**AUG 2024** 

# PROJECT SYSTEM



TRAINING MANUAL
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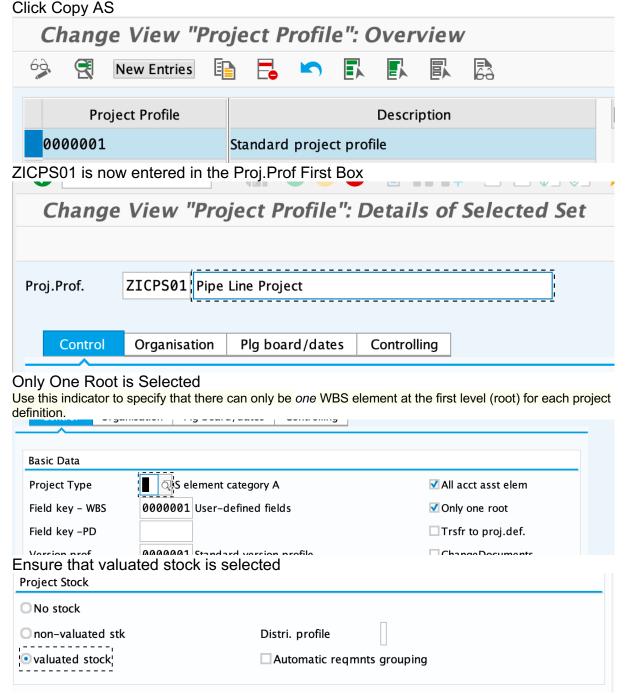
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# **Project System**

# How to Adjust Basic Project Settings

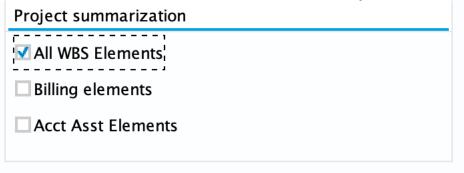
SPRO→ProjectSystem→Structure→Operative Structures→ Work Breakdown Structure (WBS) → Create Project Profile Click 0000001



PS000002 is now entered in the WBS Status Profile Box

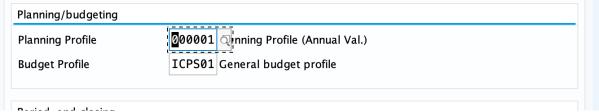


Ensure that All WBS Element is selected in the Project summarization field

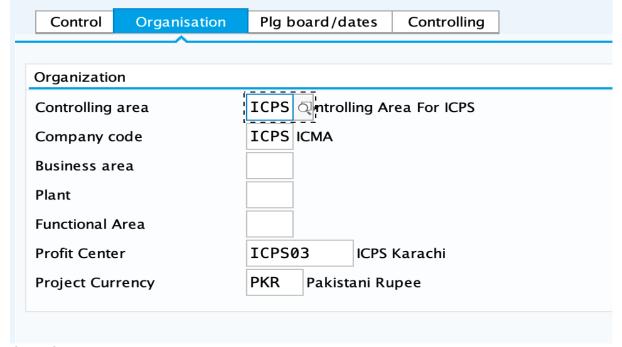


#### **Click Controlling**

ICPS01 is now entered in the Budget Profile Box



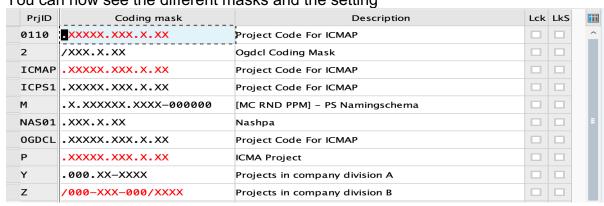
Assign Organization Master Data to Project Profile



Click Save

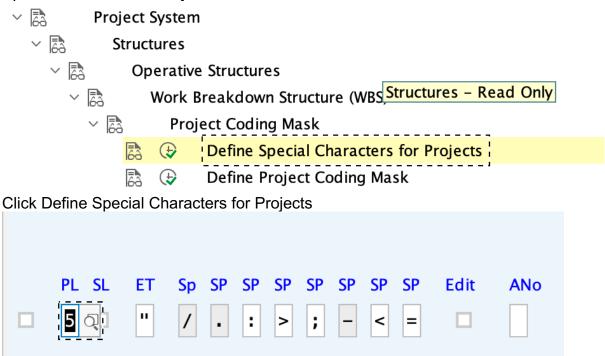
In the following steps coding masks and blocking checkboxes will be set up

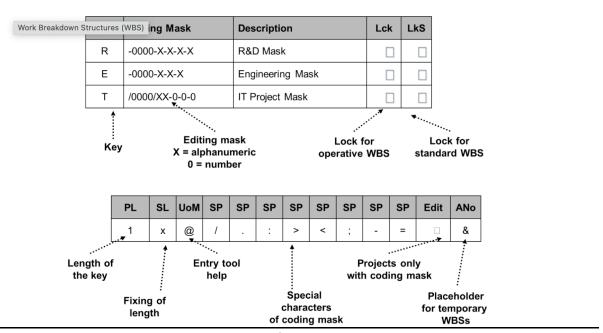
# SPRO→ProjectSystem→Structure→Operative Structures→ Work Breakdown Structure (WBS) → Project Coding Mask→Define Project Coding Mask You can now see the different masks and the setting



#### Click Back.

In the following steps the various checkboxes will be explained in the table Define Special Character for Projects.



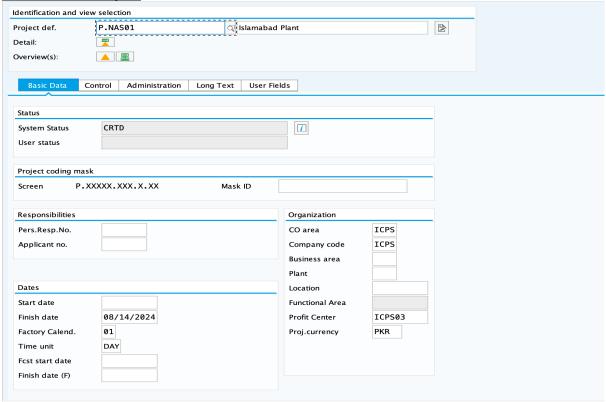


You can now see the special character for projects

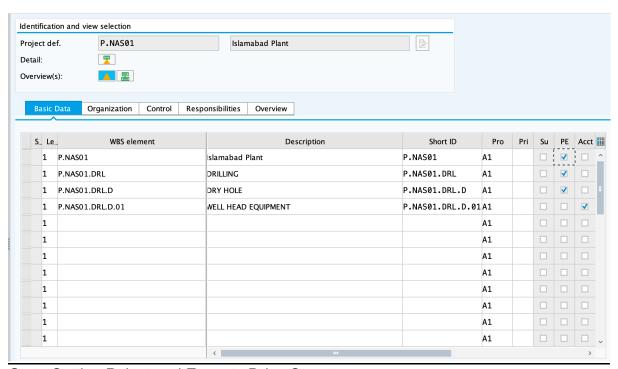
# Project Coding Mask Exampe

Go to TCODE-CJ20N

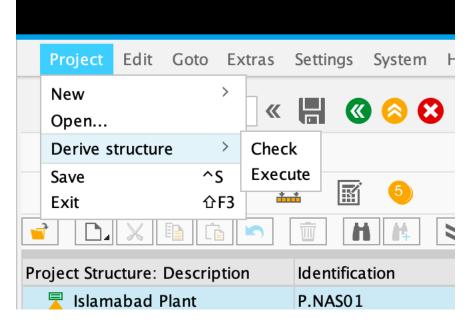
**Create New Project** 



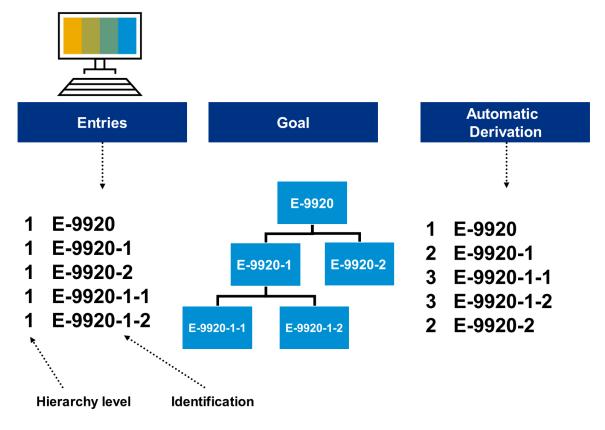
After Inserting Masking key Coding will be drive automatically Create WBS Hierarchy Without specifying Level

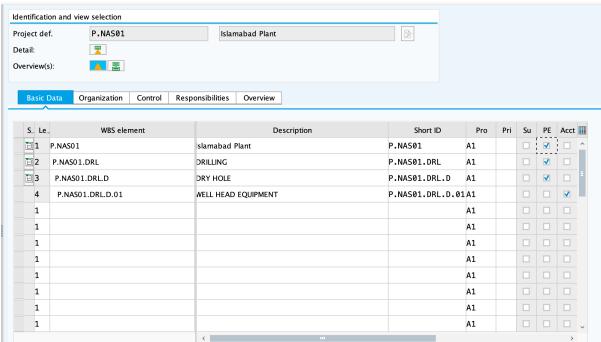


Go to Setting Poject and Execute Drive Structure



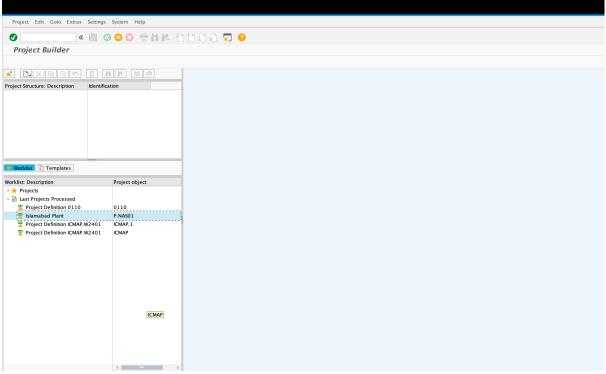
After Execution
System Will automatically drive WBS Hierarchy level



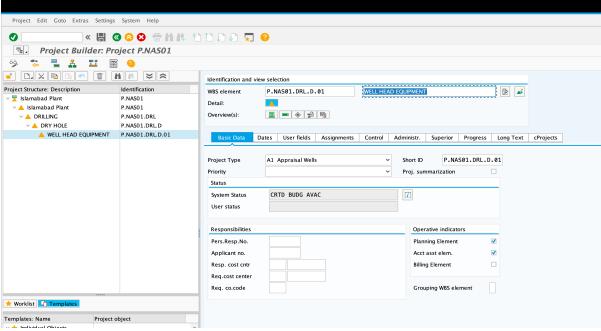


#### How to Maintain a Project Status

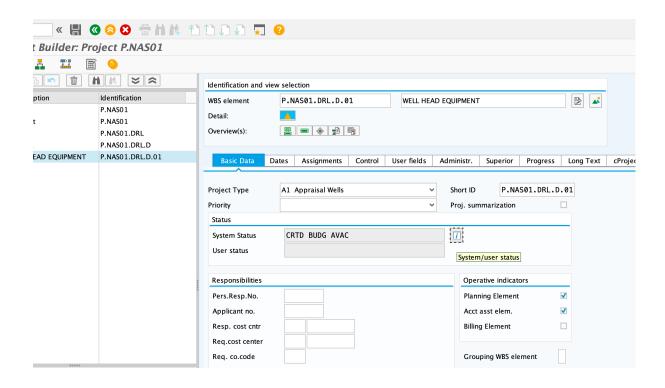
- 1.Go to TCODE-CJ20N
- 2. Islamabad Plant is double-clicked.



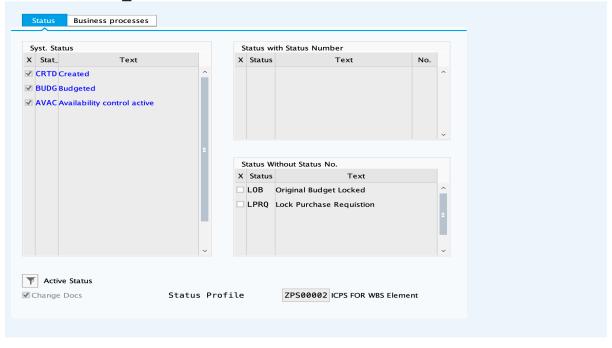
Click WELL HEAD EQUIPMENT



Click System/user Status.

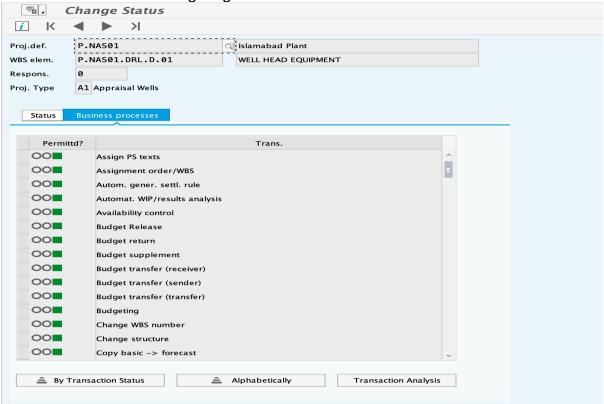


### Ensure that ZPS\_0001 is entered in the Status Profile field.



#### **Click Business Process**

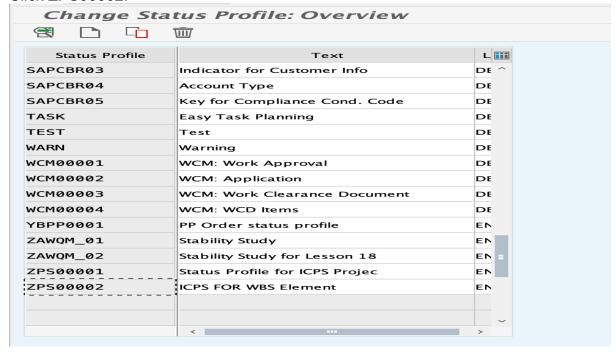
You can now see that Budgeting is allowed.



#### Click Back.

Click Save.

Go to SPRO→ProjectSystem→Structure→Operative Structures→ Work Breakdown Structure (WBS) → WBS User Status →Create Status Profile Click ZPS00002.

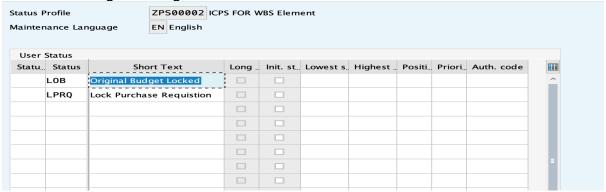


Ensure that the following values are entered in the first row of respective fields:

#### Status Number:Blank

Status:LOB

#### Short Text: Original Budget Locked



## Click Original Budget Locked

Click Details

# Change Status Profile: Transaction Control Status Profile Status LOB Original Budget Locked Transaction Control Influence Next action Business Transaction No influ... Allowed Warning Forbidd. No action Set Delete Budgeting

Click New Entries.

#### **Forbidd**is

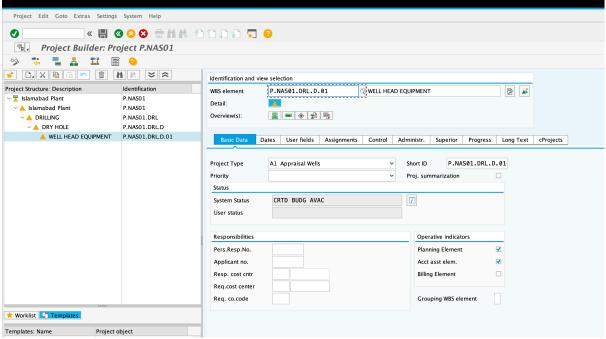
selected for

Budgeting

	Influence				Next action			
Business Transaction	No influ	Allowed	Warning	Forbidd.	No action	Set	Delete	
Autom. gener. settl. rule	•	0	0	0				^
Automat. WIP/results analysis	•	0	0	0	•	0	0	
Availability control	•	0	0	0				-
Budget Release	•	0	0	0				
Budget return	•	0	0	0				
Budget supplement	•	0	0	0	•	0	0	
Budget transfer (receiver)	•	0	0	0	•	0	0	
Budget transfer (sender)	•	0	0	0				
Budget transfer (transfer)	•	0	0	0				
Budgeting	0	0	0	•	0	•	0	
Change WBS number	•	0	0	0				
Change structure	•	0	0	0				
Complete	•	0	0	0	•	0	0	
Complete back to tech complete	•	0	0	0	•	0	0	
Confirm WBS	•	0	0	0	•	0	0	_

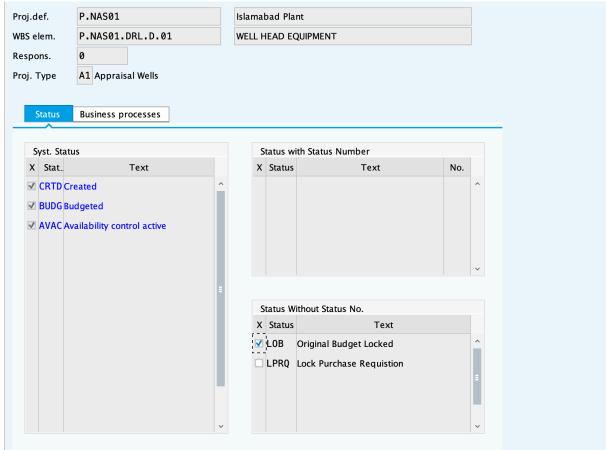
Click Save.

Ensure that Set is selected for Budgeting. Go to TCODE-CJ20N and go to Previous Project(Project Builder)



# Click System/User Status

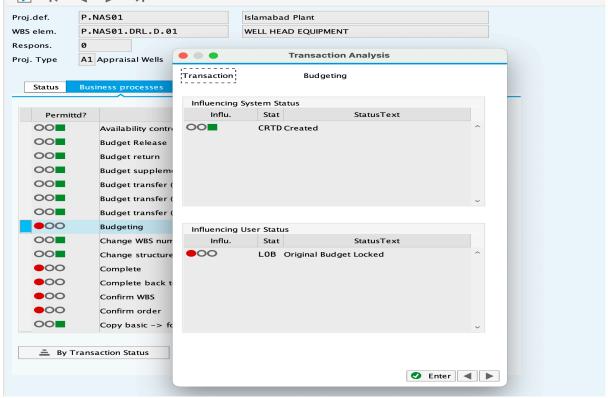
#### LOB is selected.



Click Business Process.

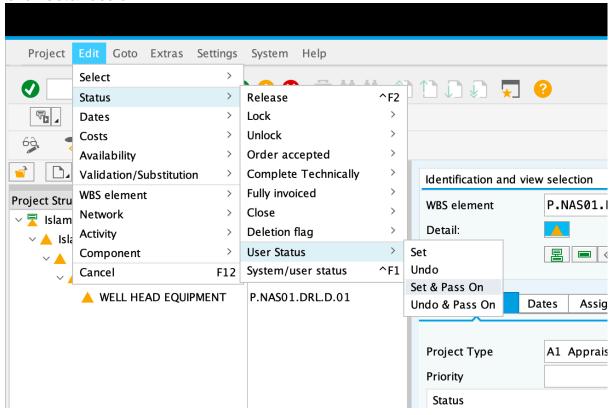


#### Click Transaction Analysis.



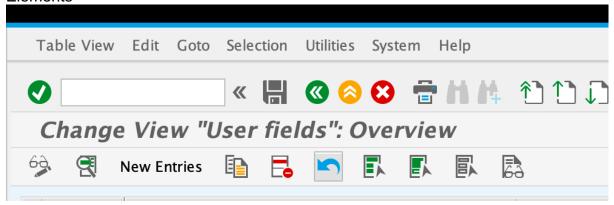
#### Click Edit.

Click Status. Click User Status. Click Set&Pass on.

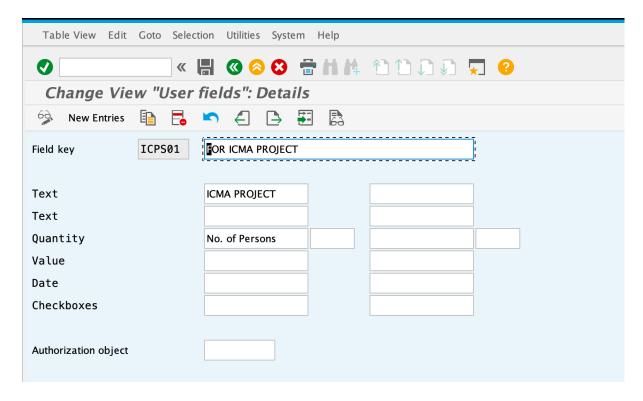


#### How to Define User Fields and Adapt Interface Settings

Go to SPRO→ProjectSystem→Structure→Operative Structures→ Work Breakdown Structure (WBS) → User Interface Settings → Create User-Defined Fields for WBS Elements

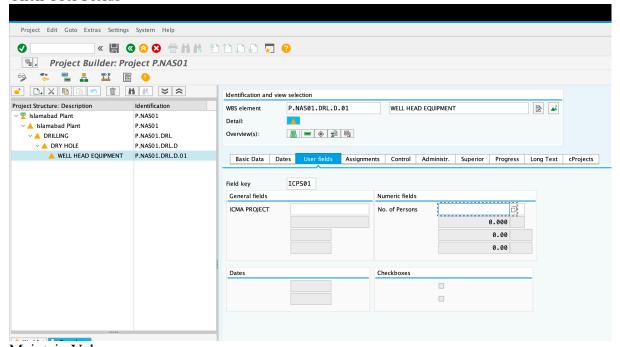


Click New Entries.



#### Go to TCODE:CJ20N (Project Builder)

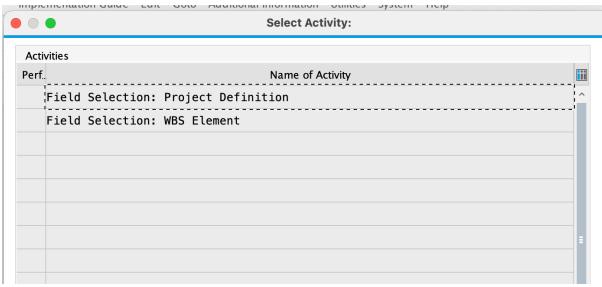
#### Click User Fields



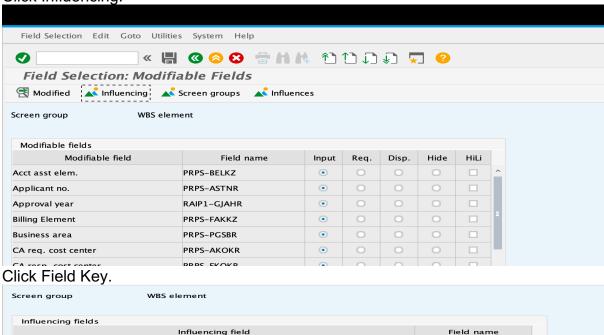
Maintain Values.

Click Save.

Go to SPRO→ProjectSystem→Structure→Operative Structures→ Work Breakdown Structure (WBS) → User Interface Settings → Define Field Selection for Work Breakdown Structures



Click Field Selection: WBS Element. Click Influencing.

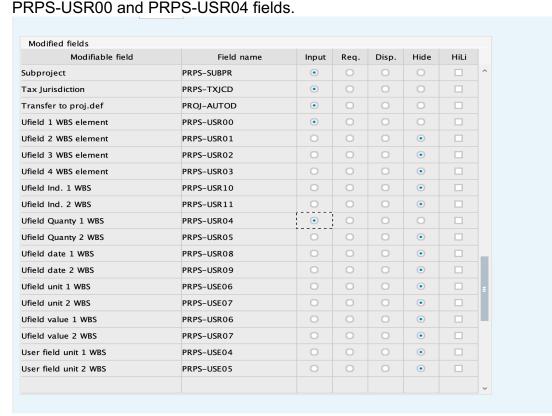


Influencing field Acct asst elem. PRPS-BELKZ Billing Element PRPS-FAKKZ Business area PRPS-PGSBR Company code PRPS-PBUKR Controlling area PRPS-PKOKR Field key PRPS-SLWID Level Planning Element Plant PRPS-WERKS PRPS-PRCTR Profit Center Project Profile PROJ-PROFL Project Type PRPS-PRART Statistical

Click Influencing. **ICPS01** is now entered in the box.

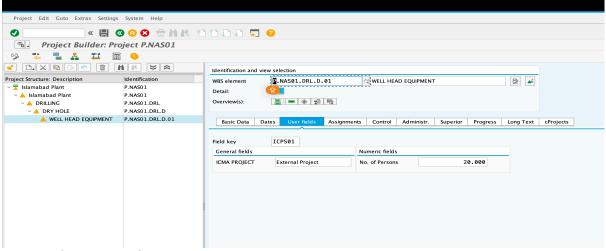


**Hide** is now selected for PRPS-USR01.
Similarly, hide all the user-specific fields (starting with PRPS-US...) except for the



#### Click Save.

After Configuration Check WBS Master related to User Field.

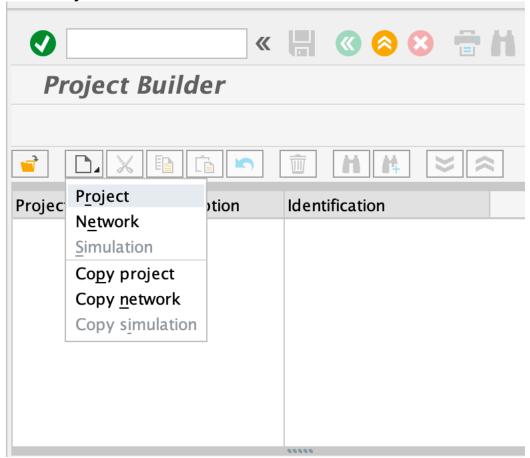


How to Create WBS Elements

Go to TCODE-CJ20N

Click Create.

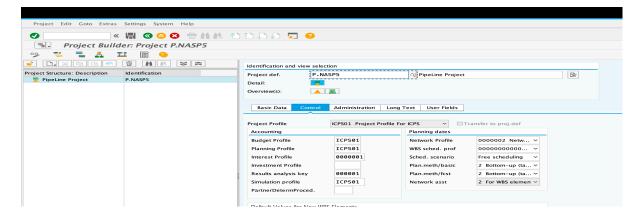
Click Project.



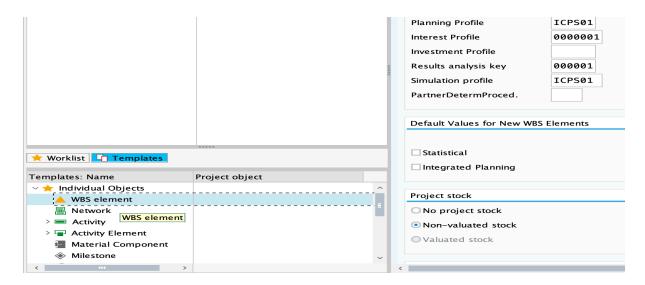
P.NASP5 is now entered in the first Proj Def:Box PipeLine Project is now entered in the second Proj Def:Box Click **Project Profile**.

Click ISPS01

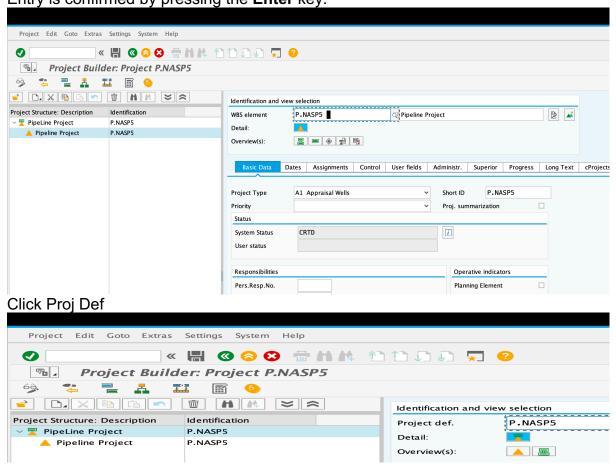
Enter is now pressed.



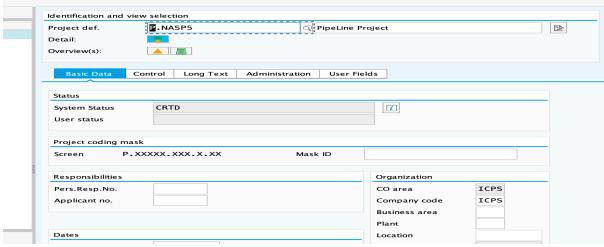
WBS Element is Double-Clicked



P.NASP5 is now entered in the first WBS element Box. Entry is confirmed by pressing the **Enter** key.

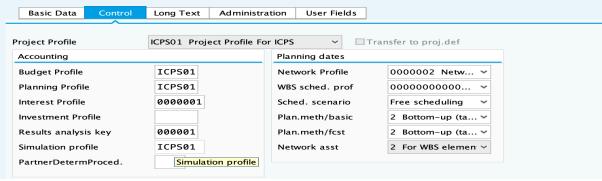


You can now see the CO area field.



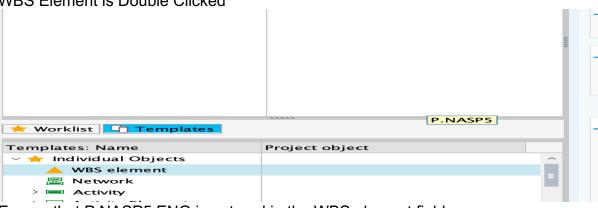
#### Click Control.

You can now see the Project Profile field.



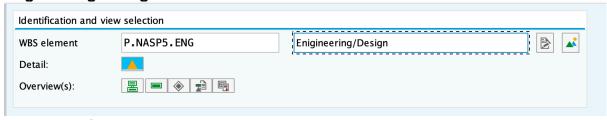
#### Click Basic Data.

WBS Element is Double Clicked



Ensure that P.NASP5.ENG is entered in the WBS element field.

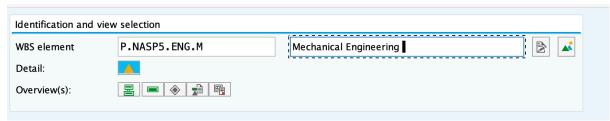
**Engineering /Design** is now entered in the second box.



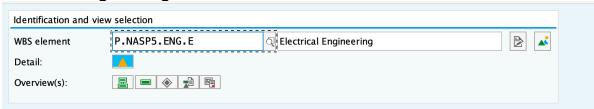
Entry is confirmed by pressing the **Enter** key.

Ensure that P.NASP5.ENG.M entered in the WBS element field.

**Mechanical Engineering** is now entered in the secondbox.



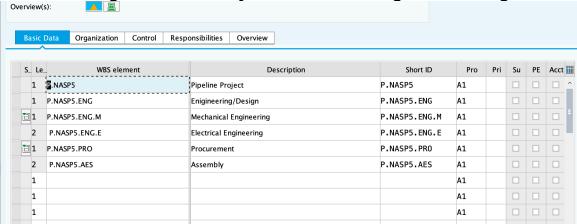
Ensure that **P.NASP5.ENG.E** entered in the WBS element field. **Electrical Engineering** is now entered in the second box.



Similarly you can create more wbs according to your scenario.

#### After Creating WBS.

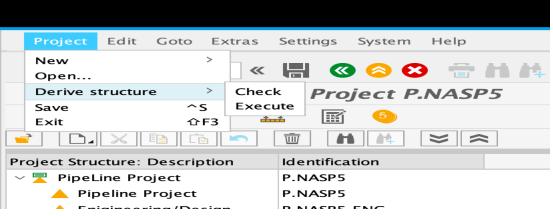
We have to manage WBS Hierarchy structure according to our coding mask.

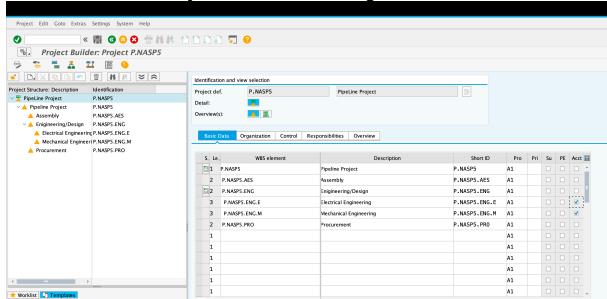


Click Project.

Click Derive Structure.

Click Execute.





#### After Execution Hierarhy will derive from coding mask

You have now seen how to create WBS elements.

# Maintaining Operative Work Breakdown Structures

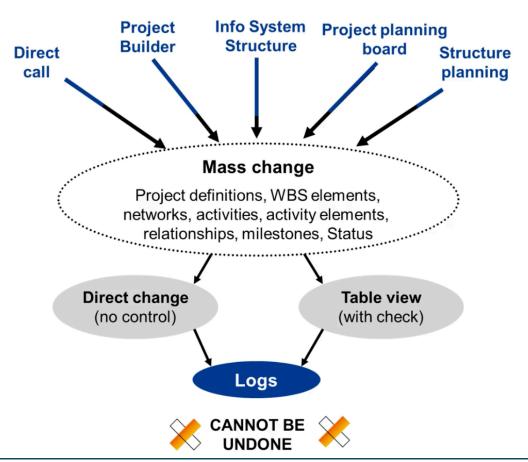
During complex and extensive projects, it is often necessary to change large amounts of master data or assignments. You can use the mass change function to make cross-project changes to fields pertaining to project definitions, WBS elements, networks, activities, activity elements, milestones, and relationships. However, the SAP system only makes the changes if the corresponding prerequisites have been fulfilled, or if the business activity is allowed and you have the appropriate authorization. The same authorization objects used for individual changes are used for mass changes. If the system cannot change a field value in a WBS element, it does not carry out the changes in this WBS element. However, if you want to include other WBS elements or networks in your selection for mass changes, and if errors do not occur there, the system carries out the changes in these projects.

You can carry out a mass change that refers to a single project quickly and easily in the Project Builder, in the project planning board, or in structure planning. When you save the project, the system saves the changes.

To carry out a mass change relating to more than one project, you can use the structure info system or the transaction for mass changes in the Project System. In these cases you can carry out the mass changes online or plan them as background jobs. You can test the extent of your changes before you actually make a mass change. A log of the changes is issued for each mass change. The log can be saved and analyzed later.

#### Mass Change

When you make the mass change you can select and change data in variety of ways you can carry out mass change without viewing it first or you check the plan data in tabular view and carry out the change there in both cases weather the sap system

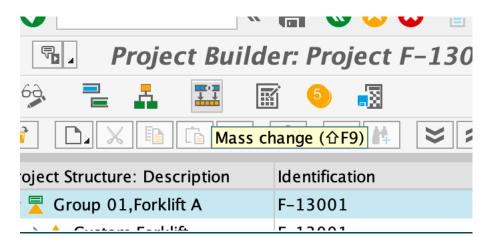


## <u>How to Use Data Maintenance Tools</u> Go to TCODE CJ20N

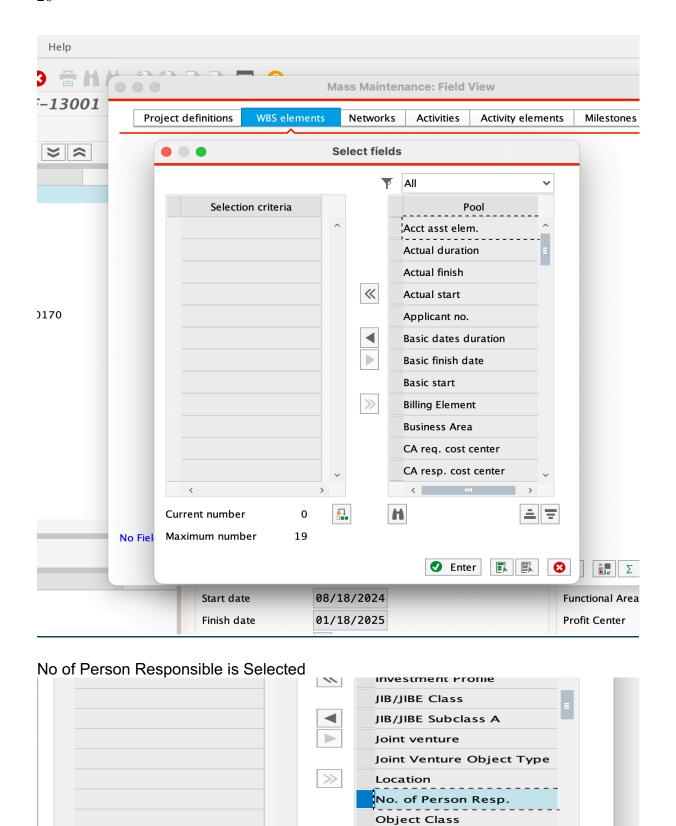
Worklist: Description	Project object	
∨ ★ Projects		
v 悔 Project Definitions		
Group 01,Forklift A	F-13001	
Group 01,Forklift A	F-13002	
WBS Elements		
Networks		
∨		
Group 01,Forklift A	F-13001	
Project Definition P.1234	P.12345	
星 Group 01,Forklift A	F-13002	
PO Testing	F-13043	
PO Testing	F-13021	

F-13001 is Double Clicked

# Click Mass Change



Click WBS Element



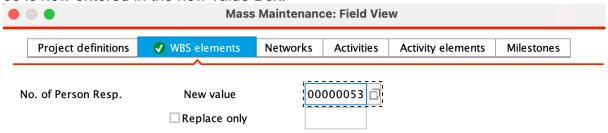
Overhead key



Current number



53 is now entered in the new value Box.



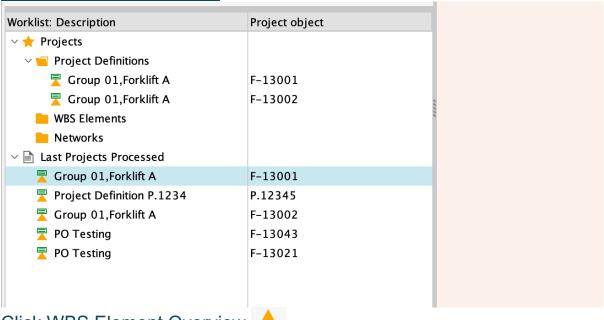
# Click Execute

You can now see a log that list all the changes made



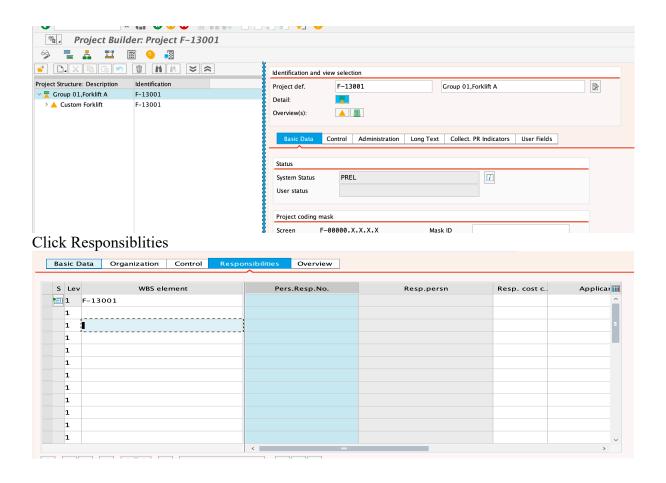
In the Following Steps the WBS Element overview for a project will be opened and the responsibilities Tab will be changed Go to TCODE CJ20N

#### F-13001 is Double Clicked

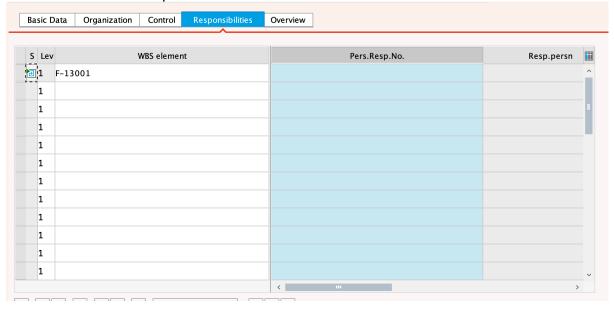


Click WBS Element Overview \_\_\_\_

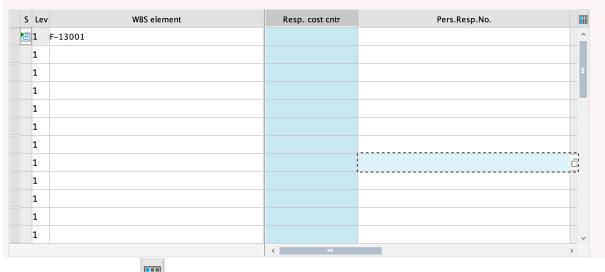




You can now Adjust Width by selecting and dragging the column seperator For WBS Element and Person Respnsible



You can now Drag the Resp cost center and move it Beyond the Person Responsible Person



# Click Table Setting NEW001 is now entered in the Variant Box

	Table Settings
Choose variants	
Current settings	Group 00
Standard setting	Group 00 ~
Manage Variants	
Variant	NEW001
Use as the Standard	✓
	☐ Create
	₩ Delete
	Close Save Administrator

Ensure that use as the standard in selected



## Substitution

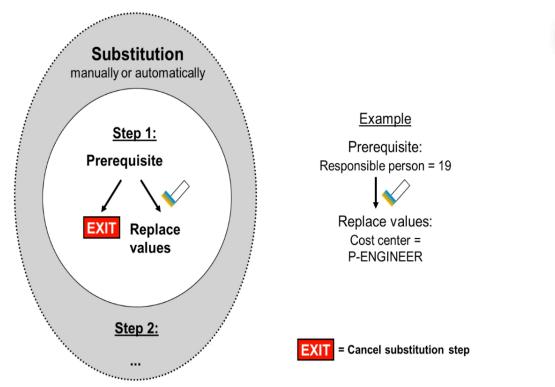
You can trigger substitution for a project manually, or the system can do it automatically when you save a project. In Customizing for the Project System, you can define default values for substitution in the project profile (or network profile). Using an additional indicator in the project profile, you define whether the system should carry out a substitution when saving the WBS. You also define the substitution rules for the Project System in Customizing. A substitution step is composed of a prerequisite and substitution values.

#### **Prerequisite**

In the prerequisite you define which conditions must be fulfilled to carry out a substitution. If the prerequisite is not fulfilled (FALSE), the transaction continues without substitution. If the prerequisite is fulfilled (TRUE), the transaction continues with the substituted value(s). The prerequisites used can be composed of a simple statement or a complex statement combination and rules.

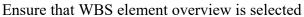
#### **Substitution Value(s)**

The substitution value is a numeric value or an alphabetic string, which replaces the specified value(s). You can replace multiple values for each substitution step. Furthermore, you can use user exits for substitution. With these user exits, you can calculate values and replace them in substitutions and rules.

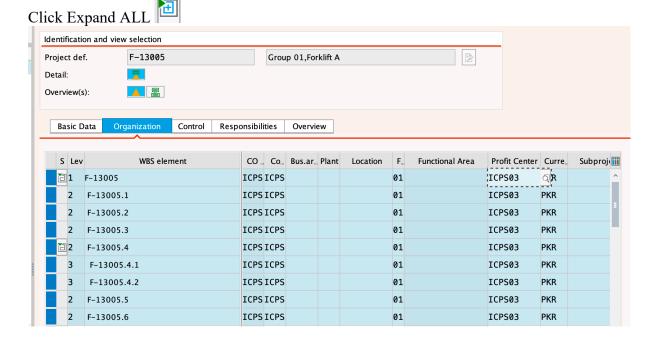


In the Following steps the substitution Profile for all wbs element will be assigned, The result will be displayed and the changes will be saved

Create New Project with WBS Element and Ensure person Responsible is 57 and Profit center ICPS03 is maintained in WBS Master



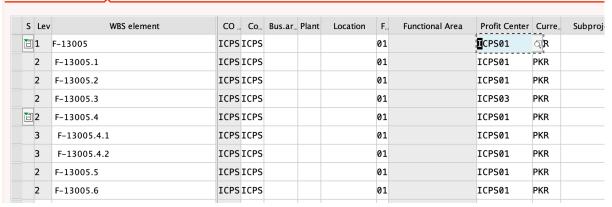








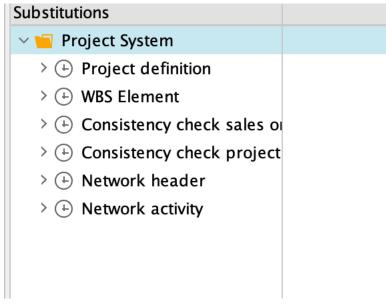
#### Click intermediate Save



Substitution Work Profit Center ICPS03 replaced with ICPS01 Customizing Setting For Substitution

Go to SPRO→ProjectSystem→Structure→Operative Structures→ Work Breakdown Structure (WBS) → Maintain Substitutions

Click WBS Element



Click ZICPS01

# Substitutions Project System Project definition WBS Element ZICPS01 Rules Consistency check sales o Consistency check project

> (+) Network header

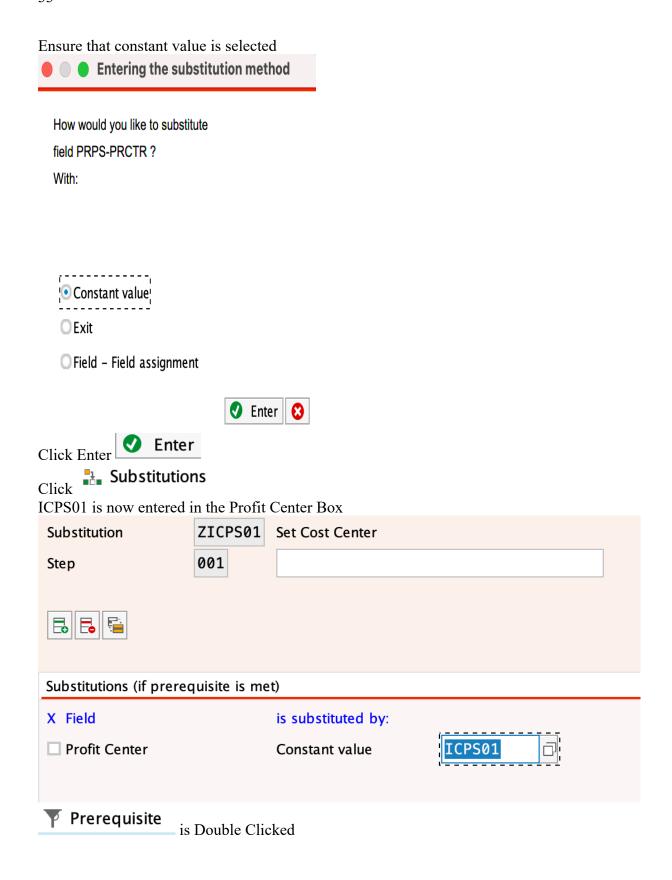
> (+) Network activity

Step Click Step PRCTR is selected **PRPS JIBCL** JIB/JIBE Class **PRPS JIBSA** JIB/JIBE SbClsA **PRPS KALSM** Costing Sheet CCtr posted **PRPS KOSTL** JV Object Type **PRPS OTYPE PRPS PBUKR** Company code **PRPS PGSBR** Bus.area **PRPS PLAKZ** Planning elem **PRPS** Integ. Planning **PLINT PRPS** Description POST1 **PRPS PRART** Project Type **PRPS PRCTR** Profit Center **PRPS PSPRI** Priority **PRPS PWP0S** Currency

Recovery Indic.

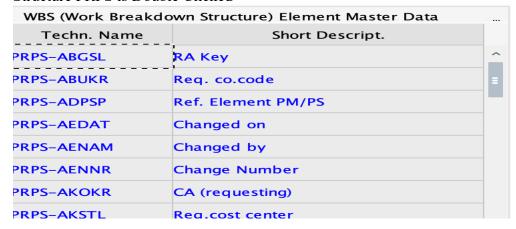
**RECID** 

**PRPS** 

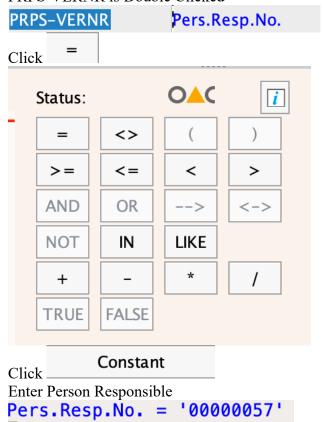




#### Structure PRPS is Double Clicked



Clicking in the scroll area displays the desired area PRPS-VERNR is Double Clicked



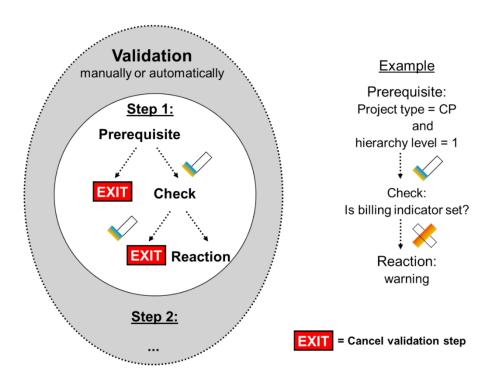
Click Back



### **Validation**

When you enter data in the SAP system, it is checked against tables and master data. Validation gives you the opportunity to check project definition entries, WBS elements, network headers, and activities in a way that is not included in the SAP standard delivery. For example, you can check if the *Billing Element* checkbox is selected on the first level of the hierarchy and whether the project has the project type **Customer project**. If validation indicates that a statement is incorrect, the system will respond by issuing a warning, an error message, or information.

Validation can be composed of more than one step so that u can check various field and value combination using one Validation in a similar way to substitution you can enter the default values for the validation



#### **Prerequisite**

The values to be checked are selected using the prerequisite. If a value is not selected for checking (if the prerequisite is not fulfilled), the value is valid and the transaction is carried out.

#### Check

During the check, the values selected using the prerequisite are checked. If the check statement is true, the transaction is carried out. If the check statement is false, the system issues a message.

Prerequisites and checks are defined using Boolean logic. You can define simple logical statements or you can define very complex statements, as well using rules and user exits in your logical formulas.

#### **Validation Messages**

The system issues the validation message if the prerequisite has been fulfilled but the check has not been fulfilled. You can define messages (information, warnings, error messages) that are shown. You can create a long text for each message by using up to four variables to integrate field values from the validated object.

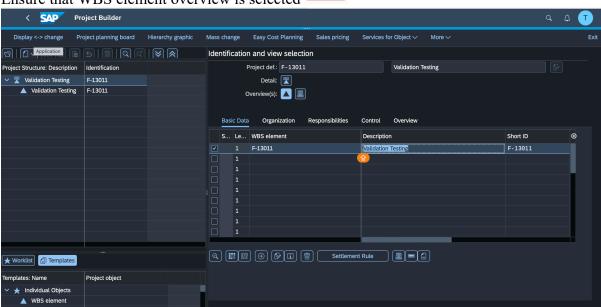
In the Following steps the Validation Profile for all wbs element will be assigned, The result will be displayed and the changes will be saved

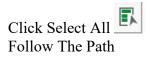
Create New Project with WBS Element and Ensure Project Type A1 and Profit center ICPS03 is maintained in WBS Master

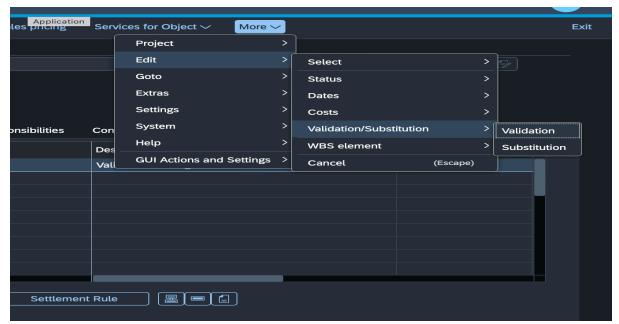
Go To TCODE=CJ20N

Search Project= F-13011

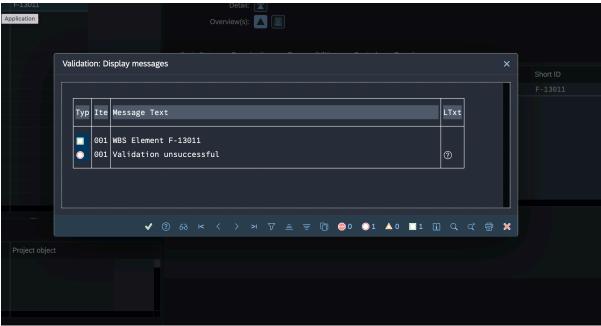
Ensure that WBS element overview is selected







Click Validation

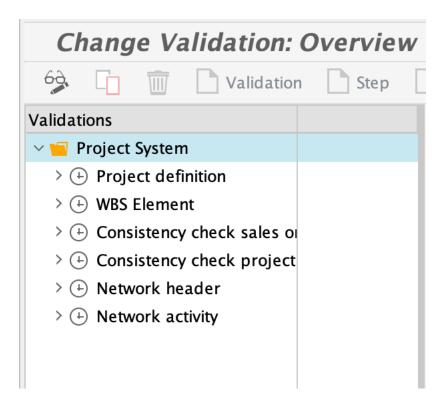


Validation Carried Out

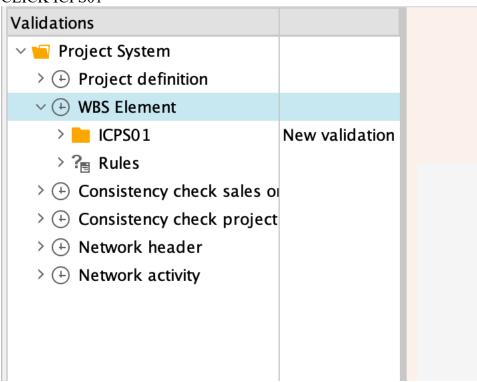
Customizing Setting For Validation

Go to SPRO $\rightarrow$ ProjectSystem $\rightarrow$ Structure $\rightarrow$ Operative Structures $\rightarrow$  Work Breakdown Structure (WBS)  $\rightarrow$  Maintain Validation

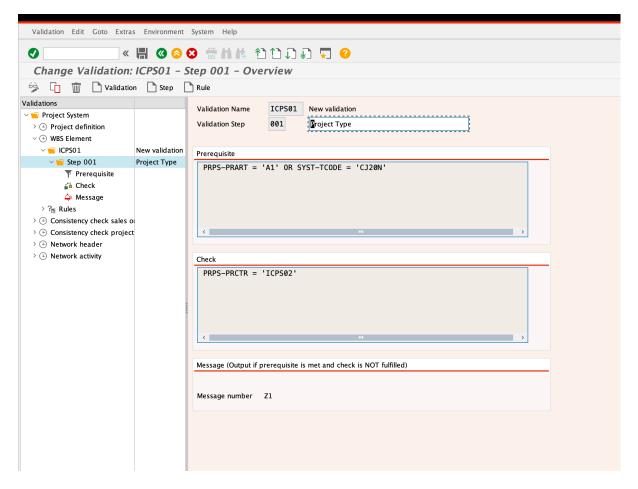
Click WBS Element



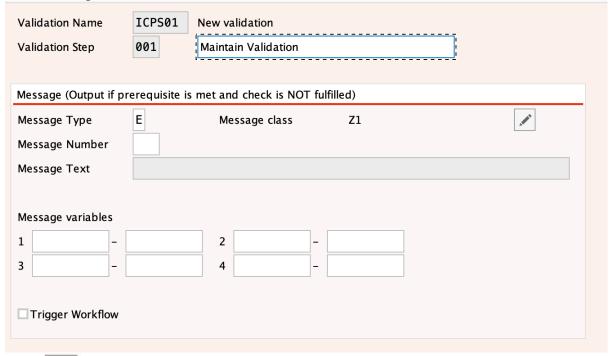
## **CLICK ICPS01**



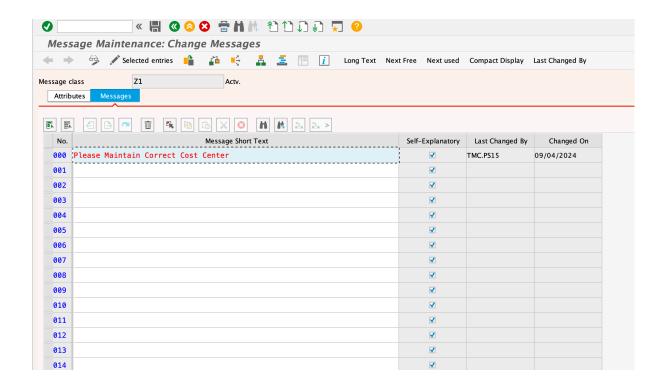
Maintain Validation



# Maintain Message Number Click Message



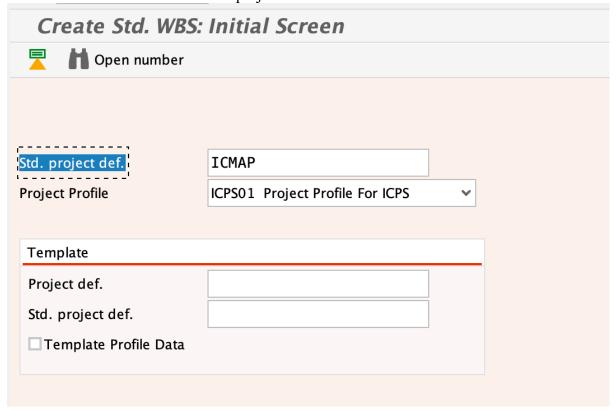




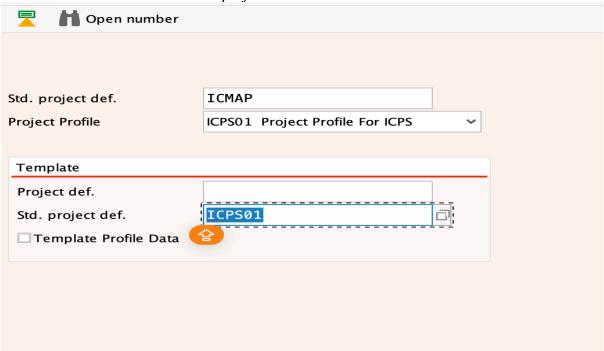
# How to Create Standard WBS

In this demonstration, you will see how to create standard WBS. Go to transaction CJ91

**ICMAP** is now entered in the Std. project def.

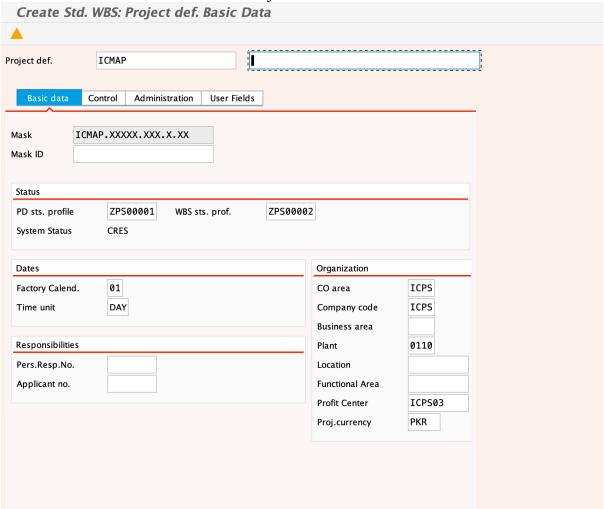


ICPS01 is now entered in the Std. project def ICPS01



#### Press Enter

Standard WBS is now entered in the Proj Def Second Box





#### Click WBS Element Overview

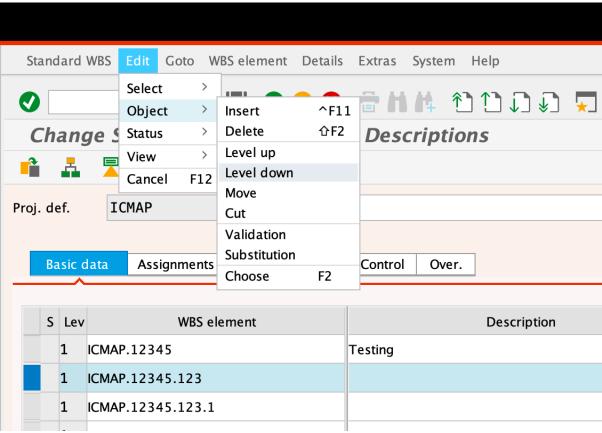
Maintain WBS
Change Sta. WBS: WBS Elements - Descriptions ICMAP Proj. def. Basic data Assignments Responsibilities Control Over. S Lev WBS element Description Pro Pri Su PE Acct Short ID 1 ICMAP.12345 ICMAP.12345 Testing Α1 1 ICMAP.12345.123 ICMAP.12345.123 A1 1 CMAP.12345.123.1 ICMAP.12345.123.A1 1 ICMAP.12345.123.1.12 ICMAP.12345.123.A1 Α1 Α1 Α1 1 Α1 1 1 Α1

> A1 A1

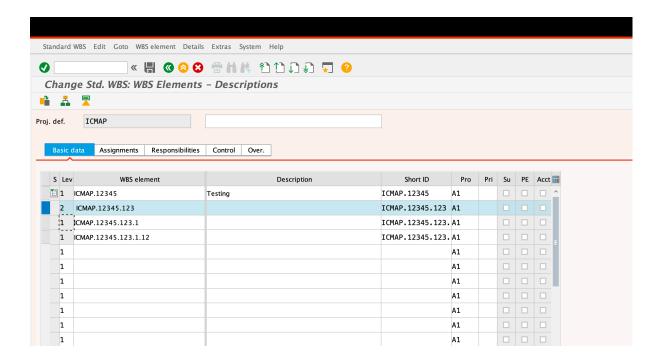
Click 2<sup>nd</sup> WBS

Go to EDIT

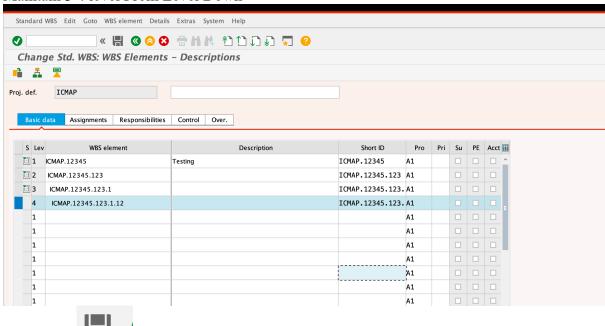
1



Click Level Down



#### Maintain 3 4 level From Level Down



Click Save \_\_ \_

In the following steps, the standard work breakdown structure will be released and saved.

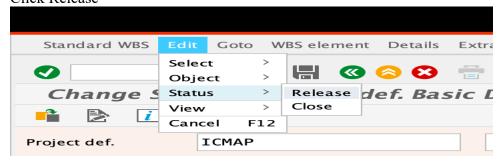
Go to Transaction Code CJ92

**ICMAP** is now entered in the Std. project def Box

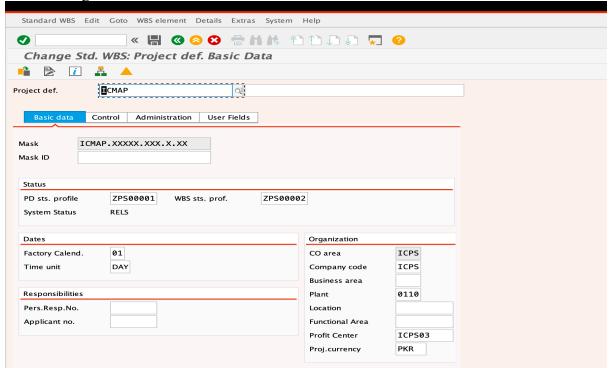
Entry is confirmed by the Enter key.

Click Project Definition Click Edit

## Click Status Click Release



Status Changed



Click Save

You have now seen how to create standard WBS.

# **Customizing Networks**

#### **Networks**

Depending on the network type and plant the system select control data and default values from three other profiles in customizing

- 1. The parameters for the network type
- 2. The confirmation parameter
- 3. The scheduling parameters
- 4. To check the availability of of material components

The network Profile contain default values and parameters working with a network For example

**Plants** 

Unit

Control Key For different activities

#### Graphic setting

**Network Type Parameters** 

The network type contain information for controlling and managing network, including Settlement Profile, Status Profile and Residence Time

Network Type parameters (Plant and network type) include the following

- 1.Header/Activity account Assignment
- 2. Costing Variant
- 3. Change Profile

The scheduling parameters are defined in customizing and include scheduling type schedule automatically checkbox and reduction strategy

Confirmation Parameters(Plant and Networktype) include check,workflow and proposed service

**Network Profile** 

**Network Type** 

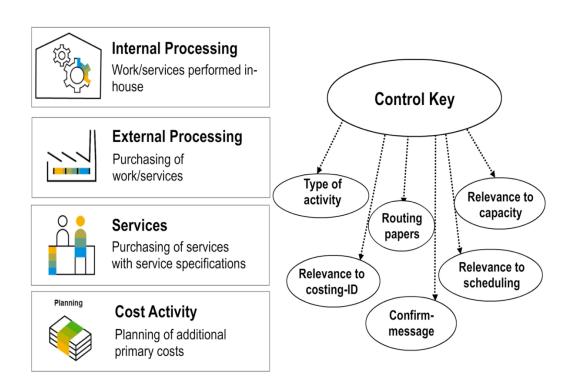
**Network Type Paramters(Plant and network type)** 

Scheduling parameters (Plant and network type)

Material Availability check parameters (Plant, Network Type, Network status)

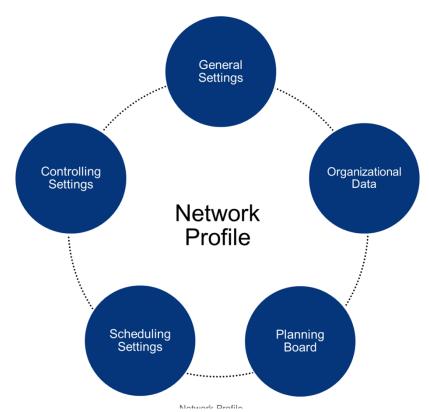
**Confirmation Parameters (Plant and network type)** 

**Control Key** 



### **Network Profile Data**

When a network is created the system requires a network profile containing different default Values



Plant, Network Type, and MRP Group are required information for creating networks. The Relationship view field specifies whether predecessor or successor, or all relationships are displayed in the list of relationships. The Level of detail field applies to networks with external relationships and specifies the level of detail with which the linked networks are displayed in the network structure graphic. Comp. Increment and Op. and Act. Incrmt fields specify the default increment for the numbering of components and activities. The Check WBS Act. field defines how activity dates are taken into account during top-down scheduling. The Overview variant describes how the object overview is structured. The Procurement checkbox is relevant for the assignment of components, and groups together default values. Fields

The Field key describes the short texts for user fields. The Version profile controls whether status-dependent project versions are created and which data is contained in these versions. The Res./Purc.req checkbox determines when reservations and purchase requisitions are created. If the Capacity requirements checkbox is selected, the system determines the capacity requirements when the network is saved. If you use the Entry tool, the system branches to the Detail screen of an activity when a new activity is created. The Project Summarization checkbox specifies whether activities take part in project summarization. The Proj.summ.Master Data checkbox determines whether summarization is executed on the basis of classification or master data characteristics. Using Align finish date, you define whether the component requirements date is aligned to the start or finish of the activity.

In the fields for *Validation* and *Substitution*, you can enter default values for the validation/substitution to be used in the network header and activities. These are executed automatically on saving. You can use the *Access Control List* checkbox to assign authorizations for reading, editing, or administering objects. You can select *No ACL* to deactivate the *access control* tab page, *ACL* (w/o Inh.) to disallow inheritance of

access objects to subordinate objects, and ACL (with Inh.), to allow inheritance of access authorizations.

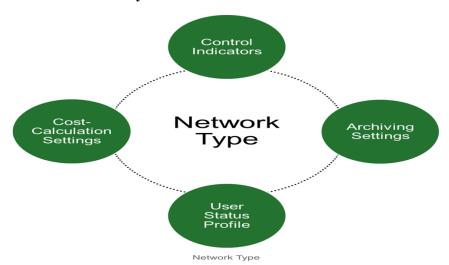
The *Graphic Profile* describes the structure of the network structure graphic. In the graphic, all relationships are displayed as either FS relationships or according to their proper type (*Relationship Display*). Activities can be displayed in the graphic in four different levels of detail (*Activity Display*). In the extended display of activities, the specified color indicates an assigned object. The *Project Planning Board Profile* determines the appearance of the GANTT chart. The Overall profile ID for capacity leveling contains all settings for a capacity leveling.

The Activities tab page of the network profile contains default values for the different activity types. The activity key determines the business characteristics of each activity. For internal activities, the Cost Element can also be entered for the material planning value, as well as default values for the Unit of Work and Duration, and the Calculation Key, which describe the distribution of capacity requirements and costs across the activity duration. In addition to the Control Key for cost activities, a default can also be entered for the Cost Element for the planned costs.

For externally processed activities and service activities, additional organizational data for *Purchasing* and default values for the *Cost Element* and *Unit of Measure* can be entered in the network profile.

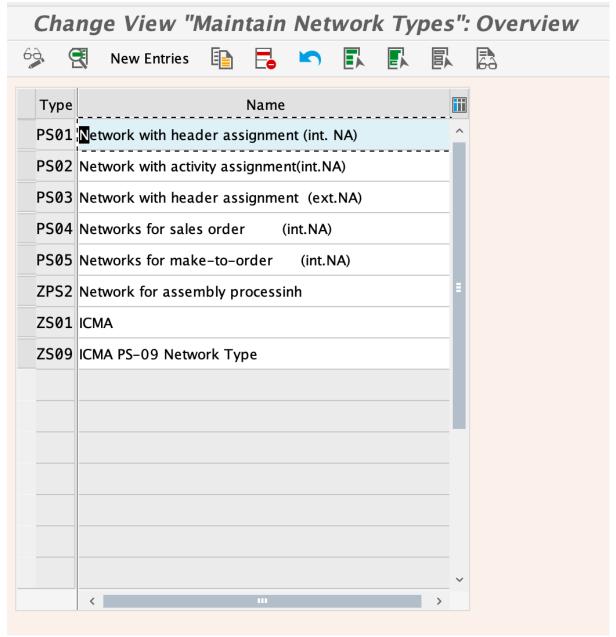
### **Network Type Data**

When a network is created the network type is either determined from the network profile or entered manually



To get an overview of Customizing for networks, you will learn how to create your own profiles for networks with templates of existing profiles. When you add activities to the future project structures, the settings you make here will be automatically used. In this exercise, you will customize the networks.

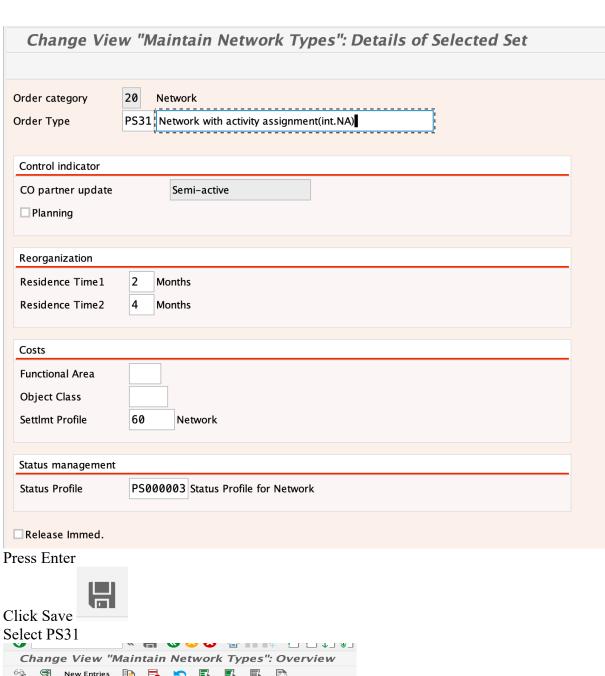
Go to SPRO→ProjectSystem→Structure→Operative Structures→Network→Settings for Network→Maintain Network Types

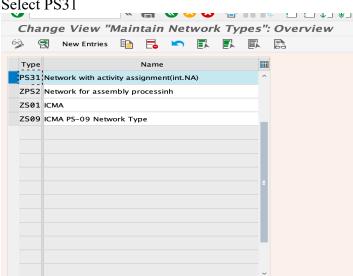


Select PS02



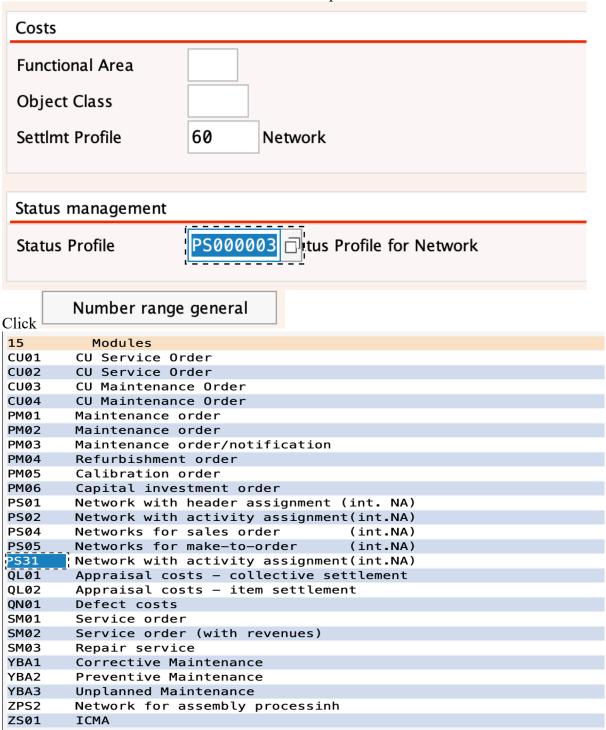
Enter PS31 in the Order Type Box







You can see that PS000003 is entered as the status profile.

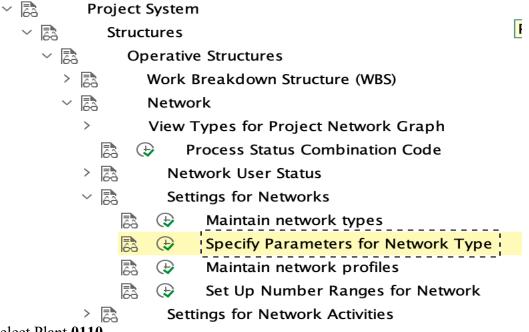


If you create a network type without a template, you must manually assign the network to a number range.



In the following steps, you will define parameters for the network type and check whether the account assignment occurs on the header level or the activity level due to the settings.

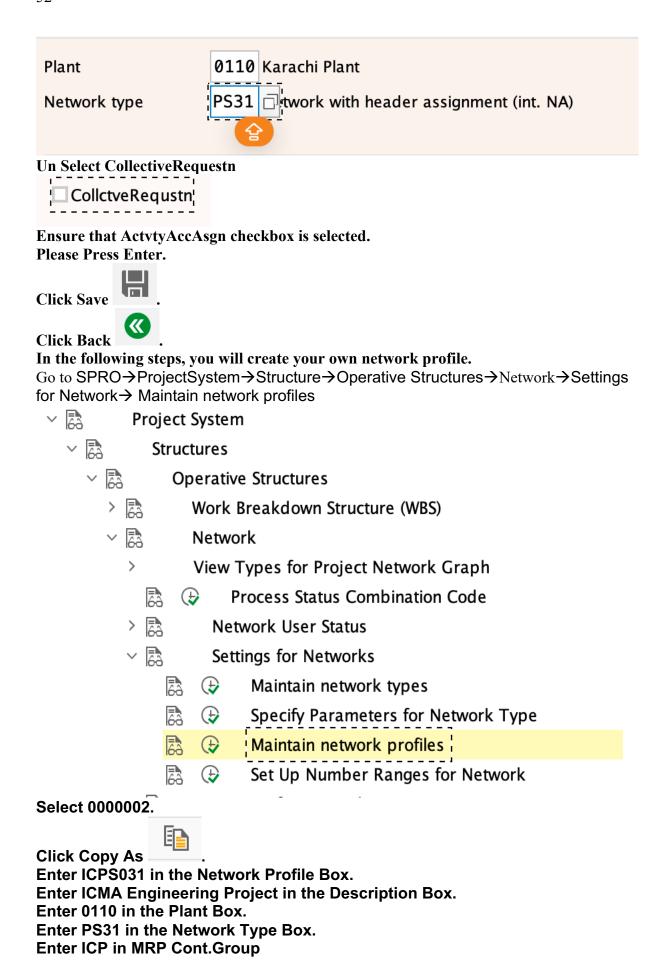
Go to SPRO→ProjectSystem→Structure→Operative Structures→Network→Settings for Network → Specify Parameters for Network Type



Select Plant 0110

Plnt	Name 1	Network type	Name
0001	Werk 0001	PS01	Network with header assignment (int.
0001	Werk 0001	PS02	Network with activity assignment(int.N.
0001	Werk 0001	PS03	Network with header assignment (ext
0001	Werk 0001	PS04	Networks for sales order (int.NA)
0001	Werk 0001	PSØ5	Networks for make-to-order (int.N
0003	Plant 0003 (is-ht-sw)	PS01	Network with header assignment (int.
0003	Plant 0003 (is-ht-sw)	PSØ2	Network with activity assignment(int.N.
0003	Plant 0003 (is-ht-sw)	PS03	Network with header assignment (ext
0003	Plant 0003 (is-ht-sw)	PS04	Networks for sales order (int.NA)
0003	Plant 0003 (is-ht-sw)	PS05	Networks for make-to-order (int.N
0110 Q	Karachi Plant	PS01	Network with header assignment (int.
0110	Karachi Plant	ZS01	ICMA

**Click Copy As Enter PS31 in the Network Type Box** 

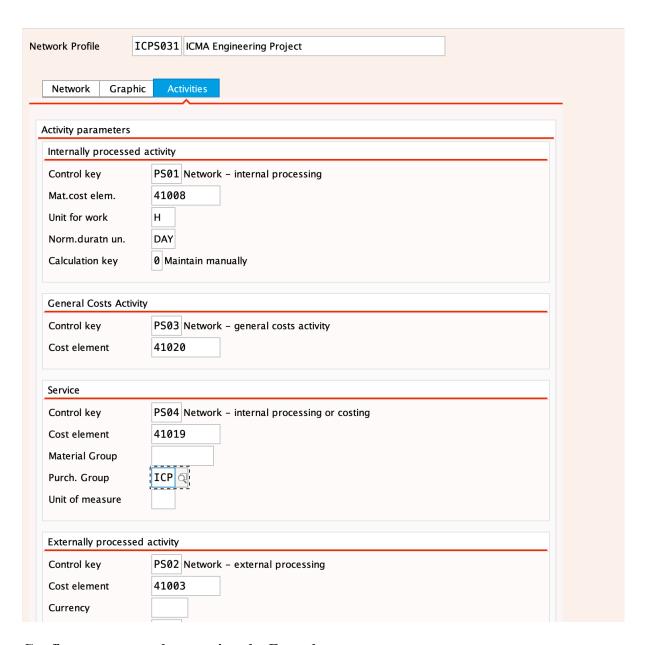


# Enter 2 in the Res./Purc.req. box

# Change View "Network Defaults": Details of Selected Set **Network Profile** ICPS031 ICMA Engineering Project Network Graphic Activities Network parameters 0110 Werk 0001 Plant PS31 Network with activity assignment(int.NA) Network type Planner Group Plannergroup 1 MRP cont.group ICP Jason D. Orr Rel. view 3 Mixed Res./Purc. req. Level of detail ✓ Cap. reqmts Comp. increment ☐ Entry tool 0010 Op./act. incrmt Summarization Check. WBS act. W Exit with warning Align.Fin. Date Overview var. ✓ Proj. summ. MastDa Procurement ☐ iPPE Proj. Rel. Field key 0000001 User-defined fields Version prof. Std Text Key

Click Activities

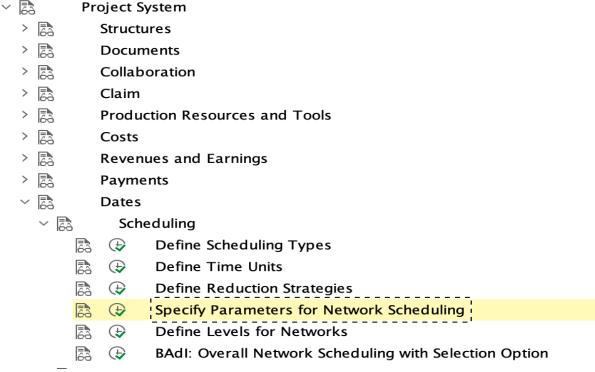
**Enter ICP in the Purch. Group Box.** 



Confirm your entry by pressing the Enter key.



In the following steps, you will create scheduling parameters for the network type. Go to SPRO→ProjectSystem→Structure→Dates→Scheduling→Specify Parameters for Network Scheduling



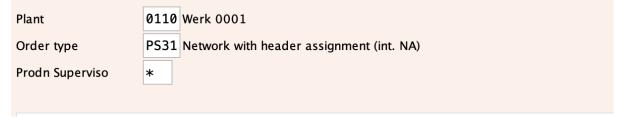
### **Select 0001.**



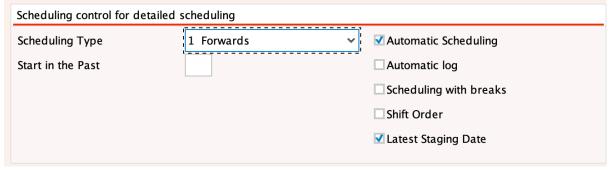
# Click Copy As.

Enter PS31 in the Order Type Box.

Enter 0110 in the Plant Box.



Ensure that Forwards is selected in the Scheduling Type field.



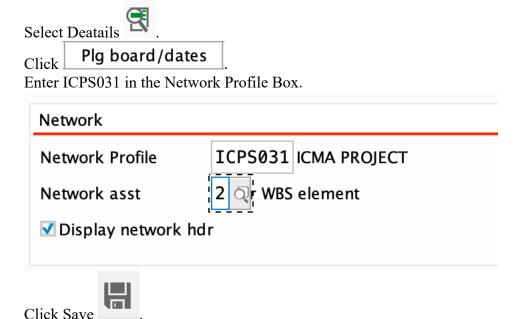
Confirm your entry by pressing the **Enter** key.



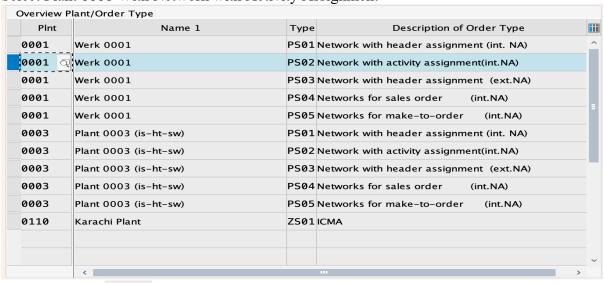
In the following steps, you will enter the network profile in the project profile.

Go to SPRO→ProjectSystem→Structure→Operative Structures→ Work Breakdown Structure (WBS) → Create Project Profile.

Select ICPS0.



In the following steps, you will define confirmation parameters for the network type. Go to SPRO->ProjectSystem->Confirmation->Define Confirmation Parameters Select Plant 0001 With Network with Activity Assignment



Click Copy As Enter 0110 in the Plant Box Enter PS31 in the Network type Box

Order category 20 Network	
Plant 0110 Werk 0001  Network type PS31 Network with activity assignment(int.	NA)
Default Values	Goods Movements
✓ Final Confirmation ☐ Clear Open Reservs.	□ All Components
☑ Propose Dates	Selection
▼ Propose Activities	☐ Confirmed Ops
▼ Milestone automatic.	☐ Confirmable
Checks	Workflow
□ Dates in Future	■Wrkflw for work
□WrkDev. active Work deviation	☐ Duratn workflow
□ DurtnDev.active Duration deviation	
	HR Update
Logs/Error Handling	□ No HR Update
☐ Actual Costs	□ No date update
Termination for Incorrect Act.Costs	
☐Goods Movement	Control Data
☐Termination for Incorrect Goods Movt	Process Control

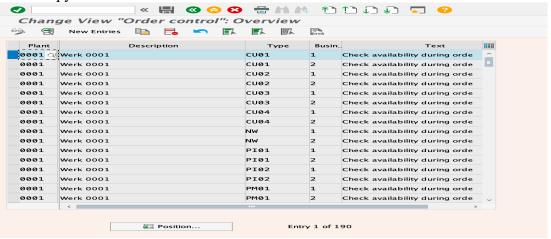
Please Press Enter

Click Save

In the following steps, you will activate the automatic material availability check. Go to SPRO→ProjectSystem→Material →Availability Check→Define Checking Control

Select Plant 0001

Click Copy As.



Enter 0110 in the Plant Box Enter PS31 in the Order Type Box

# Change View "Order control": Details of Selected Set 0110 Werk 0001 Plant Order Type PS31 CU Service Order **Availability Check** Check availability during order creation Material availability ☑ No check Check material availability when saving order PS Service checking rule Checking Rule ATP check Component Check Type Collect. conversion PRT availability ✓ No check Checking Rule 01 Status check Collect. conversion Capacity availability ✓ No check Overall profile Collect. conversion

**Please Press Enter** 

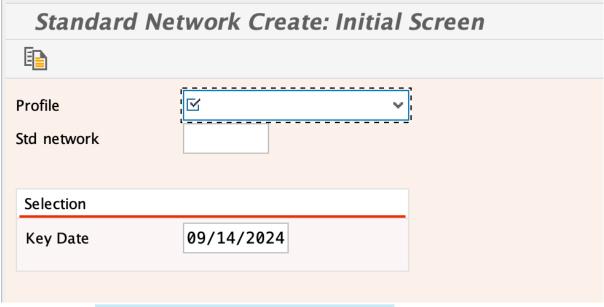


You have now customized the networks.

# Create a Standard Network

You have already created a standard work breakdown structure as a template for your operative work breakdown structure. You would now like to create a suitable template for networks and link it to your standard work breakdown structure. In this task you create a standard network. In addition, you assign the header and the activities of the standard network to the WBS elements of your standard work breakdown structure so that you can create both structures later. In this exercise, you will create a standard network.

Go to TCODE:CN01



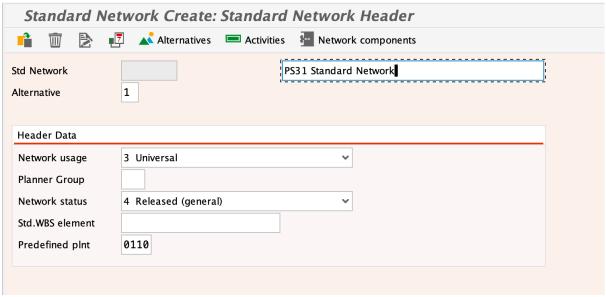
Select Profile

0000001 Standard network profile

**Press Enter** 

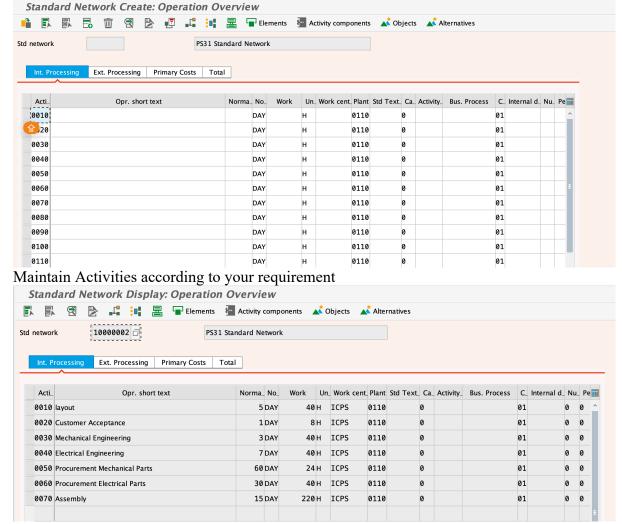
Click Network Usage: Universal Click Network Status: Released

**Select Plant:0110** 



Confirm your entry by pressing the Enter key.

Click Activities.



**Click Save** 

# How to Assign Standard Networks to Standard Work Breakdown Structures

In this demonstration, you will see how to assign standard networks to standard work breakdown structures.

In the following steps, you will assign a standard network to the WBS elements of a standard work breakdown structure.

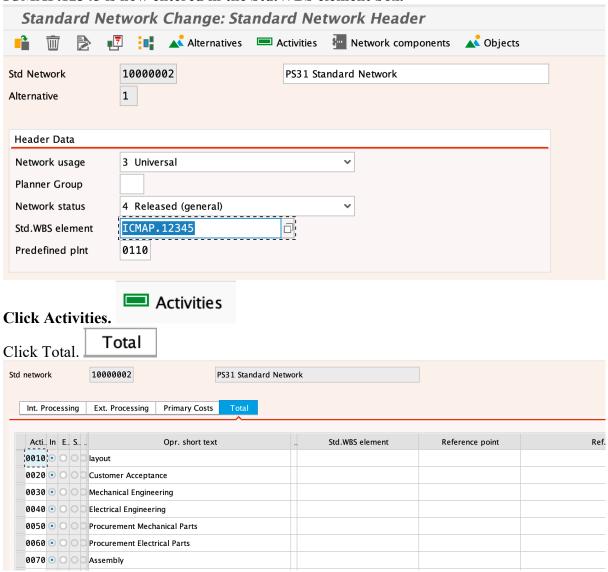
Go to TCODE:CN02

10000002 is now entered in the STD Network Box.

Standard Network Change: Initial Screen				
Alternatives Activities				
Std network	10000002 🗖			
Selection				
Key Date Alternative	09/14/2024			



## ICMAP.12345 is now entered in the Std.WBS element box.



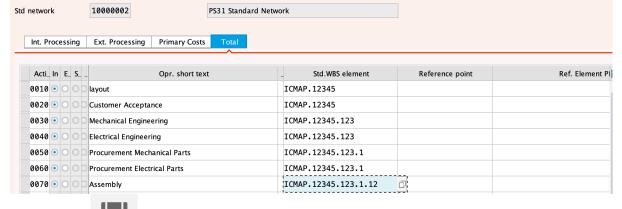
# Ensure that ICMAP.12345 is entered in the STD.WBS element field for activities 0010 and 0020.

Acti In E S	Opr. short text	Std.WBS element
0010 • 0 00	layout	ICMAP.12345
0020 • 0 0	Customer Acceptance	ICMAP.12345

Ensure that ICMAP.12345.123 is entered in the STD.WBS element field for activities 0030.

Acti In	Ε	S	Opr. short text	 Std.WBS element
0010 •	0	00	layout	ICMAP.12345
0020 💿	0	00	Customer Acceptance	ICMAP.12345
0030 💿	0	00	Mechanical Engineering	ICMAP.12345.123

# Similarly, enter the following in the Std.WBS element field in the respective activities:



Click Save.

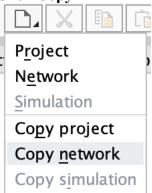
In the following steps, the creation of a network with template and an operative

work breakdown structure by saving the network will be shown.

Go to TCODE: CJ20N

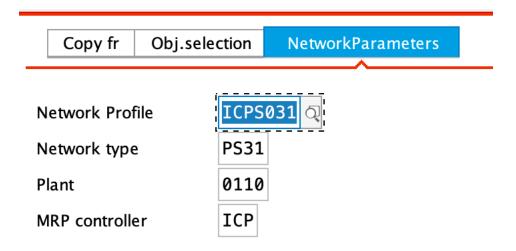
Click Create

Click Copy Copy network

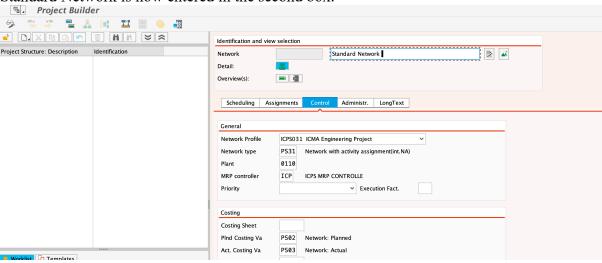


10000002 is now entered in the Std network Box.

Click Network Parameters NetworkParameters ICPS031 is now entered in the Network Profile Box. PS31 is now entered in the network type box. 0110 is now entered in the Plant Box, ICP is now entered in MRP Controller Box.

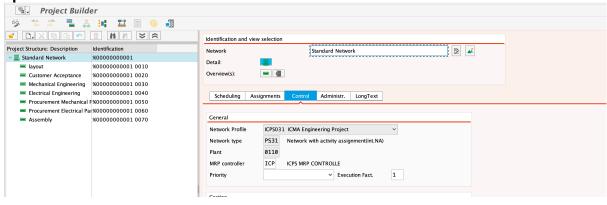


Standard Network is now entered in the second box.



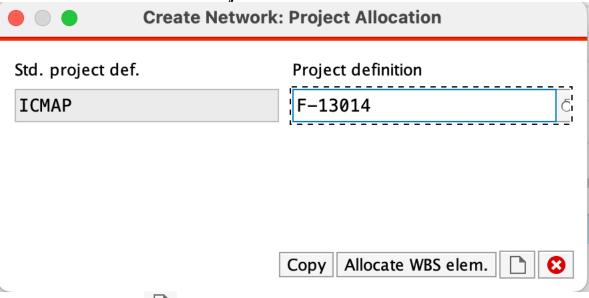
Entry is confirmed by pressing the Enter key.

You can now see that the system has read the standard network and created an operative network.



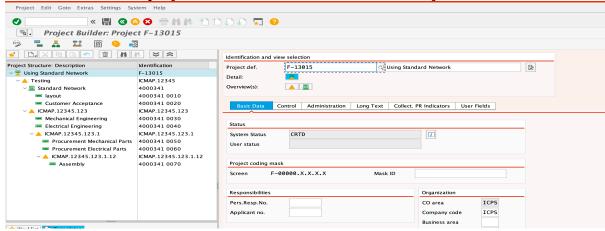
**Click Save** 

F-13015 is now entered in the Project Definition Box.



Click Create Project .

You can now see the project F-13015 in the worklist under Projects Processed Last.

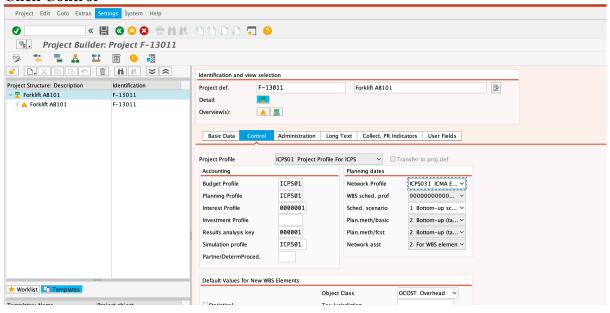


You have created an operative work breakdown structure. You will become familiar with the creation of networks by adding activities and networks to your example project and detailing them.

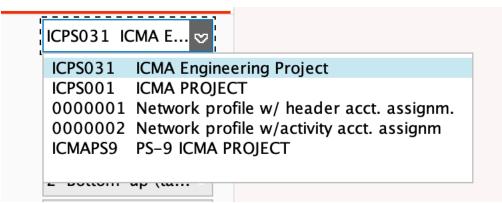
Go to TCODE: CJ20N Double-click on F-13011

Worklist: Description	Project object
∨ ★ Projects	
Project Definitions	
Group 01,Forklift A	F-13001
Group 01,Forklift A	F-13002
WBS Elements	
Networks	
∨   □ Last Projects Processed	
Forklift AB101	F-13011
Group 01,Forklift A	F-13001
consrtruction project	P.NAS05
REASEARCH AND DEVELOPMENT	2/100.4
horall Project Definition 2/100.3	2/100.3

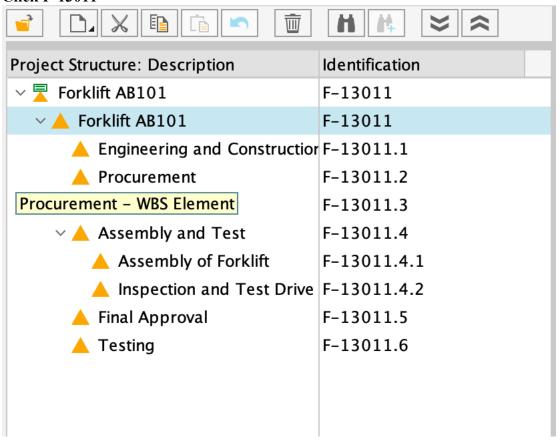
# **Click Control**



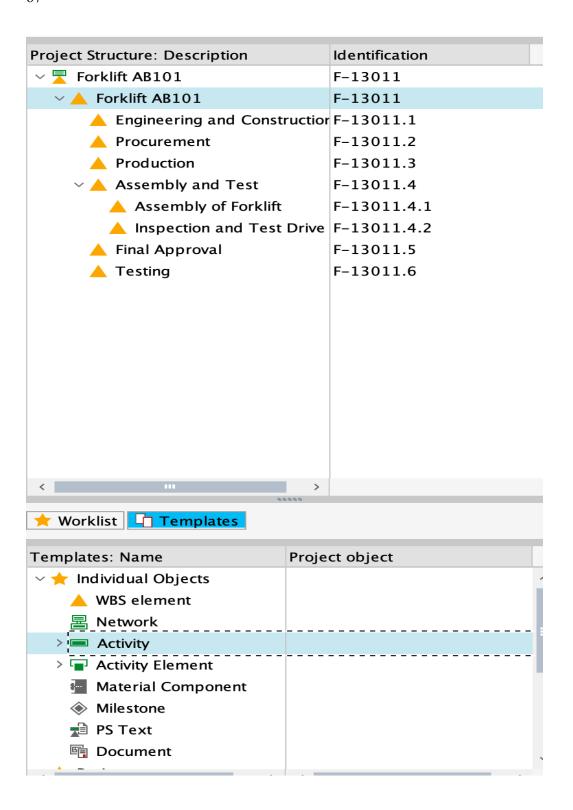
Click Network Profile Click ICPS031 Network Profile



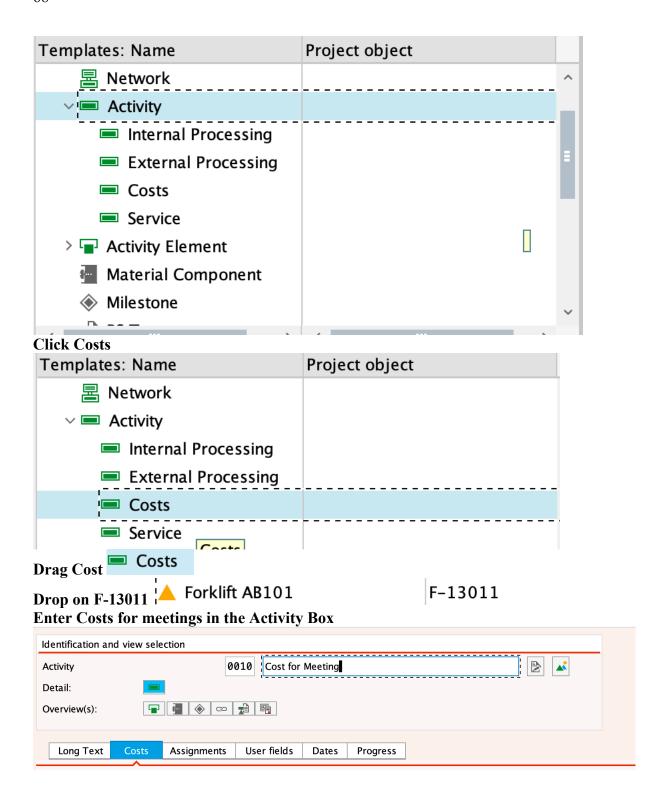
## Click F-13011



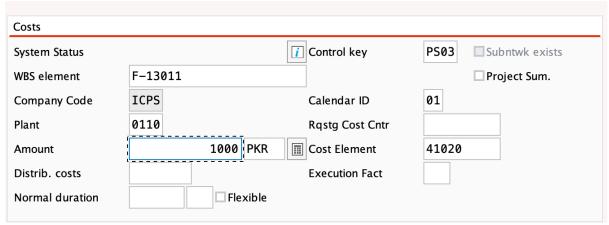
# **Click Activity**



Click in the scroll area to display the desired area.



Enter 1000 in the amount Box



Ensure that 41020 is entered in the Cost Element field.

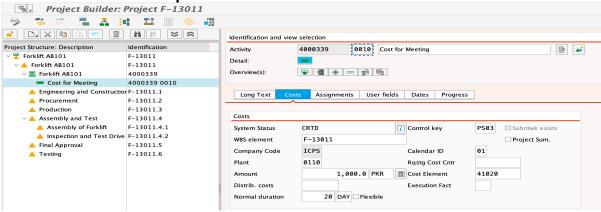
Cost Element	41020
--------------	-------

Enter 20 in the First Normal Duration Box. Enter DAY in the second Normal Duration Box.

Costs			
System Status		i Control key	PS03 Subntwk exists
WBS element	F-13011		☐ Project Sum.
Company Code	ICPS	Calendar ID	01
Plant	0110	Rqstg Cost Cntr	
Amount	1000 PKR	Cost Element	41020
Distrib. costs		Execution Fact	
Normal duration	20 DAY 🗆 Flexible		

### **Click Intermediate Save.**

After the data has been released, the system creates the activity and the network header using a preliminary number. The system uses the network profile defined in the project definition as the network profile for this network.



In the following steps, you will create a second network for the WBS elements of the project.

**Double-Click on F.13011** 

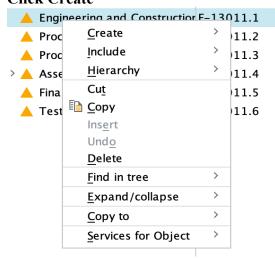
Worklist: Description	Project object
∨ ★ Projects	
∨   ☐ Project Definitions	
Group 01,Forklift A	F-13001
Group 01,Forklift A	F-13002
WBS Elements	
Networks	
∨   □ Last Projects Processed	
Forklift AB101	F-13011
Group 01,Forklift A	F-13001
consrtruction project	P.NAS05
REASEARCH AND DEVELOPMENT	2/100.4
Project Definition 2/100.3	2/100.3

# Click Forklift AB101

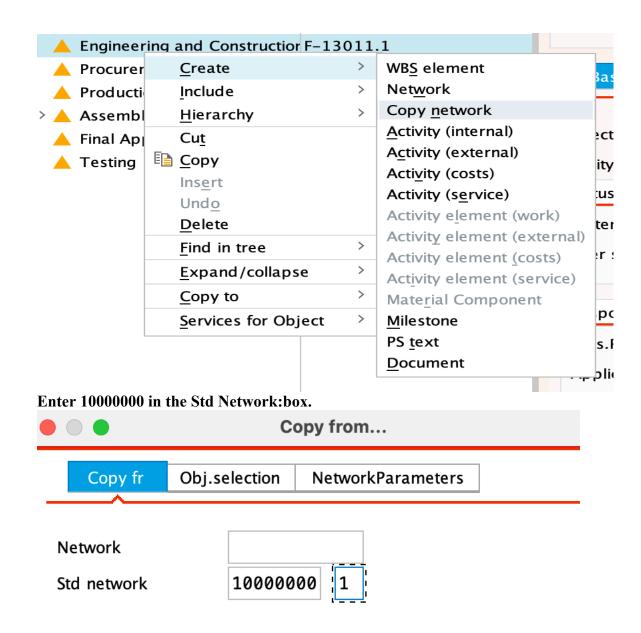
∨ 🚆 Forklift AB101	F-13011
> 🛕 Forklift AB101	F-13011

# Engineering and Constructior F-13011.1

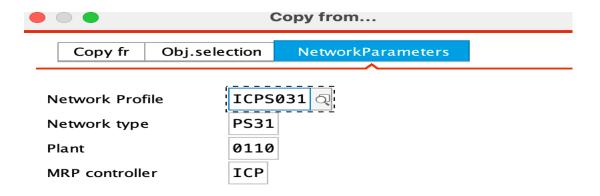
# Right-Click on Click Create



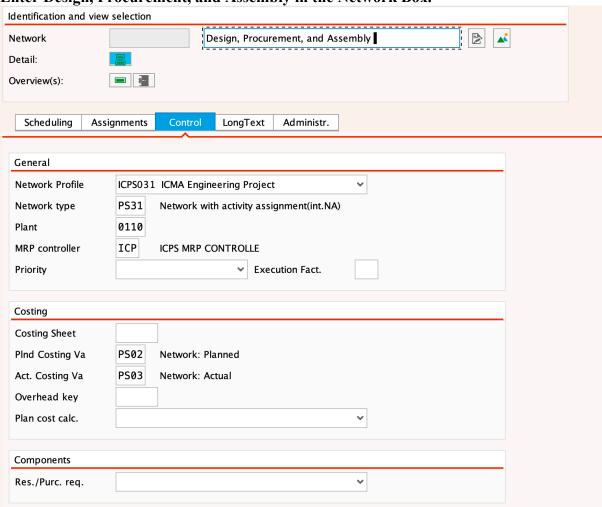
Click Copy Network.



Click Network Parameters.
Ensure that Network Profile ICPS031 Selected
Ensure that Network type PS31 selected
Ensure that Plant 0110 selected
Ensure that MRP controller ICP selected



Enter Design, Procurement, and Assembly in the Network Box.



Confirm your entry by pressing the enter key.

Click in the scroll area to display the desired area.

layout	%0000000001 1000
Customer Acceptance	%0000000001 1010
Mechanical Engineering	%0000000001 1030
Electrical Engineering	%0000000001 1050
Procurement Mechanical Parts	%0000000001 1080
Procurement Electrical Parts	%0000000001 1100
Assembly	%0000000001 1140

Customer Acceptance Drag

%0000000001 1010

**Drop on Quality assurance.** 

Ouality Assurance F-13011.8

Quality Assurance	F-13U11.6
Project Structure: Description	Identification
∨ 🗏 Forklift AB101	F-13011
∨ ▲ Forklift AB101	F-13011
> 🗏 Forklift AB101	4000339
Engineering and Con	nstructior F-13011.1
国 Design, Procurem	ent, and 4000340
Procurement	F-13011.2
Production	F-13011.3
Assembly and Test	F-13011.4
Assembly of Forkl	ift F-13011.4.1
Inspection and Te	st Drive F-13011.4.2
Final Approval	F-13011.5
V A Quality Assurance	F-13011.8
Customer Accepta	ance 4000340 1010
Testing	F-13011.6
■ layout	4000340 1000
Mechanical Engineering	4000340 1030
Electrical Engineering	4000340 1050
Procurement Mechanical I	Parts 4000340 1080
Procurement Electrical Pa	rts 4000340 1100
< 111	>

Click Mechanical Engineering	4000340 1030
Drag Mechanical Engineering	4000340 1030

**Drop** Engineering and Construction F-13011.1

·y · · · · · · · · · · · · · · · · · ·	
∨ 🚆 Forklift AB101	F-13011
✓ ▲ Forklift AB101	F-13011
> 몰 Forklift AB101	4000339
Engineering and Construction	F-13011.1
🗸 星 Design, Procurement, and	4000340
Mechanical Engineering	4000340 1030
Procurement	F-13011.2
Production	F-13011.3
Assembly and Test	F-13011.4
Assembly of Forklift	F-13011.4.1
Inspection and Test Drive	F-13011.4.2
🛕 Final Approval	F-13011.5
V A Quality Assurance	F-13011.8
Customer Acceptance	4000340 1010
Testing	F-13011.6
layout	4000340 1000
Electrical Engineering	4000340 1050
Procurement Mechanical Parts	4000340 1080
Procurement Electrical Parts	4000340 1100
< III >	

Click	Electrical Engineering	4000340 1050
Drag	Electrical Engineering	4000340 1050

Drop on Engineering and Construction 

Engineering and Construction F-13011.1

Project Structure: Description	Identification	
∨ Forklift AB101	F-13011	
∨ ▲ Forklift AB101	F-13011	
>	4000339	
Engineering and Construction	F-13011.1	
∨ 🗏 Design, Procurement, and	4000340	
Mechanical Engineering	4000340 1030	
Electrical Engineering	4000340 1050	
Procurement	F-13011.2 400	
Production	F-13011.3	
Assembly and Test	F-13011.4	
Assembly of Forklift	F-13011.4.1	
Inspection and Test Drive	F-13011.4.2	
Final Approval	F-13011.5	
∨ ▲ Quality Assurance	F-13011.8	
Customer Acceptance	4000340 1010	
Testing	F-13011.6	
■ layout	4000340 1000	
Procurement Mechanical Parts	4000340 1080	
Procurement Electrical Parts	4000340 1100	
Procurement Mechanical Parts	4000340 1080	
Drag Procurement Mechanical Parts	4000340 1080	
Drop on A Procurement	F-13011.2	
Click Procurement Electrical Parts	4000340 1100	
Procurement Electrical Parts Drag	4000340 1100	
Drop on A Procurement	F-13011.2	

,	
√  星 Forklift AB101	4000339
Cost for Meeting	4000339 0010
Engineering and Construction	F-13011.1
∨ 星 Design, Procurement, and	4000340
Mechanical Engineering	4000340 1030
Electrical Engineering	4000340 1050
Procurement	F-13011.2
Procurement Electrical Parameter	4000340 1100
Procurement Mechanical F	4000340 4080
Production	F-13011.3
Assembly and Test	F-13011.4
Assembly of Forklift	F-13011.4.1
Inspection and Test Drive	F-13011.4.2
Final Approval	F-13011.5
Quality Assurance	F-13011.8
Customer Acceptance	4000340 1010
Assembly	4000340 1140
Click — Assembly	
Drag Assembly	4000340 1140
Drop on Assembly of Forklift	F-13011.4.1

√ 🚆 Forklift AB101	F-13011
∨ A Forklift AB101	F-13011
✓ 볼 Forklift AB101	4000339
Cost for Meeting	4000339 0010
Engineering and Construction	F-13011.1
v 星 Design, Procurement, and	4000340
Mechanical Engineering	4000340 1030
Electrical Engineering	4000340 1050
∨ ▲ Procurement	F-13011.2
Procurement Electrical Par	4000340 1100
Procurement Mechanical F	4000340 4080
Production	F-13011.3
Assembly and Test	F-13011.4
Assembly of Forklift	F-13011.4.1
Assembly	4000340 1140
Inspection and Test Drive	F-13011.4.2
🛕 Final Approval	F-13011.5
Quality Assurance	F-13011.8
Customer Acceptance	4000340 1010
Testing	F-13011.6

# In the following steps, you will create a finish-start relationships for activities.

To establish relationships between the activities listed, we'll need to understand the typical process flow in a project involving layout, engineering, procurement, assembly, and meetings. Based on common practices in such projects, here's a probable relationship flow chart using the Start-to-Finish (SF) and Finish-to-Start (FS) methodologies:

#### Layout (5 days):

Finish-to-Start (FS): After the layout is completed, the next steps like Customer Acceptance, Mechanical Engineering, and Electrical Engineering can begin.

#### **Customer Acceptance (1 day):**

Finish-to-Start (FS): Often follows after the initial layout or initial engineering phases to verify the design meets customer requirements.

#### **Mechanical Engineering (3 days):**

Finish-to-Start (FS): After completion, this can trigger the procurement of mechanical parts, which depends on the specific mechanical designs.

#### **Electrical Engineering (7 days):**

Finish-to-Start (FS): After completion, it can trigger the procurement of electrical parts, depending on the specific electrical plans and designs.

#### Procurement Mechanical Parts (60 days) and Procurement Electrical Parts (30 days):

Finish-to-Start (FS): These phases need to be completed before Assembly can start, as both mechanical and electrical components are necessary for assembly.

#### Assembly (15 days):

Select.

Op.

1000 4000340

1030 4000340

Network

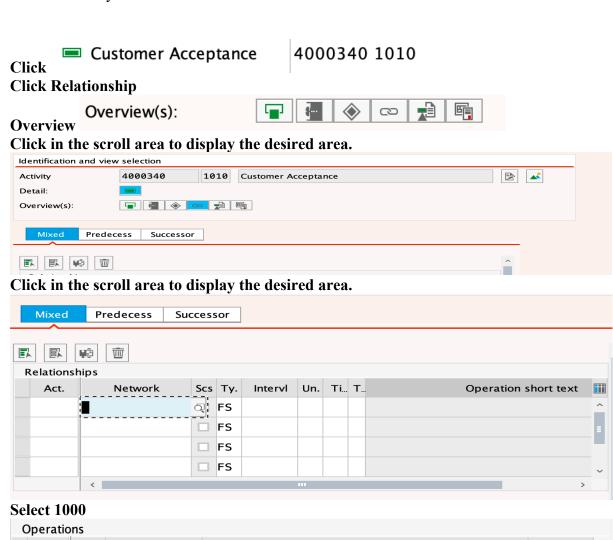
layout

Mechanical Engineering

Finish-to-Start (FS): Once assembly is complete, it can trigger the Customer Acceptance phase if additional validation is needed, or it may lead to the final Cost for Meeting to discuss project completion and next steps.

#### Cost for Meeting (20 days):

This is typically a follow-up activity that can be related as a Start-to-Finish (SF) with the Assembly, as discussions regarding costs and further requirements might start towards the end of assembly.

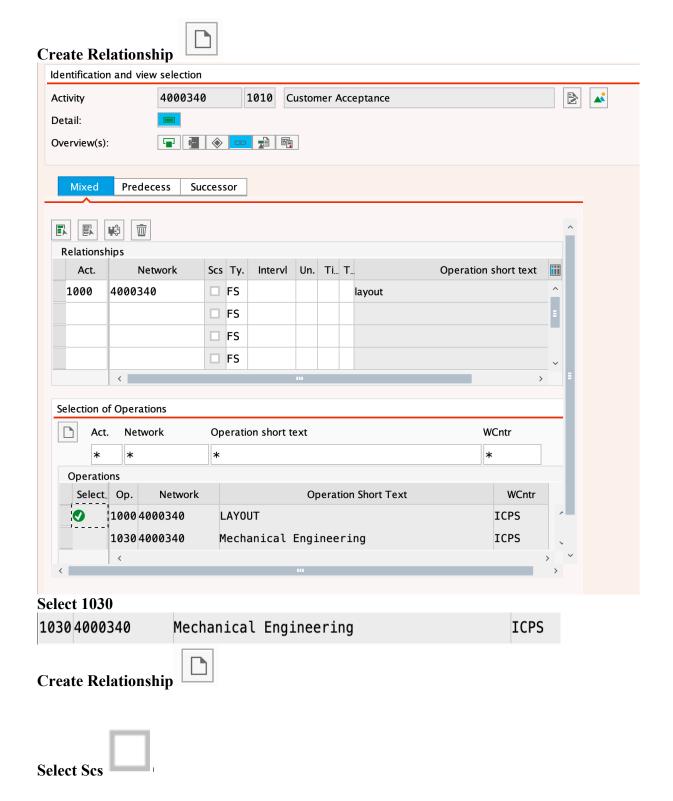


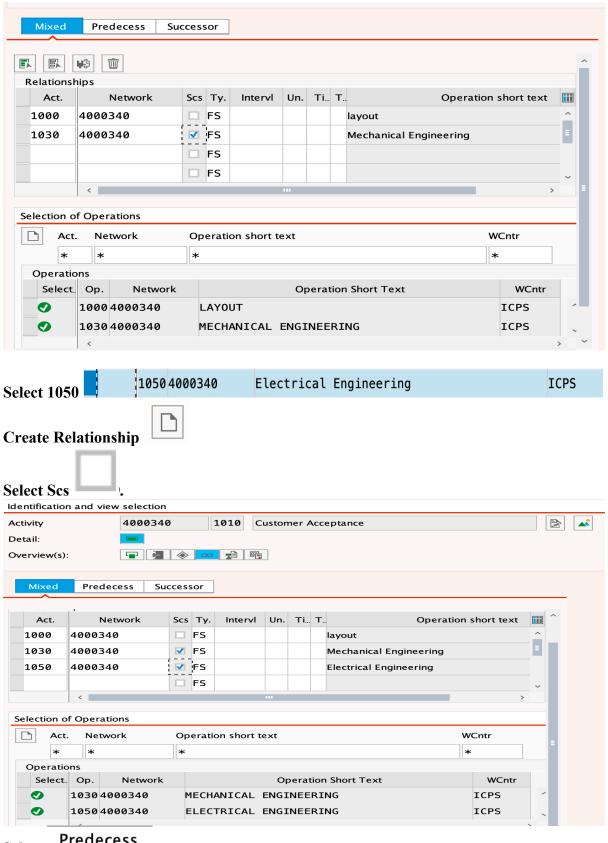
**Operation Short Text** 

WCntr

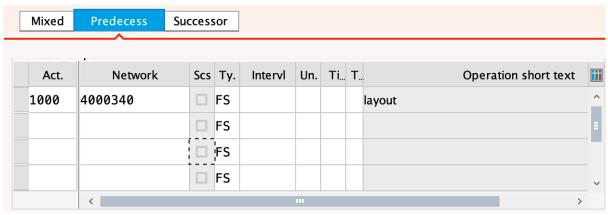
**ICPS** 

**ICPS** 





**Predecess** Select.



The 'Customer Acceptance' activity will commence upon the completion of the 'Layout' activity

Se	lect	Successor							
	Act.	Network	Scs	Ty.	Intervi	Un.	Ti	Т	Operation short text
	1030	4000340	✓	FS					Mechanical Engineering
	1050	4000340	<b>√</b>	FS					Electrical Engineering

"Both the 'Mechanical Engineering' and 'Electrical Engineering' activities will commence following the completion of the 'Customer Acceptance' activity."

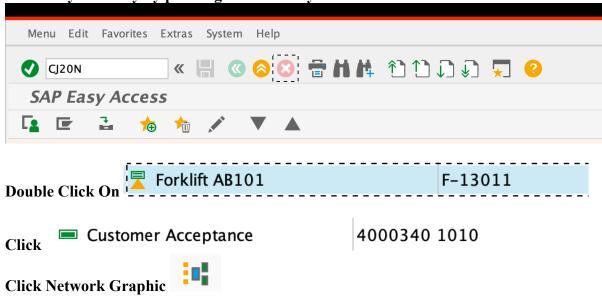
When you select a relationship in the tabular overview, you can display the relationship data in a detail screen by choosing Detail View.

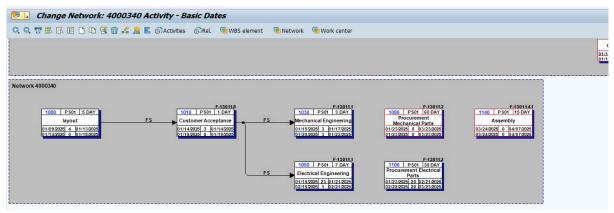


Click Save.

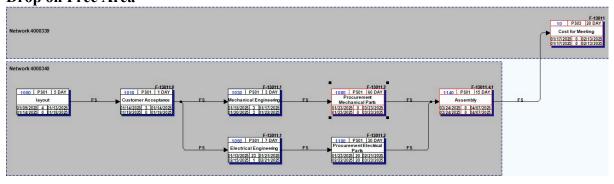
**Enter CJ20N in the Transaction Box.** 

Confirm your entry by pressing the enter key.





Click Connect 4 Drag Line to connect activities Drop on Free Area



Click Back Click Save

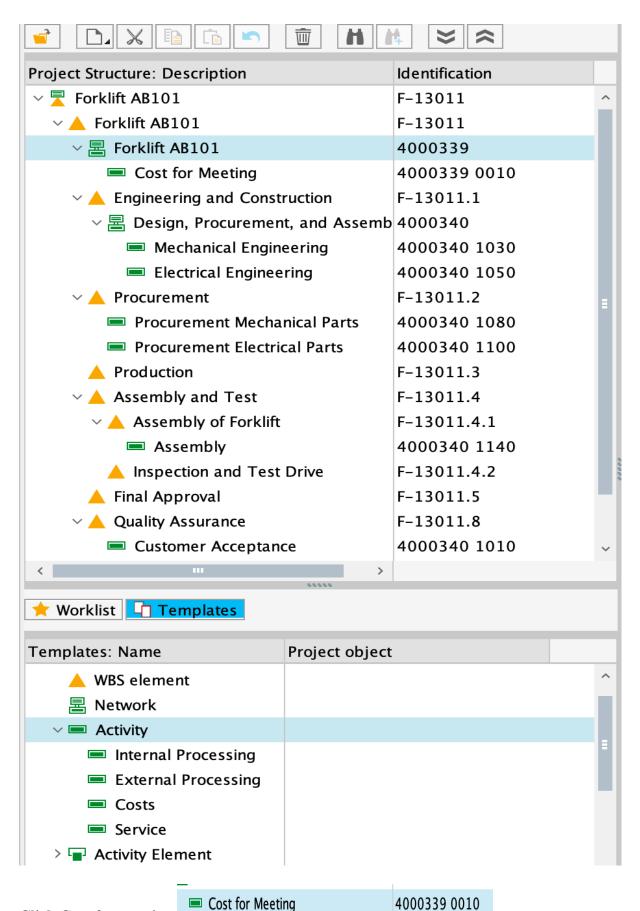
## How to Expand the Network Structure

In this demonstration, you will see how to expand the network structure. In the following steps, a network will be opened and activity elements will be assigned to an activity.

Go to TCODE: CJ20N Double Click on F-13011

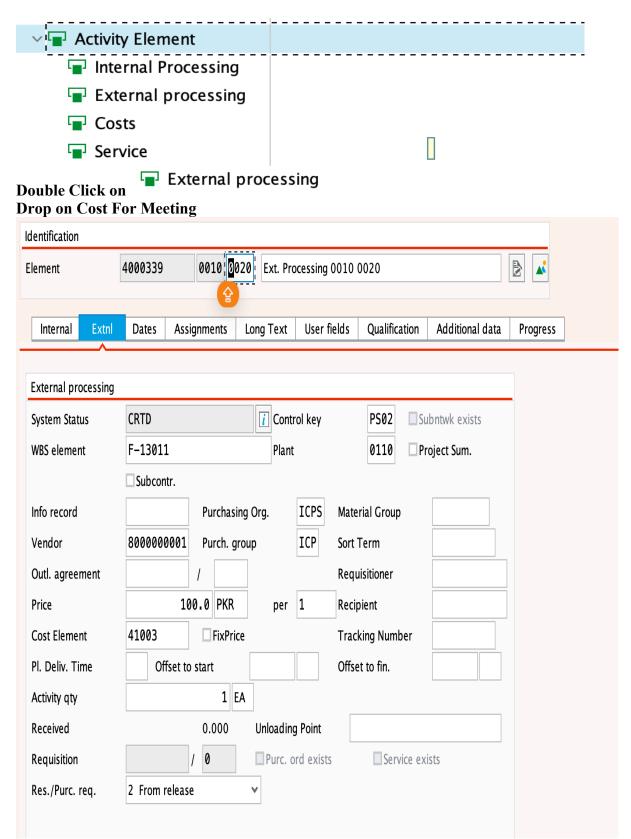
Worklist: Description	Project object
∨ ★ Projects	
Project Definitions	
Group 01,Forklift A	F-13001
Group 01,Forklift A	F-13002
WBS Elements	
Networks	
∨ 🖹 Last Projects Processed	
Forklift AB101	F-13011
Using Standard Network	F-13015
Group 01,Forklift A	F-13001
consrtruction project	P.NAS05
REASEARCH AND DEVELOPMENT	2/100.4

Ensure that Individual Objects and Activity folder is expanded in the Templates screen area.



**Click Cost for meeting** 

Click in the scroll area to display the desired area.



In the following steps,a PS text will be assigned to activity of the first network by transferring the PS text.

Click Cost For meeting Cost for Meeting

· • · · · · · · · · · · · · · · · · · ·	
∨ ▲ Forklift AB101	F-13011
✓   Forklift AB101	4000339
∨ ■ Cost for Meeting	4000339 0010
Projector	4000339 0010 0020
Engineering and Construction	F-13011.1
$\scriptstyle{ee}$ $oxtimes$ Design, Procurement, and Assemb	4000340
Mechanical Engineering	4000340 1030
Electrical Engineering	4000340 1050
Procurement	F-13011.2
Procurement Mechanical Parts	4000340 1080
Procurement Electrical Parts	4000340 1100
Production	F-13011.3
Assembly and Test	F-13011.4
Assembly of Forklift	F-13011.4.1
Assembly	4000340 1140

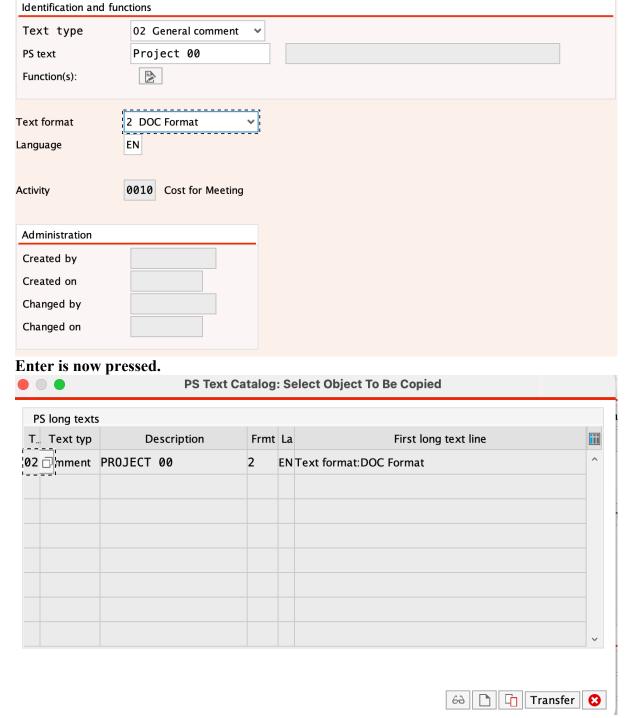
Click in the scroll area to display the desired area.

Templates: Name	Project object
External processing	
Service	
Material Component	
Milestone	
<b>₽</b> PS Text	
<b>□</b> Document	

Double Click on PS Text
Click General Comment
Enter Project 00 in the Project Text Box.

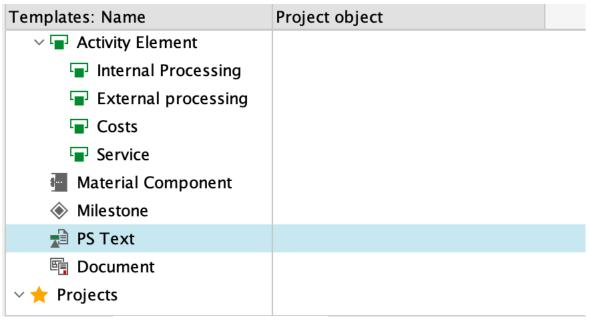
Click Text format. Text format

Click DOC Format .



**Click Transfer** 

In the following steps, you will assign a material component to activity 10. Ensure that Individual Objects folder is expanded in the Templates screen area.

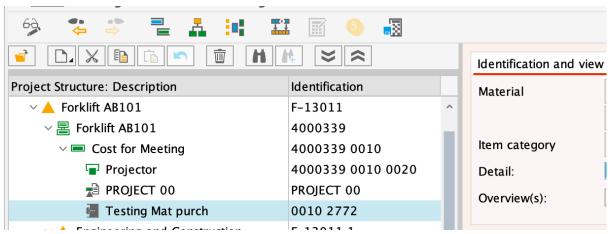


Material Component

Double-click on
Drop on Cost for meeting
Enter 2772 in the material box.
Enter L in the item Category Box
Enter 1 in the requirement Quantity Box.

Identification and view selection Material / 0110 \* L Item category Procurement 8---Detail: Overview(s): 0010 ltem Item Text Proc.Param LongText General Data Manual Reqmt Date ✓ CostReI Requirement qty Align. to Start Date UnitCost. Reqmt Date OAlign. Finish Date Offset Distribution Procuremt Type Reservation for Network Recipient Stor. Loc. **Unloading Point** Batch Sort String BOM expl.number

Confirm your entry by pressing the Enter key.



You can see the assignment of material components to network activities.

Use an activity element to add detail to an activity in your project. Using an example, look at the manual assignment of material components. Plan the release of activities using the milestone function.

In this exercise, you will maintain network milestones.

In the following steps, you will plan costs.

Go to TCODE: CJ20N Double Click on F-13095

Last Projects Processed	
WorkList Testing	F-13095
Group 01,Forklift A	F-13085
MileStones Testing	F-13086
星 Using Standard Network	F-13015
星 Group 01,Forklift A	F-13001





**Enter Customer Presentation in the Name box.** 



#### Enter 800 in the amount Box.

Enter 41008 in the Cost element box.

Costs				
System Status		i	Control key	PS03 Subntwk exists
WBS element	F-13095.1			Project Sum.
Company Code	ICPS			
Plant	0110		Rqstg Cost Cntr	
Amount	800	PKR	Cost Element	41008
Distrib. costs				
	☐ Fle	xible	Offset to start	
			Offset to fin.	

Ensure that PKR is entered in the Unit field.

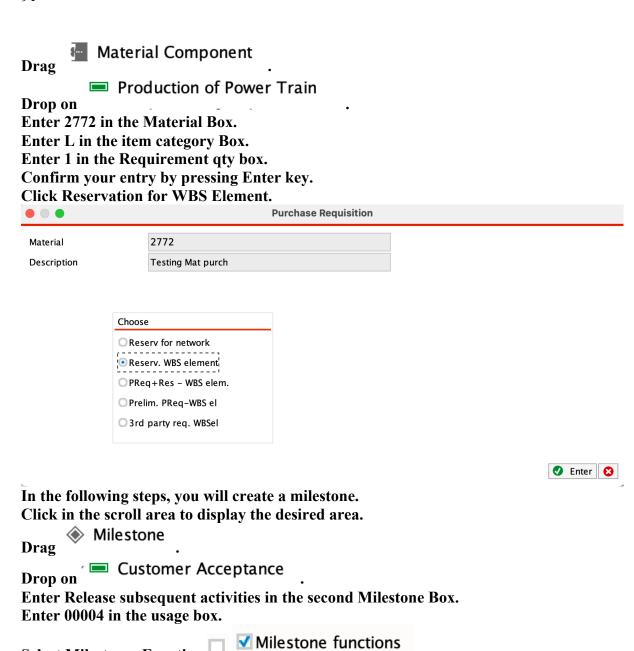
Please press Enter.

In the following steps, you will plan the procurement of a shaft framework for the elevator.

**Select Milestones Function** 

Click Function Functions

Select Offset to Fin. **✓** Offset to fin.



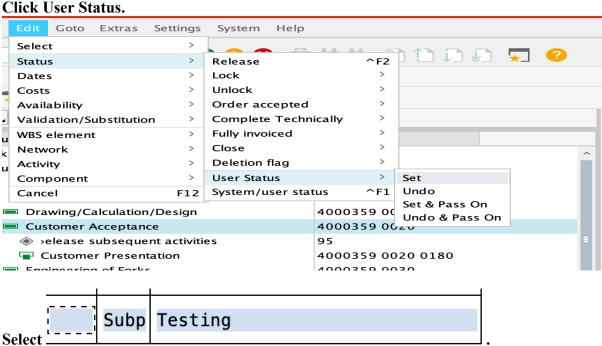
Identification						
Milestone	95		sequent activit	ties		*
Basic Data Fu	nctions Admin	nistr.				
Usage						
Activity	0020 Custome	r Acceptance				
Usage				Progress analysis		
☑ Milestone function	s 🗆 P	rogress analys	is	Perc of compl.	%	
Release stop ind.		ales document	date			
□ Trend analysis				Billing plan		
				InvoicePercentg	%	
Dates			Offset to activ	vity		
Fixed date		00:00:00	Latest date	es		
Actual date		00:00:00	<b>☑</b> Offset to fi	n.		
Scheduled date	10/08/2024	19:00:00	Offset		/ %	

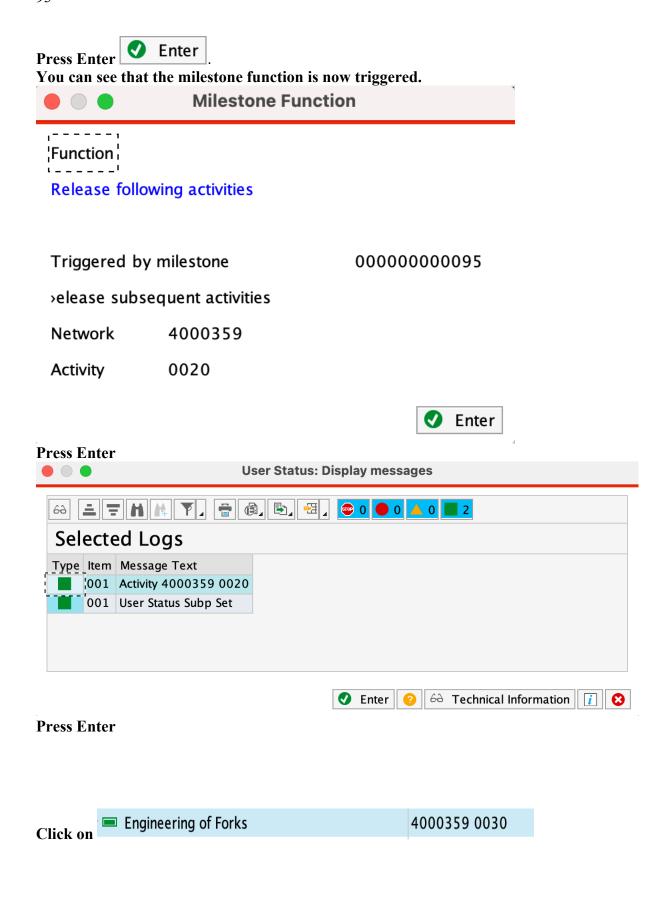
Release following activities

**Select Release following activities** 

Enter Subp in the User sts box for release following activities Enter + in the change box for release following activities.

Click Edit
Click Status.

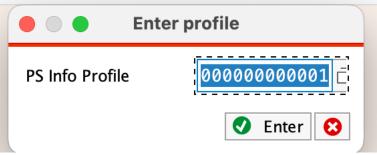




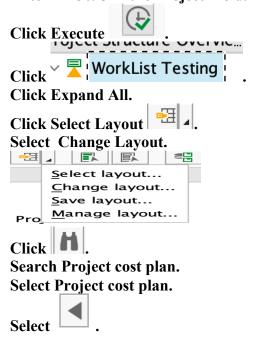
#### You can see that the system status is REL - Released for activity 0030.

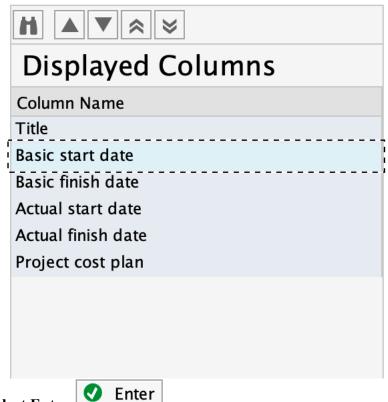
General data			
System Status	REL	i Control key	PS01 Subntwk exists
WBS element	F-13095.1		Project Sum.
Work center	ICPS31 / 0110	DistKeyCapRqInt	
Work	120 H	Number	Percent
Calculation key	0 Maintain manually	<ul><li>Execution Fact</li></ul>	
Activity Type		<b>Business Proces</b>	
Priority		Std Text Key	
Usage		•	
Scheduling			
Normal duration	40 DAY Flexible	Calendar ID	01
Min. duration	DAY	Red. Strategy	~

### Go to Transaction CODE CN41N. Enter PS Info Profile 000000000001.



**Enter F-13095 in the Project Field.** 





## Select Enter Drag Project Cost plan

∨ ▲ Custom Forklift	F-13095	104,800.0	09/
Template Logistics Projects: Forklift	4000359	0.0	09/
Engineering and Construction	F-13095.1	100,800.0	09/
∨ ■ Drawing/Calculation/Design	4000359 0010	0.0	
Customer Acceptance	-> 4000359 0020		
🙇 Capacity Planning	0110 ICPS31 /002		
∨ ■ Customer Acceptance	4000359 0020	800.0	
Drawing/Calculation/Design	<- 4000359 0010		
Engineering of Forks	-> 4000359 0030		
>elease subsequent activities	00000000095		
🙇 Capacity Planning	0110 ICPS31 /002		
Customer Presentation	4000359 0020 0180	800.0	
∨ ■ Engineering of Forks	4000359 0030	0.0	
Customer Acceptance	<- 4000359 0020		
Preliminary Orders	-> 4000359 0040		
<section-header> Capacity Planning</section-header>	0110 ICPS31 /002		
Additional Planning Activities	4000359 0030 0170	0.0	_
Engineering of Power Resource	4000359 0140	100,000.0	
Assembly of Mast and forks	-> 4000359 0100		_
○ Overall Quality Check	<- 4000359 0160		
∨ ■ Quality Check of Power Source Plans	4000359 0150	0.0	
Procurement of Components	<- 4000359 0050		

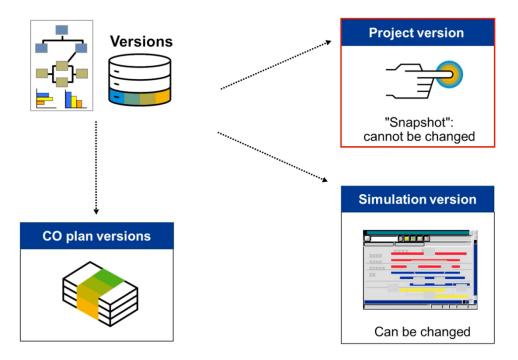
You can see Project Plan Cost for Activities.

## Creating and Transferring Simulation Version

Version in the Project System
Sap project system differentiate between following versions
Simulation Version (can be changed)
Project Version (Snapchat cannot be changed)
CO Plan Versions

In SAP Project Systems (PS), a simulation version is a modifiable version of a project that you can create during the quotation phase, especially if an operative project doesn't exist yet or if you want to explore alternative plans for an existing project. Project versions act as snapshots of the project at a specific moment, allowing you to track its progress over time. These versions store both quantities and values and can be created manually or automatically when the project status changes. CO plan versions are used to plan costs and revenues, enabling you to define different cost plans for a project, such as an optimistic scenario.

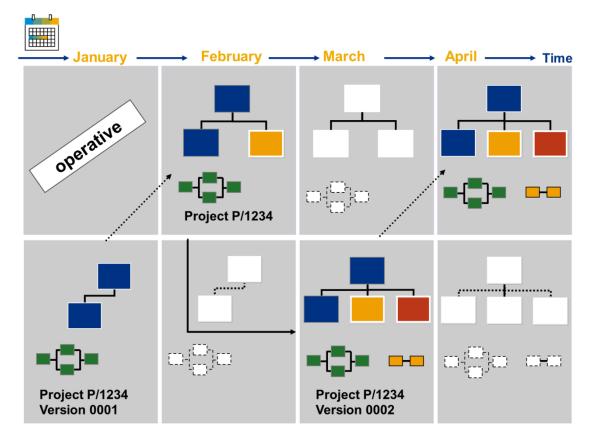
Builder.



## **Application Scenarios for Simulation Versions**

Simulation versions in SAP PS are useful for planning and exploring different scenarios in a project. Differences from the original plan often arise, requiring new plans for part or all of the project. For complex projects, like make-to-order production, simulation versions allow you to make and save changes without impacting the actual project. At the start of a project, simulation versions can be used to model different scenarios before transferring them to an operative project. They are especially helpful during the quotation phase and for comparing "what-if" scenarios. You can create multiple simulation versions, compare them, and choose the most suitable one. Even while a project is ongoing, you can copy the operative project into a simulation version, analyze the changes, and then transfer it back to the live project if needed. Simulation versions are managed using tools like the Project Planning Board or Project

When an operative project is copied into a simulation version, the system generates a log file that lists the transferred objects and any errors. The system can also run a test to check if transferring the project or simulation version is possible.



#### **Simulation Versions**

Simulation versions are manually created, modifiable, and can be easily deleted. You can create simulation versions for the entire Work Breakdown Structure (WBS) or a part of it. Multiple simulation versions can be made for a project, allowing you to compare and evaluate different options.

When transferring data between an operative project and a simulation version, the following elements are included:

**WBS** elements

Network activities and activity elements

Relationships

**Subnetworks** 

**Milestones** 

Materials for activities

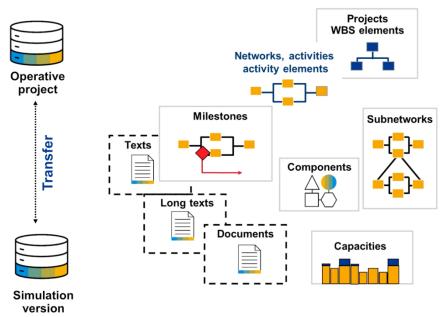
Capacity requirements

Invoice plans for networks and billing plans for WBS

Costs, revenues, and payments (actual values are transferred only from an operative project to a simulation version)

Documents, PS texts, and long texts (based on the simulation profile)

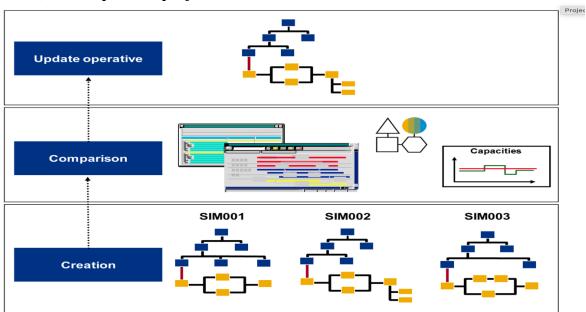
However, other orders like production orders (used in networks) are not copied as objects. Integration with sales (like quotation processing or assembly processing) and purchasing/production (material planning requirements) is not supported for simulation versions.



In customizing, define the version key so that the same version number is used only once for each project. Use simulation versions during the quotation phase of your project to model different scenarios.

**Evaluation of Simulation Versions** 

Like project versions, simulation versions can be analyzed and compared with each other in the information system. However, cost element reports do not support simulation versions. In the structure info system, it is not possible to modify simulation versions, unlike operative projects.



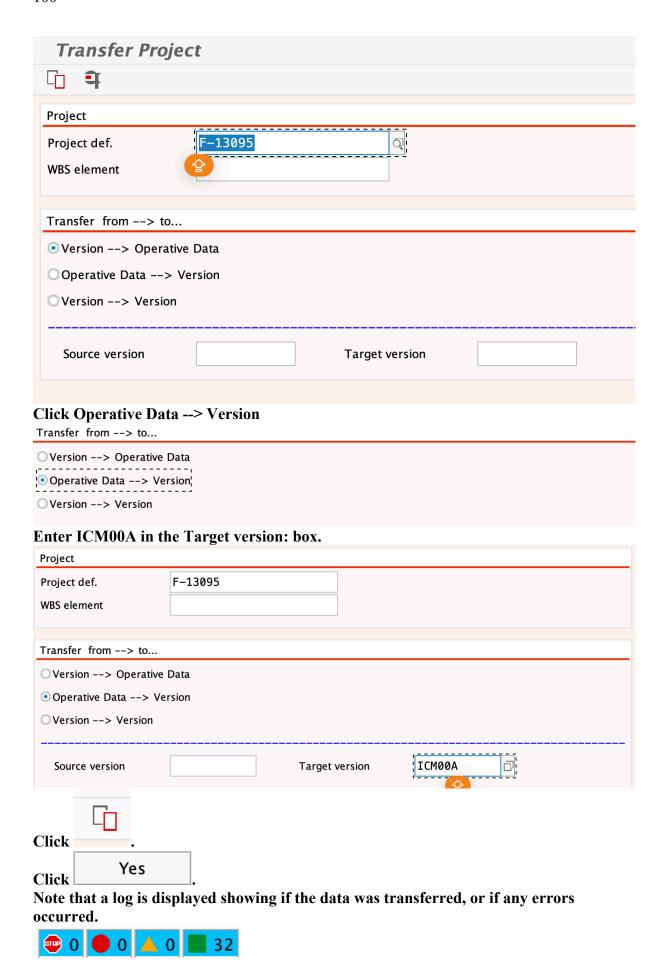
How to create a Simulation Version

In this demonstration, you will see how to create a simulation version.

In the following steps, the project will be transferred to a simulation version.

Go to TCODE: CJV4

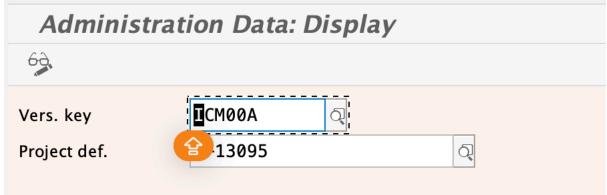
Ensure that F-13095 is entered in the Project def. field.



In the following steps, the administration data created by the system will be displayed. Go to TCODE: CJV6

Enter ICM00A in the Version Key Box.

F-13095 is now entered in the Project Definition Box.



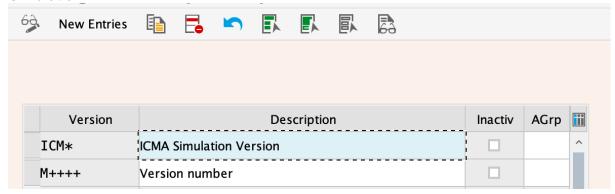
Entry is confirmed by pressing the Enter key.

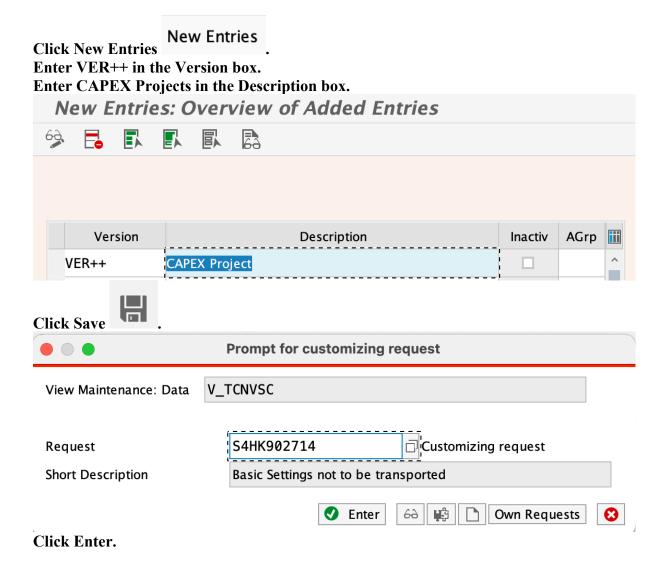
You can now see the Administrative data created by the system

'ers. key	<b>I</b> CM00A □		
roject def.	F-13095	Q	
Description	WorkList Testing		
Inactive			
Administrative dat	a		
Administrative dat	a TMC.PS15	Created on	09/21/2024
		Created on Changed on	09/21/2024
Created by			09/21/2024

In the following steps, a new input template for version numbers will be created in customizing for the project system and the place holders used will be displayed.

Go to SPRO→ProjectSystem→ Simulation→Stipulate Version Keys for the Simulation



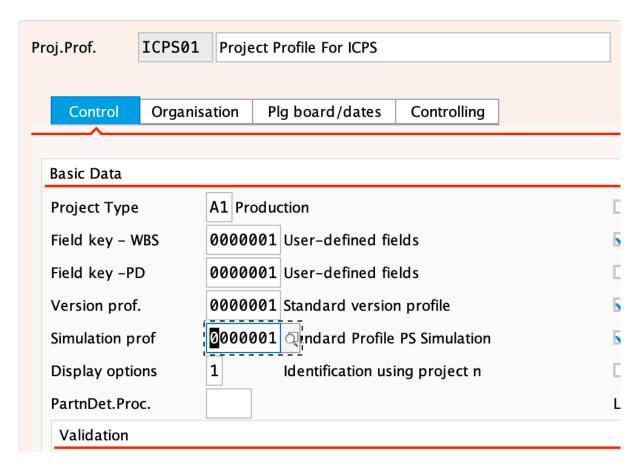


In the following steps, the definition and function of simulation profiles in customizing and a field in the project profile will be shown.

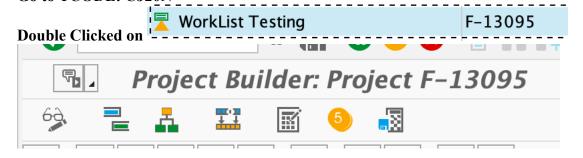
Go to SPRO→ProjectSystem→Structure→Operative Structures→Work Breakdown Structure (WBS) →Create Project Profile Select Project Profile ICPS01



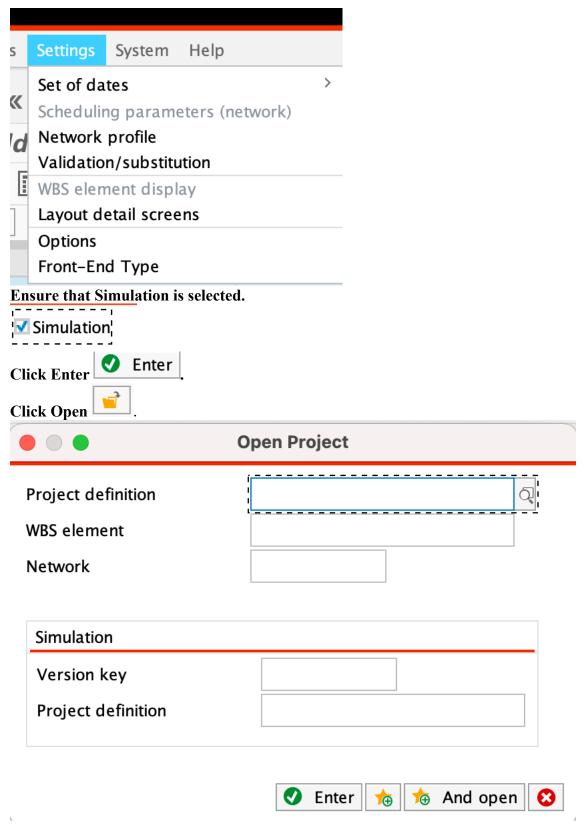
You can now see the Version field in the profile.



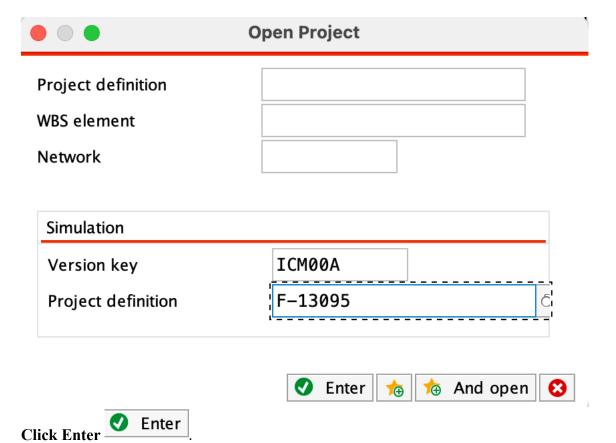
In the following steps, the simulation version will be changed. Go to TCODE: CJ20N



Click Setting. Click Options.

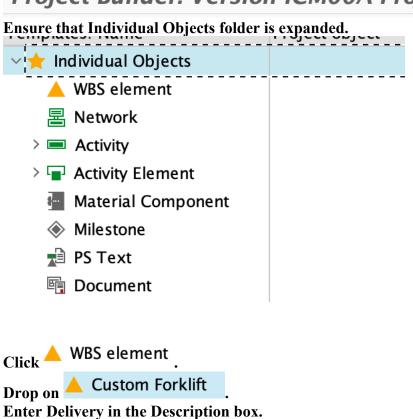


Enter ICM00A in the version key box. Enter F-13095 in the Project Definition.

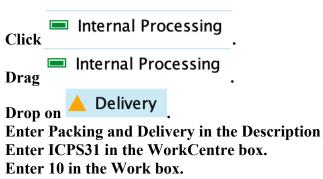


You can now see that the simulation version is displayed in the Project Builder.

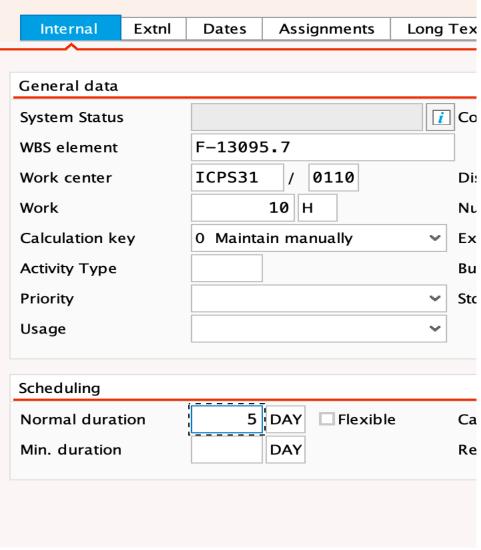
## Project Builder: Version ICM00A Project F-13095



Enter is pressed.



Enter 5 in the Normal duration box.



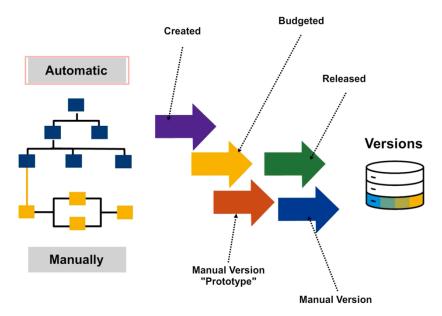
Click Save.

You have now seen how to create simulation version.

## **Creating Project Version**

A project version captures the state of a project at a specific time or after a specific action, serving as a record of the project's past status. It can be used to compare with the current operative project. Project versions are required for Milestone Trend Analysis (MTA). They can be created manually or automatically at specific points, such

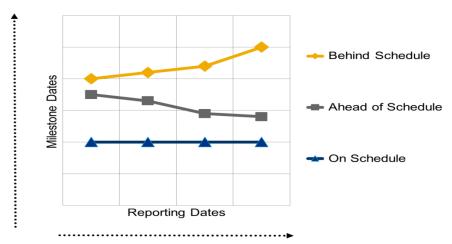
as when changing the Work Breakdown Structure (WBS), depending on the user or system status.



## Milestones Trend Analysis

Milestone Trend Analysis (MTA) helps in simple, clear monitoring of the project schedule by identifying variances and trends quickly. It compares the scheduled dates of important milestones at different points in time to highlight deviations from the planned schedule.

At specific times, the dates of key milestones are recorded in special project versions. These milestone dates can be compared visually using an MTA chart or in a table, and can also be compared with current dates or dates from simulation versions. This allows us to quickly spot if the project is delayed or off track.



## **Graphical Form**

In a Milestone Trend Analysis (MTA) chart, time is represented on both axes, with milestones plotted against report dates. If the project stays on schedule, the curve

remains flat. If the project is delayed, the curve rises; if it's ahead of schedule, the curve falls.

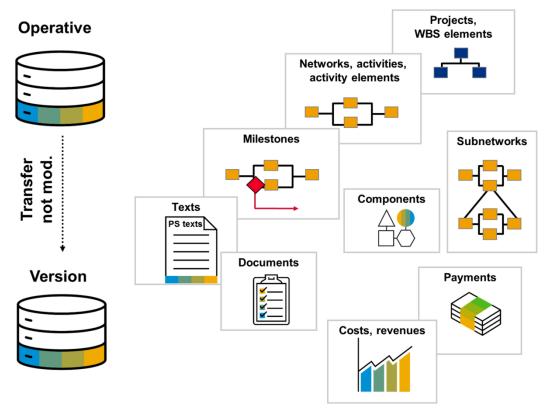
To use MTA, you need to assign milestones to the WBS elements or network activities and mark them as relevant for trend analysis. When creating a project version, either manually or automatically, the "relevant for MTA" checkbox must be selected. MTA can be accessed from either the information system or the project planning board. It shows the milestone dates for the project at different report dates, both in a graphical and tabular format. In the information system, you can filter the milestones to be displayed. MTA uses either basic or forecast dates, but actual dates take priority over scheduled ones. Historical project information is retrieved from the project version. Data Transfer in Simulation Version

Customizing for the simulation version consists of two steps: first, setting up input templates for the simulation.

Valid name for example, SIM007 **Version Key** Inactive **AGrp** Version Name SIM\* ▲ Simulation versions (group A) VER++ Versions for elevator projects Valid name for example, VERX1 **Simulation Profile** Transfer for update **PS Text** Long text Document assignment

#### **Data Transfer in Project Version**

When generating a status-dependent project version, the version profile determines which data is copied to the project version. If you create a project version manually, whether in network maintenance or WBS maintenance, the version profile also controls the data that is copied. If you manually create a project version using transactions CN71, CN72, or the structure info system, the data is copied according to the version profile.



F

We maintain the version profile in the project system's customizing and assign it to the project and network profiles. The version profile is used to define what information is included in the versions. First, you set which versions are created automatically when a specific system or user status is reached. Then, you specify what data will be written to these automatically created versions.

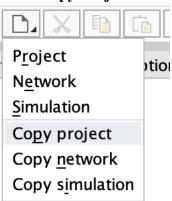
You need to define a version profile if you want versions to be created automatically based on status, or if you want to generate versions directly from the work breakdown structure or network maintenance. However, a version profile is not required if you plan to generate versions manually from the structure information system or use transaction CN72.

# How to Perform Milestone Trend Analysis

In this demonstration, you will see how to perform milestone trend analysis. In the following steps, a project will be created in the project planning board. Enter CJ20N in the Transaction box.







# F-10102 is now entered in the box.

Project def.	F-10102
Description	
Start	
Finish date	
Project Profile	~

Enter Elevator Gr00-C in the box.

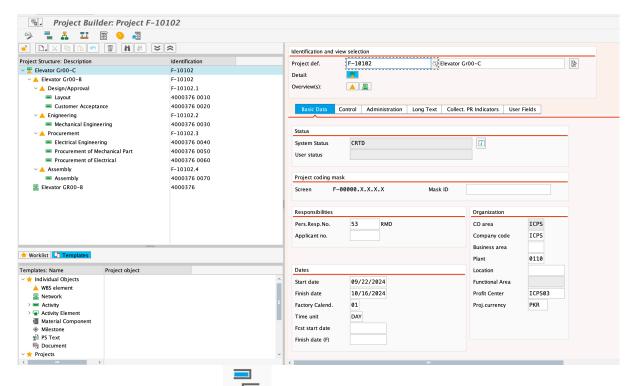
Click Project Profile Select ICPS01 | ICPS01 | Project Profile For ICPS

Project def. Box. Enter F-10102 in the

✓ With activities **Ensure that With activities is selected** 

Click Create Project

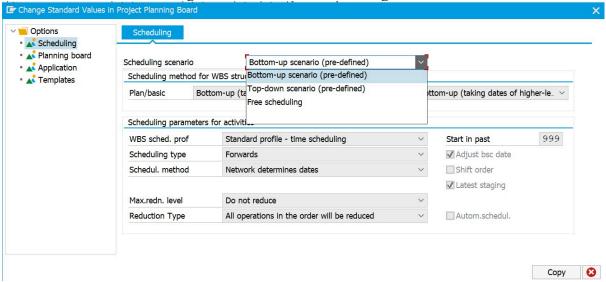




**Click Project Planning Board** 

Click Options 2

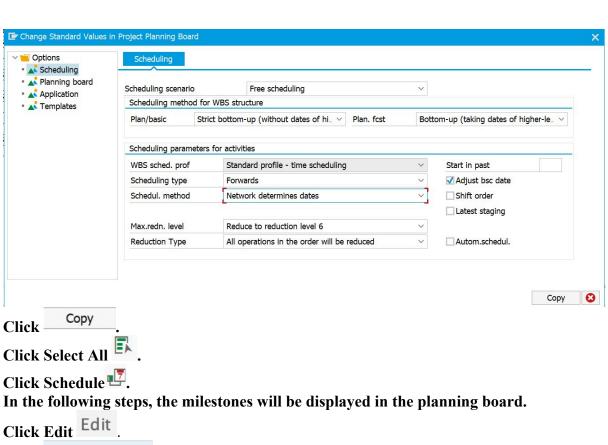
Ensure that Free scheduling is selected in the Scheduling scenario field.

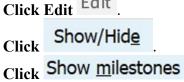


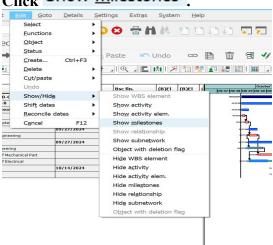
### Click Plan/basic.

# Strict bottom-up (without dates of higher-level WBS) Click Top-down Bottom-up (taking dates of higher-level WBS into account) Open planning Strict bottom-up (without dates of higher-level WBS)

Ensure that Network determines dates is selected in the Schedule. method field and Adjust basic date is selected.







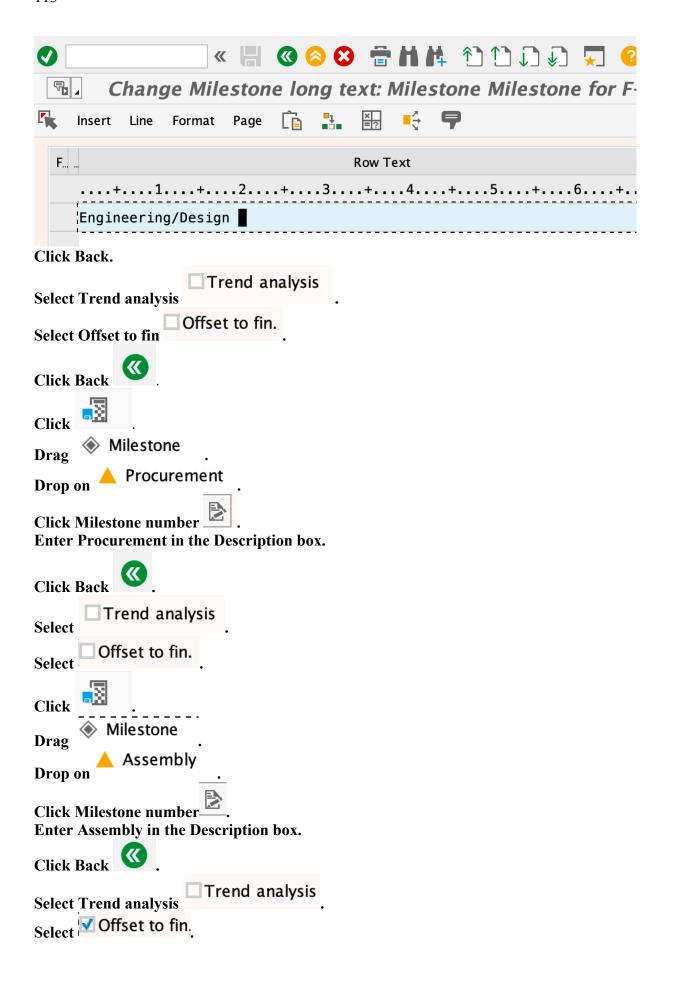
Click Back.

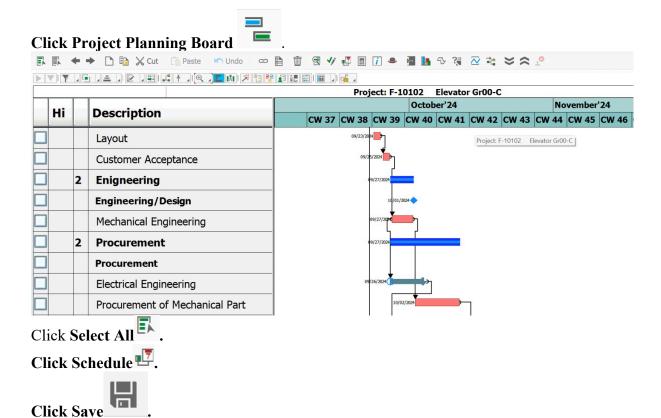
Drag Milestone

Drop on A Enigneering

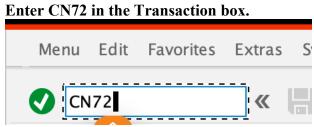
Click Milestone number .

Enter Engineering/Design in the Description box.





In the following steps,a project version that can be used for milestone trend analysis will be created



Enter F-10102 in the box.

,			
<b>⊘</b>	© ♠ # # 🖶 😢 🔊	↓ ↓ ↓	
Save Project Versions			
🕒 🧵 📫 🖣 🖍 Change DB	B profile 📑 Other DB profile 💠	Status	
Project Management Selections (Other DI	B profile: 00000000001)		
Project	F-10102 Q	đ	
WBS element	to		
Network/order	to	<u></u>	
Activity	to		
Materials in network	to		
Additional WBS element criteria			
Level	1 to	99	
Project version specifications			
Version key	?	Find open number	
Description			
Version Group	?		
✓ MTA relevant			
□ Next open number			
Enter 9001 in the box.			
Version key		9001	
Enter MTA-00 in the V Ensure that MTA relev		(	
Project version specific	ations		
Version key		9001	F
Description			
Version Group		MTA-00	
			<del></del>
✓ MTA relevant			
✓ MTA relevant  □ Next open number			
□ Next open number			

In the following steps, a project version will be created at different points in time. Enter SA38 in the Transaction box.

Confirm your entry by pressing the Enter key. Enter ZZ\_JMKTEST01 in the Program box.



Enter 9001 in the Version box.

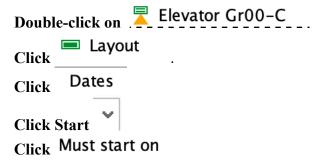
Enter 09/22/2024 in the EDATUM Box.



**Click Execute** 

In the following steps, a time constraint for the first activity will be set. Enter CJ20N in the Transaction box

Confirm your entry by pressing the Enter key.



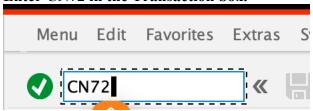
Enter 10/23/2024 in the second start box.



Click Exit

In the following steps, a second project version that can be used for milestone trend analysis will be created.

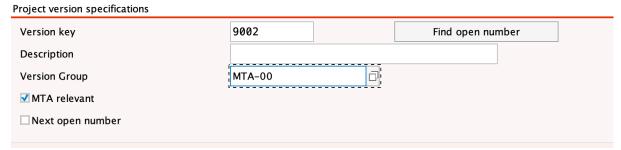
Enter CN72 in the Transaction box.



### Enter F-10102 in the box.

Save Project Versions					
Project Management Selections (Other DB p	rofile: 00000000001)				
Project	F-10102 Q	₫			
	8				
WBS element	to	₫ .			
Network/order	to				
Activity	to				
Materials in network	to	ď			
Materials in network					
Additional WBS element criteria					
Level	1 to	99			
Project version specifications					
Version key	?	Find open number			
Description					
Version Group	?				
<b>✓</b> MTA relevant					
□ Next open number					

# Enter 9002 in the Version key box. Enter MTA-00 in the box.



# Ensure that MTA relevant is selected.





In the following steps, the different points in time will be stimulated.

**Enter SA38 in the Transaction box.** 

Confirm your entry by pressing the Enter key.

Enter ZZ JMKTEST01 in the box.





Enter 9002 in the version box.

Enter 10/22/2024 in the box.

Click Exit.

In the following steps, the time constraint for the first activity will be changed.

Enter CJ20N in the Transaction box.

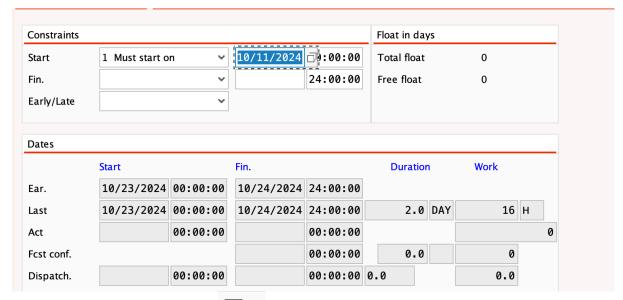
Confirm your entry by pressing the Enter key.

💆 Elevator Gr00-C **Double-click on** 

Click 💻 Layout

**Dates** Click

Enter 10/11/2024 in the second start box.



**Click Project Planning Board** 

Click Select All

Click Schedule 4







In the following steps, a second project version that can be used for milestone trend analysis will be created.

**Enter CNMT in the Transaction box.** 

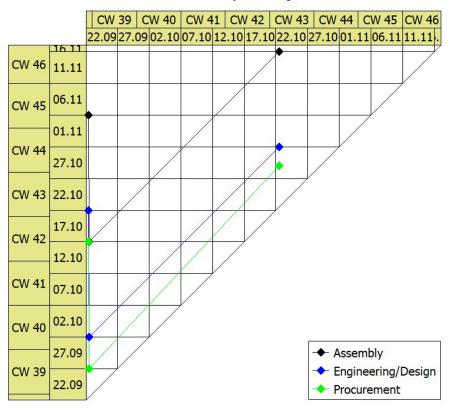
Confirm your entry by pressing the Enter key.

Ensure that F-10102 is entered in the first Project field.

Ensure that Use current data too and Basic dates are selected.

Milestone Trend Analysis			
😝 📕 🚺 📫 획 💠 Status			
Project Management Selections (Other DB pr	ofile: unchangeable)		
Project	F-10102 Q	ð	
WBS element Network/order Activity	to to		
Additional WBS element criteria			
Level	1 to	99	-
Date selection			
☑ Use current data too  ② Basic dates  ○ Forecast dates			
Click .			

# Milestone Trend Analysis Project F-10102





You want to learn how to document the status of your project regularly and test unplanned changes using simulation versions. Before you update your operative project with data from the simulation version, you use a project version to document the original

status of the project.

Transfer the simulation version and analyze the changes to administrative data. Look at the operative project in the Project Builder.

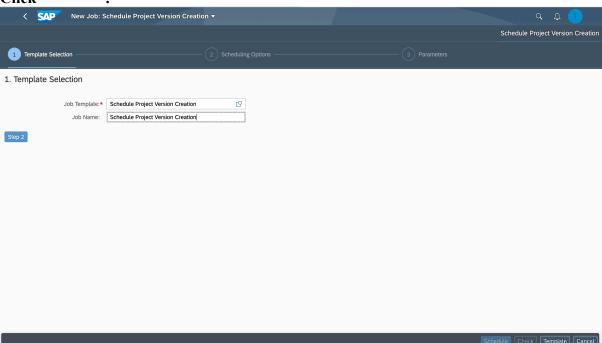
# In this exercise, you will create and analyze project versions.

In the following steps, you will create a project version.

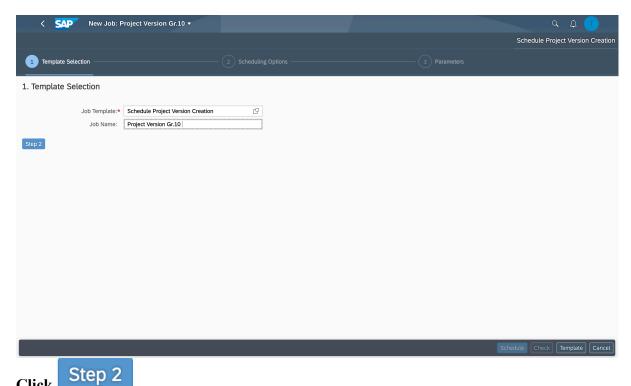
### Click



# Click Create

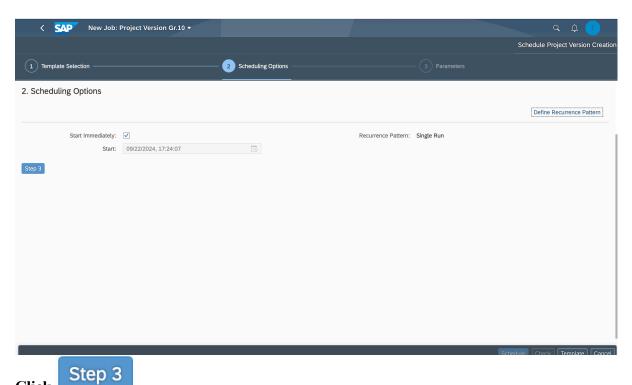


Ensure that Schedule Project Version Creation is entered in the Job Template field. Enter Project Version Gr.10 in the Job name box



Click

Ensure that Start Immediately is selected and Single Run is entered in the Recurrence Pattern field.



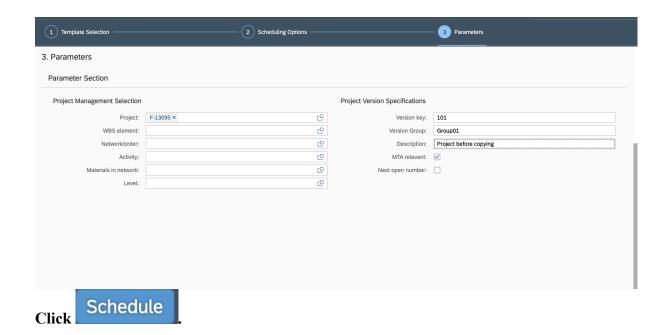
Click

Enter F-13095 in the Project box.

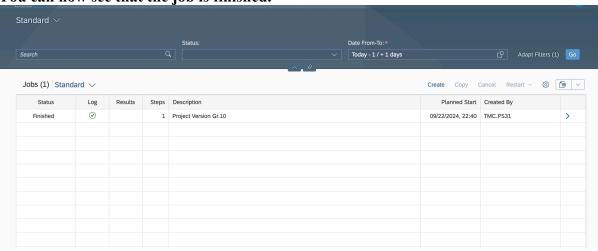
Enter 101 in the version key box.

Enter Group01 in the Version group Box.

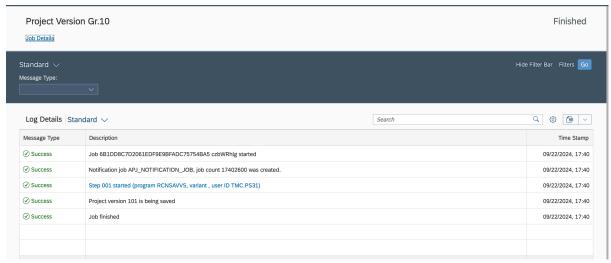
Enter Project before copying in the Description box.



You can now see that the job is finished.



Click Log . You can now check the log.



In the following steps, you will transfer the simulation version to the operative project and check the changes when administrative data is transferred.

Enter CJV4 in the Transaction box.

Enter F-13095 in the Project Box.

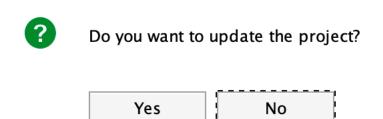
Ensure that Version - -> Operative Data isselected.

Enter ICM00A in the source version box.





The project F-13095 already exists



Category	ABAP programming error
Runtime Errors	SAPSOL PARSE ERROR
Except.	CX_SY_DYNAMIC_OSQL_SEMANTICS
ABAP Program	%_T00Y49
Application Component	Not assigned
Date and Time	09/22/2024 18:10:26 (UTC)

We are collaborating with the ABAP team to address this issue. Once resolved, you will be able to transfer the simulation values to the operating project.

# Scheduling Dates for Work Breakdown Structure

**Time Scheduling with WBS Elements** 

**Time Scheduling Functions** 

Here are the available functions for time scheduling, explained in simpler terms: Set of Dates: We can define planned dates using basic and forecast dates, and actual dates will also be shown.

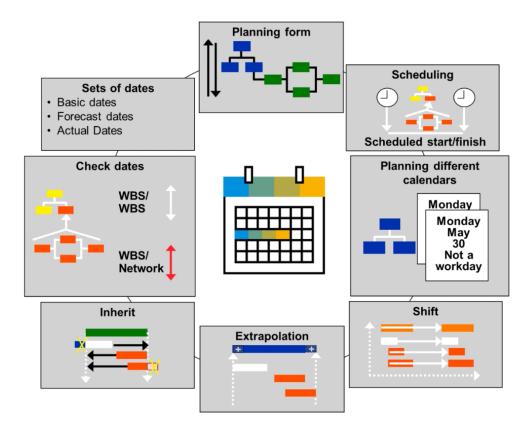
Check Dates: It allows us to check if the dates within the project structure are consistent, either with or without considering the activities.

Inherit Dates: Dates can be inherited within the work breakdown structure (WBS). Extrapolation: The extrapolate function calculates the dates for higher-level WBS elements based on lower-level dates.

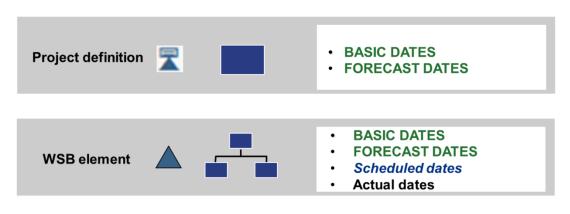
Shift Dates: We can shift all planned dates for WBS elements or adjust dates within sub-hierarchies.

Planning with Different Calendars: We can assign different factory calendars to each activity or WBS element.

Scheduling Function: This function automatically calculates the dates for activities and networks.



The figure "Project Dates" shows both the manually set planned dates and the system-calculated dates.

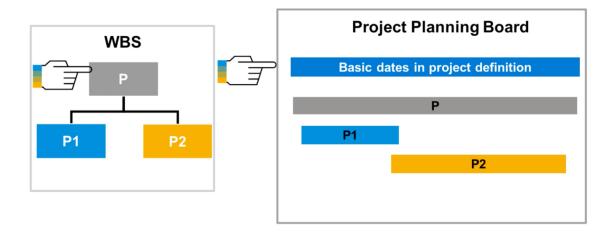


**BOLD** = manual planned dates

Italics = dates calc. by system

**Project Dates** 

In a project without network, we can manually set basic dates for WBS elements, or use the project planning board to plan these dates by simply dragging the mouse.



Basic dates can either be passed up from lower to higher WBS elements or inherited from higher to lower ones. We can also check the consistency of scheduling data within the WBS structure.

**Planning Methods:** 

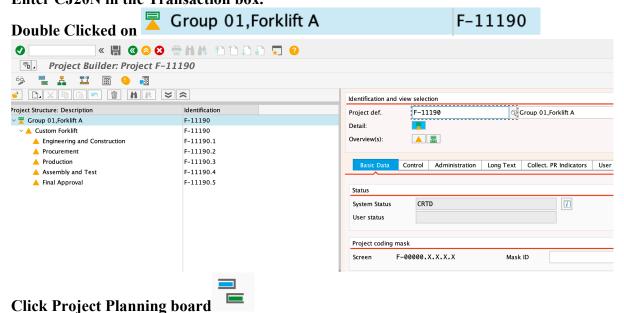
Top-down: Checks consistency of dates.

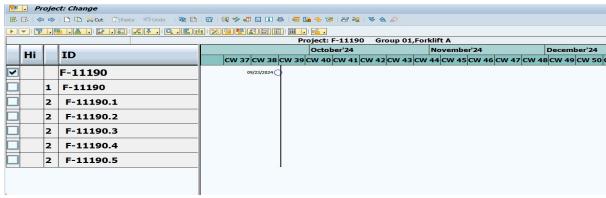
Bottom-up: Extrapolates and extends dates.

Free planning: Doesn't check or calculate dates.

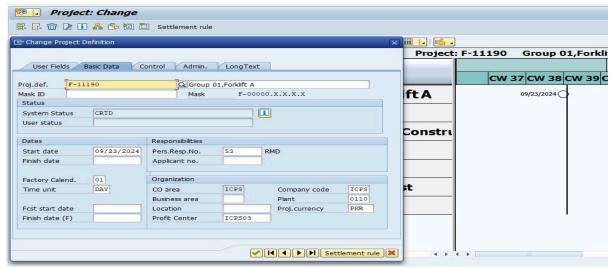
Strict bottom-up: Extrapolates, extends, and shortens dates.

To plan the schedule for another internal forklift project, we perform rough-cut planning for each WBS element, assigning key dates to them. In the date planning process, we use various functions to compare, adjust, or calculate the dates. In this exercise, we'll schedule the basic dates for the WBS elements. F-11188 Enter CJ20N in the Transaction box.

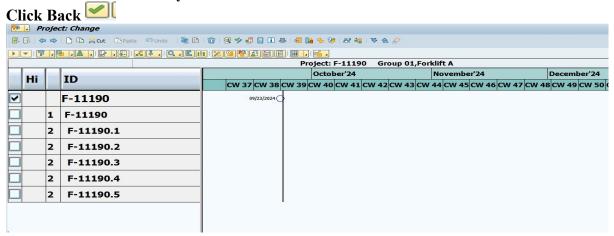




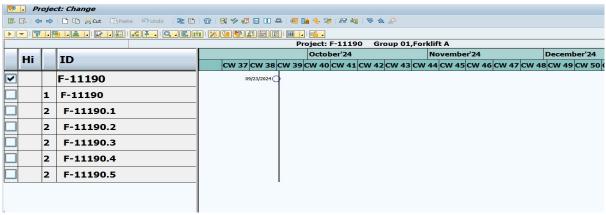
### **Double Click on F-11190**



You can now see that only the basic start date is defined

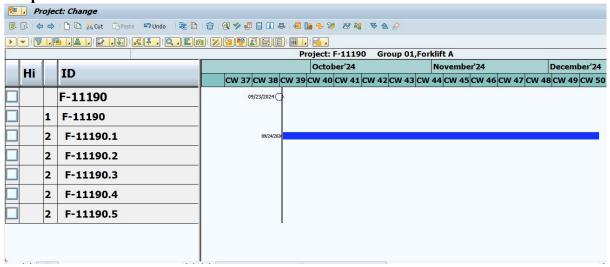


You can now see that the date is displayed according to the position of the cursor.we can use this information to plan overall date periods for wbs elements and at the same time, plan for specific days



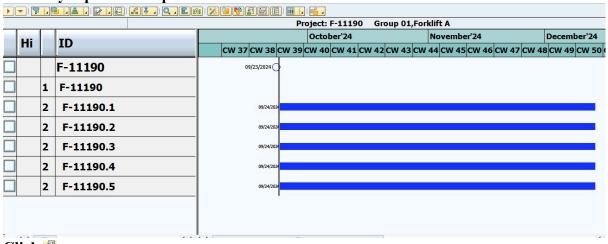
Drag

## Drop on finish date

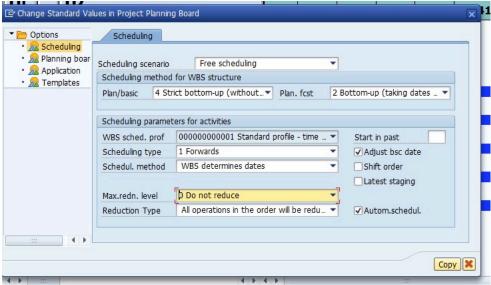


Note that when the cursor appears as a four arrow this means that we can move time bar when the cursor appears as a two way arrow, this means that we can extend or shorten the time bar.

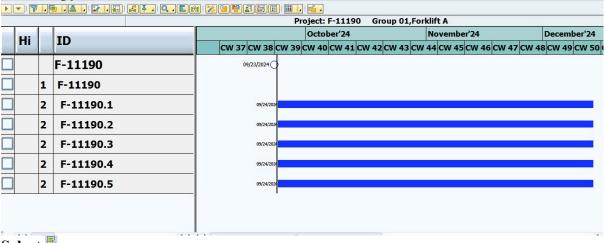
Similarly repeat the steps for all wbs elements



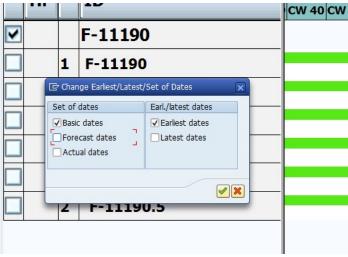
Click 🚨



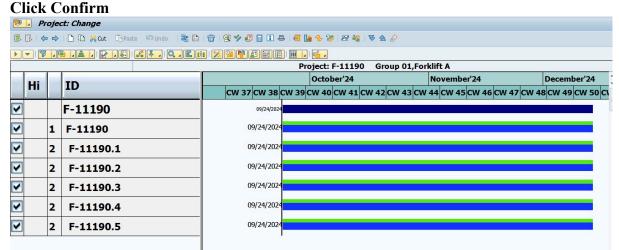
Maintain Free scheduling Click Plan/basic Click Strict bottom up Click Copy



Select Click Click Click Edit
Click Reconciles dates
Click Transfer basic date to forecast
Click Set of Dates/View

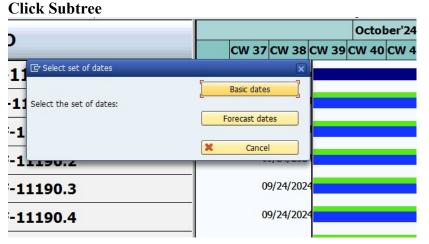


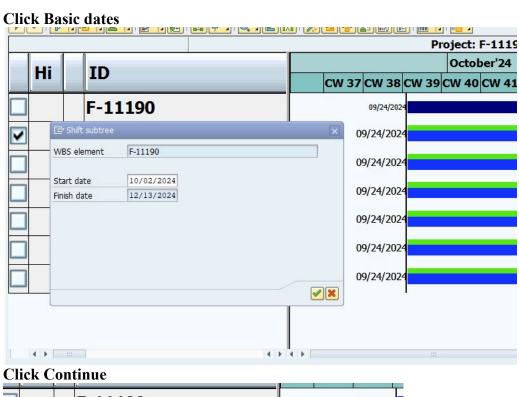
Click Forecast dates

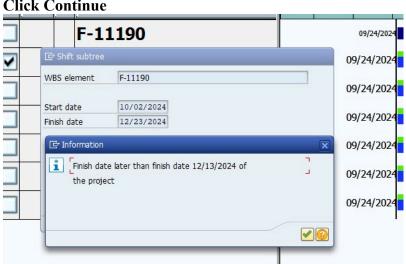


In the following steps, we will shift the planned dates for the entire subtree of the WBS element(and also the lower level WBS elements) and check the date consistency in the project structure afterwards

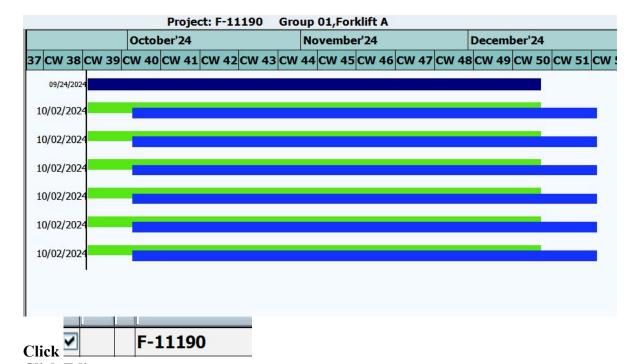






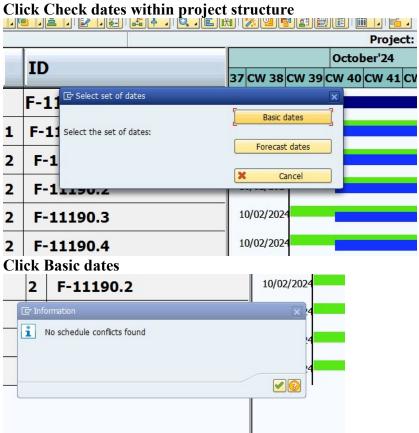


**Click Continue** 

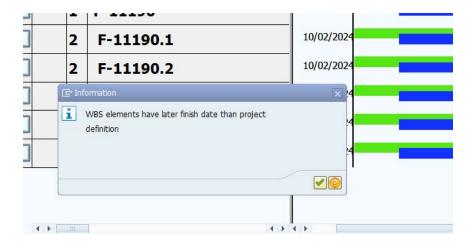


**Click Edit** 

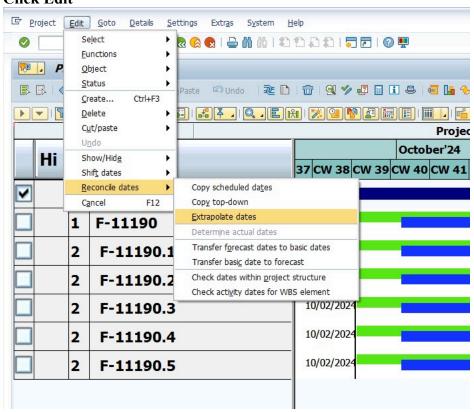
Click Reconcile Date



**Click Continue** 



# Click Continue Click Edit

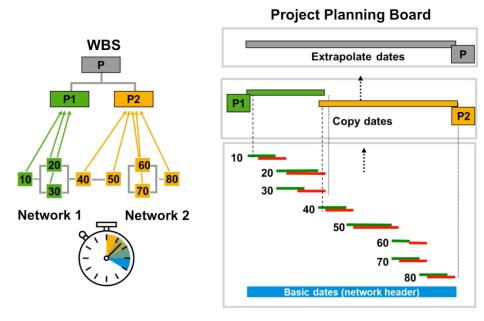


# **Click Extrapolate dates**

- Free Control of the	, PI	rojec	t: Change					
	₽   ◆	>	🗅 🕩 😹 Cut  □ Paste 🖾 Undo   🕸 🗈	1 🗃   🥞 🍫 🍜	🔝 🕮   🚾 🚂 🦠 💖		<i>₽</i>	
<b> </b>	▼   <b>F</b>	, [						
-	Project: F-11190 Group 01,Forklift A							
	Hi		ID		October'24		November'24	December'24
				37 CW 38 CW	7 39 CW 40 CW 41 CW	/ 42 CW 43 CW	44 CW 45 CW 46 CW	7 47 CW 48 CW 49 CW 50 CW 51 C
~			F-11190	10	0/02/2024			
		1	F-11190	10/02/2024				
		2	F-11190.1	10/02/2024				
		2	F-11190.2	10/02/2024				
		2	F-11190.3	10/02/2024				
		2	F-11190.4	10/02/2024				
		2	F-11190.5	10/02/2024				
4	4 >		( )	4 >	***			

You have now scheduled basic dates in WBS elements Performing Scheduling of Network and Activities Time Scheduling Scenarios

Depending on the settings, we can use different methods for time scheduling. Two common scenarios are discussed here. In a project with an assigned network, scheduling can automatically set the dates for activities and WBS elements. The project planning board can be used to select WBS elements and schedule the activities assigned to them.



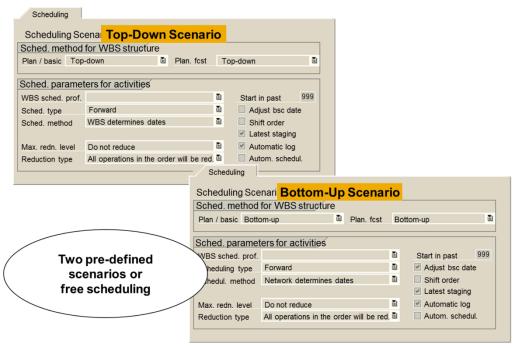
Networks are always scheduled both forwards and backwards. The scheduling type decides the initial direction of scheduling. The system calculates the earliest activity dates using forward scheduling and the latest dates using backward scheduling. The difference between the earliest and latest dates of an activity is called the float. If the float is zero or less, the activity is considered a critical activity. Critical activities make up the critical path in the project.

The dates of assigned activities are combined to give the scheduled dates for the WBS elements (shown as a thin time bar in the project planning board).

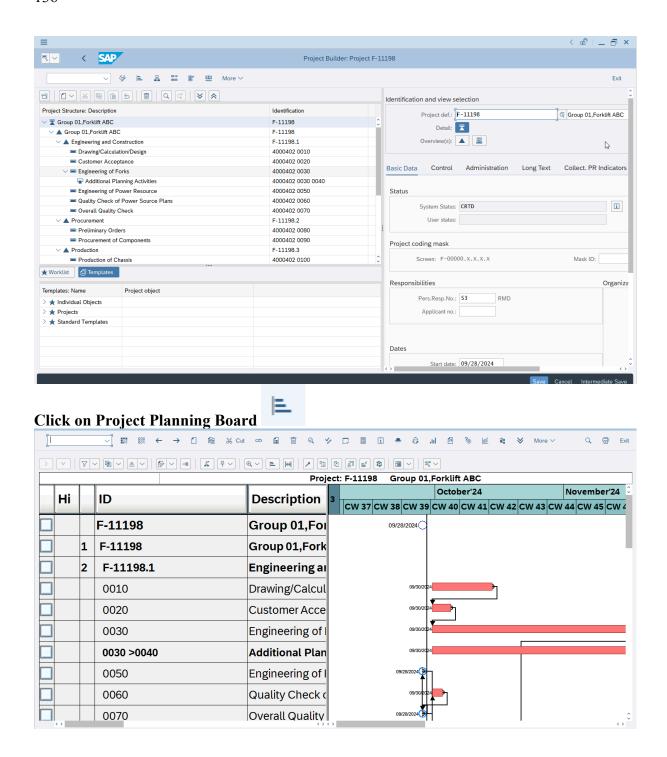
The scheduled dates in the WBS structure can be copied to the basic dates of the WBS elements to update the project hierarchy. This process can happen automatically if the right settings are applied.

# **Project Planning Board WBS** Basic dates in project definition P P2 P2 **WBS** determines dates 20 30 **Network 1** Network 2 40 50 60 70 -80

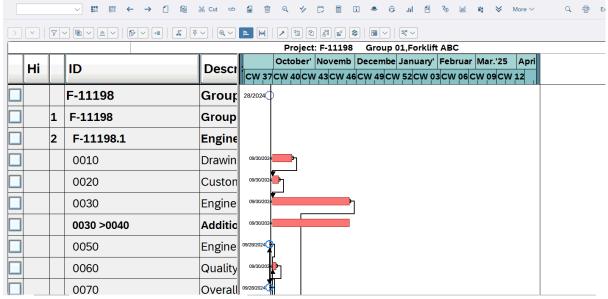
In a work breakdown structure with an assigned network, you can manually plan the basic dates for WBS elements to ensure a specific part of the project is completed within a set time frame. You can use a top-down approach or suitable scheduling settings to schedule activities with this time limit. To do this, you may need to uncheck the "network determines dates" option and adjust the basic date settings.



Using the Project planning board, you calculate the dates and floats for carrying out the individual activities of your forklift project. At the same time, you also take into account the time-based dependencies of the individual activities, as well as other conditions Enter Transaction Code CJ20N Double Clicked on F-11198





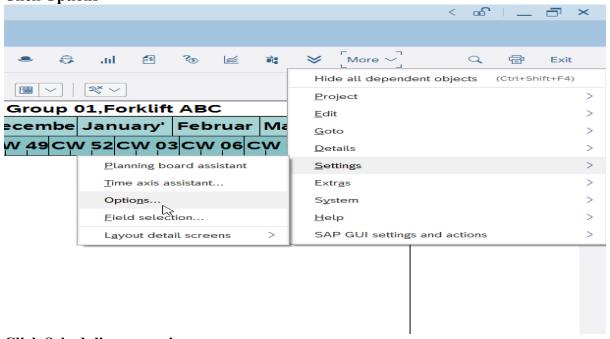


You can now see the optimised graphic area

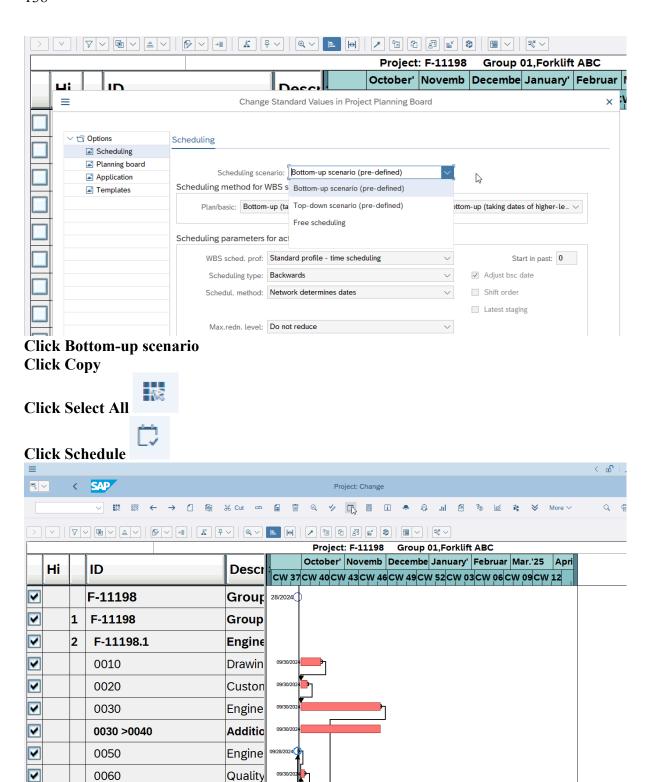
In the following steps, you will plan dates for the project, check the time scheduling setting and plan the dates for the entire project

The "Bottom-up" scheduling scenario is set so that all activity dates are determined and then the earliest and latest dates for each are transferred to the assigned WBS elements as planned dates. To finish, the planned dates are extrapolated for upper-level WBS elements within the hierarchy

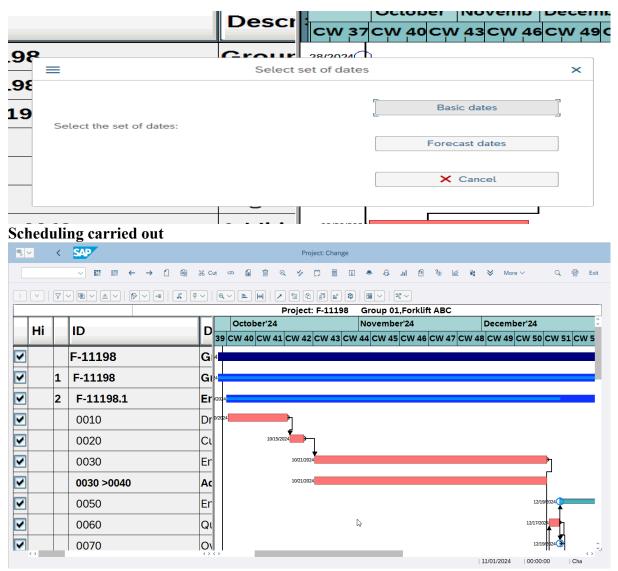
Click More Click Settings Click Options



**Click Scheduling scenario** 

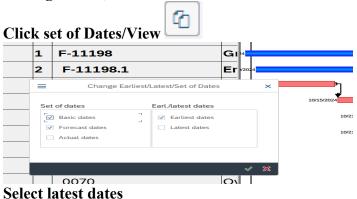


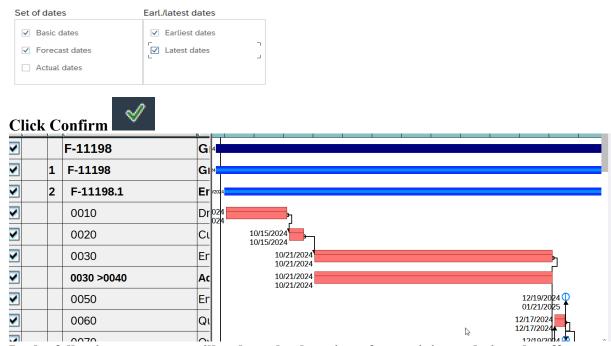
## **Click Basic Dates**



In the following steps, you will check the floats for the project and display both the earliest and the latest dates

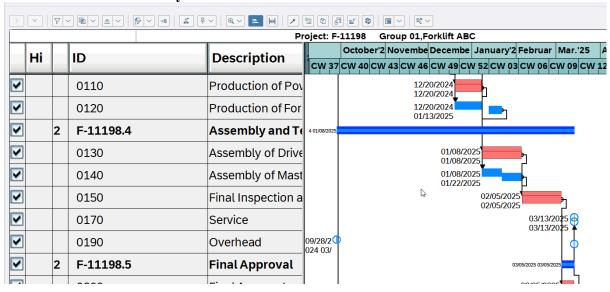
Scheduling always calculates the dates of activities forwards and backwards. Each Activity(and activity element) thus has two time bars. Different colours(usually blue and red) are used to distinguish between activities in the planning board that still have, or no longer have, time floats



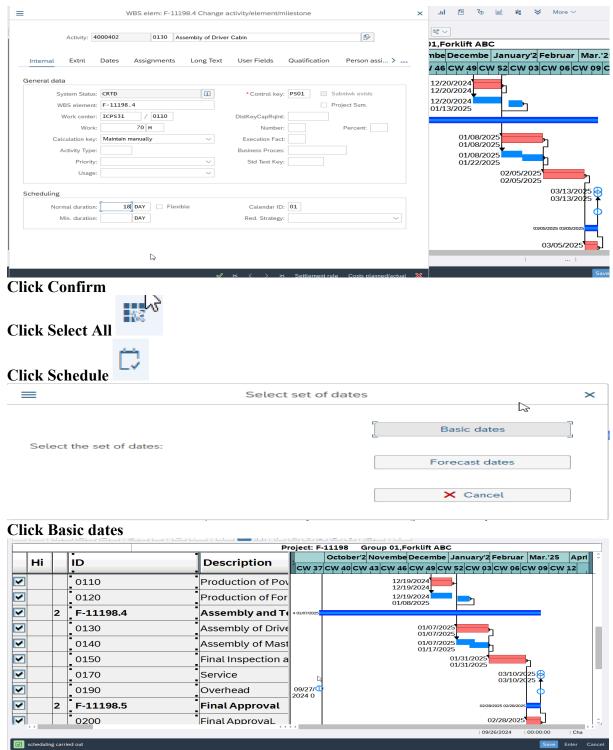


In the following steps, you will reduce the duration of an activity and view the effect on scheduling

**Double Click on Assembly of Drivers cabin** 



Ensure that 18 Day is entered in the normal duration field



You have now performed scheduling of network and activities Click Save.

# Customizing setting for time scheduling

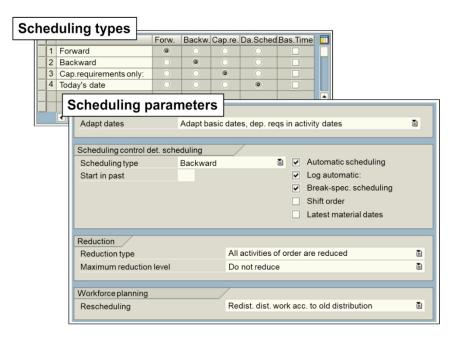
Scheduling types are used for both network and WBS scheduling. The indicators have the following meanings:

Forward: The system schedules forward from the start date of the network header or WBS element.

Backward: The system schedules backward from the end date of the network header or WBS element, then forwards.

Capital requirements only: No scheduling is done. The start and finish dates of the network are copied to each activity.

Today's date: The system first schedules backward, then forward.

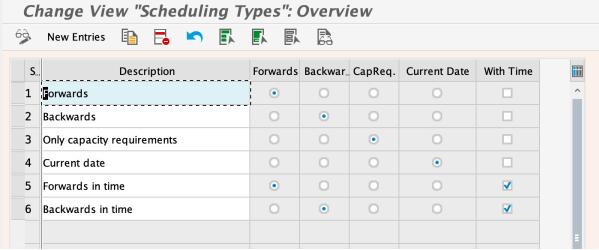


Scheduling parameters are created for specific plants and network types.the scheduling parameters determine scheduling for example, in the transaction network maintenance CN22 and scheduling of the overall network CN24.the indicator have the following messages Modify this statement

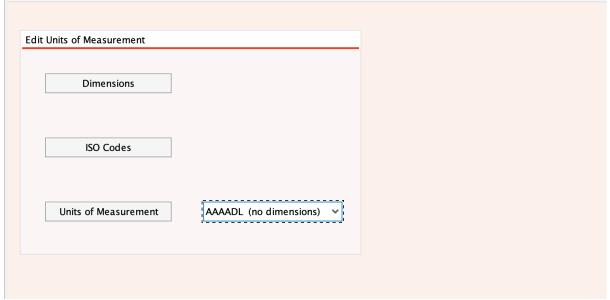
- Adjust Basic Dates: Copies scheduled dates to the network header's basic dates after scheduling.
- Scheduling Type: Sets the scheduling type, such as forward first, then backward.
- Start in the Past: Defines how far back the start date can be. If it exceeds the limit, scheduling uses today's date.
- Automatic Scheduling: Scheduling happens automatically when saving.
- Log Automatic: Displays the log automatically if one is generated.
- **Shift Order**: Defines how the system handles partially confirmed activities during scheduling.
- Latest Material Dates: Sets material requirement dates based on the earliest or latest dates.
- **Reduction Type**: Reduces activity duration for all activities or only those on the critical path.
- Maximum Reduction Level: Specifies the highest level of reduction in a strategy, up to six levels.
- **Rescheduling**: Controls how the system handles work assigned in "Workforce Planning" after rescheduling.

In this demonstration, you will see how to customize in time scheduling

Go to SPRO→ProjectSystem→Dates → Scheduling→ Define Scheduling Types



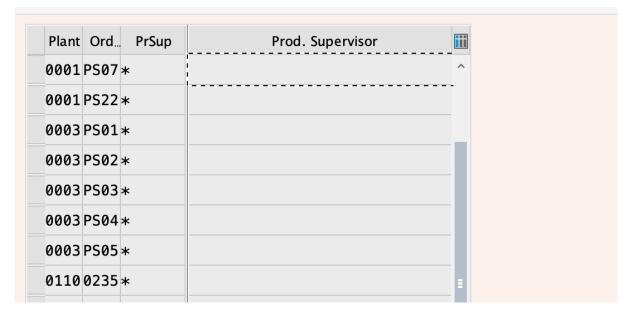
Go to SPRO→ProjectSystem→Dates → Scheduling→Define Time Units



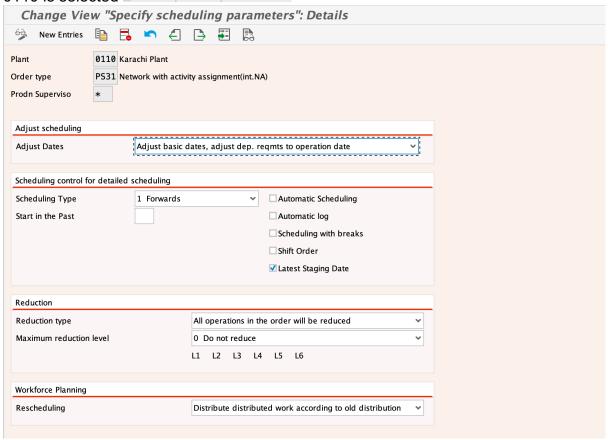
**Click Units of measurement** 



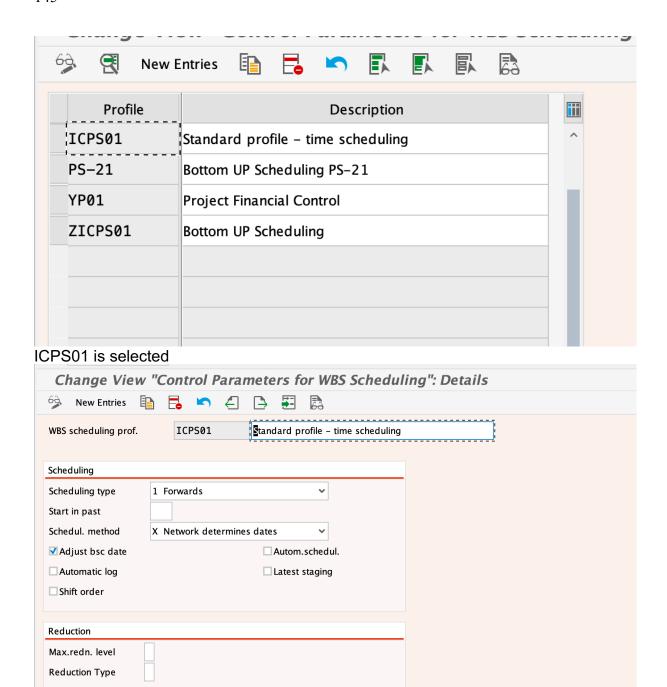
You can now see the different time units that have been used
Go to SPRO→ProjectSystem→Dates → Scheduling→ Specify Parameters for Network Scheduling



0110 PS31 \*



Go to SPRO $\rightarrow$ ProjectSystem $\rightarrow$ Dates  $\rightarrow$  Date Planning in WBS $\rightarrow$ Define Parameters for WBS Scheduling



You can now see the different scheduling setting referring to the settings that are available in the project builder and the planning board You have now seen how to customise in time scheduling

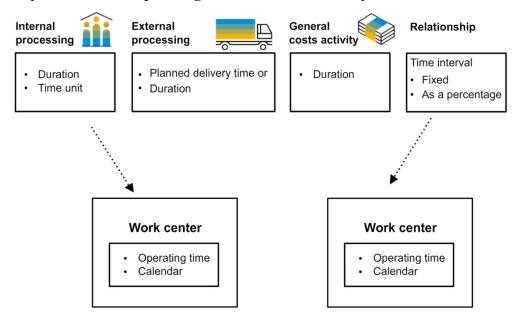
### **Influencing Factors in Scheduling**

When scheduling internally processed activities and general cost activities, the system uses the duration you enter for the activity. The duration can also be calculated based on the work plan and a formula stored in the work center.

For externally processed activities, the system uses the number of planned delivery days you've entered for the external activity. However, you can use the normal duration from the internal processing screen of the external activity by specifying it in the control key. In scheduling, time intervals for relationships between activities are treated as the minimum time allowed. The system can extend this time but will not shorten it. You can maintain a work center for both internal and external activities, and within relationships. The work center stores:

The formula for calculating the duration of activities.

The factory calendar and operating hours for each workday.



The control key for activities is configured using transaction code OPSU. It includes indicators that define the following functions:

Scheduling: Allows activities and activity elements to be scheduled.

Determine Capacity Requirements: Calculates capacity needs for activities based on the scheduling result. This should only be set if scheduling is enabled.

Cost Activities: Specifies that the control key is used for general cost activities.

Costing: Includes activities and activity elements in cost calculations.

Print Time Ticket: Controls whether time tickets can be printed, which also requires the print indicator to be selected.

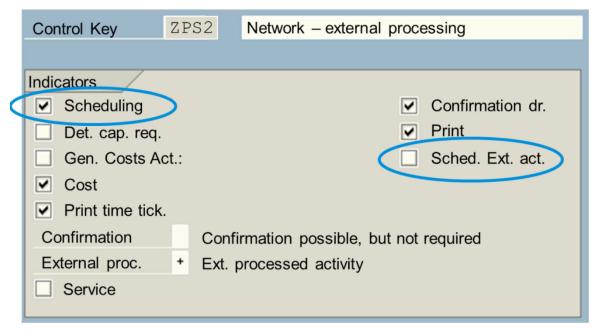
Confirmation: Allows activities and activity elements to be confirmed.

External Procurement: Determines whether activities are processed internally or externally.

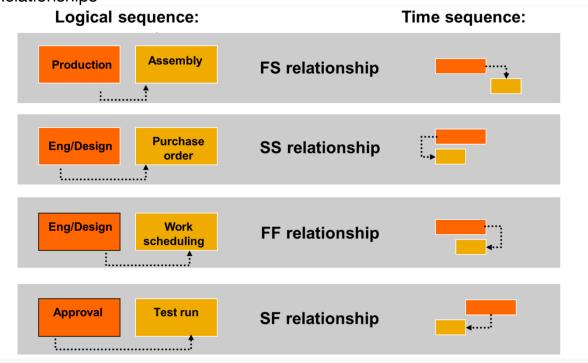
Service: Specifies whether services can be planned for activities, but this should only be set if external procurement is enabled.

Print: Decides whether work papers, like time tickets and completion slips, are printed. Print Confirmation Slip: Controls whether completion confirmation slips can be printed.

Scheduled External Procurement: Determines whether activities are scheduled based on planned delivery time or normal duration.



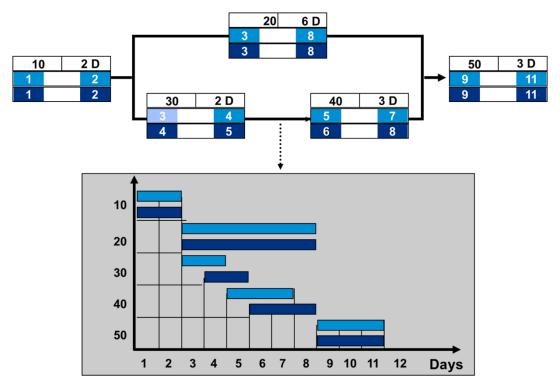
### Relationships



**Relationships** define the order in which activities are performed in a network (or standard network). You can add details, such as time intervals or factory calendar references, in the relationship's detail screen.

The **network graphic** lets you view activity relationships in a time-based format, showing the logical sequence. By default, all relationships in the network graphic are displayed as **Finish-Start (FS) relationships**.

#### **Floats**



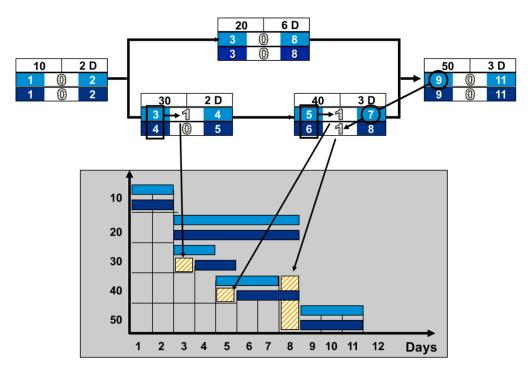
**Example of Scheduling** 

A network is always scheduled both forwards and backwards. The schedule type determines whether forward or backward scheduling happens first.

Forward scheduling calculates the earliest start and finish dates for activities. Activities without predecessors are considered start activities. The start date comes from the network header or from backward scheduling.

Backward scheduling calculates the latest start and finish dates for activities. Activities without successors are considered finish activities. The finish date is taken from the network header or from forward scheduling.

In scheduling, start times are set at the beginning of the day (00:00) and finish times at the end of the day (24:00). If work centers are assigned, start and finish times depend on the work center's operating hours.



In the example of floats, the total float for activity 40 is calculated by subtracting the earliest start from the latest start:

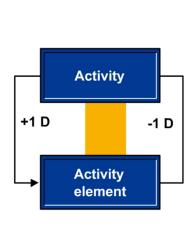
Total float = Day 6(0.00) - Day 5(0.00) = 1 day.

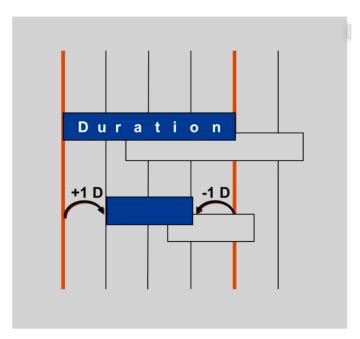
The free float for activity 40 is calculated by subtracting the earliest finish of activity 40 from the earliest start of its successor, activity 50:

Free float = Day 9 (0:00) - Day 7 (0:00) = 2 days.

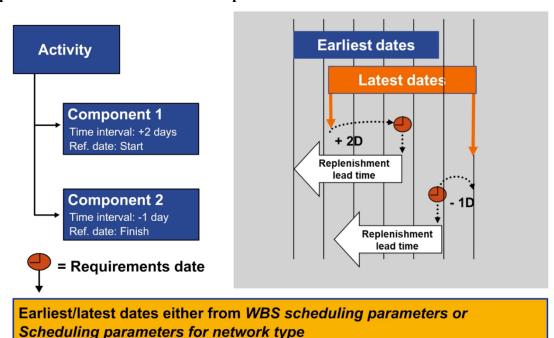
# **Dates of Assigned Objects**

Activity elements are not scheduled on their own like activities. Their dates are calculated based on the start or finish dates of the related activities. If needed, you can set time intervals for the start and finish of activity elements, but their dates must always fall within the duration of the main activity.





### **Requirements Dates of Material Components**

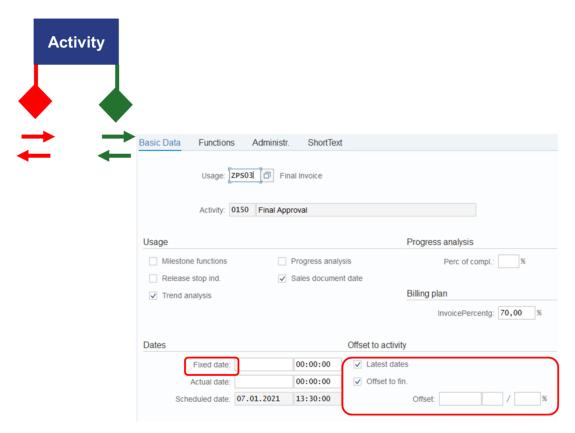


The system calculates the requirement dates for components based on the start or finish date of the activity. You can use scheduling parameters from the network type or WBS scheduling to control whether the earliest or latest start date is used as the requirement date. The transaction you use for scheduling determines which set of parameters applies:

Network scheduling uses network type parameters.

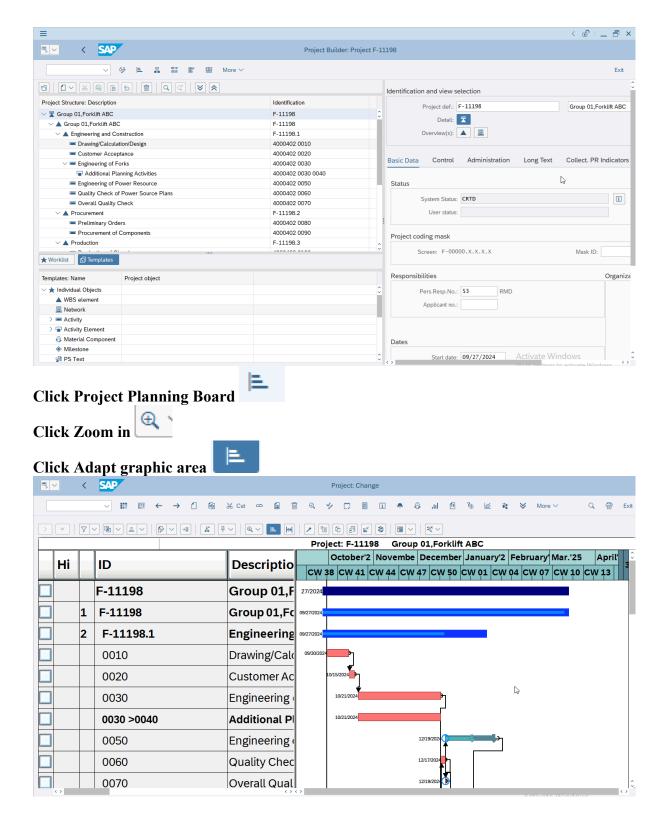
Project planning board or structure planning uses WBS scheduling parameters. If the requirement date is before the activity's finish date, you can set a time interval using an offset. You can also manually select requirement dates for materials, independent of the activity dates.

**Dates of Milestones** 



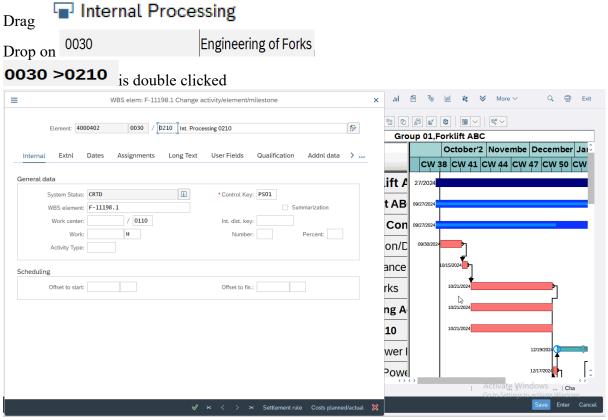
The figure shows a milestone assigned to a network activity. The planned date can be entered manually or based on the activity's dates. If it is based on the activity, you need to choose whether it refers to the earliest or latest date and whether it's the start or end of the activity. You can also set a positive or negative offset from these reference dates. Milestones can also be assigned to WBS elements. Starting with Release 4.6, the milestone's planned dates can refer to the basic start or finish date of a WBS element.

In this demonstration, you will see how assign objects to activities Enter transaction Code CJ20N F-11198 is double Clicked

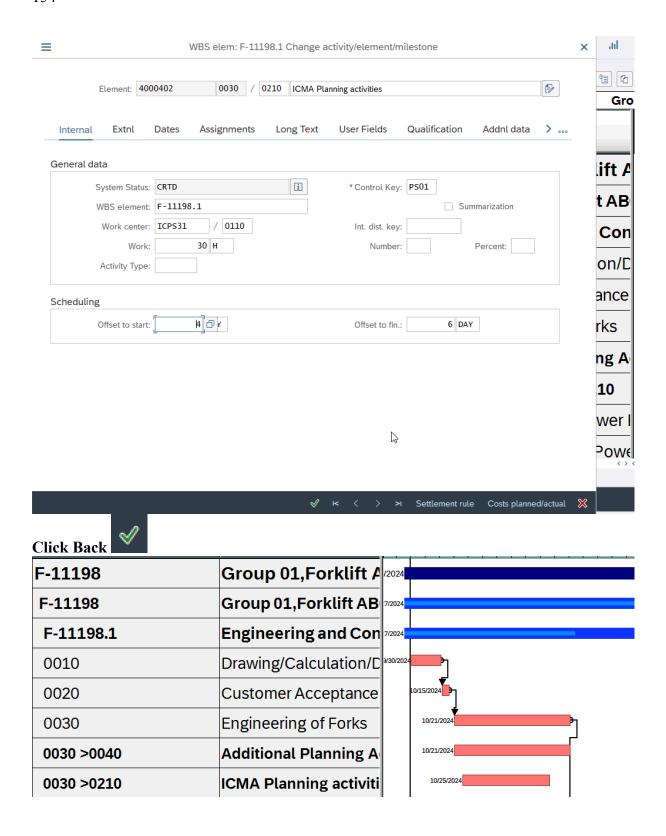


In the following steps, an activity element for an activity will be created and the effects of the time interval to start and time interval to ends will be demonstrated





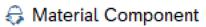
ICPS31 is now entered in the work center box 30 is now entered in the first work box
Ensure that H is entered in the second work field 4 is now entered in the first offset to start box.
Day is now entered in the second offset to start box 6 is now entered in the first offset to fin box.
Ensure that day is entered in the second offset to fin. Field



In the following steps, a material component will be assigned to an activity and the relationship between activity dates and the requirements date for the component will be discussed

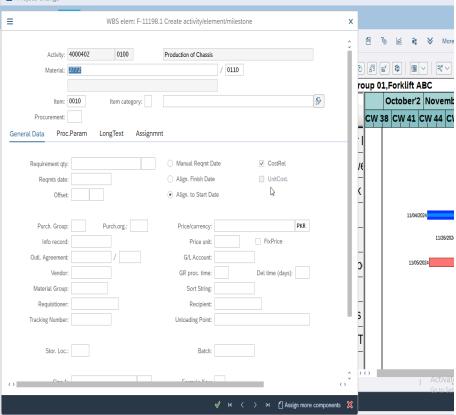


# **Drag Material Components**



**Drop on** O100 Production of Chassis

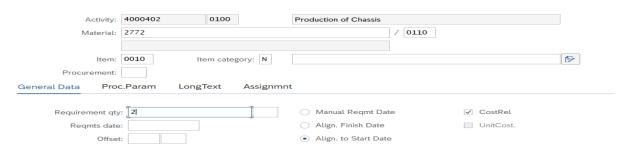
2772 is now entered in the material box.



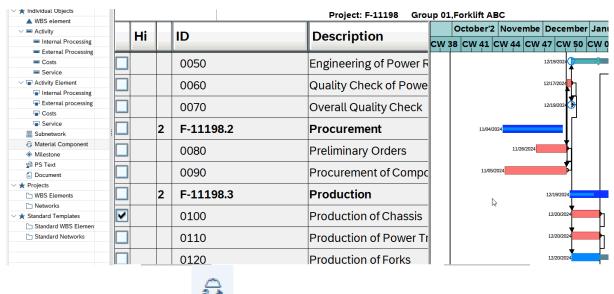
N is now entered in the item category box.

2 is now entered in the requirements Qty Box.

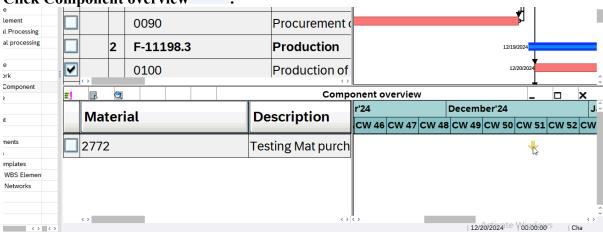
Ensure that align Finish date is selected.



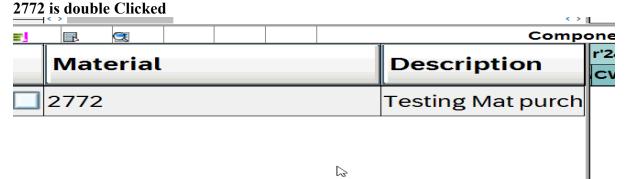




**Click Component overview** 

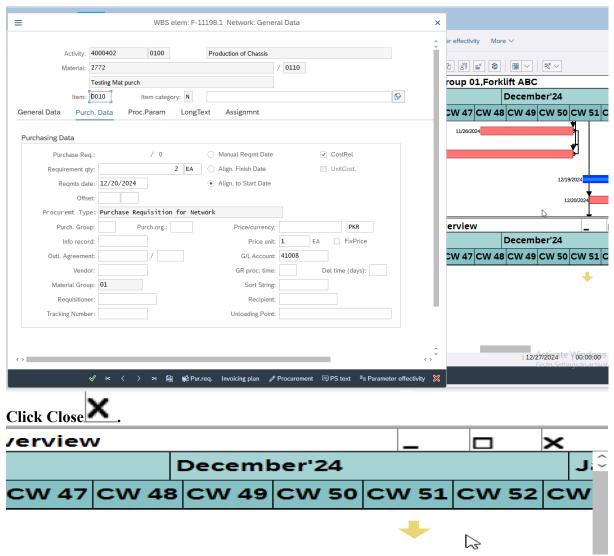


You can now check and explain the dates shown in the graphic

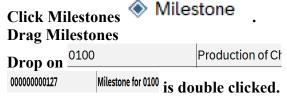


Ensure that Align. To start date is selected





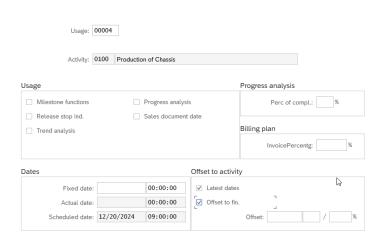
In the following steps, a milestones for an activity will be created and the fields for the dates and the time reference for the transaction will be discussed.

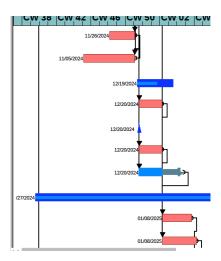


Production Milestones is now entered in the second milestone box. 0004 is now entered in the usage box.

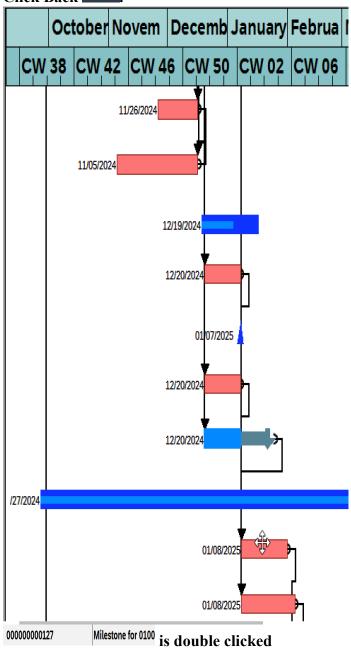
Latest dates is selected

Offset to fin is selected

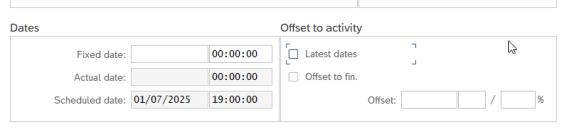


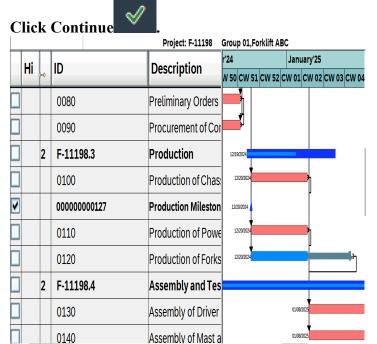




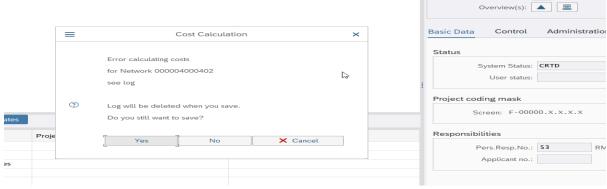


### Latest dates is cleared Offset to fin is cleared





You can now check the dates in the graphic. Click Save.

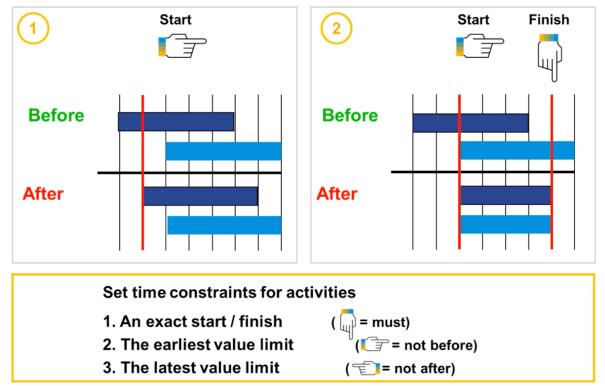


Click Yes.

You have now seen how to assign objects to activities.

# Time Constraint and Reduction

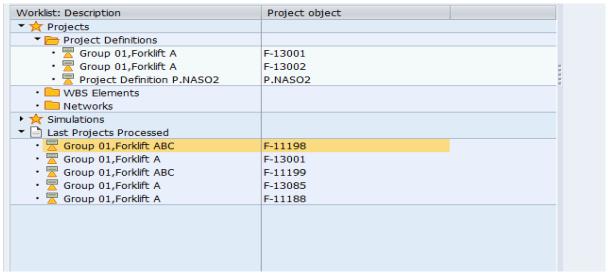
We can set time limits for the start and end of an activity, applying these limits to both the earliest and latest dates. These time limits can be applied to both basic and forecast dates of the activity and its elements.

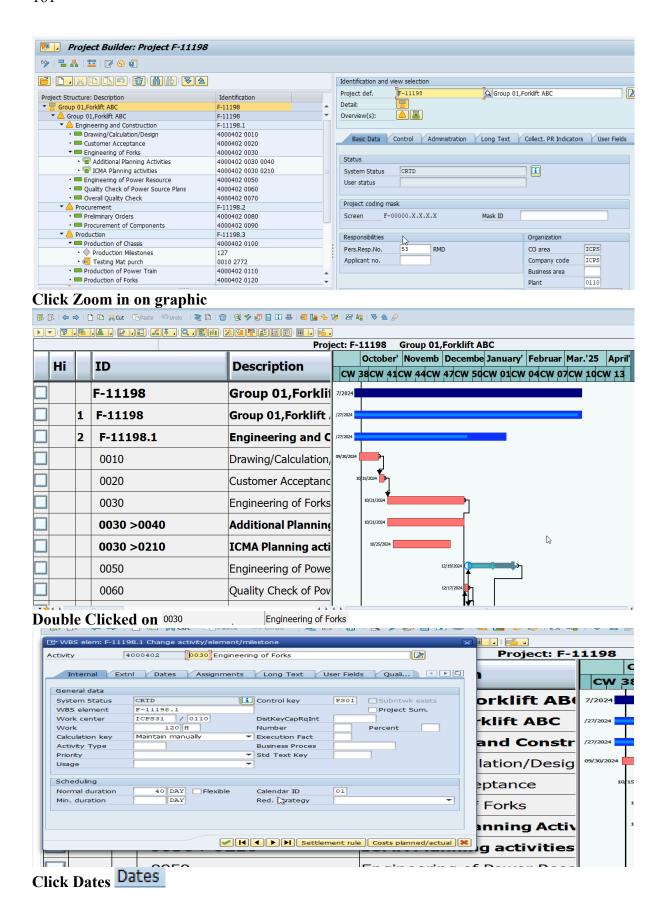


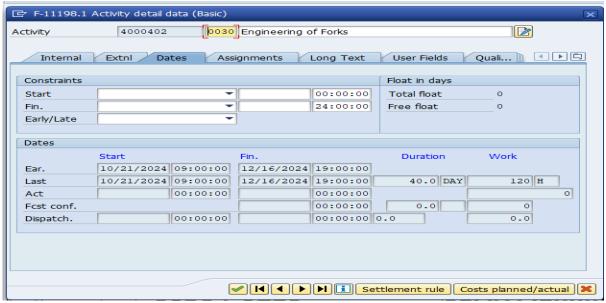
In your forklift project, task must be carried out during a specific time frame because the employees or the workplace are only available in this time period. therefore you set time constraints for these critical activities to fix the time horizon in which activities are processed

### **Go to Transaction Code CJ20N**

#### F-11198 is double clicked







### **Click Start**

#### Must start on

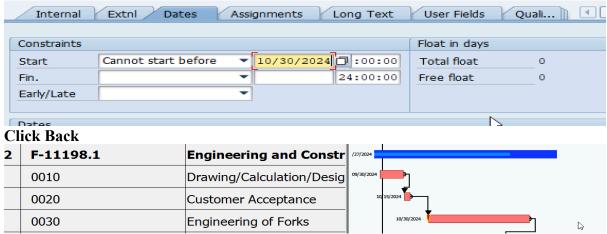
Cannot start before

Cannot start later

Start from resource planning

### **Cannot start before**

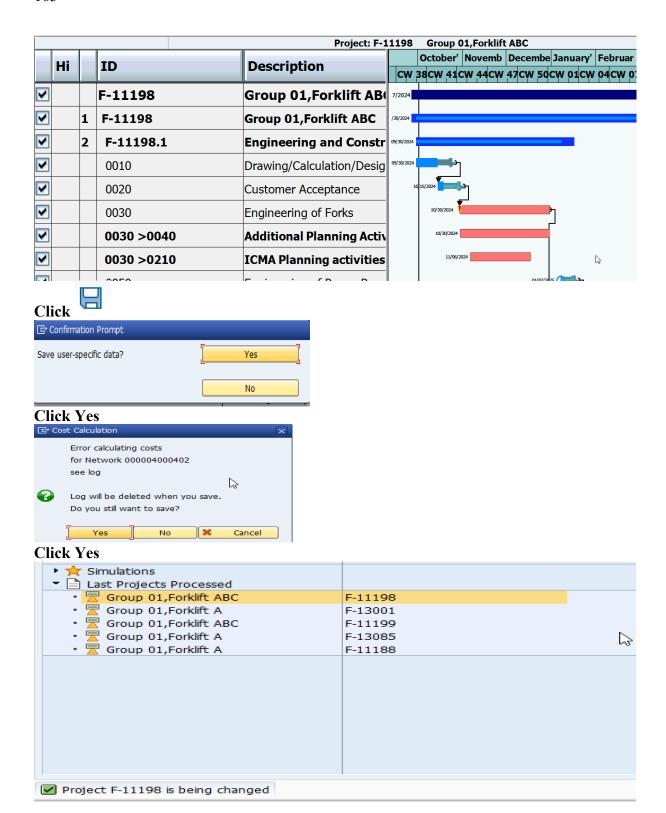
Enter 10/30/2024



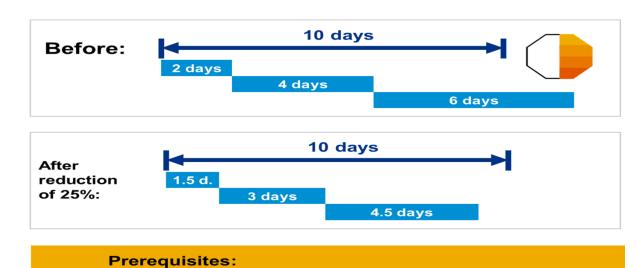
In the following steps, you will reschedule the entire project.



**Click Basic Dates** 



### Reductions



One strategy per activity
Maximum reduction level and type per network

If the available time for scheduling activities is too short, we can use reduction to

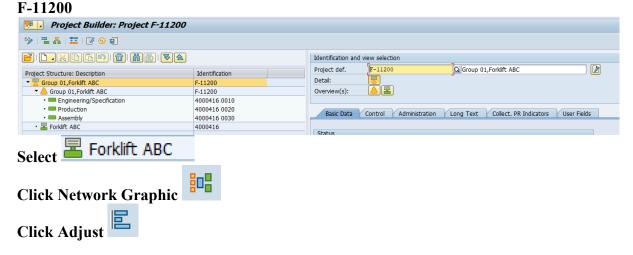
shorten the duration of internally processed activities. This applies only to activities where a reduction strategy has been set. The system reduces the duration based on the reduction strategy defined in the network header, but only up to the maximum level allowed.

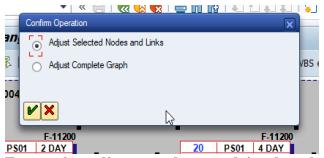
When scheduling, the system selects one reduction level for each activity. For example, it may calculate the earliest dates and apply reduction level 2, which is then used for the latest dates as well.

Important: Be cautious when using the reduction function, as the system doesn't check if an activity's duration can actually be shortened, nor does it verify capacity availability.

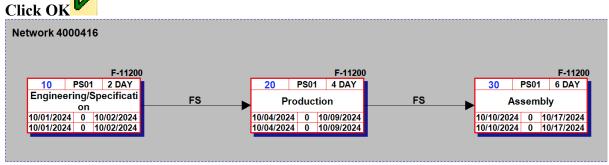
Reduction strategies help control how activity lead times can be shortened in stages. You can assign a reduction strategy to each activity, with up to six reduction levels per strategy, and specify a percentage of reduction for each level.

You are creating a network with a total duration that exceeds the time you have available for the project activities. To be able to generate of feasible plan, you allow the system to reduce the duration of certain activities by using reduction strategies Go to Transaction Code CJ20N





Ensure that adjust complete graph is selected



You can now see that there are three activities connected by finish-start relationships lasting 12 working days in total

**Double Clicked on Engineering.** Activity detail data (Basic) 4000416 Activity 0010 Engineering/Specification Internal Extnl Dates Assignments Long Text User Fields Quali... General data System Status CRTD Control key PS01 Subntwk exists WBS element Project Sum. Work center DistKeyCapRqInt Percent Calculation key ▼ Execution Fact **Business Proces** Activity Type Std Text Key Priority Usage Scheduling 2 DAY Flexible Calendar ID Normal duration Min. duration DAY Red. Strategy Settlement rule Costs planned/actual

You can now check the control key. The control key indicates that internal activities are used.

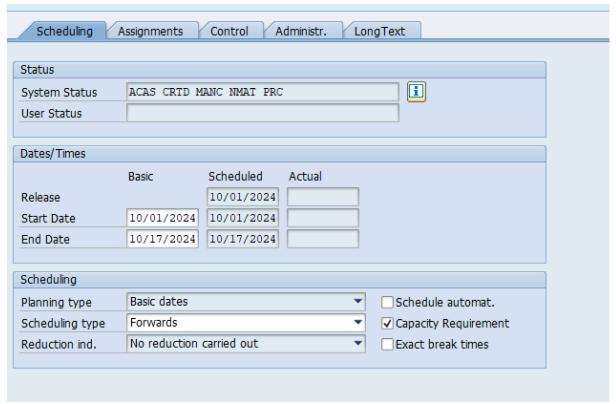
Click Close.

In the following steps, you will go back to the project builder and maintain the network header. Maintain the basic dates in the network header to start at the beginning of next month and change the duration of working days in total so that the timeframe is not sufficient for carrying out all activities

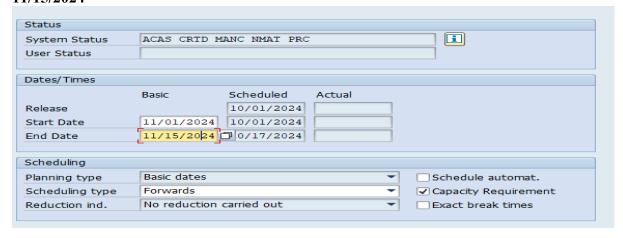


Ensure that network header is selected





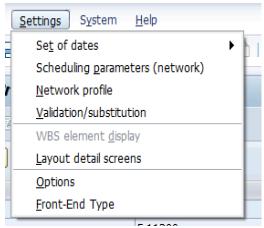
Click Start date Select 11/01/2024 Click End Date 11/15/2024



In the following steps, you will maintain the network scheduling settings in such a way that the basic dates are not adjusted. Schedule the network and evaluate the results in the network graphic

**Click Setting** 

**Click Scheduling Parameters** 



Enter 2 in Adjust dates box.



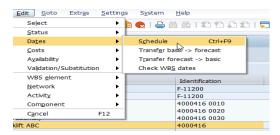
2 Do not adjust basic dates, dep. reqmts to operation dates

Click Continue

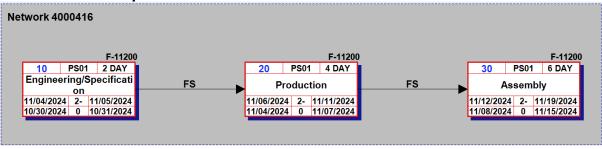
Click Edit.

Click Dates

Click Schedule







Note that the scheduling result in negative float times because of the reduced total duration.

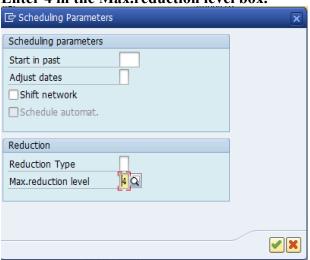


In the following steps. You will decide to use a reduction strategy to reduce activity durations to match the total duration by only reducing the two activities. Reschedule the network and evaluate the results in the network graphic and the network header Click Settings

**Click Scheduling parameter(network)** 

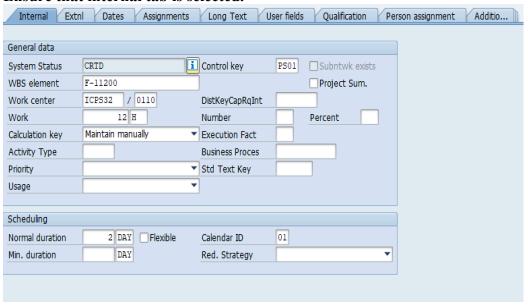


Ensure that reduction type field is blank Enter 4 in the Max.reduction level box.



Click Continue.

Click Engineering/Specification Engineering/Specification Ensure that internal tab is selected.



Ensure that reduction strategy 1 is selected in the Red. Strategy field. Reduction strategy 1 Click Production Ensure that reduction strategy 1should be blank. Click Assembly . Ensure that reduction strategy 1 is selected in the Red. Strategy field. Reduction strategy 1 星 Forklift ABし Click EDIT. Click Dates. Click Schedule. scheduling carried out Click You can now see that the system reduces the time of the first activity engineering/ Specification and the last activity assembly for which you have activated the reduction strategy. Click Back Status i ACAS CRID MANC NMAT PRC System Status User Status Dates/Times Scheduled Actual Basic 11/04/2024 Release 11/04/2024 11/04/2024 Start Date 11/14/2024 11/14/2024 End Date Scheduling

You can now see that the reduction indicator is set to level 2. This equates to a duration reduction of 40%.

Schedule automat.

Exact break times

✓ Capacity Requirement

Basic dates

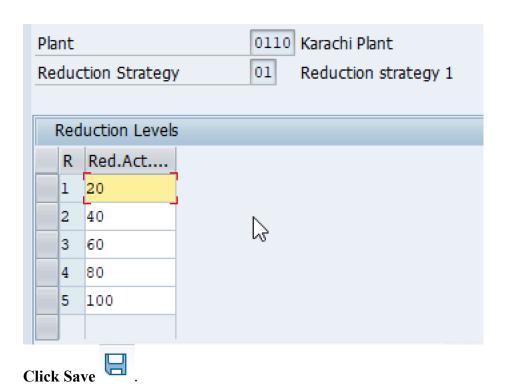
Reduction level 2

Forwards

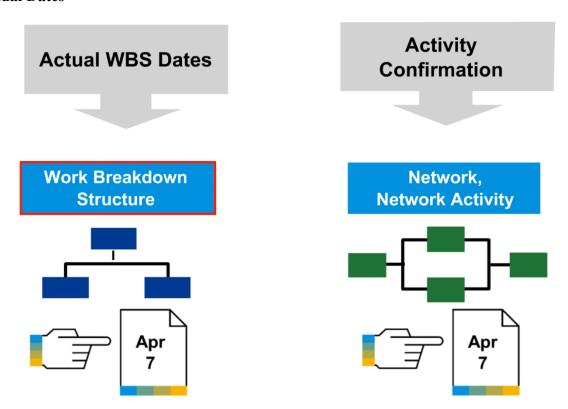
Planning type

Scheduling type

Reduction ind.



### **Actual Dates**



To monitor project dates, you can compare basic dates with actual or forecast dates. Actual dates for a WBS element can be manually set. However, if you use networks and network activities, actual dates are typically set when activities are confirmed. If activities are linked to a WBS element, the activity's actual dates are suggested as provisional dates for the WBS element, which can then be transferred as the actual dates.

During activity confirmation, actual dates are usually updated automatically. If you don't want this update, you can select the "No Update" option during confirmation.

# For WBS elements without assigned activities:

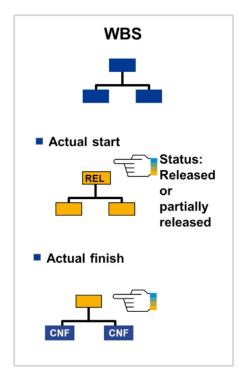
You can set the Actual Start Date (AS) only if the WBS element has the status Released (REL) or Partially Released.

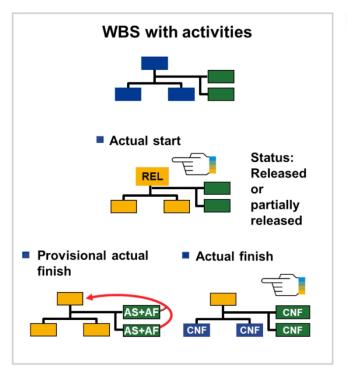
You can set the Actual Finish Date (AF) only if all lower-level WBS elements have an Actual Finish Date and the WBS element itself is Released (REL).

For WBS elements with assigned activities:

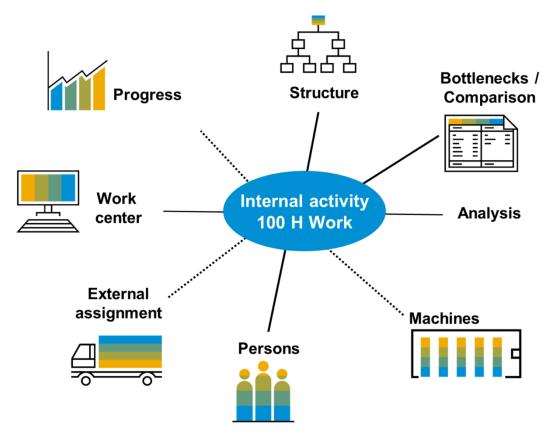
You can set the Actual Start Date (AS) only if the assigned activities have the status Partially Released or Released (REL).

You can set the Actual Finish Date (AF) only if all lower-level WBS elements have an Actual Finish Date, and all activities for the WBS element have the status Finally Confirmed (CNF).





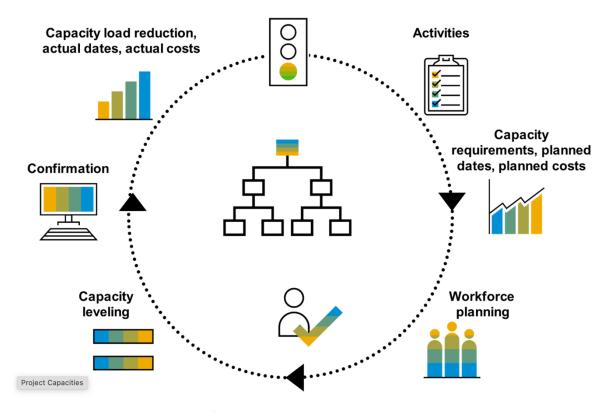
**Project Capacities Life Cycle of Internal Activities** 



## **Overview of Capacities**

The planning of internal activities significantly affects other objects and aspects in the project system, as well as capacity planning.

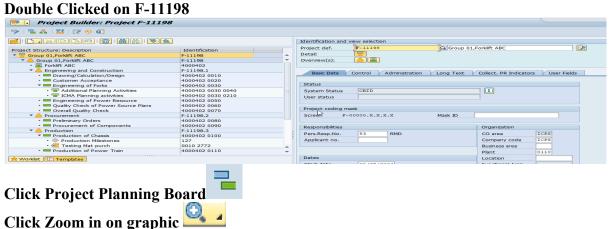
Lifecycle of an Internal Activity



## Capacity evaluation

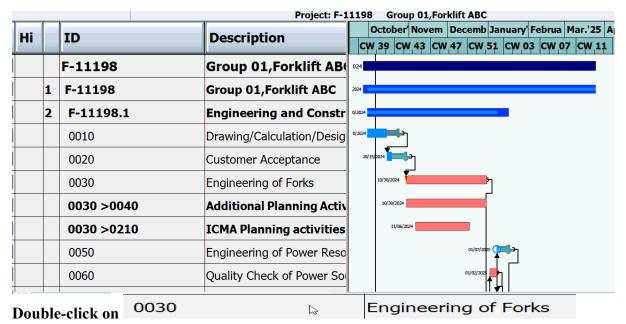
The lifecycle of an internal activity includes various events, but some, like capacity leveling or workforce planning, can be skipped if their effort outweighs the benefits. Internal Processing in the Project Planning Board: You can perform all the steps for processing internal activities using the project planning board. The figure shows the minimum steps, but you can also access workforce planning and capacity leveling directly from the planning board if needed.

You plan, , monitor  $\,$  and execute internal activities in the project planning board Enter Transaction Code CJ20N  $\,$ 



Click Adapt graphic area

In the following steps, you will plan work for an activity

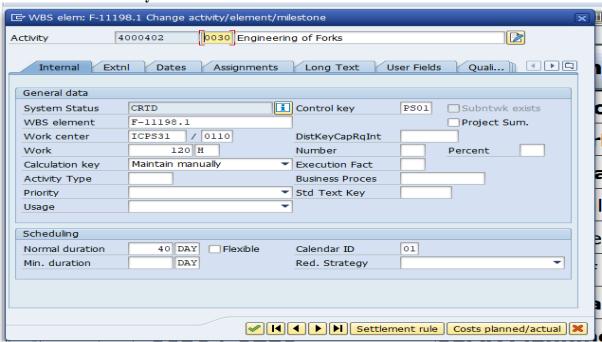


Ensure that the following values are entered in the respective fields

**Work Center: ICPS31** 

Work:H

**Normal duration: Day** 



**Click Work** 

Please press Backspace

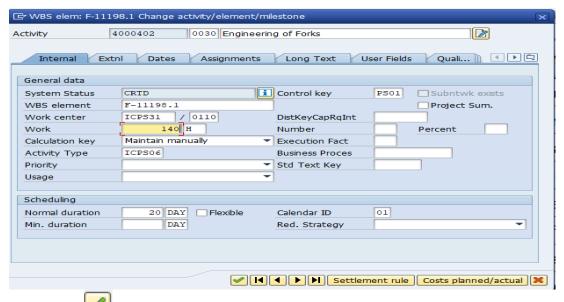
Enter 140 in the first work box.

Click Activity type.

Enter ICPS06 in the Activity type box

**Click Normal Duration** 

**Enter 20 in the Normal Duration box.** 



Click Back October Novem Decemb January Februa Mar. 25 Ap Hi ID Description CW 39 CW 43 CW 47 CW 51 CW 03 CW 07 CW 11 F-11198 Group 01,Forklift AB F-11198 Group 01,Forklift ABC 2 F-11198.1 **Engineering and Constr** 0010 Drawing/Calculation/Desig 0020 Customer Acceptance V 0030 Engineering of Forks 0030 > 0040 Additional Planning Activ 0030 > 0210 ICMA Planning activities 0050 Engineering of Power Reso

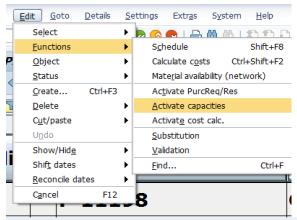
In the following steps, you'll determine the project's capacity requirements using the project planning board menu and start scheduling the project.

Quality Check of Power So

You can also automatically determine capacity requirements when saving by activating the Capacity Requirements indicator in the Network Header. To do this in the project planning board, select an activity, then go to More > Details > Network Header to make the setting.

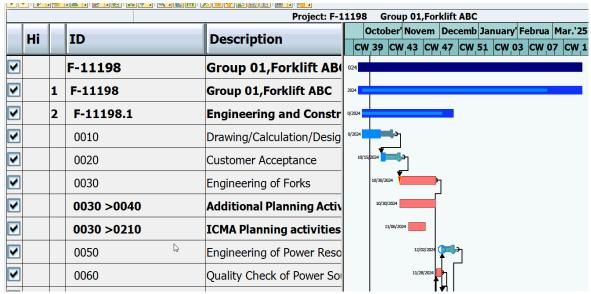
Click Select All
Click Edit.
Click Functions.
Click Activate capacities.

0060



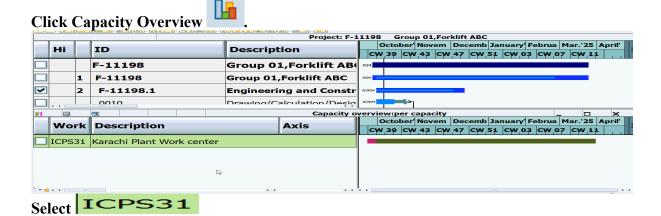
Capacity calculation was activated and takes place from next scheduling

Click Schedule Click Basic Dates.



In the next steps, you will analyze the capacity requirements for the WBS element. You can also view the work center from the project planning board by double-clicking on it.

Select F-11198.1



### Click on ICPS31 with the right mouse button Click load as histogram October Novem Decemb January Februa Mar. 25 April ID Description Hi CW 39 CW 43 CW 47 CW 51 CW 03 CW 07 CW 11 F-11198 Group 01,Forklift AB 1 F-11198 Group 01,Forklift ABC F-11198.1 **Engineering and Constr** 0010 Drawing/Calculation/Design Capacity overview:per capacity October Novem Decemb January Februa Mar. 25 April Work Description Axis CW 39 CW 43 CW 47 CW 51 CW 03 CW 07 CW 11 400.00 ICPS31 Karachi Plant Work center 200.00 Click on ICPS31 with the right mouse button Click Display legend Description Capacity load utilization Underload Overload Curve Curve: Available capacity Un Curve: Overload 10. Um Curve: Utilization to 100% 10. Curve load from WBS element **Click Close** Click on ICPS31 with the right mouse button

Per capacity and WBS element

Sort subscreen

Close chart

Display legends

Cumulative display

Normal display

In the next steps, you will enter the final confirmation. Select Drawing/calculation/design.

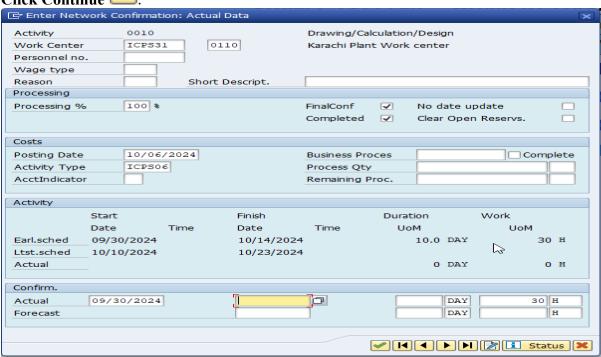
Kara

Click Confirm Activity

Click close chart.

PS31





Click actual Enter 10/04/2024

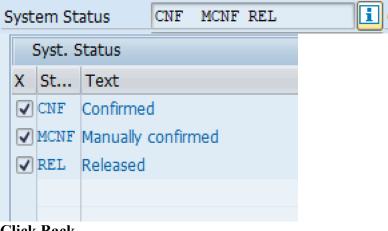
Click Back

Click Continue.

Click Continue.

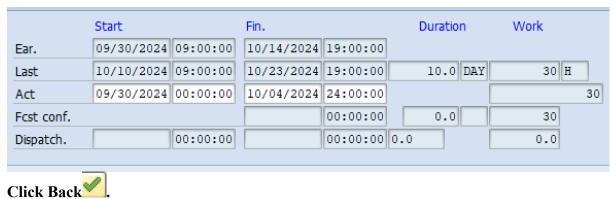


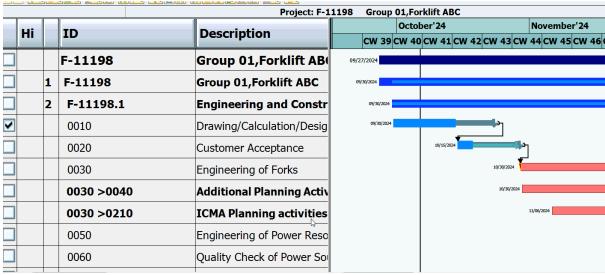




Click Back

Click Dates

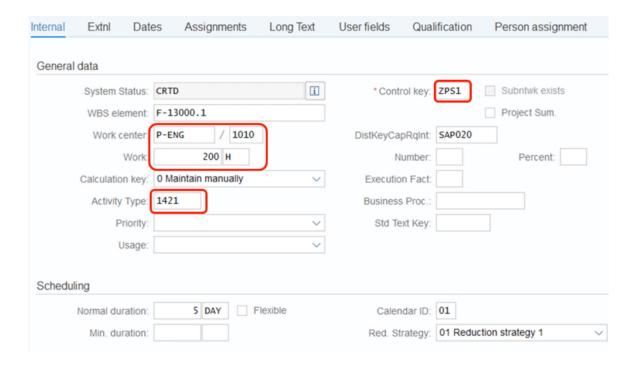




You have now completed processing the internal activities.

#### **Internally Processed Activities and Capacity Requirements**

The main settings for capacity requirements in internal activities include the control key, which determines if an activity is relevant for calculating capacity needs. The value in the "work" field defines the amount of planned capacity required. The "distribution key" field decides how the capacity will be spread over the activity's duration. If this field is empty, the distribution comes from the work center, and if the work center is also empty, the system evenly spreads the work to the latest possible dates. To calculate capacity requirements, you must enter a work center, as it generates the requirements and provides available capacities. The activity type, essential for cost calculation, is also determined by the work center.



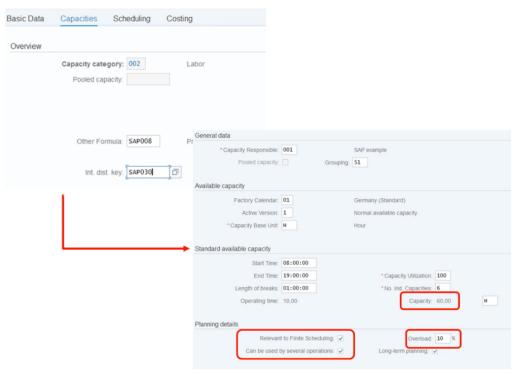
### **Generating Capacity Requirements**

Work Center and Available Capacity

The main settings for defining work center capacities are as follows:

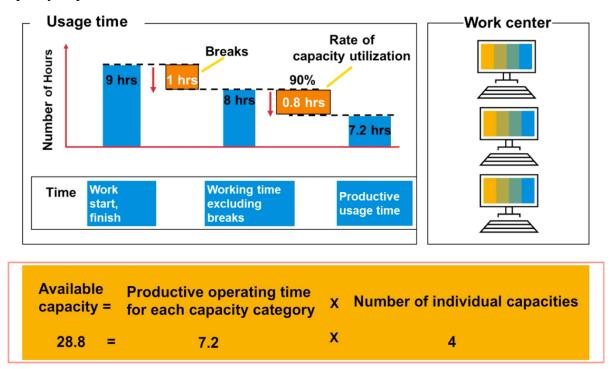
On the capacity tab, you can define different capacity categories, such as labor or machines, for the work center. Each category has its own available capacity.

The distribution key from the work center is used if no distribution key is set in the activity. For each capacity category, you define the standard available capacity. This can be adjusted using additional intervals. The "finite scheduling" option controls whether this capacity is included in the availability check, which can be done during project planning or capacity leveling. The overload setting allows the available capacity to exceed the limit by a certain percentage without affecting activity scheduling until that limit is reached.

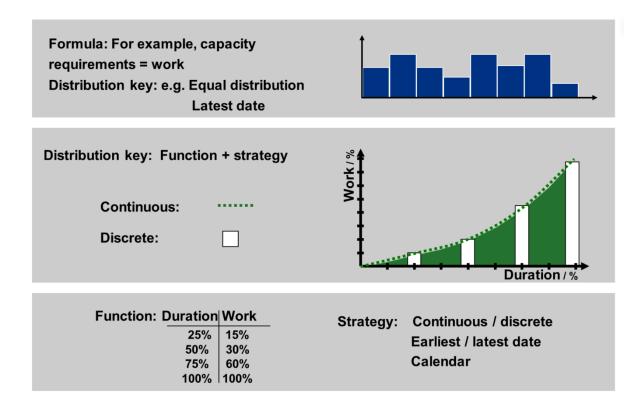


# **Availability Capacity**

The capacity data in the work center and the available capacity determine the output of labor and machines over a specific time period. Available capacity shows the performance of each capacity category in the work center. The formula in the work center defines how the capacity requirements are calculated.



Capacity Requirements

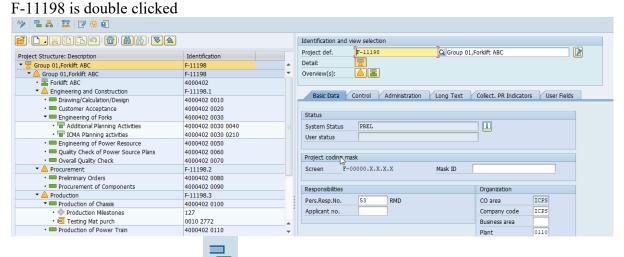


Scheduling calculates the capacity requirements based on the scheduled dates for the service. The system uses the formula in the work center and the work from the network activity to determine these requirements.

Capacity requirements can also be calculated for externally processed activities by setting the scheduling and capacity requirements indicator in the control key. The process for determining capacity requirements is the same as for internally processed activities.

# In this demonstration, you will see how to plan for capacities in work centers.

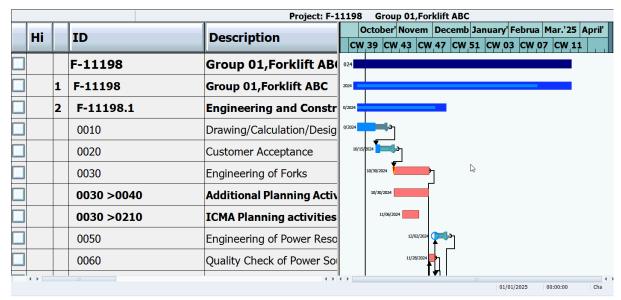
Enter TransactionCode CJ20N



Click Project Planning Board

Click Zoom in on graphic

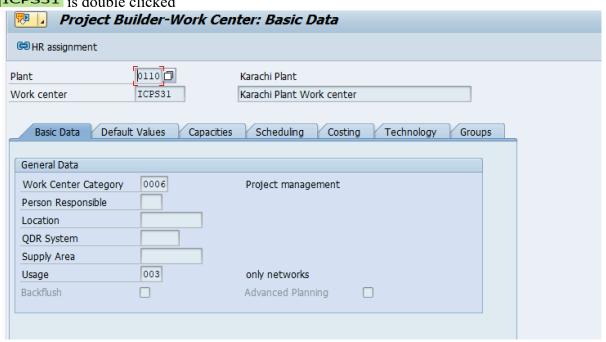
Click Adapt graphic area



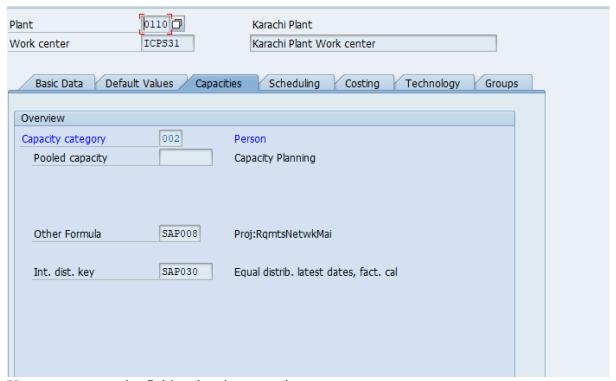
0010 is selected

Click Capacity Overview

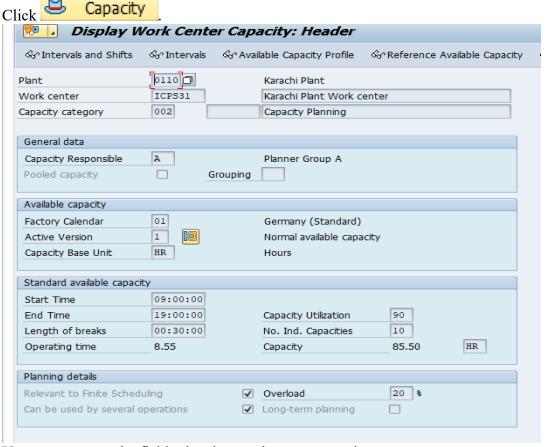
ICPS31 is double clicked



Click Capacities



You can now see the fields related to capacity



You can now see the field related to work center capacity.

Operating time 8.55 Capacity 85.50

You can now check the operating time and available capacity. Click Back.

Click Back.



In the following steps, a new work center will be created in plant in the project system menu. Enter Transaction Code CNR1



Ensure that 0110 is entered in the plant field.

ICPS60 is now entered in the work center box.

0006 is now entered in the work center category box.

Click Basic Data.

Group 00, Assembly is now entered in the second work center box.

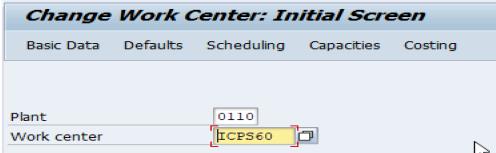
PS is now entered in the person responsible box.

003 is now entered in the usage box.

ork center ICPS60 Group 00,Assembly	
Basic Data Capacities Scheduling Costing Groups	
General Data	
Work Center Category 0006 Project management	
Person Responsible PS	
Location	
QDR System	
Supply Area	
Usage 003 🗇	
Backflush Advanced Planning	

Click

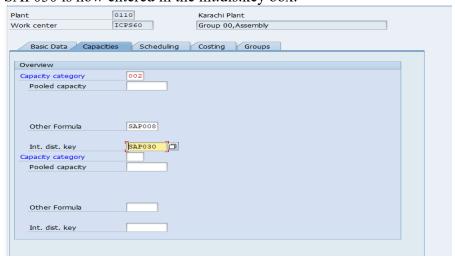
In the following steps, the data for the available capacity will be entered for the work center. Enter Transaction Code CNR2.



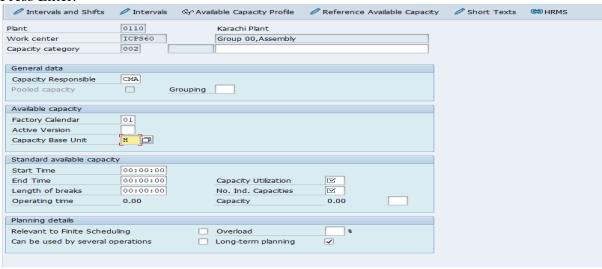
Ensure that ICPS60 is entered in the work center field.

Click Capacities

002 is now entered in the Capacity category box. SAP008 is now entered in the other formula box. SAP030 is now entered in the int.dis.key box.



#### Press Enter.



#### Click Start time

Enter 08:00:00

Click end time.

Enter 18:00:00

Click Length of Breaks

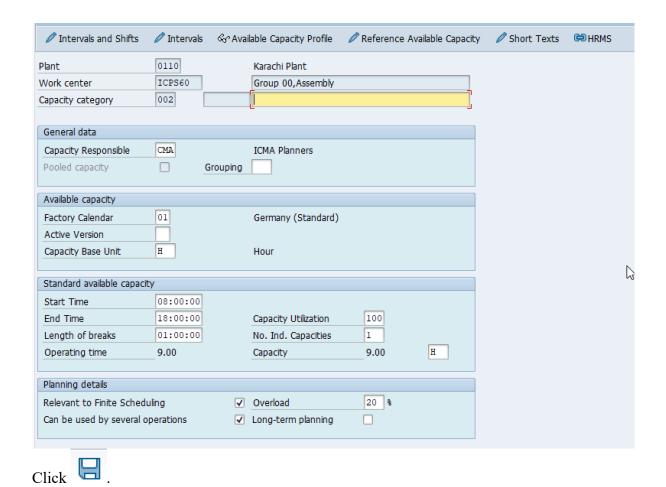
Enter 01:00:00

Click No.ind capacities.

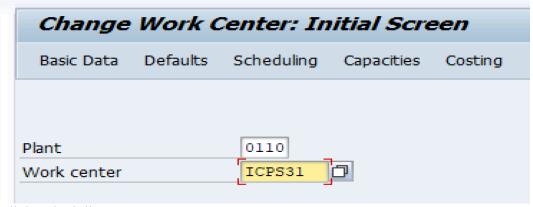
1 is now entered in the No.ind capacities box.

20 is now entered in the overload box.

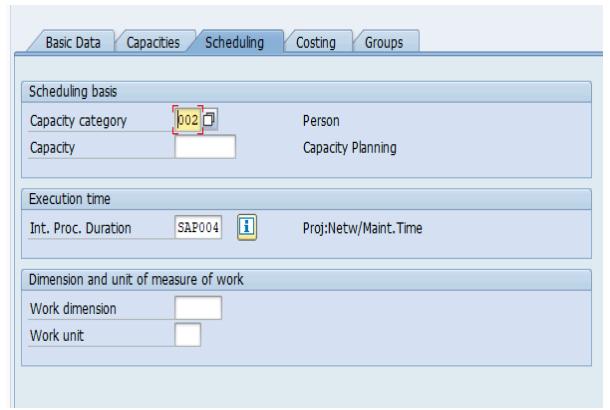
Long term planning is cleared.



In the following steps, scheduling data will be maintained and assigned to cost center. Enter Transaction Code CNR2



Click Scheduling.



002 is now entered in the capacity category box.

SAP004 is now entered in the Int.Proc.Duration Box.

Click Costing

Click Start Date.

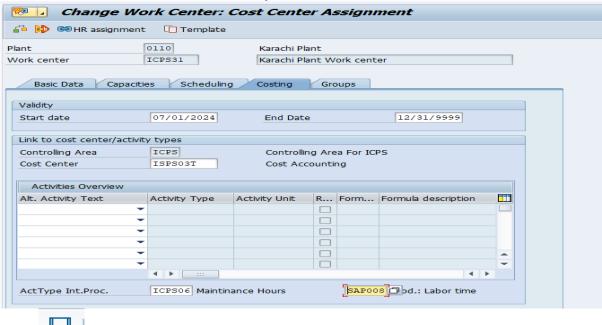
07/01/2024

is now entered in the Start date box.

ICPS03T is now entered in the cost center box.

ICPS06 is now entered in Acttype box.

SAP008 is now entered in the formula key box.



Click



In the following steps, the project will be edited using the project planning board. Enter Transaction Code CJ20N.

F-11198 is double clicked.



Click Project Planning Board

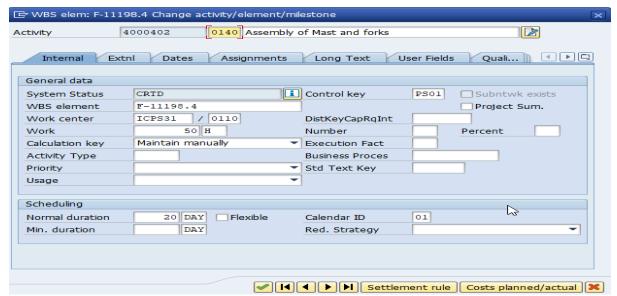
Click Zoom in on graphic

Click Adapt graphic area

O140 Assembly of Mast and fork is double clicked

2	F-11198.3	Production		12/03/2024
	0100	Production of Chassis		12/03/2024
	00000000127	Production Milestones		12/03/2024
	0110	Production of Power Train		12/03/2024
	0120	Production of Forks		12/03/2024
2	F-11198.4	Assembly and Test	0/2024	F
	0130	Assembly of Driver Cabin		12/12/2024
	0140	Assembly of Mast and fork		12/12/2024
	0150	Final Inspection and Test (		01/17/2025
	0170	Service		02/24/2025

Click Work Center.



Backspace is now pressed.

ICPS60 is now entered in the work center box.

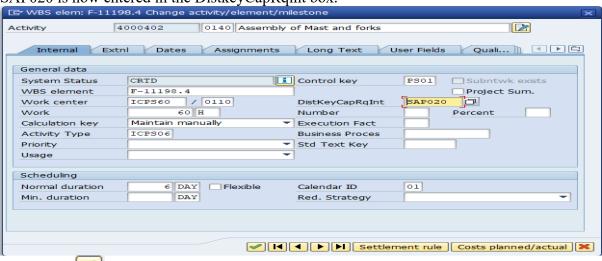
Click Work.

Delete is now pressed.

60 is now entered in the work box.

Ensure that 6 Day is entered in the normal duration field.

SAP020 is now entered in the DistkeyCapRqint box.



Click Back

In the following steps, the scheduling will be carried out again in the capacity requirements for work center will be demonstrated.





Click Basic Dates.



Click Deselect all

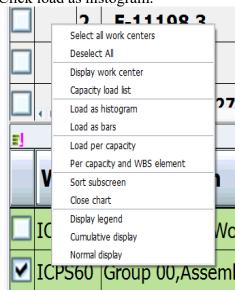
**F-11198.4** is selected.

Click Capacity Overview

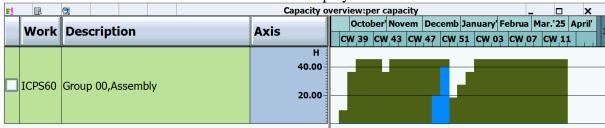
ICPS60 is selected.

Right click on ICPS60 with the mouse opens a shortcut menu.

Click load as histogram.



Note that overloads on the work center will be displayed as red.



Right-clicking on ICPS60

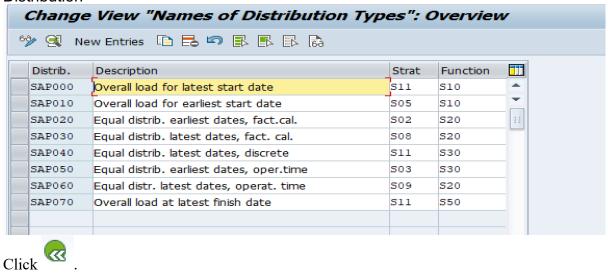
Right-clicking on P-AS with the mouse opens a shortcut menu.

Click Close chart.

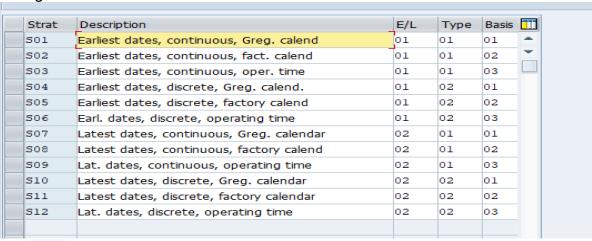
Click

In the following steps, the distribution keys, functions and strategies will be defined.

# Go to SPRO→ProjectSystem→Resources→Distribution→Define Requirements Distribution

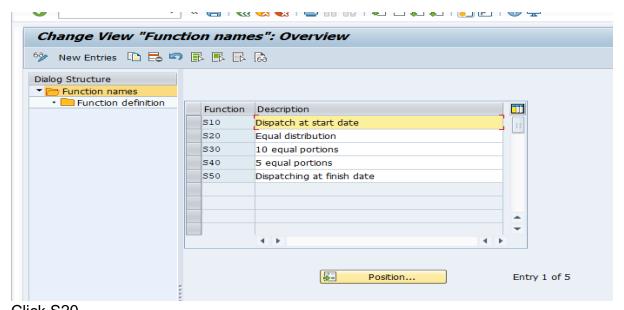


Go to SPRO→ProjectSystem→Resources→Distribution→Define Distribution Strategies

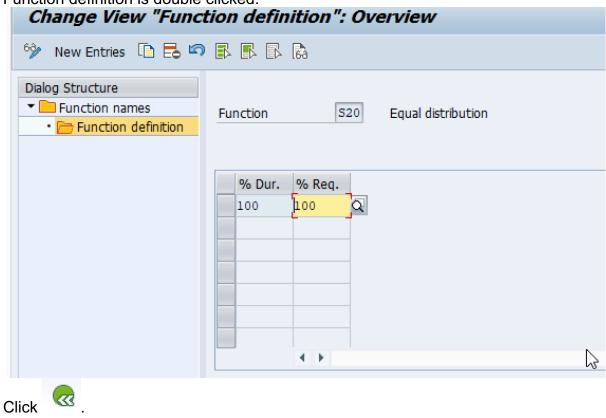




Go to SPRO→ProjectSystem→Resources→Distribution→Define Distribution Function

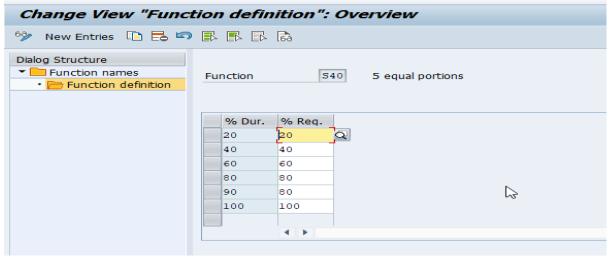


Click S20 Function definition is double clicked.



#### Click S40.

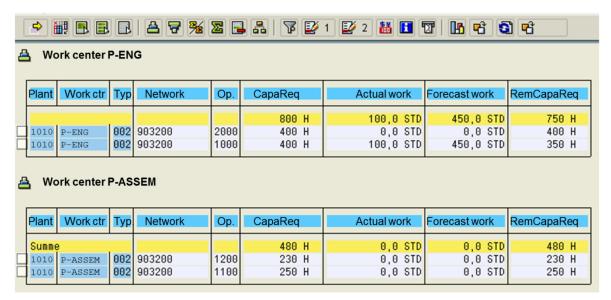
Function definition is double clicked.



Click Back.

You have now seen how to plan for capacities in work centers.

# Capacity Analysis in the Project Information



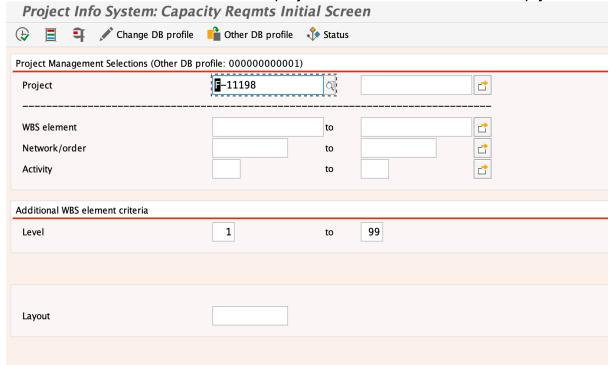
You can evaluate capacity requirements directly in the Project System's information system. Use the enhanced individual overview within the structure information system to view capacity needs, organized similarly to the structure information system layout. With PS info profiles, you can customize which information is displayed.

Alternatively, the capacities individual overview is available for occasional users, offering an easy-to-use interface, though it provides less detailed information than the enhanced overview.

#### You can analyse the capacity requirements for your project

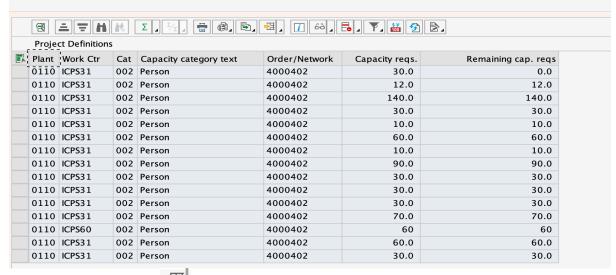
**Enter Transaction Code CN50N** 

Ensure that F-11198 is entered in the project field and other fields are empty

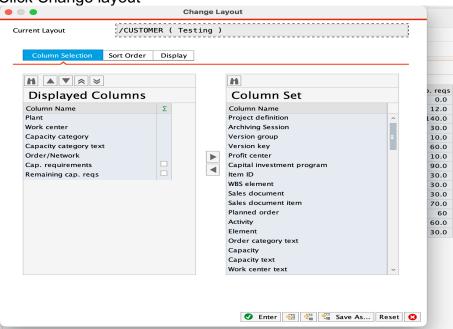




### Project Info System: Capacity Reqmts Overview

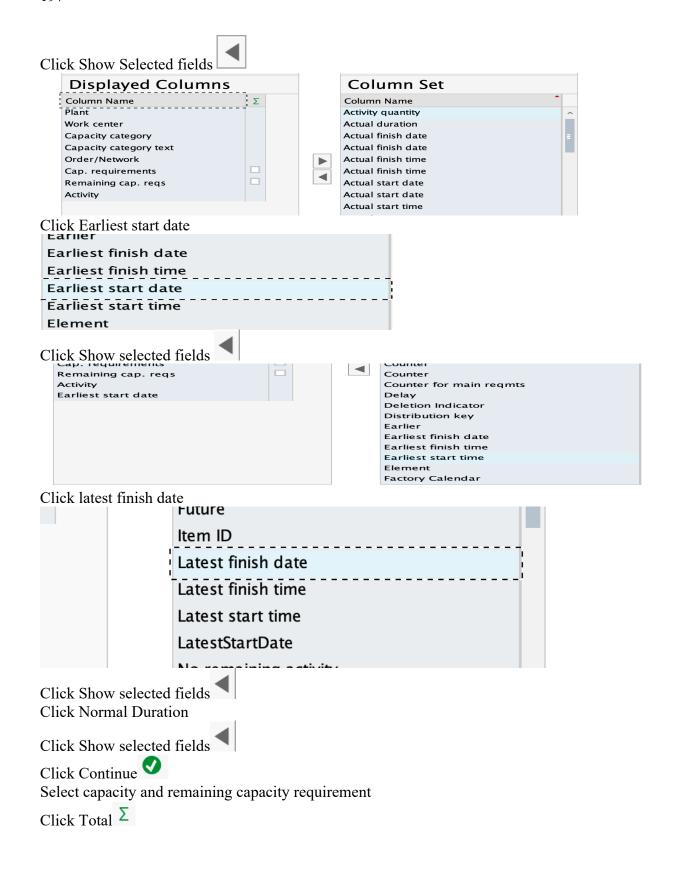


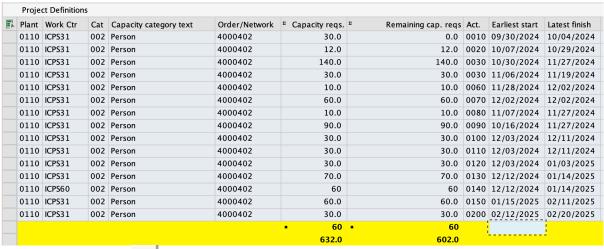
# Click Choose Layout Click Change layout



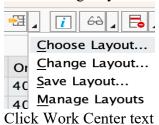
Ensure that Activity is selected







Click Choose layout Click Change layout



Click Show selected fields

Click Enter

Project Definitions

PI	lant	Work Ctr	Work center text	Cat	Capacity category text	Order/Network	E Capacity reqs. E	Remaining cap. reqs	Act.	Earliest start	Latest finish
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	30.0	0.0	0010	09/30/2024	10/04/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	12.0	12.0	0020	10/07/2024	10/29/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	140.0	140.0	0030	10/30/2024	11/27/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	30.0	30.0	0030	11/06/2024	11/19/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	10.0	10.0	0060	11/28/2024	12/02/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	60.0	60.0	0070	12/02/2024	12/02/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	10.0	10.0	0080	11/07/2024	11/27/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	90.0	90.0	0090	10/16/2024	11/27/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	30.0	30.0	0100	12/03/2024	12/11/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	30.0	30.0	0110	12/03/2024	12/11/2024
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	30.0	30.0	0120	12/03/2024	01/03/2025
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	70.0	70.0	0130	12/12/2024	01/14/2025
0	110	ICPS60	Group 00,Assembly	002	Person	4000402	60	60	0140	12/12/2024	01/14/2025
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	60.0	60.0	0150	01/15/2025	02/11/20
0	110	ICPS31	Karachi Plant Work center	002	Person	4000402	30.0	30.0	0200	02/12/2025	02/20/2025
							<b>60</b>	60			
							632.0	602.0			

Analysis with Capacity Evaluation Reports

ork center apacity type		oject Managei rson	r		Plant 130	00
Week	Reqmnts	Available	Load		Free cap.	Unit
49.2020	116.25	270.00	43	%	153.75	Н
50.2020	220.25	270.00	82	%	49.75	Н
51.2020	116.25	270.00	43	%	153.75	Н
52.2020	287.68	270.00	107	%	17.68-	Н
01.2021	253.57	216.00	117	%	37.57-	Н
02.2021	164.25	270.00	61	%	105.75	Н
03.2021	124.75	270.00	46	%	145.25	Н
Total >>>	1,283.00	1,890.00	71	%	553.00	Н

You can use capacity evaluation to analyze your company's capacity load. The main options include:

**Standard Overview**: Provides a summary of the load at a selected work center by comparing its capacity requirements, available capacity, and current workload for each period.

Capacity Detail List: Shows detailed information about orders and networks that affect the capacity requirements at a work center.

**Variable Overview**: Allows flexible evaluation and display of any data from capacity planning.

Additionally, you can view or update work centers and capacities directly from the evaluation lists, and you can manage orders, confirm activities, and display stock requirements from the detailed capacity list.

Customizing for Capacity Analysis

All capacity evaluation profiles are managed in the Customizing settings for Capacity Planning. These include:

Overall Profile: Contains all necessary settings for capacity evaluations.

**Selection Profile**: Defines the data you want to evaluate.

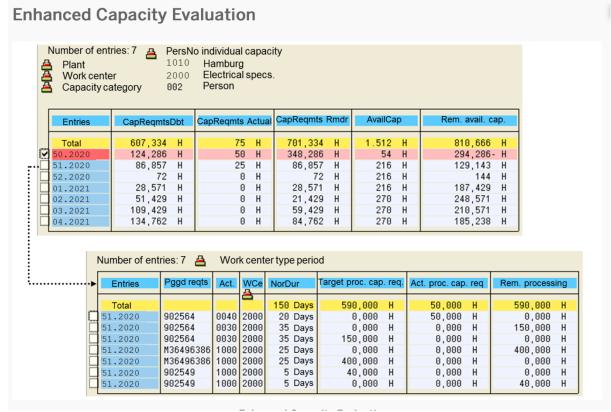
**Option Profile**: Sets the time period and capacity distribution for evaluation.

**List Profile**: Chooses which fields to display.

**Graphics Profile**: Determines the appearance of capacity evaluation graphics and types of dates to show.

You can configure the overall profile and its subprofiles in the Customizing section for capacity planning.

Customizing for Enhanced Capacity Evaluation



Enhanced capacity evaluation profiles are set up in Customizing for Capacity Planning and include:

Overall Profile: Holds all settings for detailed evaluations and capacity leveling.

**Selection Profile**: Defines the data to evaluate.

Control Profile: Chooses between data leveling or evaluation.

**Time Profile**: Sets the evaluation time period.

Evaluation Profile: Specifies the requirements to display.

**Period Profile**: Defines how periods should be split.

**List Profile**: Selects the fields to display.

You can configure the overall profile and its subprofiles in the Customizing section for capacity planning.

# In this demonstration, you will see how to evaluate capacity requirements

In the following steps, the work center overview for the capacity evaluation will be called and a new work center for the project will be selected.

Go to Transaction Code CM01

Capacity Planning: Selec	ction	
Standard overview Detailed cap. list	Variable overview	
		0perator
Work Center	ICPS60	
Capacity Planner Group		
Plant	0110	
		<b>알</b>

Ensure that following values are entered in the respective field

Work Center:ICPS60

Capacity planner group: Plant:0110

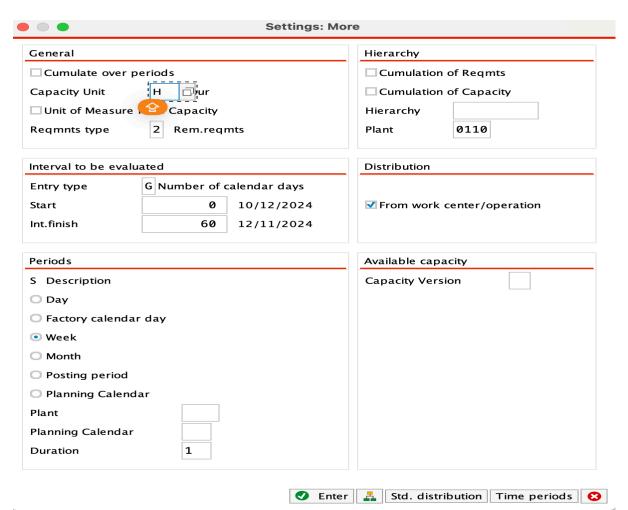
Click Standard overview

rk center pacity cat.	ĬĊPS60 : 002	Group ( Person	00,Assemb	οίy	P,	lant	0110
Week	Requirements	AvailCap.	CapLoad	RemAvailCap	Unit		
41/2024	0.00	0.00	0 %	0.00	Н		
42/2024	0.00	45.00	0 %	45.00	Н		
43/2024	0.00	45.00	0 %	45.00	Н		
44/2024	0.00	36.00	0 %	36.00	Н		
45/2024	0.00	45.00	0 %	45.00	Н		
46/2024	0.00	45.00	0 %	45.00	Н		
47/2024	0.00	45.00	0 %	45.00	Н		
48/2024	0.00	45.00	0 %	45.00	Н		
49/2024	0.00	45.00	0 %	45.00	Н		

You can now see that the work center is not showing any capacity requirements for the project.

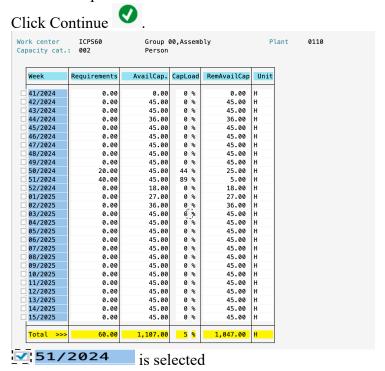
Click Setting

Click General



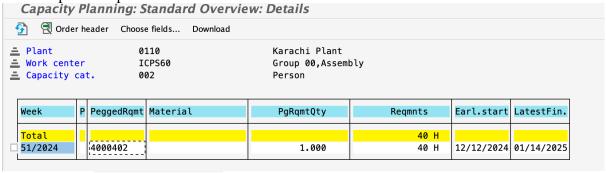
180 is now entered in the int.finish box.

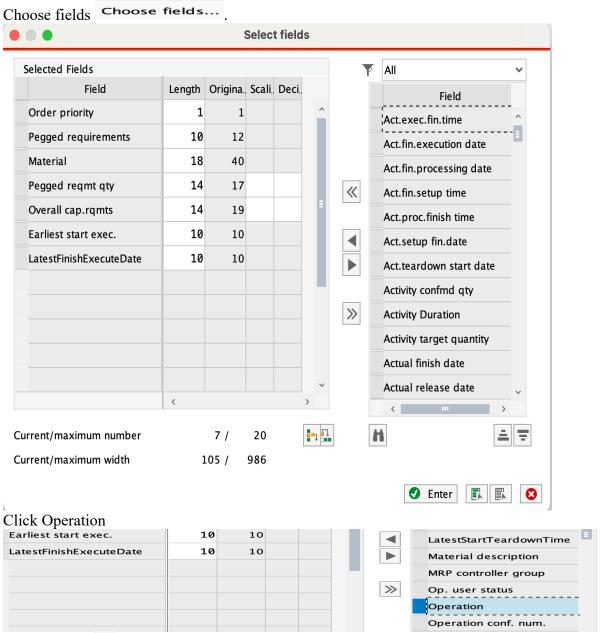
Noted that if necessary, compare the value with the latest finish of the activity you noted down in the previous demonstration



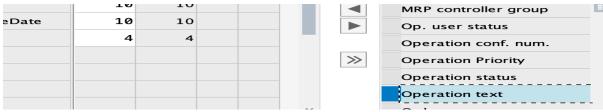


# Click Cap.details/period Cap. details/period



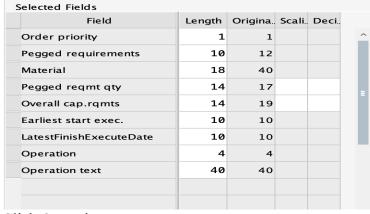


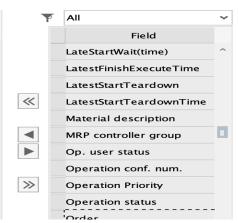
Click Choose



# Click Operation text

Click Choose	4	
ener energe		





Click Operation.

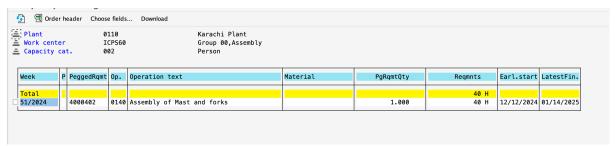
Click Operation text.

Click Pegged requirements.

Click Move

Selected Fields				
Field	Length	Origina	Scali	Deci.
Order priority	1	1		
Pegged requirements	10	12		
Operation	4	4		
Operation text	40	40		
Material	18	40		
Pegged reqmt qty	14	17		
Overall cap.rqmts	14	19		
Earliest start exec.	10	10		
LatestFinishExecuteDate	10	10		





In the following steps, advanced capacity evaluation will be called and the new work center in the project will be selected.

Go to Transaction Code CM50

Capacity evaluation			
🕁 💠 🔁 🚺 Change time p	rofile		
Objects			
Work center	ICPS31 <mark>■</mark> □	to	<b>₫</b>
Plant	0110 😭	to	
Capacity category		to	
Capacity Responsible Planner		to	

Ensure that the following values are entered in the respective fields:

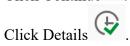
Work center:ICPS31

Plant:0110

# Click Change time profile Time profile Time profile Time profile Time profile

Database read perio	od		
Entry type	J Number	of calendar months	
Start date	-4	06/01/2024	
Finish date	4	02/28/2025	
Evaluation period			
Entry type	G Number	of calendar days	
Start date	3-	10/09/2024	
Finish date	100	01/20/2025	
Planning period			
Entry type	G Number	of calendar days	
Start date	3-	10/09/2024	
Finish date	100	01/20/2025	
Dispatching of back	log		
Entry Type	G Number	of calendar days	
BacklogDispDate	0	10/12/2024	

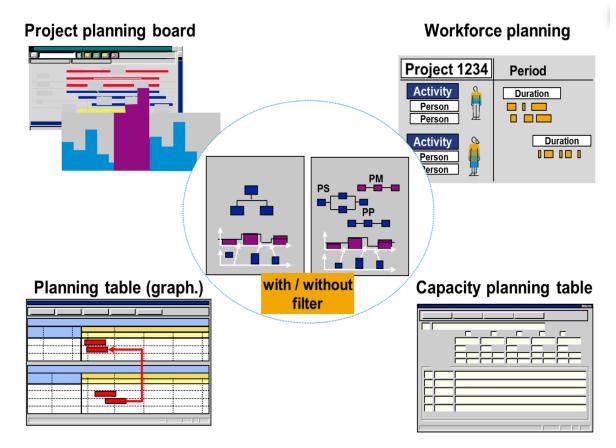
Click SAP\_Z003
Click Continue.



Plant	Work ctr	Cat	Planning period	E CapRqtRem	E Avail.cap.	LoadRemCap	₹ Rem.av.cap	Unit
0110	ICPS31	002	11/14/2024	44.0	85.5	51.50	41.5	HR
			11/15/2024	44.0	85.5	51.50	41.5	HR
			11/16/2024	0.0	0.0	0.00	0.0	HR
			11/17/2024	0.0	0.0	0.00	0.0	HR
			11/18/2024	44.0	85.5	51.50	41.5	HR
			11/19/2024	44.0	85.5	51.50	41.5	HR
			11/20/2024	41.0	85.5	48.00	44.5	HR
			11/21/2024	41.0	85.5	48.00	44.5	HR
			11/22/2024	41.0	85.5	48.00	44.5	HR
			11/23/2024	0.0	0.0	0.00	0.0	HR
			11/24/2024	0.0	0.0	0.00	0.0	HR
			11/25/2024	41.0	85.5	48.00	44.5	HR
			11/26/2024	41.0	85.5	48.00	44.5	HR
			11/27/2024	41.0	85.5	48.00	44.5	HR
			11/28/2024	33.667	85.5	39.40	51.833	HR
			11/29/2024	33.667	85.5	39.40	51.833	HR
			11/30/2024	0.0	0.0	0.00	0.0	HR
			12/01/2024	0.0	0.0	0.00	0.0	HR
			12/02/2024	93.667	85.5	109.60	8.167-	HR
			12/03/2024	38.905	85.5	45.50	46.595	HR
			12/04/2024	28.571	85.5	33.40	56.929	HR
			12/05/2024	25.238	85.5	29.50	60.262	HR
			12/06/2024	25.238	85.5	29.50	60.262	HR
			12/07/2024	0.0	0.0	0.00	0.0	HR
			12/08/2024	0.0	0.0	0.00	0.0	HR

You can now see that the work center is overloaded for several days by the capacity requirements for the project.

# **Capacity leveling**



**Capacity Leveling** 

The following methods are available for leveling network and activity capacities:

**Project Planning Board**: Displays the capacity load of work centers assigned to activities as bars along a timeline. Red sections on these bars show overloaded periods. You can select a work center to view its capacity load curve, which shows capacity requirements and availability. This board also allows capacity leveling by changing the work center or rescheduling activities to available periods.

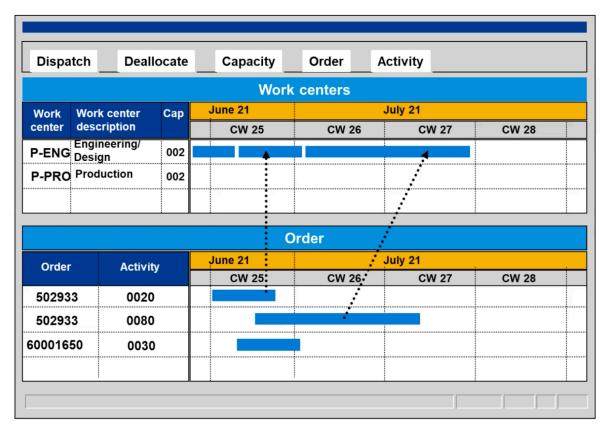
Capacity Planning Board: Used for capacity leveling in either graphical or tabular form. It has at least two sections—one for available capacity per period and another for the capacity requirements of various orders or networks.

**Workforce Planning**: A user interface to assign tasks to people in the work center. Views available for capacity and workforce planning:

**Work Center View**: Shows capacity requirements for specific work centers within a selected time period.

**Project View**: Displays all activities with work centers for a particular project.

Capacity Planning Table



You can perform capacity leveling using the capacity planning table or the graphical planning table. In the graphical planning table, activities can be scheduled at work centers for specific periods by dragging them with the mouse to a work center or capacity category. Various actions are available directly from the graphical planning board, including:

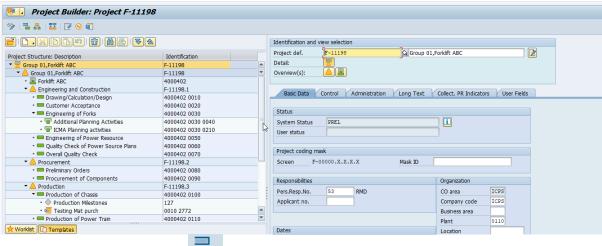
Viewing or editing the order or activity.

Viewing or editing the work center or its capacity screen.

# In this Demonstration, you will see how to perform capacity leveling using planning tables

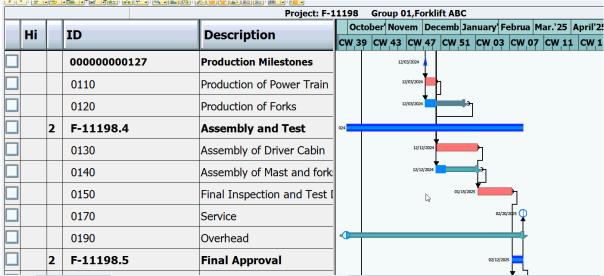
In the following steps, a project in the project planning board will be opened Go to Transaction Code CJ20N

F-11198 is double-clicked



Click Project Planning Board Click Zoom in on graphic

Click Adapt graphic area buttons



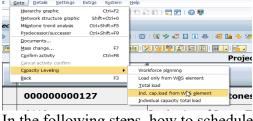
In the following steps, a suitable WBS element will be selected and capacity leveling will be opened.

Select F-11198.4

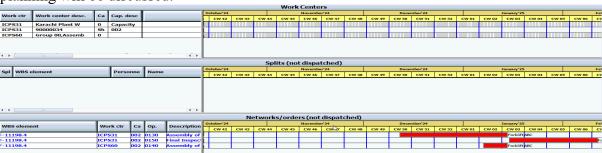
Click Goto

Click Capacity leveling

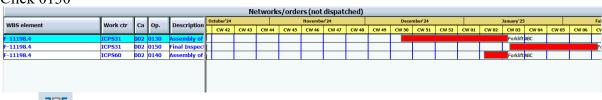
# $_{Click}$ Ind. cap.load from WBS $_{\underline{e}}$ lement



In the following steps, how to schedule capacities automatically will be demonstrated and the planning will be discussed.



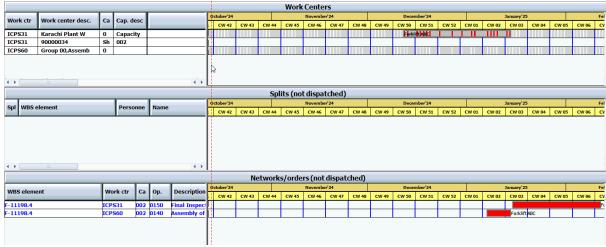
#### Click 0130



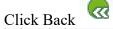


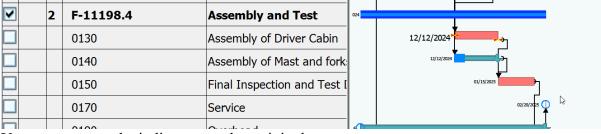


Click Earliest Start



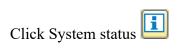
Note that the element is dispatched for the earliest start date In the following steps, the graphical planning board will be closed and the changes in the detail screen for the scheduled activity will be demonstrated

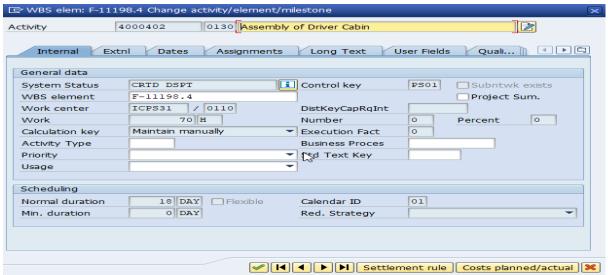




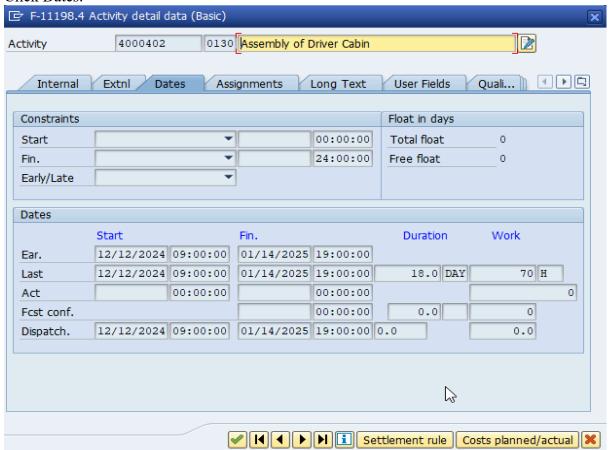
You can now see the indicators on the activity bar.

0130 is double clicked





You can now see the system status that has changed to CRTD DSPT(Created and Scheduled)



You can now see the changed dates.

Click Close ...

In the following steps, the project will be closed without saving the changes.

Click Exit .



Click No.

In the following steps, the use of a tabular capacity planning board will be demonstrated to schedule capacities in the project. The various views will be explained. How capacities can be scheduled both manually and automatically will be displayed and the transaction will be closed without saving the changes.

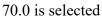
Go to transaction code CM26.

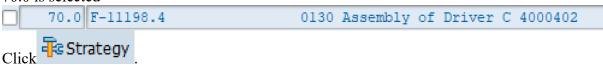


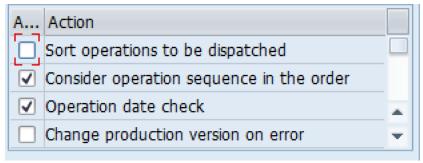
F-11198.4 is now entered in the WBS. Element box.



ICPS31 is selected

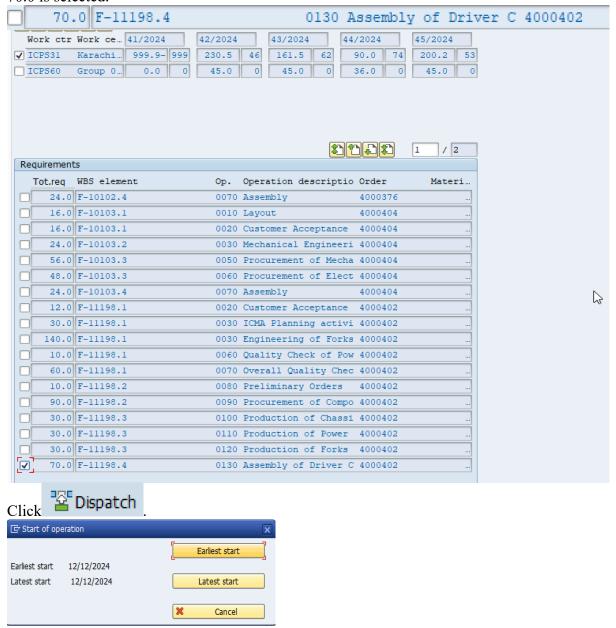






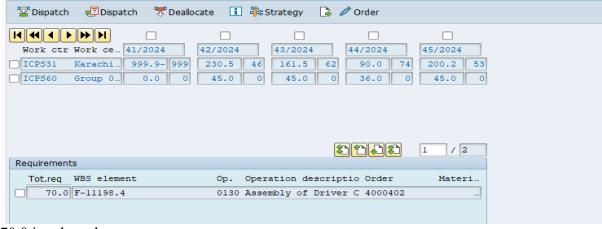
Sort operations to be displayed is cleared.

Click Transfer. ICPS31 is selected. 70.0 is selected.

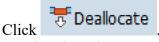


Click Earliest start.

You can now see that the activity is dispatched to the earliest start date.



70.0 is selected.



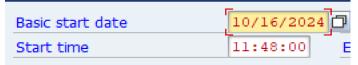
70.0 is selected.



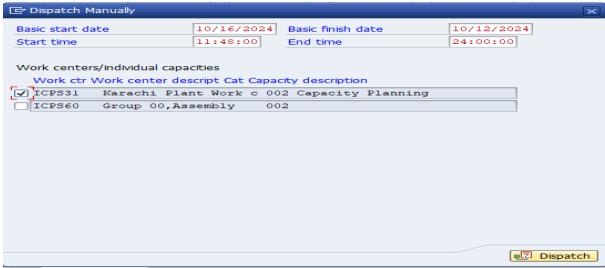
Click Basic start date.



Select 10/16/2024.



ICPS31 is selected.

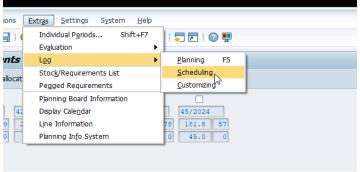


Click Dispatch

Click Extras.

Click log.

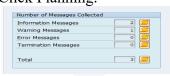
Click Scheduling.



Click Extras.

Click log.

Click Planning.



Click Back 🧖.

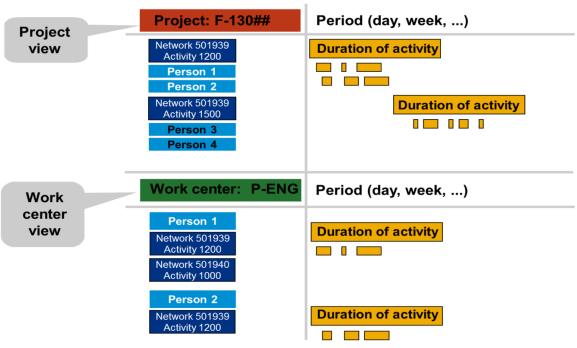




#### Click No

You have now seen how to perform capacity leveling using planning tables.

# **Workforce Planning**



Workforce Planning

Workforce planning in SAP allows assigning personnel to activities with the following features:

Two Views: Work center view and project view, for easy and quick personnel assignment to activities.

**Data Display:** 

Availability of personnel (from HR data)

Total capacity load per person

**Activity details** 

You can assign personnel linked to the work center for an activity, project team members assigned to WBS, or, if settings permit, personnel available in HR.

Evaluations are conducted using the SAP List Viewer (ALV), which supports printing, sharing with others, or saving workforce planning data locally.

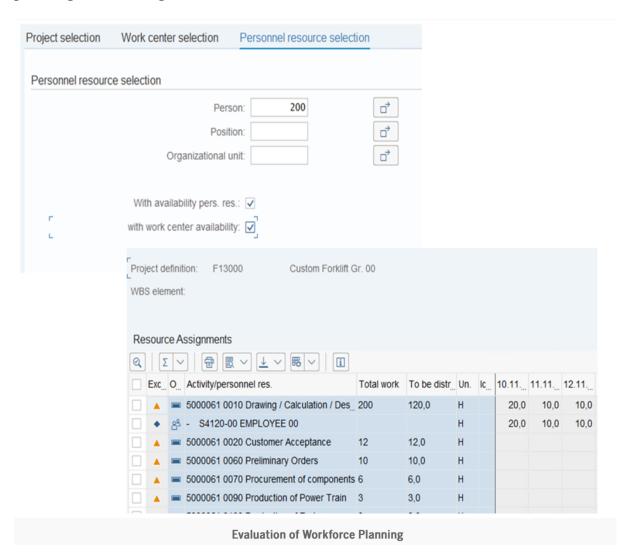
**Evaluation of Workforce Planning** 

Evaluation in workforce planning lets you view work distribution across projects, work centers, or personnel resources:

Project View: Select by project definition, WBS elements, or networks to display all activities linked to the chosen networks or WBS elements.

Work Center View: Select by work center, plant, or personnel resources (e.g., person or position).

Personnel Resources: When selecting personnel resources, you can evaluate workforce planning based on organizational units.



Starting from release 4.6, you can create project teams for WBS elements. These teams, made up of personnel assigned through HR organizational units, positions, or directly, are used in workforce planning.

If a WBS element doesn't have its own project team, you can access the project team of the higher-level WBS element.

If a WBS element has its own project team, you cannot access the higher-level team in workforce planning.

**Assigning People to Work Centers:** 

People can be assigned to work centers at:

**Capacity Category Level (Level A)** 

**Work Center Level** 

Assigning personnel to work centers is essential for:

**Workforce Planning** 

Timesheet Management: Displays a worklist for entering the person's activities.

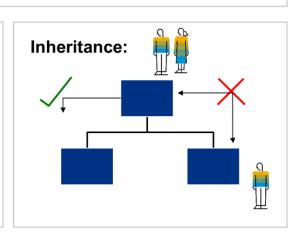
# **Project Team**



# Project organization Organizational units and / or positions and / or persons

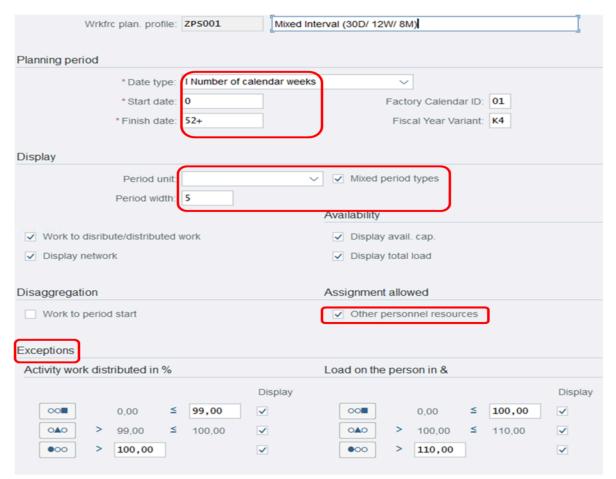
# **Processing options:**

- Project Builder
- Project planning board
- · In detail screen of WBS elements
- Workforce planning project view
- HR organizational management



**Project Team** 

# **Customizing for Workforce Planning**

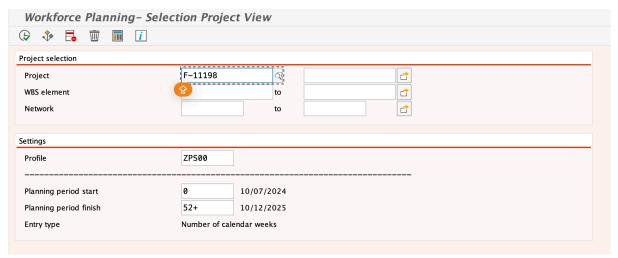


To perform and evaluate workforce planning, profiles are needed. These profiles are set on the initial screen and can be temporarily modified if needed. Workforce planning profiles are configured in the resource section of Project System Customizing. Since Release 4.6A, mixed period splits are available, allowing workforce planning to display periods by specific days, weeks, or months. You can assign people from the work center, project organization, or select individuals as needed, distributing work to persons, positions, or HR organizational units.

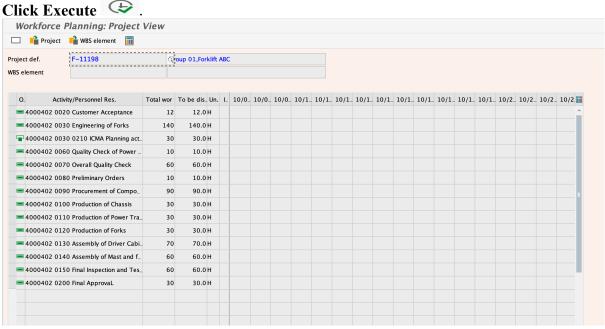
Exceptions can also be applied when evaluating workforce planning.

In this demonstration, you will see how to distribute work to personnel resources. In the following, the project view will be used to assign a personnel resource to activity of the project.

**Go to Transaction Code CMP2** 



Ensure that F-11198 is entered in the project field. ZPS00 is now entered in the profile box.



You can now see an overview of all activities that have capacity requirements in the planning group.

Click

F-11198

F-11198.1

F-11198.2

F-11198.3

F-11198.4

F-11198.5

Group 01,Forklift ABC

Engineering and Construction

Procurement

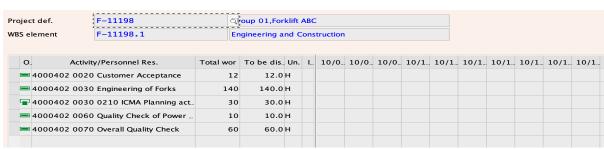
Production

Assembly and Test

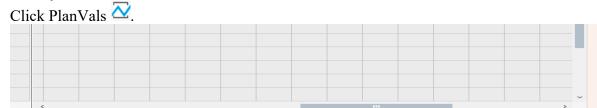
Final Approval

Click F-11198.1

Click Copy



Quality check of Power Source Plan is selected.

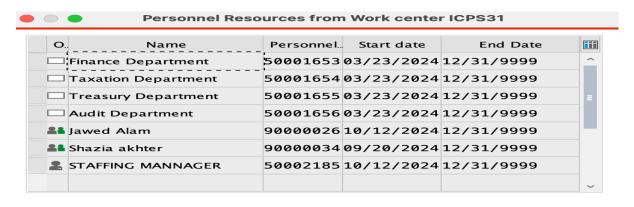


Clicking in the scroll area displays the desired area.

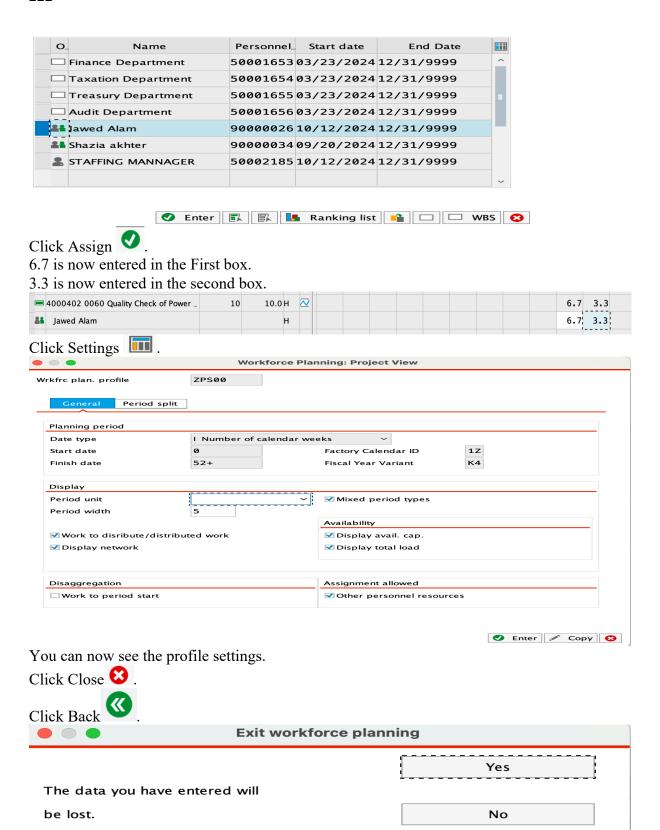


You can now see the schedule work time frame. Quality check of Power Source Plan is selected.

Click Create assignment .



You can now see a dialog box containing your project team. Ensure that the line Jawed alam is selected.



Click Yes.

In the following steps, the work center view for workforce planning of personal resources will be demonstrated.

😢 Cancel

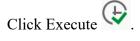
Go to transaction Code CMP3.

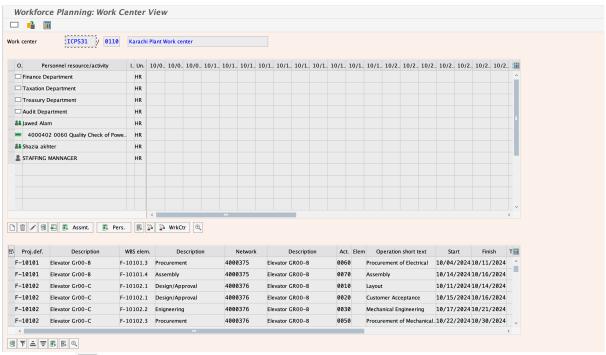
Do you want to save the data?

Workforce Planning : Sele	ection for Work Center View
Work center selection	
Work center	i to
Plant	0110 to
Personnel resources	
Person	
Position	
Filter	
Network	to
Activity	to
Settings	
Profile	ZPS00
Planning period start	0 10/07/2024
Planning period finish	52+ 10/12/2025
Entry type	Number of calendar weeks

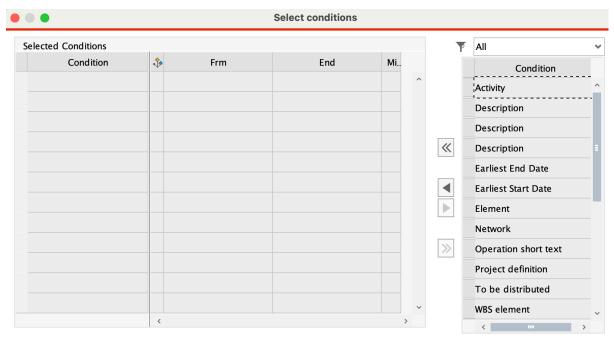
ICPS31 is now entered in the work center box.

Ensure that 0110 is entered in the plant field and ZPS00 is entered in the profile field.

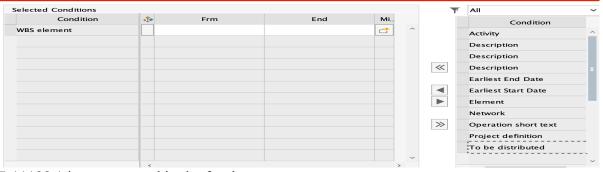




Click Filter Y.

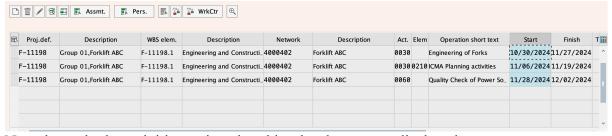


## WBS element is double clicked.

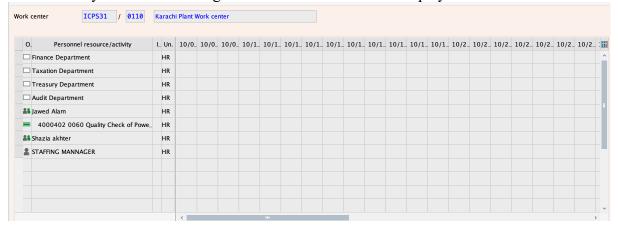


F-11198.1 is now entered in the frm box.

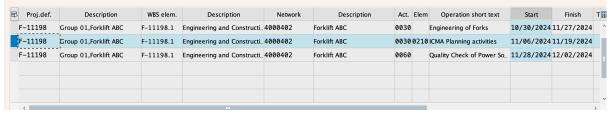




Note that only the activities assigned to this wbs element are displayed.

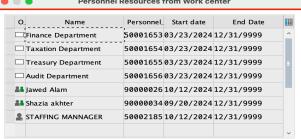


You can now see this existing assignments.



#### F-11198 is selected.





Shazia akhter is selected.

Click Assign .

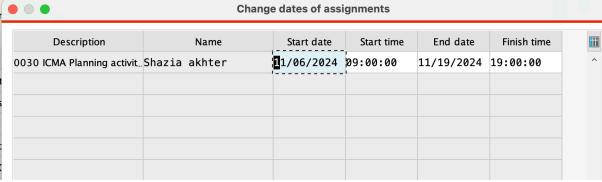
Clicking in the scroll area displays the desired area.



- 5 is now entered in the First box.
- 5 is now entered in the second box.
- 5 is now entered in the third box.
- ICMA planning is selected.



Click Change assignment .



You can now change the dates.

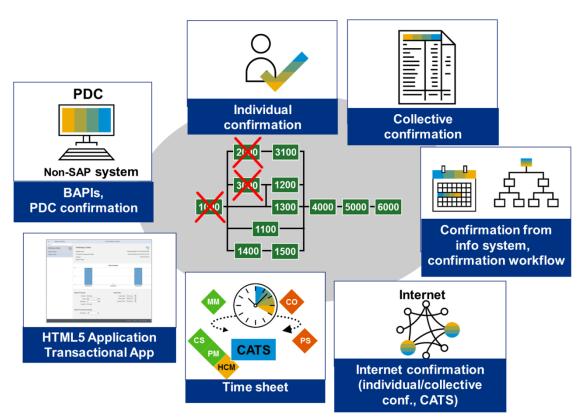
Click Cancel .

Ensure that ICMA planning is selected.

Click Save 🗏.

# **Confirmation Options**

During the execution phase of our project, we document completed internal services and update the progress of tasks. We can also use the cross-application timesheet to track time data.



**Confirmation Options** 

Confirmation helps document the progress of activities, allowing us to update the remaining work and estimate how the project will move forward. With confirmation, we can automatically record important business data, like actual dates, costs, labor, and, when necessary, update the status of an activity.

We can create confirmations in several ways:

Individually, for a network, activity, specific activity elements, or capacity splits.

Collectively, for multiple network activities.

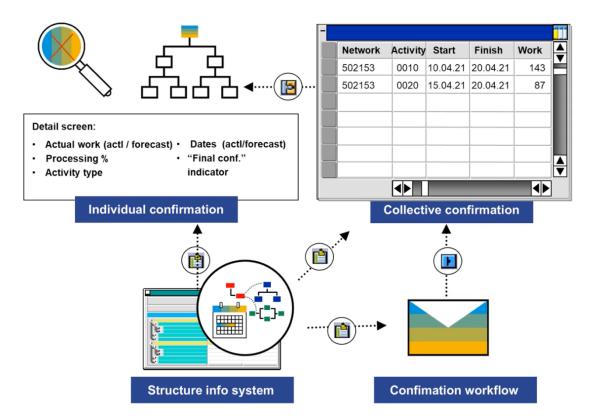
Using the Structure Information System, where we select activities and choose individual or collective confirmation. We can also send a confirmation workflow from the information system to another user or department.

Through the Cross-Application Time Sheet (CATS).

Online, by creating individual or collective confirmations or entering time data via CATS. Using the SAP Fiori app to record working time.

Via the PDC interface or using BAPI to import actual dates and work data from external systems.

#### **Individual and Collective Confirmation**



In individual confirmation, we can confirm a single activity or element by entering actual start and finish dates, or estimated finish dates and forecasted work details.

With collective confirmation, we can confirm multiple network activities, elements, and capacities at once. Here, actual costs, finish dates, forecasted finish dates, and forecasted work are entered in a table format.

Using the Structure Information System, we can:

Access individual or collective confirmation directly.

Store a confirmation pool to use later in collective confirmation or the Cross-Application Time Sheet (CATS).

Send a confirmation pool as a workflow to other users, who can access it directly from their inbox.

**Customizing Confirmation Settings** 

**Confirmation Parameters** 

Default Values: Set for final confirmation, posting materials, and auto-suggested dates and milestones.

Checks: Enable checks like future dates, work deviations, and duration deviations.

Workflow Log: Includes scheduling and order shifts.

Deviation: Track reasons for plan differences and link them to user status if needed.

Field Selection: Adjust modifiable fields and set influential fields based on factors like network type and profile.

For confirmation, final confirmation is auto-suggested, and future dates can be saved. In the confirmation parameters, you can:

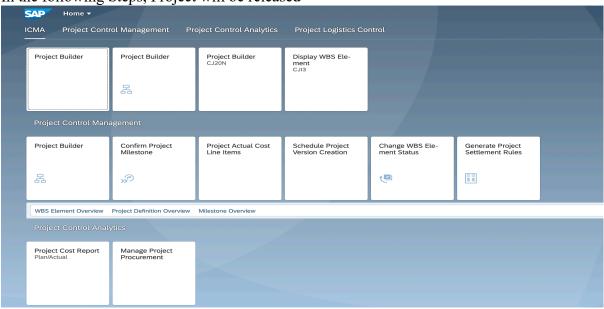
Decide if cost errors should be displayed.

Set acceptable percentages for work and duration variances.

When confirming, you can enter reasons for plan variances. In the customization settings, you can define deviation reasons and link them to user status as needed.

Field selection allows you to customize confirmation screens, showing only necessary fields and marking others as view-only.

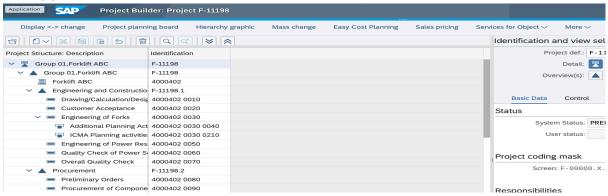
In this demonstration, you will see how to process confirmation In the following Steps, Project will be released



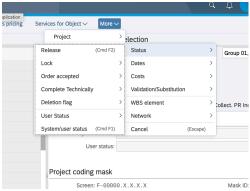
# Click Project Builder

Project Builder

#### F-11198 is double clicked

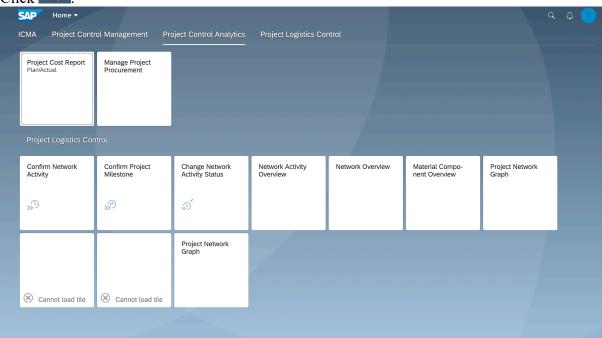


Click more Click Edit Click Status Click Release



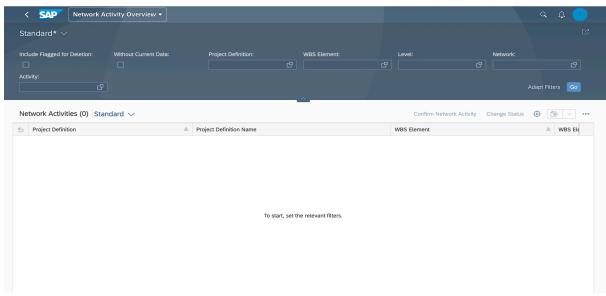
You can now see that the status is inherited by the lower-level WBS elements and activities.



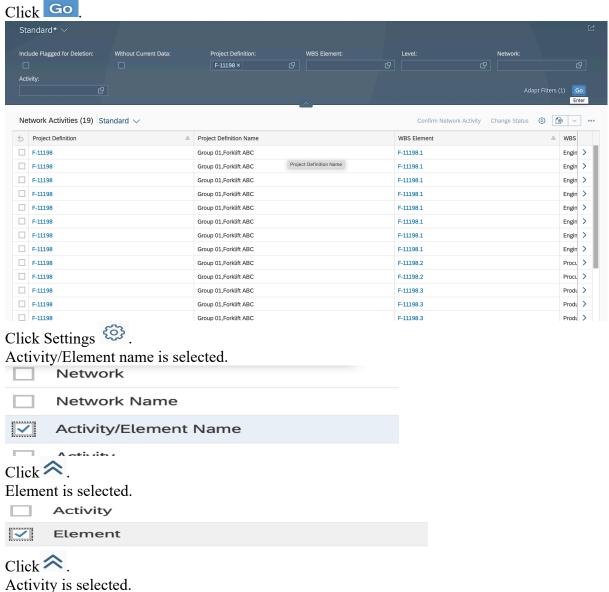


In the following steps, partial confirmation for the activity in the system will be recorded. Click Network Activity Overview

Network Activity Overview

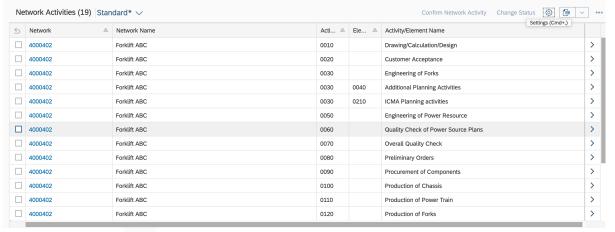


F-11198 is now entered in the Project Definition Box

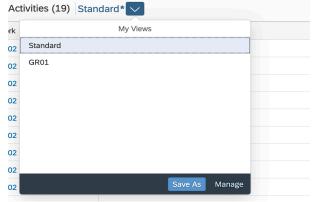








# Click Select View $\checkmark$ .



Ensure that standard is selected.

Click Save As

Click View.

Backspace is now pressed

ICMA is now entered in the view box.

Set as default is selected.

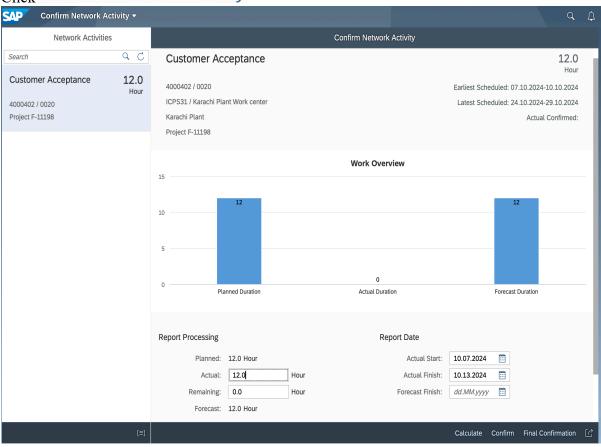


Click Save.

0020 is selected.



**Click Confirm Network Activity** 



Click Actual.

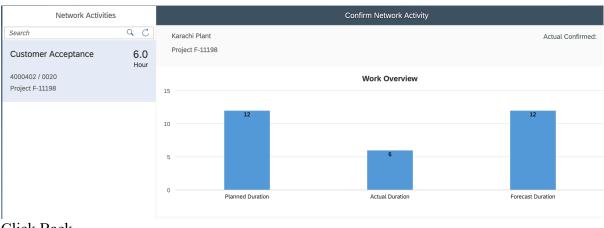
Backspace is now pressed.

6 is now entered in the Actual Box.

Click Calculate

Click Confirm.

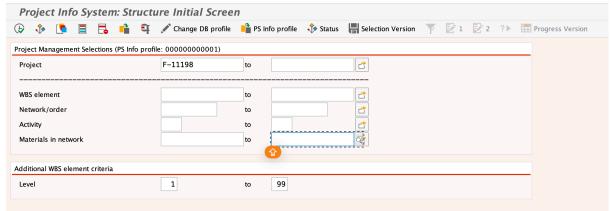
Click Confirm.



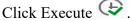
Click Back

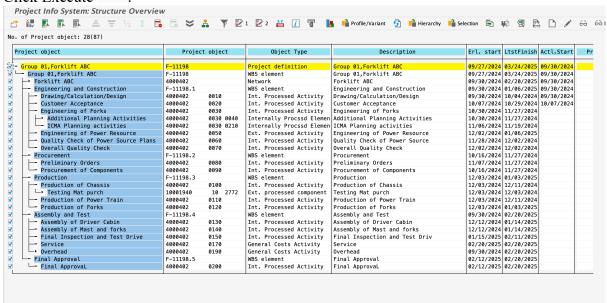
In the following steps, the project structure overview will be called, project will be selected and the report will be started.

#### Go to transaction CODE CN41



## F-11198 is now entered in the Project Definition Box.



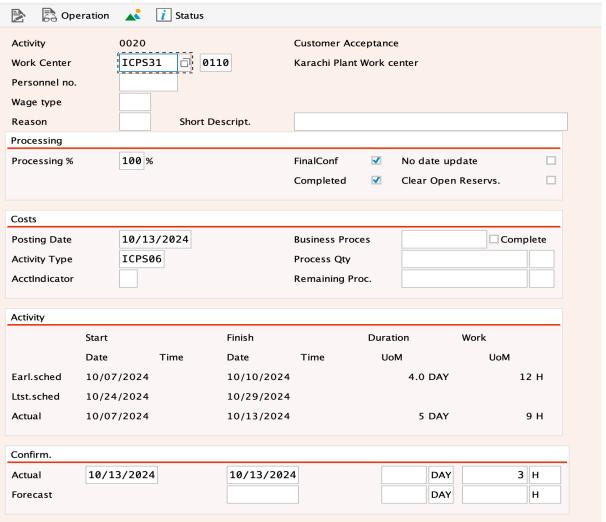


Click Deselect all

roject object		Description	Erl. start	LtstFinish	Actl.Start	Project cost sch 0	00	Actual costs	
Group 01,Forklift ABC	П	Group 01,Forklift ABC	09/27/2024	03/24/2025	09/30/2024	10,340.000	PKR	450.000	, ,
- Group 01,Forklift ABC		Group 01,Forklift ABC	09/27/2024	03/24/2025	09/30/2024	10,340.000	PKR	450.000	ا و
→ Forklift ABC		Forklift ABC	09/30/2024	02/20/2025	09/30/2024	0.000	PKR	0.000	9
Engineering and Construction		Engineering and Construction	09/30/2024	01/06/2025	09/30/2024	8,600.000	PKR	450.000	3
— Drawing/Calculation/Design	у	Drawing/Calculation/Design	09/30/2024	10/04/2024	09/30/2024	0.000	PKR	0.000	9
- Customer Acceptance	у	Customer Acceptance	10/07/2024	10/29/2024	10/07/2024	600.000	PKR	450.000	9
- Engineering of Forks	у	Engineering of Forks	10/30/2024	11/27/2024		7,000.000	PKR	0.000	9
→ Additional Planning Activities	men	Additional Planning Activities	10/30/2024	11/27/2024		0.000	PKR	0.000	,
☐ ICMA Planning activities	men	ICMA Planning activities	11/06/2024	11/19/2024		0.000	PKR	0.000	9
- Engineering of Power Resource	у	Engineering of Power Resource	12/02/2024	01/06/2025		1,000.000	PKR	0.000	9
- Quality Check of Power Source Plans	у	Quality Check of Power Source	11/28/2024	12/02/2024		0.000	PKR	0.000	j
- Overall Quality Check	у	Overall Quality Check	12/02/2024	12/02/2024		0.000	PKR	0.000	j
Procurement		Procurement	10/16/2024	11/27/2024		0.000	PKR	0.000	j
- Preliminary Orders	у	Preliminary Orders	11/07/2024	11/27/2024		0.000	PKR	0.000	9
- Procurement of Components	у	Procurement of Components	10/16/2024	11/27/2024		0.000	PKR	0.000	ė
Production		Production	12/03/2024	01/03/2025		1,500.000	PKR	0.000	و
- Production of Chassis	у	Production of Chassis	12/03/2024	12/11/2024		1,500.000	PKR	0.000	ė
→ Testing Mat purch	nt	Testing Mat purch	12/03/2024	12/03/2024		0.000	PKR	0.000	ė
- Production of Power Train	у	Production of Power Train	12/03/2024	12/11/2024		0.000	PKR	0.000	ė
- Production of Forks	у	Production of Forks	12/03/2024	01/03/2025		0.000	PKR	0.000	و
- Assembly and Test	1	Assembly and Test	09/30/2024	02/20/2025		240.000	PKR	0.000	3
- Assembly of Driver Cabin	у	Assembly of Driver Cabin	12/12/2024	01/14/2025		0.000	PKR	0.000	,
- Assembly of Mast and forks	y	Assembly of Mast and forks	12/12/2024	01/14/2025		0.000	PKR	0.000	,
- Final Inspection and Test Drive	y	Final Inspection and Test Driv	01/15/2025	02/11/2025		0.000	PKR	0.000	9
- Service	1	Service	02/20/2025	02/20/2025		40.000	PKR	0.000	,
→ Overhead		Overhead	09/30/2024	02/20/2025		200.000	PKR	0.000	3
- Final Approval		Final Approval	02/12/2025	02/20/2025		0.000	PKR	0.000	į
- Final ApprovaL	y	Final ApprovaL	02/12/2025	02/20/2025		0.000	PKR	0.000	9

Click Extras/environment. Click Confirm.

#### Click Individual confirmation.



You can now see the different fields shown on the enter network confirmation screen and dialog box.

Click Save 🔡 .

oject object		Description	Erl. start	LtstFinish	Actl.Start	Project cost sch 0	00	Actual cost
Group 01,Forklift ABC		Group 01,Forklift ABC	09/27/2024	03/24/2025	09/30/2024	10,340.000	PKR	450.0
Group 01,Forklift ABC		Group 01,Forklift ABC	09/27/2024	03/24/2025	09/30/2024	10,340.000	PKR	450.0
→ Forklift ABC		Forklift ABC		02/20/2025		0.000	PKR	0.0
Engineering and Construction		Engineering and Construction	09/30/2024	01/06/2025	09/30/2024	8,600.000	PKR	450.
Drawing/Calculation/Design	ty	Drawing/Calculation/Design	09/30/2024	10/04/2024	09/30/2024	0.000	PKR	0.
- Customer Acceptance	ty	Customer Acceptance	10/07/2024	10/29/2024	10/07/2024	600.000	PKR	450.
- Engineering of Forks	ty	Engineering of Forks	10/30/2024	11/27/2024		7,000.000	PKR	0.
→ Additional Planning Activities		Additional Planning Activities	10/30/2024	11/27/2024		0.000	PKR	0.
☐ ICMA Planning activities	emen	ICMA Planning activities	11/06/2024	11/19/2024		0.000	PKR	0.
- Engineering of Power Resource	ty	Engineering of Power Resource	12/02/2024	01/06/2025		1,000.000	PKR	0
- Quality Check of Power Source Plans	ty	Quality Check of Power Source	11/28/2024	12/02/2024		0.000	PKR	0
Overall Quality Check	ty	Overall Quality Check	12/02/2024	12/02/2024		0.000	PKR	0
Procurement		Procurement	10/16/2024	11/27/2024		0.000	PKR	0
- Preliminary Orders	ty	Preliminary Orders		11/27/2024		0.000	PKR	0
Procurement of Components	ty	Procurement of Components	10/16/2024	11/27/2024		0.000	PKR	0
Production		Production	12/03/2024	01/03/2025		1,500.000	PKR	0
- Production of Chassis	ty	Production of Chassis	12/03/2024	12/11/2024		1,500.000	PKR	0
Testing Mat purch     Testing Mat p	ent	Testing Mat purch	12/03/2024	12/03/2024		0.000	PKR	0
Production of Power Train	ty	Production of Power Train	12/03/2024	12/11/2024		0.000	PKR	0
- Production of Forks	ty	Production of Forks	12/03/2024	01/03/2025		0.000	PKR	0
Assembly and Test		Assembly and Test	09/30/2024	02/20/2025		240.000	PKR	0
- Assembly of Driver Cabin	ty	Assembly of Driver Cabin	12/12/2024	01/14/2025		0.000	PKR	0
Assembly of Mast and forks	ty	Assembly of Mast and forks	12/12/2024	01/14/2025		0.000	PKR	0
Final Inspection and Test Drive	ty	Final Inspection and Test Driv	01/15/2025	02/11/2025		0.000	PKR	0
—— Service	у	Service	02/20/2025	02/20/2025		40.000	PKR	0
→ Overhead	у	Overhead	09/30/2024	02/20/2025		200.000	PKR	0
Final Approval		Final Approval	02/12/2025	02/20/2025		0.000	PKR	0
- Final ApprovaL	ty	Final ApprovaL	02/12/2025	02/20/2025		0.000	PKR	0

Click Evaluation . Click Refresh .



You can now see the report Data after refreshing. Additional actual and actual costs are displayed on the basis of confirmation.

In the following steps, the activities will be selected and the function of collective information will be explained.

Click Deselect all

Quality Check of Power Source is selected.

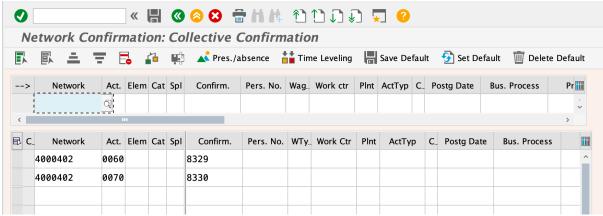
Overall Quality Check is selected.

					,,   ,,	
	─ <del>-</del> Engineering of Power Resource	0050	Ext. Processed Activity	Engineering of Power Resource	12/02/2024 01/06/2025	1,000
<b>√</b>	—— Quality Check of Power Source Plans	0060	Int. Processed Activity	Quality Check of Power Source	11/28/2024 12/02/2024	0
V	└─ Overall Quality Check	0070	Int. Processed Activity	Overall Quality Check	12/02/2024 12/02/2024	0
-			and the second s	_		

Click Extras and environment.

Click Confirm.

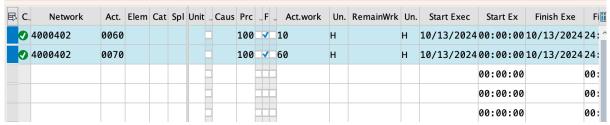
Click Collective confirmation.



You can now see the different fields shown on the network confirmation: Collective Confirmation screen.



Clicking in the scroll area displays the desired area.



0060 is cleared. 0070 is cleared.

₽ C	Network	Act.	Elem	Cat	Spl	Unit	Caus	Prc	F	 Act.work	Un.	RemainWrk	Un.	Start
	4000402	0060						100		10	н		н	10/13
	4000402	0070						100		60	н		н	10/13

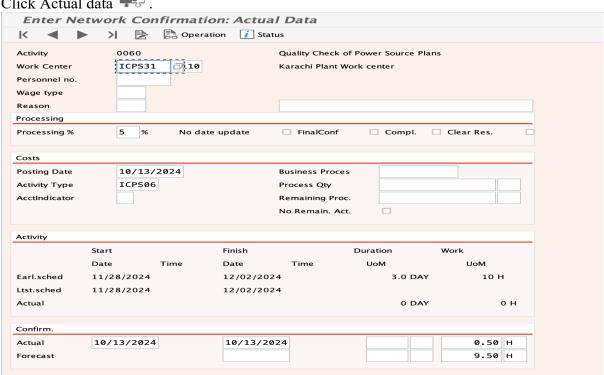
#### Click Prc.

Backspace is now pressed.

Maintain valus in PRC.



Click Actual data

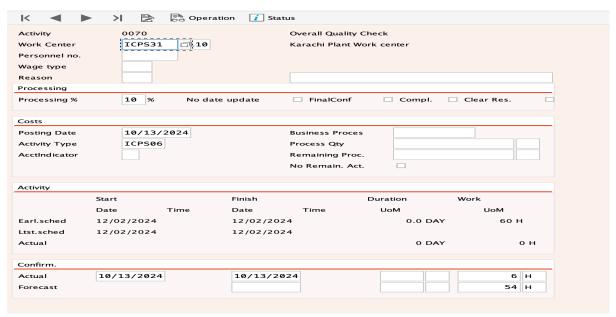


Click Actual.

Select Date 10/10/2024.

Enter is pressed.

Click Next Operation.



Click Actual Select Date 10/10/2024. Click Save.

## Click Evaluation . Click Refresh .

oject object	Description	Erl. start	LtstFinish	Actl.Start	Project cost sch 0	00	Actual costs	
Group 01,Forklift ABC	,Forklift ABC		03/24/2025		10,340.000	PKR	925.000	
Group 01,Forklift ABC	,Forklift ABC		03/24/2025		10,340.000	PKR	925.000	
→ Forklift ABC	ABC		02/20/2025		0.000	PKR	0.000	
Engineering and Construction	ing and Construction		01/06/2025		8,600.000	PKR	925.000	
── Drawing/Calculation/Design	Calculation/Design		10/04/2024		0.000	PKR	0.000	
- Customer Acceptance	Acceptance	10/07/2024	10/29/2024	10/07/2024	600.000	PKR	600.000	PKR
- Engineering of Forks	ing of Forks		11/27/2024		7,000.000	PKR	0.000	
→ Additional Planning Activities	al Planning Activities	10/30/2024	11/27/2024		0.000	PKR	0.000	PKR
└─ ICMA Planning activities	nning activities	11/06/2024	11/19/2024		0.000	PKR	0.000	PKR
- Engineering of Power Resource	ing of Power Resource	12/02/2024	01/06/2025		1,000.000	PKR	0.000	PKR
— Quality Check of Power Source Plans	Check of Power Source	11/28/2024	12/02/2024	10/10/2024	0.000	PKR	25.000	PKR
Overall Quality Check	Quality Check	12/02/2024	12/02/2024	10/10/2024	0.000	PKR	300.000	PKR
Procurement	ent	10/16/2024	11/27/2024		0.000	PKR	0.000	PKR
- Preliminary Orders	ary Orders	11/07/2024	11/27/2024		0.000	PKR	0.000	PKR
Procurement of Components	ent of Components	10/16/2024	11/27/2024		0.000	PKR	0.000	PKR
Production	on	12/03/2024	01/03/2025		1,500.000	PKR	0.000	PKR
- Production of Chassis	on of Chassis	12/03/2024	12/11/2024		1,500.000	PKR	0.000	PKR
Testing Mat purch     Testing Mat p	Mat purch	12/03/2024	12/03/2024		0.000	PKR	0.000	PKR
- Production of Power Train	on of Power Train	12/03/2024	12/11/2024		0.000	PKR	0.000	PKR
- Production of Forks	on of Forks	12/03/2024	01/03/2025		0.000	PKR	0.000	PKR
- Assembly and Test	and Test	09/30/2024	02/20/2025		240.000	PKR	0.000	PKR
- Assembly of Driver Cabin	of Driver Cabin	12/12/2024	01/14/2025		0.000	PKR	0.000	PKR
- Assembly of Mast and forks	of Mast and forks	12/12/2024	01/14/2025		0.000	PKR	0.000	PKR
- Final Inspection and Test Drive	spection and Test Driv	01/15/2025	02/11/2025		0.000	PKR	0.000	PKR
- Service		02/20/2025	02/20/2025		40.000	PKR	0.000	PKR
→ Overhead		09/30/2024	02/20/2025		200.000	PKR	0.000	PKR
- Final Approval	proval	02/12/2025	02/20/2025		0.000	PKR	0.000	PKR
- Final ApprovaL	provaL	02/12/2025	02/20/2025		0.000	PKR	0.000	PKR

You can now see the report data after refreshing. Additional actual dates and actual costs are displayed on the basis of the confirmation.

In the following steps, confirmation pool for the selected activities will be created.

Click Extras/environment.

Click Confirm.

Create Confirmation Pool.

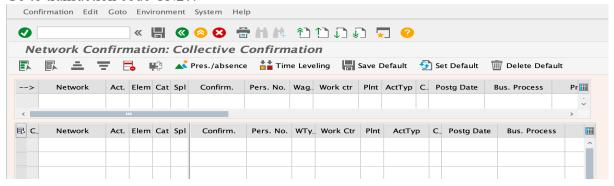
CONF POOL 00 is now entered in the confirmation Pool box.

Confirmation Pool F-13000 is now entered in the Description Box.

Click Continue.

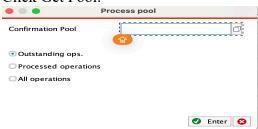
In the following steps, the structure overview will be closed, the collective confirmation transaction will be called again and the access to the confirmation pool will be demonstrated Click Back.

Go to transaction code CN27.

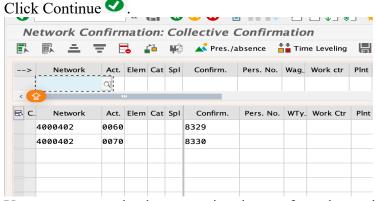


#### Click Confirmation.

#### Click Get Pool.



CONF POOL 00 is now entered in the confirmation pool box.

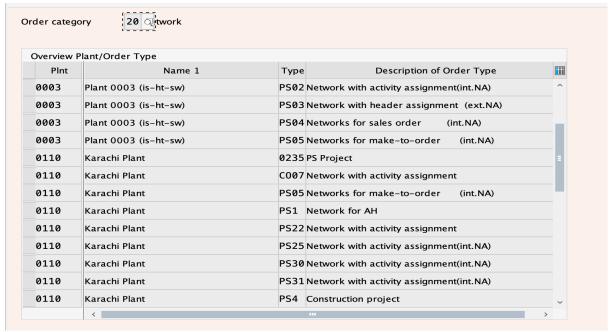


You can now see the demonstration that are from the pool.

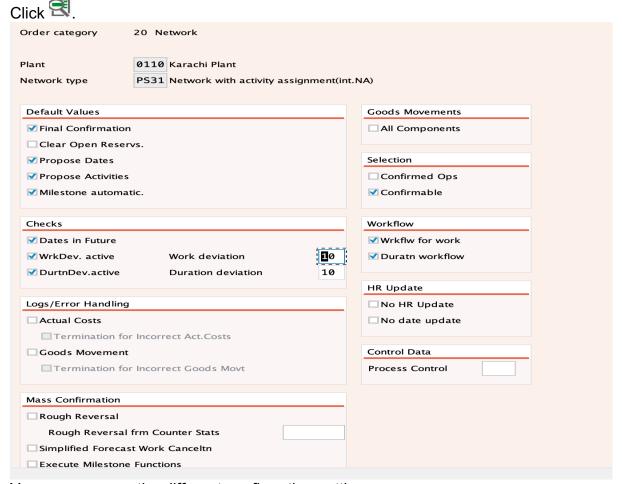
#### Click Back.

In the following steps, all profile and setting for the confirmation customizing graphic will be demonstrated.

Go to SPRO→ProjectSystem→ Confirmation→ Define Confirmation Parameters



# Select PS31

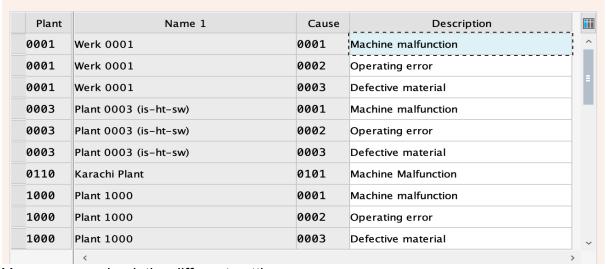


You can now see the different confirmation settings.

Click Back .

Click Back .

Go to SPRO→ProjectSystem→ Confirmation→ Define Causes for Variances

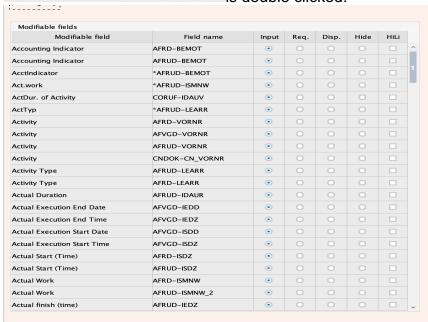


You can now check the different settings.

Click Back .

Go to SPRO→ProjectSystem→ Confirmation→ Define Field Selection for Confirmation

Network confirmation: Lists and Details is double clicked.



You can now check the different settings.

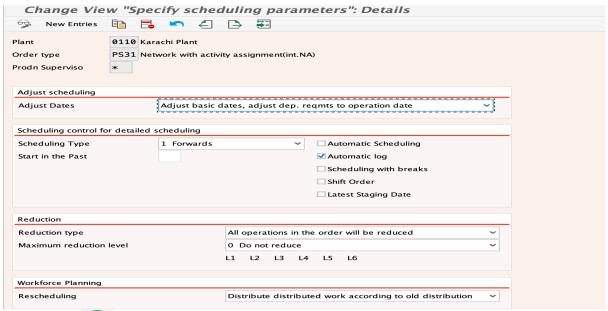
Click Back <a></a>.

Click Back .

Go to SPRO→ProjectSystem→ Dates → Scheduling→Specify Parameters for Network Scheduling

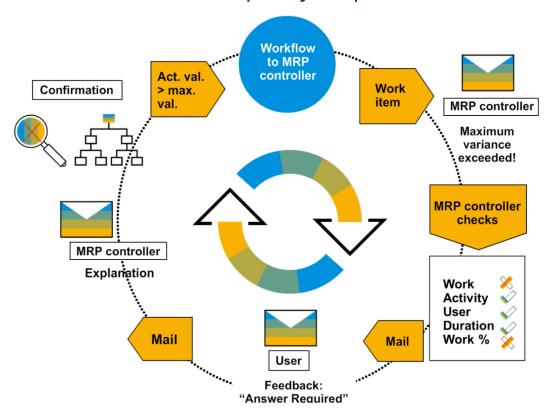
Click PS31

Click 3.



You have now seen how to process confirmation.

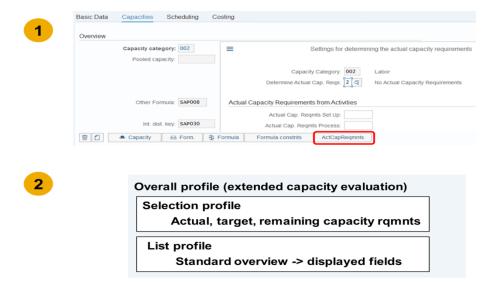
# Variances and Actual Capacity Requirements



If the confirmed work duration or amount exceeds the allowed deviation limits set in the system, a workflow can automatically notify MRP controllers. They will receive a message in their inbox, allowing them to review the confirmation details. From this message, they can respond via email directly to the person who entered the confirmation.

## **Actual Capacity Requirements**

Starting from release 4.5A, you can view actual capacity requirements directly from the confirmation. In the extended capacity planning, you can compare planned with actual capacity requirements and see the remaining capacity. To enable this, activate actual capacity requirements in the work center's capacity detail screen and in the extended capacity evaluation.



In this demonstration, you will see how to trigger a workflow for variances.

In the following steps, the confirmation parameters for the plant and the network type will be changed along the settings.

Go to SPRO→ProjectSystem→ Confirmation → Define Confirmation Parameters Click PS31.

Click 3.

Order category 20 Network	
Plant  0110 Karachi Plant  Network type  PS31 Network with activity assignment	(int.NA)
Default Values	Goods Movements
✓ Final Confirmation	☐ All Components
□ Clear Open Reservs.	
✓ Propose Dates	Selection
✓ Propose Activities	☐ Confirmed Ops
✓ Milestone automatic.	✓ Confirmable
Checks	Workflow
☑ Dates in Future	✓ Wrkflw for work
✓ WrkDev. active Work deviation 10	☑ Duratn workflow
✓ DurtnDev.active Duration deviation 10	
	HR Update
Logs/Error Handling	□ No HR Update
☐ Actual Costs	□ No date update
☐ Termination for Incorrect Act.Costs	
☐ Goods Movement	Control Data
■Termination for Incorrect Goods Movt	Process Control
Mass Confirmation	
Rough Reversal	
Rough Reversal frm Counter Stats	
Simplified Forecast Work Canceltn	

Final Confirmation is cleared.

Ensure that the following are selected

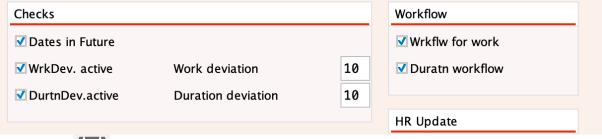
Wrkdev.active

DurtnDev.active

Workflow for work

Duratn workflow

Ensure that 10 is entered in the work deviation field and duration deviation field.



Click Save 📙.

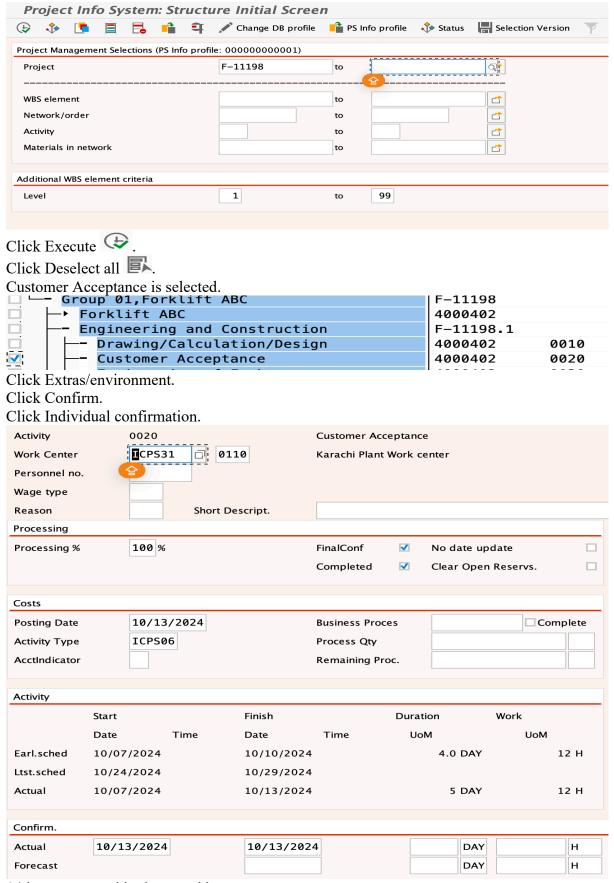
Click Back .

Click Back .

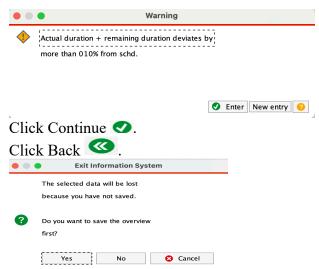
In the following steps, the individual confirmation for the activity in a project in the structure information system will be called and messages will be explained

Go to transaction code CN41

Ensure that F-11198 is entered in the project field.



14 is now entered in the actual box.



Click Yes.

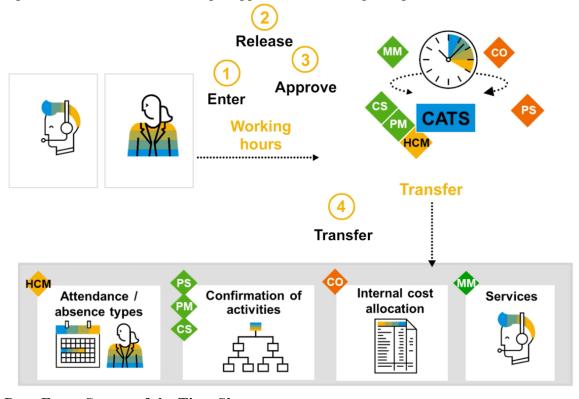
In the following steps, the work item in the inbox for the user that has been generated due to confirmation will be demonstrated.

Workflow Configuration Pending

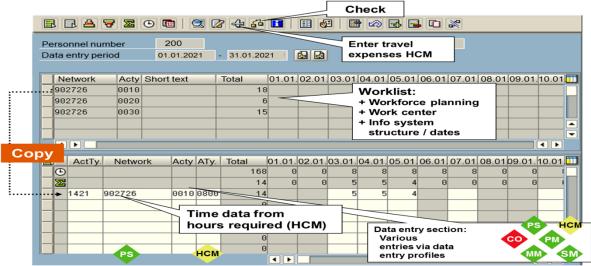
# Cross Application Time Sheet(CATS)

The Cross-Application Time Sheet (CATS) is a tool that helps record actual work hours across different SAP modules like HR, Project System, Plant Maintenance, Service Management, Controlling, and Materials Management. You can set up and customize CATS using data entry profiles to control how adjustments are entered, tracked, and approved. With

different settings, you can decide how time entries are handled, released, and shared with other applications. Since multiple applications may need this data simultaneously, it allows you to transfer data to various areas at once. Starting from SAP version 4.6, you can use a report to send time data to multiple applications in a single step.



### **Data Entry Screen of the Time Sheet**



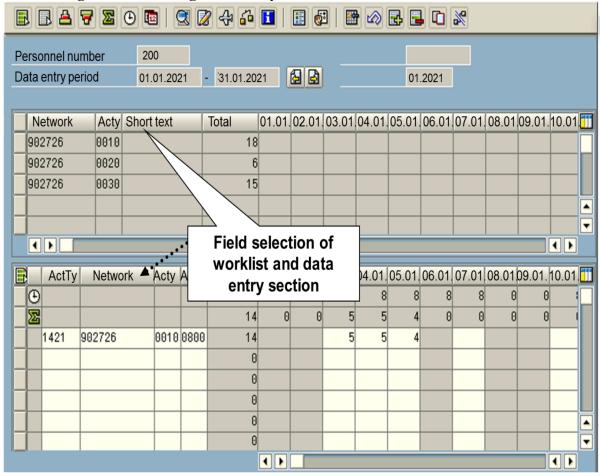
In CATS, time data can be entered for one or multiple people, with flexible screen setups based on employee groups (using data entry profiles) or custom settings (using table control). Worklists simplify time entry by providing employees with pre-filled templates, like account assignment details, for quicker data entry. The worklist is generated from the following sources:

Activities assigned to employees through work centers or workforce planning (relevant to Project Systems, Plant Maintenance, and Service Management).

Tasks needing confirmation from specific pools.

Objects the employee is working on, sourced from the CATS database. Additional objects, modified via BAdIs (Business Add-Ins).

# **Customizing for CATS using Data Entry Profiles**



Data entry profiles for CATS components are managed in the customizing settings. The data entry profile defines how time is entered (through selected fields for the receiver) and where the activity data is sent. For example, it decides if entered time is automatically released upon saving and if approval is needed.

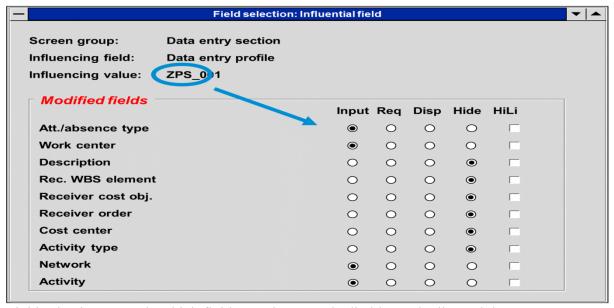
Types of Worklist Sources:

Workforce planning

Assigned work centers

Pool for confirmation information system

**CATS Field Selection** 

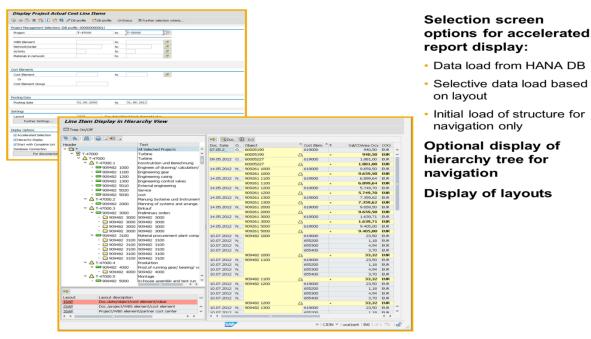


Field selection controls which fields are shown and editable on the list and data entry screens, managed through the data entry profile.

To keep it user-friendly, include only essential fields and ensure all relevant receivers for activities are displayed. For example, if an employee works for both a network and a receiver cost center, both options should be available in the field selection.

#### Accelerated Reporting with SAP HANA — Line Item Reporting

With SAP HANA as the new in-memory database, enhanced reporting options are now available for SAP Project System. The new line item reports use SAP HANA's column storage to import only the needed columns for faster performance. For example, if cost element isn't part of your layout, it won't be imported, and all line items will be summarized. Generally, any unselected fields are automatically summarized.



New Line Item Reporting

In the initial screens of transactions CJI3N (Actual Costs for Project Line Items) and CJI4N (Planned Costs for Project Line Items), new options are available in the Display settings.

With accelerated selection, the report uses optimized logic, loading only the columns needed for the current layout. Cost rates are read from the SAP HANA database, as configured in Customizing, while object selection still uses the ERP database.

With Hierarchy display, a tree structure shows the hierarchy of selected objects beside the output list.

# Reporting with SAP HANA: Large Hierarchies

For large hierarchies, it's recommended to first navigate the tree structure without loading all line items immediately.

The results screen has three parts with various navigation options:

Double-click a node to view line items for just that selection.

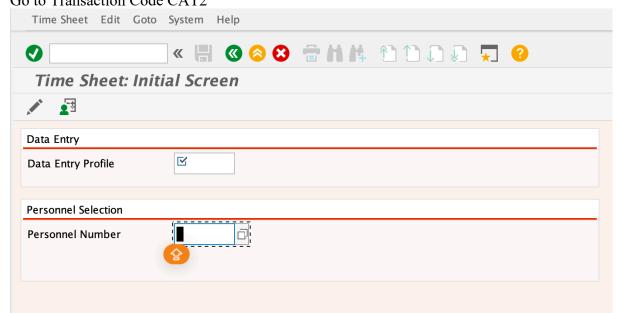
Click a node to select all objects within it, which automatically refreshes the line item display.

You can also show or hide the entire tree as needed.

Different layouts can be chosen by selecting their names, which re-filters line items on the SAP HANA database according to the chosen columns.

The line item display provides standard options like navigating to original documents, accounting documents, or master records. If you adjust the layout (e.g., by adding a column), the system fetches this column from SAP HANA, and the display updates accordingly. This also happens if you switch to a different layout manually.

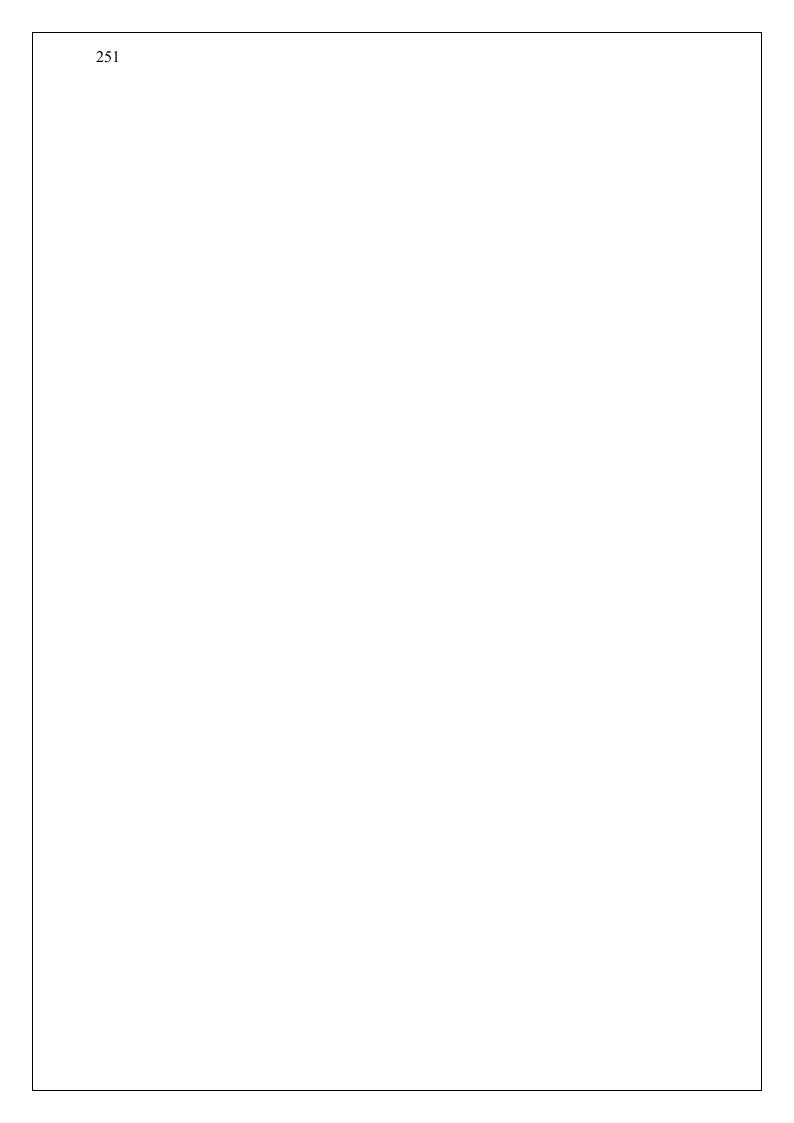
In this demonstration, you will see how to confirm network activities using CATS. In the following steps, the work time recording with CATS classic(CAT2) will be called up, the time data entry will be started and the structure of CATS functions will be explained. Go to Transaction Code CAT2



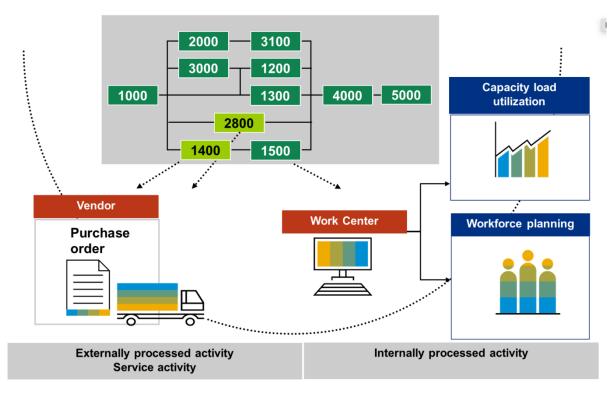
ZPS\_001 is now entered in the Data Entry Profile box. 90000026 is now entered in the Personnel Number.

Click Enter Times ...

Pending because of HRConfiguration



# Internal and External Resource planning



In project planning, we use activities to determine the resources needed. The project system defines these key resource types:

Internal Resources: These are tasks performed by the company's own machines or personnel. You can assess the workload on the involved work center, schedule resources accordingly, and assign tasks to employees.

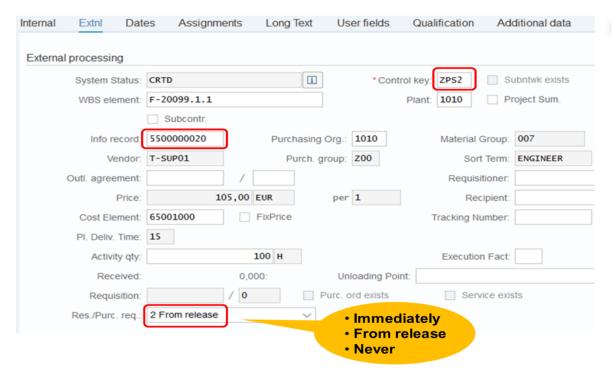
External Resources: These refer to services provided by outside companies. The purchasing department handles all external work procurement.

Service Activities: Similar to external resources, these are services from third parties. However, with service activities, you can outline service specifications and set a cost limit for any unexpected services. The purchasing department also manages the procurement, entry, and acceptance of these services.

#### **External Activity Detail screen**

In the external activity detail screen, information such as price per unit is drawn from a purchasing info record. Once this data is referenced, no further changes can be made to it in the activity.

When we use externally processed activities, service activities, or materials that require external procurement, a purchase requisition is triggered. Depending on the SAP Project System's setup, a separate purchase requisition may be generated for each item or network. For a project, you can introduce a project-specific purchase requisition collective indicator. These are custom, user-defined codes not pre-configured in SAP PS. They can be assigned to specific external activities, service activities, or required materials.



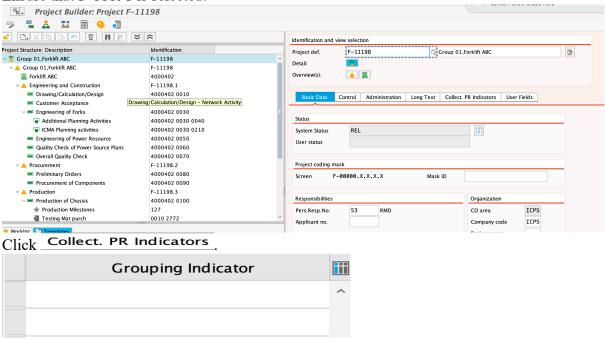
With the Purchase Requisition Grouping Indicator, you can group multiple external processing activities, service activities, or material components into a single purchase requisition within a network. Additionally, you can use multiple networks to group various services and materials into one purchase requisition.

You plan external procurement of services for our forklift project with the help of appropriate externally processed activities.

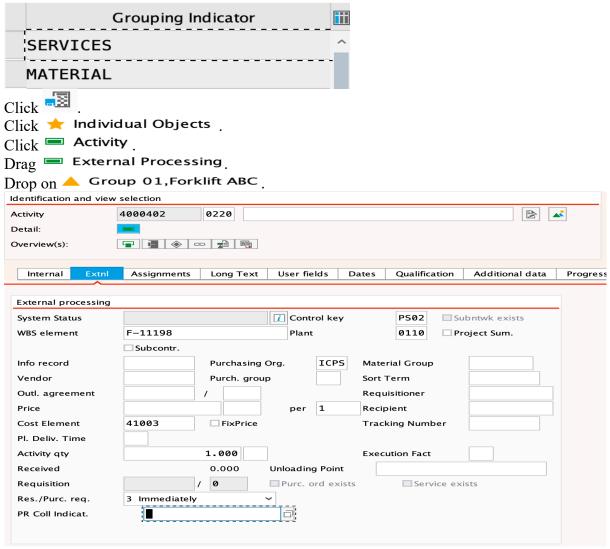
Enter Transaction CJ20N

F-11198 is double clicked.

Ensure that F-11198 is selected.



Enter Services in the grouping indicator box. Enter Material in the grouping indicator box.



You can now see that new activity have been create.

Enter External appraisal in the third Activity box.

Ensure that ICPS is entered in Purchasing org. Field.

Enter ICP in the Purch.group box.

Ensure that ZSERV is entered in the material group field.

Enter 8000000001 in the vendor Box.

Enter 5000 in the price box.

Enter 5 in the PI. Deliv. Time box.

Enter 12 in the Activity Quantity box.

Ensure that H is entered in the second activity qty field and Immediately is selected in the Res./req field.

Enter services in the PR Coll indicator Box.

#### Identification and view selection 4000402 0220 **>** Activity External appraisal Detail: Overview(s): Extnl User fields Dates Qualification Additional data Internal Assignments Long Text **Progre** External processing System Status i Control key PS02 Subntwk exists WBS element F-11198 Plant 0110 Project Sum. ☐ Subcontr. **ICPS ZSERV** Info record Purchasing Org. Material Group ICP Vendor 800000001 Purch. group Sort Term Outl. agreement Requisitioner Price 5000 PKR 1 Recipient per Cost Element 41003 ☐ FixPrice Tracking Number Pl. Deliv. Time Activity qty 12 H **Execution Fact** Received 0.000 **Unloading Point** 0 Requisition Purc. ord exists Service exists Res./Purc. req. 3 Immediately PR Coll Indicat. SERVICES

Confirm your entry by pressing the enter key.

Requisition	# 1 / 10	Pur
Res./Purc. req.	3 Immediately	~
PR Coll Indicat.	SERVICES	

You can now see a temporary number for the purchase requisition.

Drag = External Processing.

Drop on A Final Approval.

Enter Ext. acceptance of services performed in the third activity box.

You can now see that new activity have been create.

Enter External appraisal in the third Activity box.

Ensure that ICPS is entered in Purchasing org. Field.

Enter ICP in the Purch.group box.

Ensure that ZSERV is entered in the material group field.

Enter 8000000001 in the vendor Box.

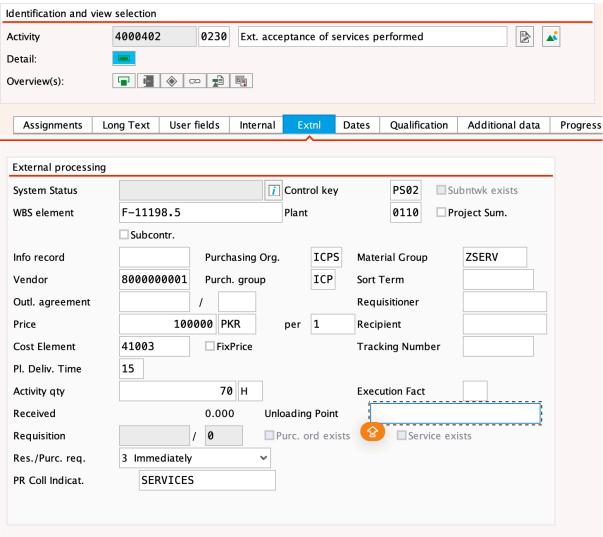
Enter 100000 in the price box.

Enter 15 in the PI. Deliv. Time box.

Enter 70 in the Activity Quantity box.

Ensure that H is entered in the second activity qty field and Immediately is selected in the Res./req field.

Enter services in the PR Coll indicator Box.



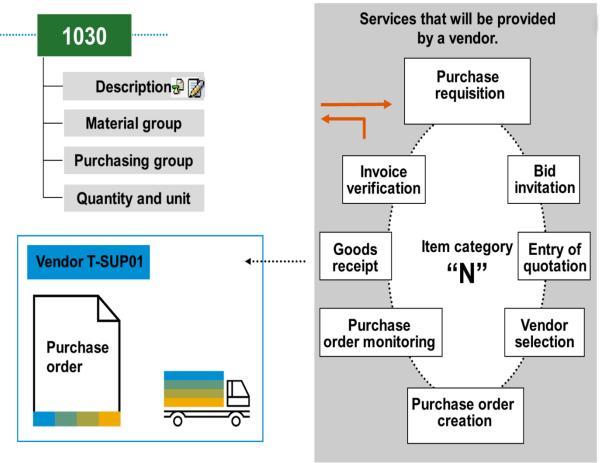
Confirm your entry by pressing the enter key.

## Click .

Note that when you save the entries, the purchase requisition are generated for the two externally processed activities.



#### **Procurement and External Services**



For externally sourced services, such as hiring a design office to develop a machine, you can create external activities and specify activity elements. When you set up an external activity in SAP, a **purchase requisition** is automatically generated and sent to the purchasing department for further processing.

While setting up the activity, you can access purchasing data, like prices and delivery times, from a **purchasing info record**.

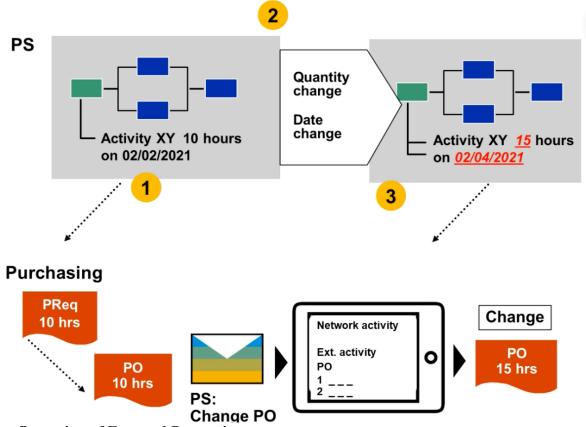
Through the project system, you can generate a **purchase requisition** for an externally processed activity, which is later converted to a **purchase order** by purchasing. Once the purchase order is created, you can post a **goods receipt** and **invoice receipt**. Depending on whether the valuation occurs at goods receipt or invoice receipt, you record the costs of the external service using the respective transaction.

The **control key** determines that the activity is externally processed. You may also assign a **work center** and **planned work** to the activity, enabling you to manage capacity planning for your vendors.

## **Purchase Order Quantity and Date Change**

If changes are made to network dates, material quantities, or external activities after a purchase order (PO) is created, a workflow can be automatically triggered. To enable this, workflow for PO changes must be activated in the network type settings.

The responsible purchasing person will then receive a work item via SAP Office, informing them of the required changes. They can update the purchase order directly from the notification.



### **Configuration of External Processing**

In the network profile settings, you can set default values for externally processed activities. These include **control key**, **cost elements**, **currency**, **purchasing organization**, **material group**, **purchasing group**, and **order unit**.

Project System ⇒ structures ⇒ operative structures ⇒ network ⇒ Settings for Networks

Parameters for network type:

Collective/individual PReq Workflow purchase order change

### Network profile:

Control key, currency, purchasing organization, material group Purchasing group, purchase order unit, cost element

Project System ⇒ structures ⇒ operative structures ⇒ network ⇒ Settings for Networks

Account assignment categories and document type for purchase requisition:

General "F", account assignment in order

You procure services for your forklift project via the purchasing Department.

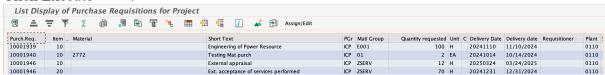
In this exercise, you will procure external services.

## Go to Transaction Code ME5J.

List Display of Purchase Requisitions for Project							
😥 🧮 🎤 Change DB profile 📫 Other DB profile 🚸 Status							
Project Management Selections (Other D8 profile: 00000000001)							
Project	8	<u>a</u>		<u></u>			
WBS element		to		<b></b>			
Network/order		to		<u></u>			
Activity		to		<b>d</b>			
Additional WBS element criteria							
Level	1	to	99				
Additional criteria for purchase requisitions	s						
Purchase requisition		to		<u></u>			
Material		to		<u></u>			
Material group		to		<u></u>			
Purchasing group	ICP	to		<u></u>			
Plant	0110	to		<u></u>			
Document type		to		<u></u>			
Item category		to		<u></u>			
Account assignment category		to		<u></u>			
Delivery date							
		to		<b>♂</b>			
Release date		to					
Release date MRP controller							
		to		<u>♂</u>			
MRP controller		to to		<u> </u>			
MRP controller Processing status		to to to					
MRP controller Processing status Fixed vendor		to to to					

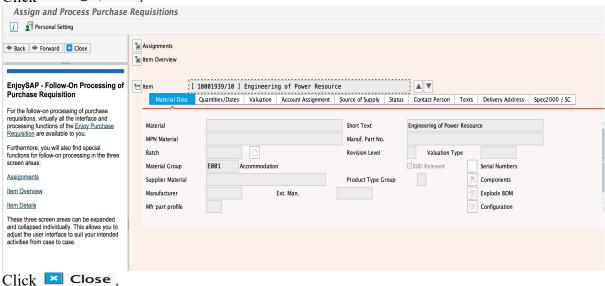
Ensure that F-11198 is entered in the Project field.

## Click Execute 😂.

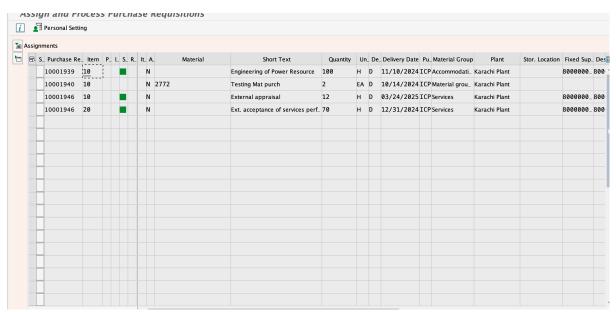


You can now see an overview of all purchase requisition for the project.

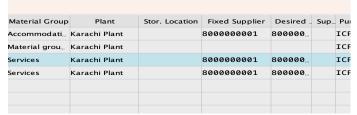
#### Click Assign/Edit



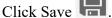
Click Litem Overview

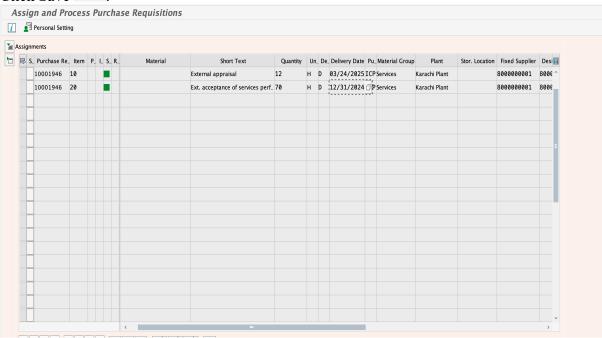


## Click External Appraisal.



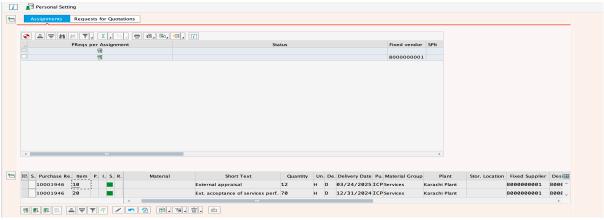
You can now check the vendor. Click Assign Source of Supply.



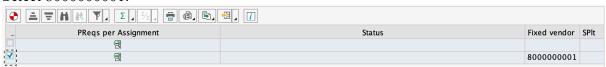


In the following steps, we will create a purchase order for the project.

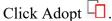
Click Assignments

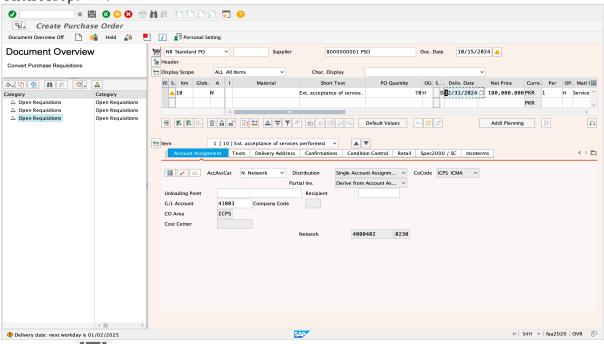


#### Select 800000001.



Click Generate Purchase order •.





Click Save

Standard PO created under the number 4500001954

Note the PO number.

Click Back .

Click Back .

Click Exit 🥯 .

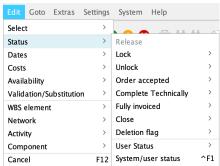
In the following steps, you will Check the status of activities performed in the project builder. Go to transaction code CJ20N.

F-11198 is double clicked.

Click = External appraisal

Click Edit.

#### Click Status.

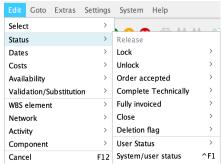


Note that since you already released the project in a previous exercise, the status may have been inherited.

Click Ext. acceptance of services performed.

Click Edit.

Click Status.

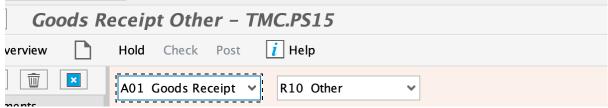


Note that since you already released the project in a previous exercise, the status may have been inherited.

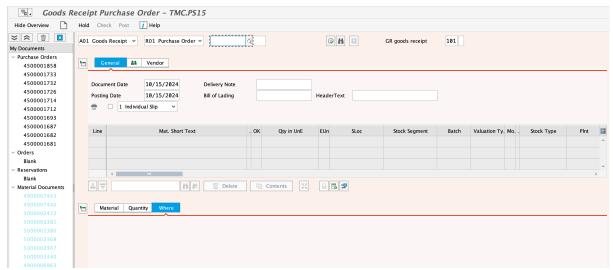


In the following steps, you will enter a goods receipt as a follow-0n function for the purchase order.

Go to transaction code MIGO.

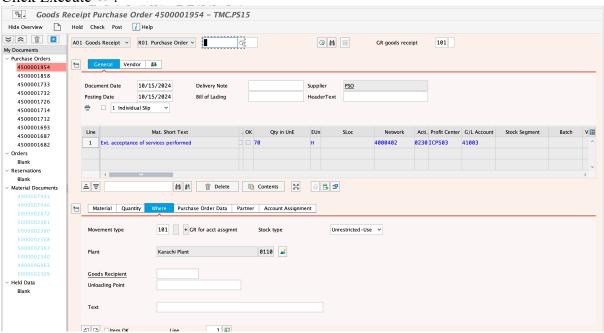


Ensure that A01 Goods receipt is selected in the Trans./Event field and purchase order is selected in the Reference Document field.

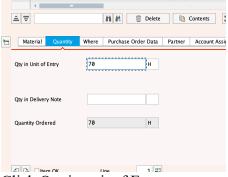


Enter 4500001954 in the Purchase order Box.

Click Execute .



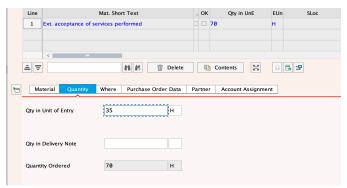
#### Click Quantity.



Click Qty in unit of Entry.

Please press Backspace.

Enter 35 in the Qty in unit of Entry box.



Note that you can only maintain data on item or on detail level, not on both if one item is detailed view, the data has to be maintained at the bottom. If the detailed view is closed data can be maintained in the item list.





Click A01 Goods Receipt Select A04 Display

Enter 5000002523 in the Material Document Box.

Click Execute Click Doc. info

Click III FI Documents

## **Documents in Accounting**

Document Object type text

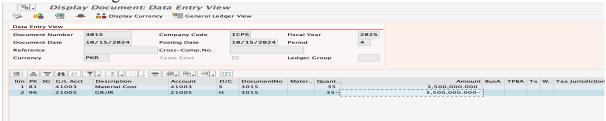
\[ \bar{0}\bar{0}\bar{0}\bar{0}\bar{0}\bar{0}\bar{3}\bar{0}\bar{1}\bar{5} \]

Accounting document

0000000222 Profit center doc.

A0001FQU00 Controlling Document

Select Accounting document.



You can see accounting document which was generated during Good Reciept.

In the following steps, you will analyze the POs for the project using the purchase order for project report in the information system of the project system.

Go to Transaction Code ME2J.

Ensure that F-11198 is entered in the project field.

Enter BEST in the scope of list box.

Click Execute .



You can now see the purchase order with one items and the quantities still to be delivered.

Click .

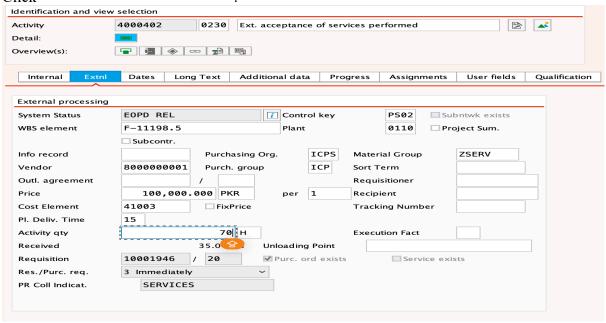
Click .

In the Following steps, you will trigger the workflow for network changes when purchase orders already exist.

Go to transaction code CJ20N.

Project F-11998 is double clicked.

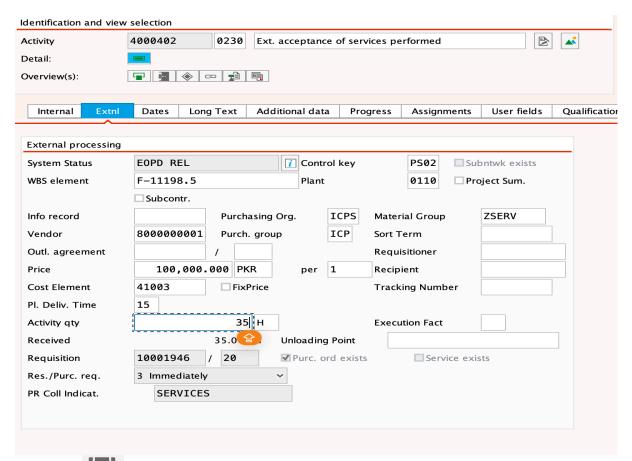
Click Ext. acceptance of services performed

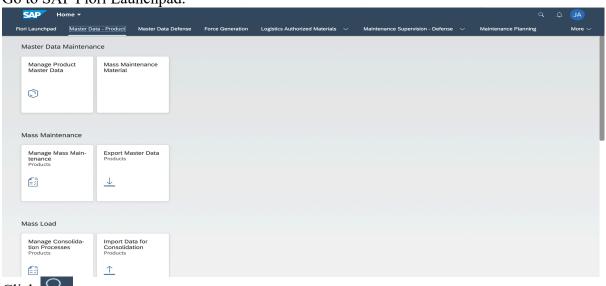


Click Activity qty.

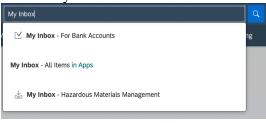
Please press Backspace.

Enter 35 in the Activity qty box.

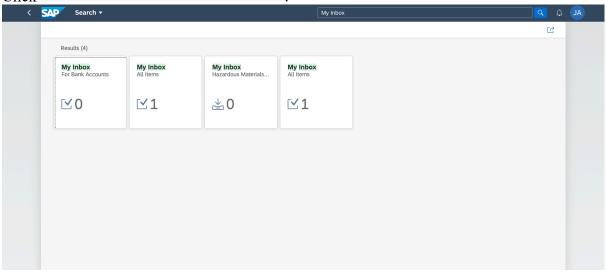




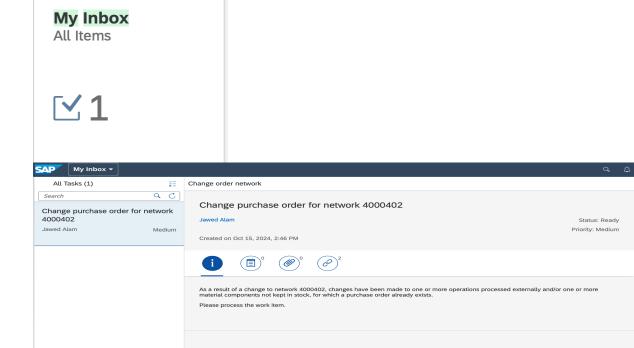
Search My Inbox.



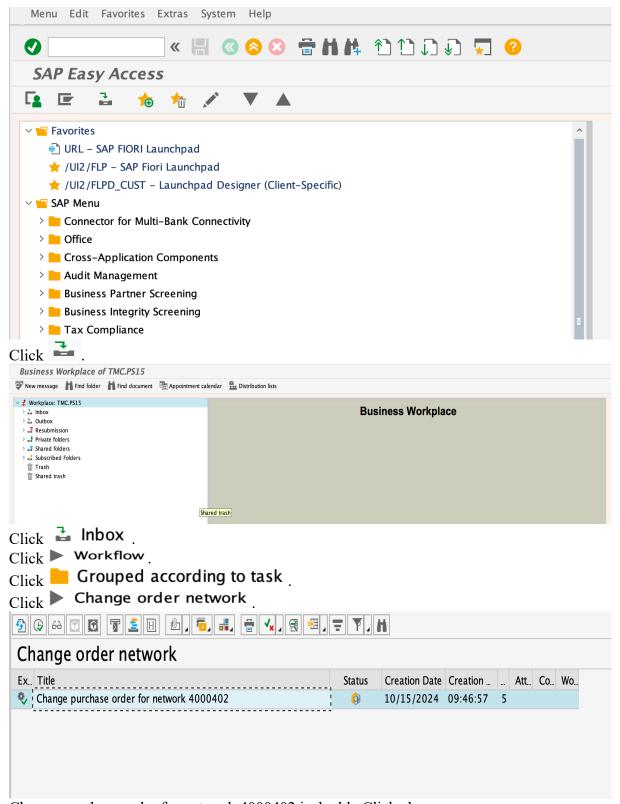
## Click My Inbox - All Items in Apps



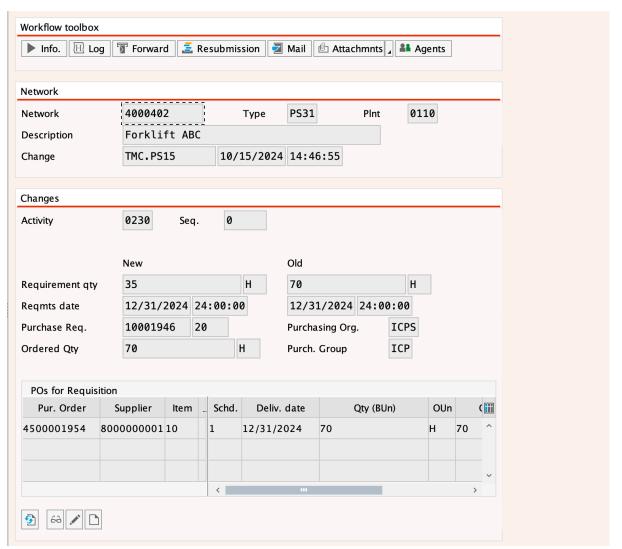
## Click.



You can access My Inbox From SAP GUI. Go to SAP Easy Access.

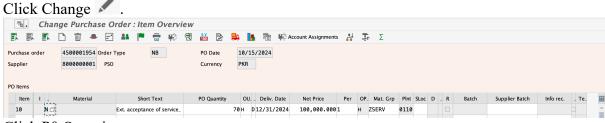


Change purchase order for network 4000402 is double Clicked.



You can now check the data.

Click 4500001954.



Click P0 Quantity.

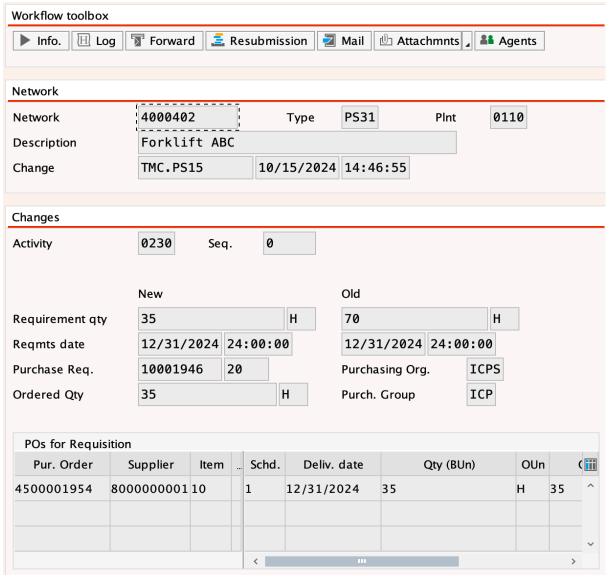
Please press Backspace.

Enter 35 in the PO Quantity box.

Click Save

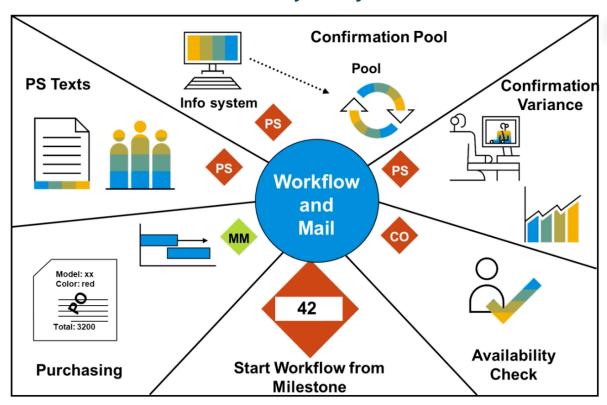
Standard PO 4500001954 changed





Quantity Updated.

# Workflows and Mails in Project System



SAP Business Workflow combines technical tools and information to automate and manage cross-application processes. In the Project System (PS), workflows help automate and integrate all project-related processes, utilizing SAP Office for various purposes:

### Non-workflow messages:

To send PS text

For budget deficit alerts

## Workflow processes (Standard tasks, predefined):

For purchase order changes in the purchasing process

For handling variances and confirmations

For sending a pool of confirmations

For milestone tasks with user-defined or standard tasks

## Claim management and correspondence workflows introduced in R/3 Release 4.6 include:

Close Claim (TS20000749)

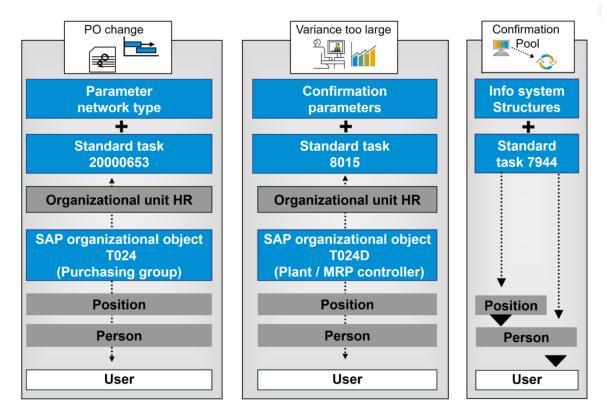
Edit Claim (TS20000750)

Approve Claim (TS20000751)

Edit New Claim (TS20000754)

Approve Claim (TS20000907)

## **Settings for Workflow**



SAP provides the following standard workflow tasks within the Project System:

#### **Enter Actual Data (Standard Task TS00007944):**

You can create a work item for confirmation, and send it to various recipients, like a user or work center, through a pool of confirmations.

### Purchase Order Change (Standard Task TS20000653):

If you change dates or quantities of materials in a network with external activities after a purchase order is created, the system automatically generates a work item.

The purchasing agent receives a notification via email and can update the purchase order directly from the mail.

#### **Deviation in Confirmation is Too Large (Standard Task TS00008015):**

If the duration or work exceeds the limit set in confirmation parameters, a work item is generated automatically.

The MRP controller receives an email notification with details and can view the confirmation or network. They can also reach out to the person who made the confirmation through the mail system.

#### **Workflow Setup and Agent Assignment:**

**Technical Setup and Activation**: Workflows must be technically set up, activated, and assigned to appropriate agents.

**Budget Exceeding Notifications**: When budgets are exceeded, workflow emails can notify the responsible person, who must be assigned as a user in the system.

#### **Assigning Recipients for Workflow Items:**

### **Assign Possible Agents:**

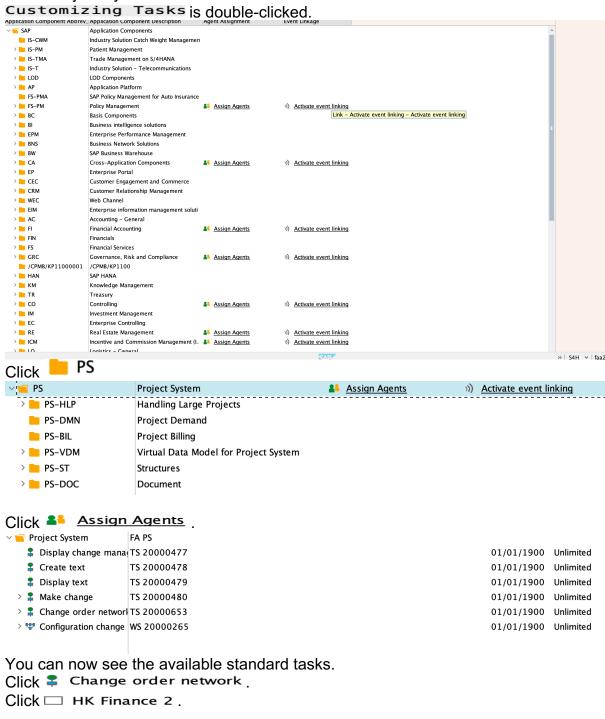
Define possible agents in the workflow task, such as organizational units, positions, or users, as eligible to receive specific workflow items. This can be done in the standard task settings accessible via the workflow system menu.

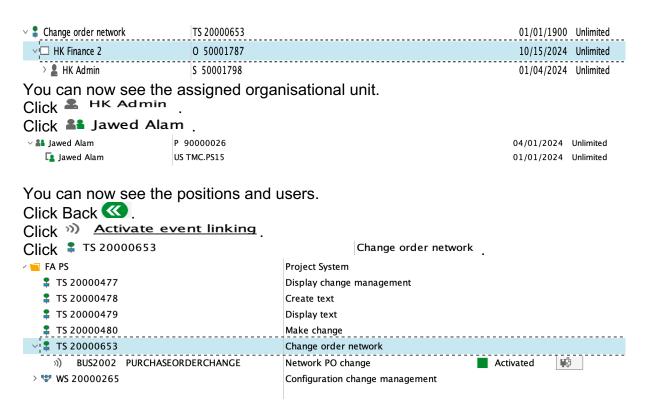
# Assign SAP Organizational Object Type:

Link the relevant SAP organizational object to the unit responsible. For example, to handle confirmation items that exceed limits, assign the MRP controller (Organizational Object T024D) to the organizational unit with users representing the MRP controller group. This can be done through the "Create Assignments" activity in the workflow system menu.

In the following steps, Configure Standard tasks for workflow will be called and the relevant setting in turn for the actions customizing tasks, network type parameters and network completion confirmation parameters will be explained.

Go to SPRO→ProjectSystem→ Workflow → Configure Standard Tasks for Workflow in the Project System



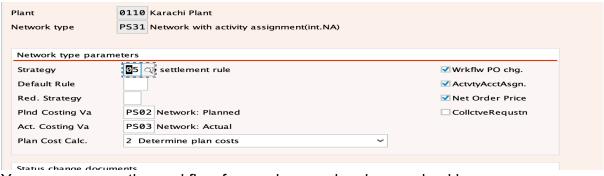


You can now see that the event that the event linkage is active.

Network Type Parameters: Overview is double-clicked.

Click PS31.

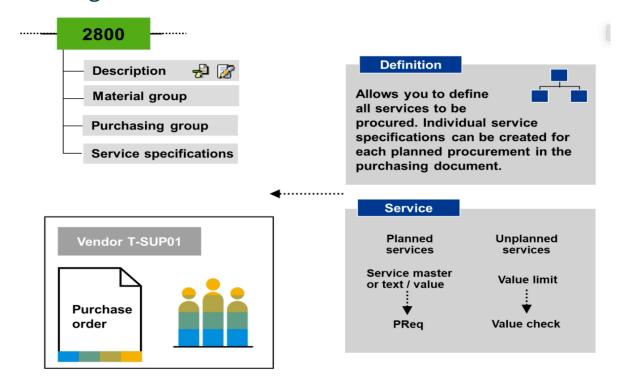




You can now see the workflow for purchase order change checkboxes.

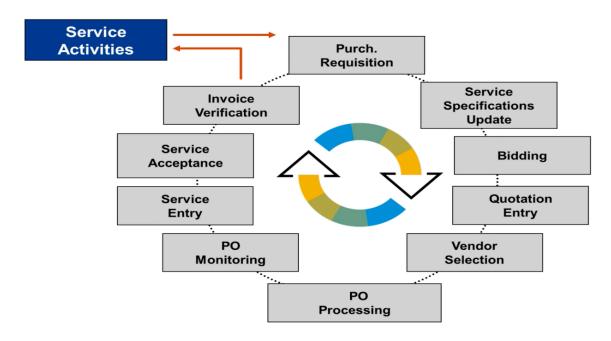
You have now seen how to configure workflows in the project system

# Planning of External Services



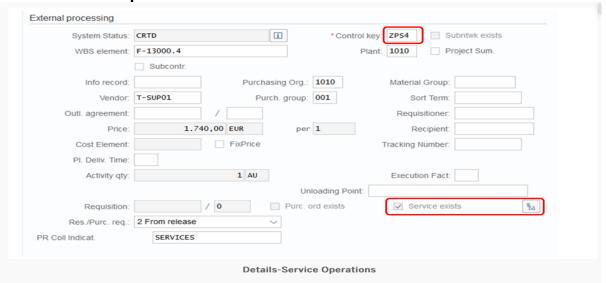
Instead of using externally processed activities, you can set up service activities or service elements for tasks performed by external resources. A service activity starts a similar purchasing process but can also include a structured list of planned services to be purchased from a vendor and value limits for unplanned services. Additionally, the entry and approval of services performed replace the goods receipt typically used in standard purchasing. You can specify planned services and set value limits to control unplanned services provided by the vendor. This setup can also be linked to the MM service component.

### **External Services Management**



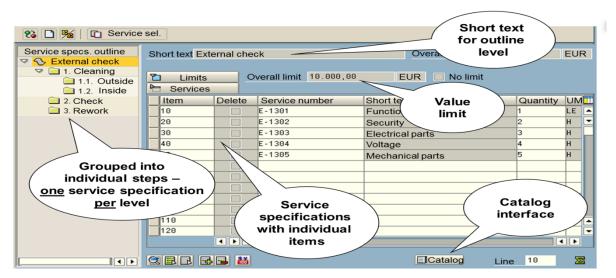
The MMSRV component supports the full cycle, from bid invitation to contract award, as well as entry and acceptance of services. Unlike external process activities, service acknowledgment in MMSRV is split into two stages: recording the service as performed and then accepting it.

### **Details Service Operations**



Detailed information for service activities is available on the External tab or page, where you can distinguish between service and external activities using the control key and service indicator. In the project planning board and network maintenance, use the Service button to set service specifications or limits for a service activity. In the network settings, you can set default values for service activities in the network profile, including the control key, cost element, material group, purchasing group, and order unit.

#### **Service Specification**



You can view outline levels and service specifications for an activity through the service activity's detail screen. Starting with SAP ECC 5.0, catalogs are also accessible for selecting services from the service specification. To enable this, set up the necessary catalog interface, OCI (Open Catalog Interface), in Customizing.

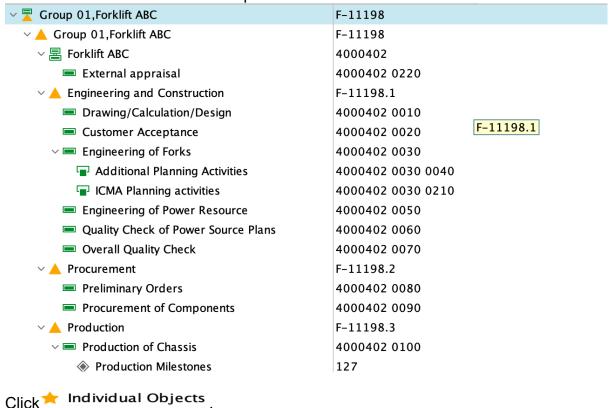
In addition to the internal and external services already planned, you also require various services to carry out Forklift project. You plan these services with the help of an appropriate service activity.

In this exercise, you will plan the service activities.

Go to Transaction Code CJ20N.

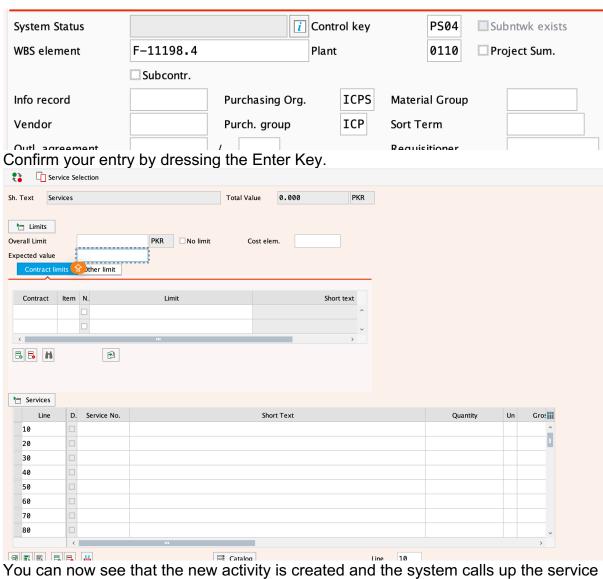
F-11198 is double clicked.

Ensure that the Forklift node is expanded.





Enter Services in the short text box. Enter ICP in the Purch.group box.

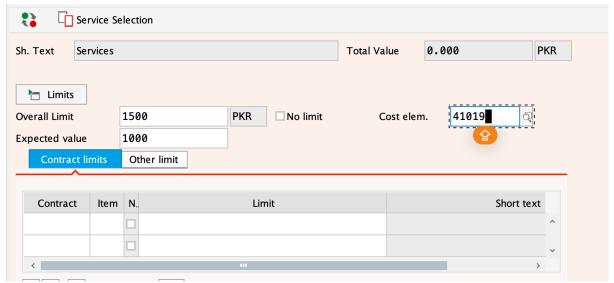


You can now see that the new activity is created and the system calls up the service specification for the service activity.

Enter 1500 in the Overall limit box.

Enter 1000 in the expected value box.

Enter 41019 in the Cost element box.



In the following steps, you will enter the planned services in the services section.

Enter 1000012 in the Service No. Box.

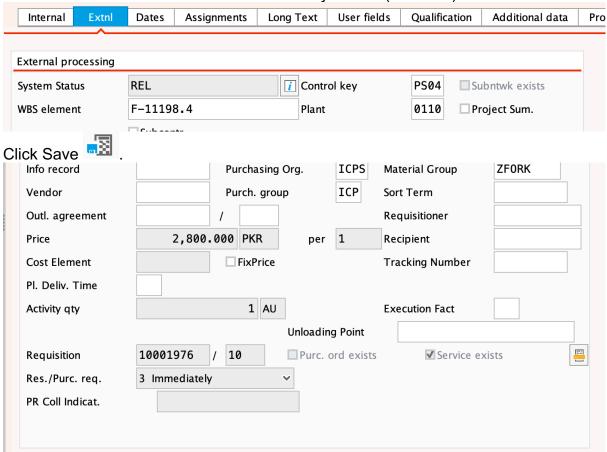
Enter 15 in the Quantity box.

Confirm your entry by pressing the Enter key.

Ensure that 120 is entered in the Gross Price field.

Click Back ...

You can now see that the status of the activity is REL (released).

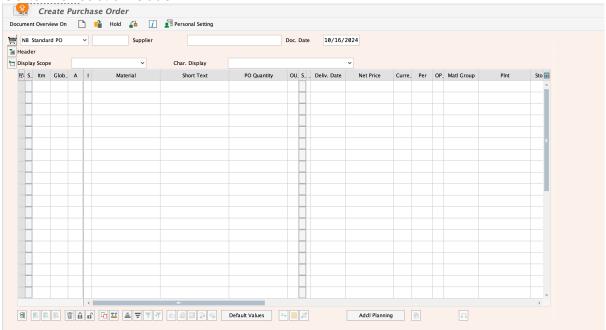


You can now see the purchase requisition number.

Click Exit 2.

In the following steps, you will order the service for project in purchasing.

Go to Transaction Code ME21N.



Enter 8000000001 in the Supplier box.

Confirm your entry by pressing the Enter Key.

Click Tal Header

Click Org. Data



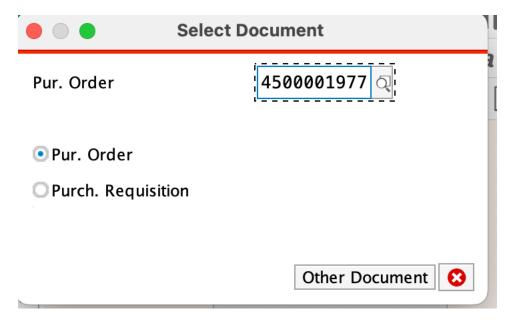
Enter 10001976 in the Purchase Req.



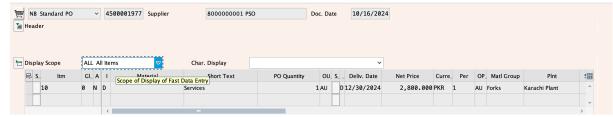
Click Save 🔚.

Check the purchase order number.

Click • .



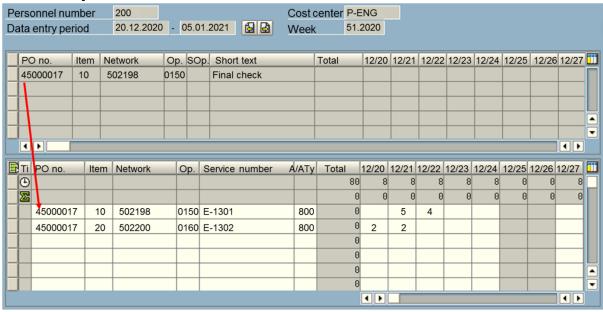
#### Press Enter.



You have now planned the service activities.

#### **Procurement of Services**

Service Entry with CATS



In the service entry transaction in purchasing, you can record performed services using a cross-application time sheet. In IDES, entry profile 1306 is available for this. Starting from release 4.6A, you can use units of measure other than hours with CATS, whereas earlier versions only support time-based recordings, limiting them to time-based services.

#### **Customizing External Activities**

Account Assignment Category Purchase Requisition

General (F)

For project (Q)

For sales order (E)

Sales doc. with settlement on project (D)

Control Key

External activity: PS02

Service: PS05

New indicator: Scheduling ext. activity

Parameters for Network Type

Collective purchase requisition indicator Workflow purchase order change indicator

The account assignment categories for purchase requisitions are generally valid for external procurement in the Project System. The *general account assignment category* is relevant to externally-processed activities and service activities. The remaining account assignment categories, however, refer to project stock that affects material procurement only.

Pending due to HR configuration

