type="checkbox"/> Prog. analysis			
<input type="checkbox"/> Sales doc. date			
<input type="checkbox"/> Trend analysis			
Percentage of completion			
Perc of compl.	%		
InvoicePercentg	%		
Dates			
Basic fix. date	Scheduled		
Fcst fixed date	Scheduled		
Actual date			
Reference to WBS date			
<input type="checkbox"/> Offset to fin.			
Offset	/		
Offset %			
Administration			
AuthorizGroup	Created by	TERMINER	Changed by
	Created on	03/05/2008	Changed on

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.

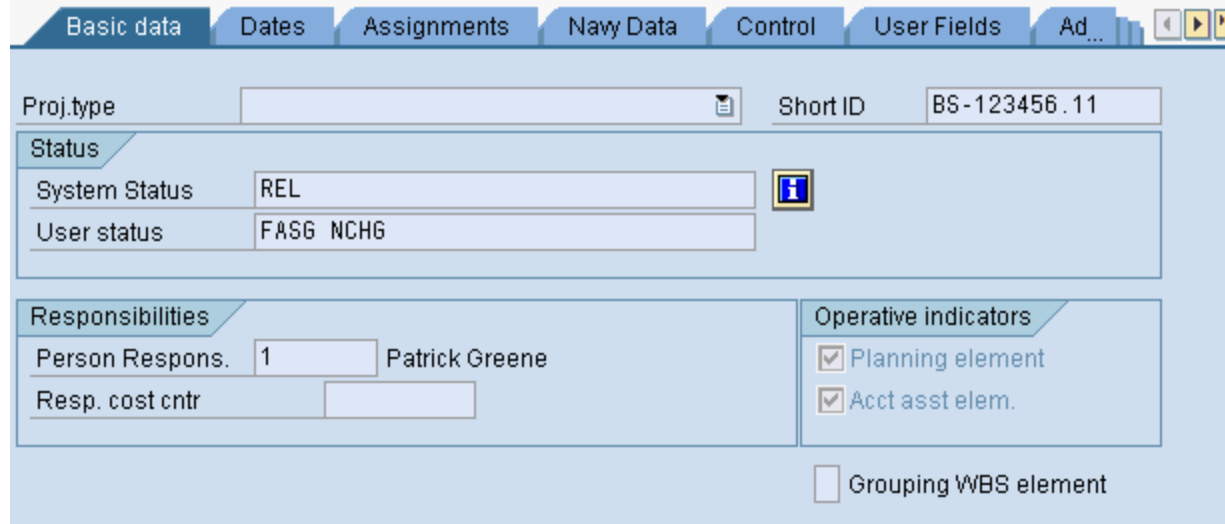
Transaction XXXX will release the WBS (in the case of budget structure projects) or network activities selected. This transaction will also assign User Status of **FASG** (funding assigned) to the objects selected.

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

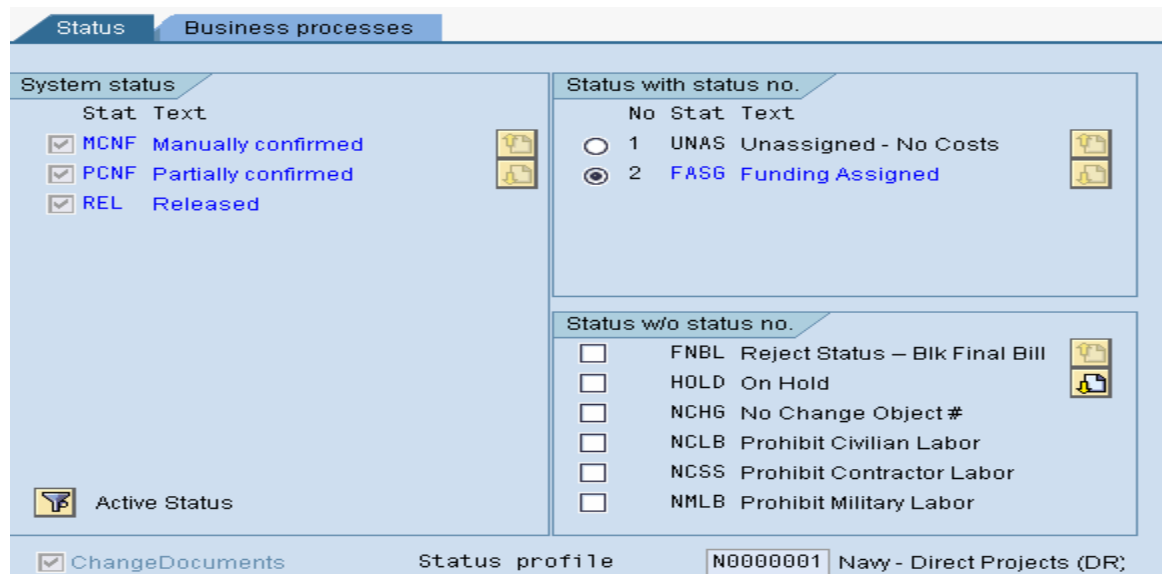
Release

WBS



The screenshot shows the 'Basic data' tab of a WBS element. At the top, there are navigation tabs: 'Basic data', 'Dates', 'Assignments', 'Navy Data', 'Control', 'User Fields', and 'Ad...'. Below the tabs, the 'Proj.type' field is empty, and the 'Short ID' field contains 'BS-123456.11'. The 'Status' section contains 'System Status' set to 'REL' and 'User status' set to 'FASG NCHG'. The 'Responsibilities' section shows 'Person Respons.' as '1 Patrick Greene' and an empty 'Resp. cost ctr' field. The 'Operative indicators' section has two checked boxes: 'Planning element' and 'Acct asst elem.', and an unchecked box for 'Grouping WBS element'.

For NWA, press the  button to see user status



The screenshot shows the 'Status' tab of the WBS element. It displays three sections: 'System status', 'Status with status no.', and 'Status w/o status no.'. The 'System status' section lists 'MCNF Manually confirmed', 'PCNF Partially confirmed', and 'REL Released', all with checked boxes. The 'Status with status no.' section lists '1 UNAS Unassigned - No Costs' and '2 FASG Funding Assigned', with the latter selected. The 'Status w/o status no.' section lists various status options like 'FNBL Reject Status - Bik Final Bill', 'HOLD On Hold', 'NCHG No Change Object #', 'NCLB Prohibit Civilian Labor', 'NCSS Prohibit Contractor Labor', and 'NMLB Prohibit Military Labor', all with unchecked boxes. At the bottom, there is a 'ChangeDocuments' checkbox, a 'Status profile' field with 'N0000001', and a 'Navy - Direct Projects (DR)' label.

Long Text

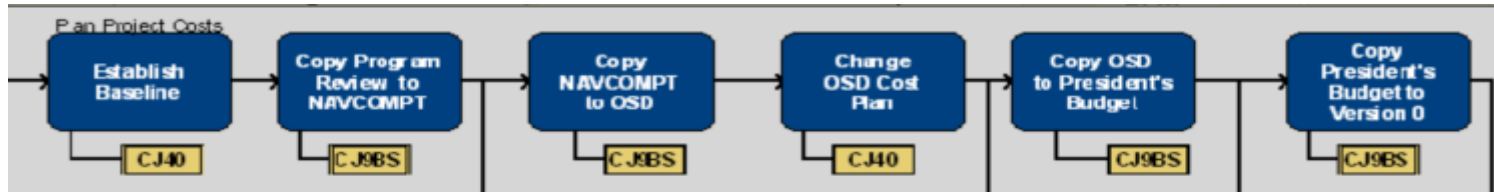
Users may enter as much text as they like on the project header, WBS elements, network headers and network activities.

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 utilized.
 - *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.	<input type="text" value="OP-123456"/>		statistical project					
Period	<input type="text" value="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

Costing Items - Basic View

M	Item	C	Resource	Plant	Pur	Quantity	U	L	Value - Total	Description	Price - Total	Price	Cost Elem	Ori
X	1B		000000				1	EA	100,000.00	Good Company	100,000.00		16100.3050	

After saving and back arrow

Change Cost Planning: WBS Element Overview

Proj.def. statistical project

Period

Annual Values

E	Lev	WBS element	Cost plan	Tra	P	Distri	Distribu	Planned total	Costing	C
		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

Identification and view selection

Activity: 100000023360 0010 NWA LABOR WC01 A

Detail:

Overview(s):

Internal | Extnl | Dates | Assignments | Navy Data | User Fields | Progress | Person A...

General data

System Status: MCNF PCNF REL Control key: NS01 Subntwk exists

WBS element: DR - 123456 . 01

Work center: 513500A / WC01 DistKeyCapRqInt:

Work: 5.0 HR Number: Percent:

Calculation key: Maintain manually

Activity Type: CR0007 Business Proc.:

Scheduling

Normal duration: DAY Calendar ID: US

External Activity Cost Planning

Identification and view selection

Activity: 100000023360 0040 NWA EXT WC01

Detail:

Overview(s):

Internal Extnl Dates Assignments Navy Data User Fields Progress Qualificat...

External processing

System Status	REL	<input checked="" type="checkbox"/> Control key	NS02	<input type="checkbox"/> Subntwk exists	
WBS element	DR - 123456 . 01	<input type="checkbox"/> Subcontr.			
Info record		Purchasing Org.	1700	Material group	81100000
Vendor		Purch. group		Sort string	
Outl. agreement		/		Requisitioner	
Price	25,000.00	USD	per 1	Recipient	
Cost Element	6100.3252	<input type="checkbox"/> FixPrice		Tracking Number	
Plnd dely time					
Activity qty		1	EA		
Received		0.000	Unloading Point		
Requisition		/ 0	<input type="checkbox"/> Purc. ord exists	<input type="checkbox"/> Service exists	
Res./Purc. req.	Never				