

# Project Management Course

## Using *Primavera* - Level

*Following these best practices cannot guarantee a successful project but they will provide a better chance of success. Disregarding these best practices will almost certainly lead to project failure.*

# ***Project Management Course***

## ***Using Primavera Level 1***

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*i. About Lecturer*

*Sherif Abdel Baset Mohammed*

**Sr. Systems Specialist**

*B.S.C. Civil Engineer*

*Higher Diploma in Construction Management*

*Thesis “Study of the financial structural of Contracting Companies ”*

*ii. Agenda*

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# Project Management Course

Using Primavera Level 1

## Agenda

3 days Course

Introduction	Develop Projects	1 <sup>st</sup> Lecture
Manage Projects		2 <sup>nd</sup> Lecture
Presentations and reports	Exercise	3 <sup>rd</sup> Lecture

*iii. Course Purpose, and Objective*



## Project Management Course

### Using Primavera Level 1

#### Course Purpose, and Objective

Getting started with Primavera Project Planner (P3) through hands-on, basic training. Participants will gain a through background in the concepts of planning and scheduling, while learning how to use P3 software through hands-on workshops to learn, and train you on how to utilize P3 for project planning, scheduling, controlling, and reporting.

By the end of this course, the participants will be able to:

- *Add new project*
- *Add Activities*
- *Organize Activities*
- *Create Activity Code Dictionary*
- *Add Codes to Activities*
- *Create Relationships*
- *Schedule a Project*
- *Add Constraints*
- *Create calendars*
- *Integrate data with OLE*
- *Optimize the Schedule*
- *Presentations and reports*
- *Enter Actual Status to Update the project*

*vi. Course Start Up*

1. Introduction

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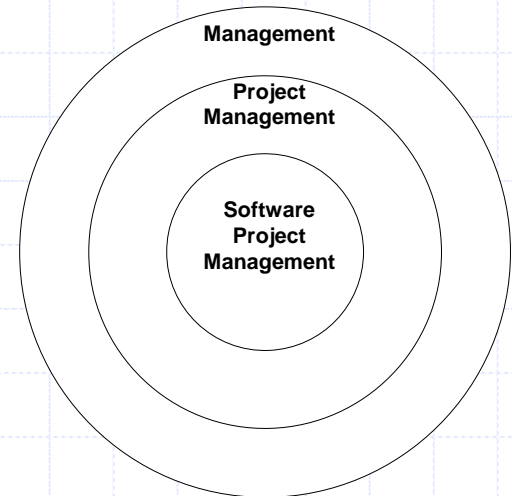
**1. Introduction**

- a. What Is Project Management
- b. Common Terms are used in management, P3
- c. Open the P3 software.

# Project Management Course Using Primavera Level 1

## What Is Project Management

- Project management is the process of planning, organizing, and managing project's **tasks** and **resources** to accomplish a defined objective.
- Usually within constraints on time, resources, or cost.
- A project plan can be simple, for example, a list of tasks and their start and finish dates written on a notepad.
- Or it can be complex, for example, thousands of tasks and resources and a project budget of millions of dollars.
- Most projects share common activities, including breaking the project into easily manageable tasks, scheduling the tasks, communicating with the team, and tracking the tasks as work progresses.
- all projects consist of three major phases:
  - ◆ Build the plan
  - ◆ Track and manage the project
  - ◆ Close the project



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a. What Is Project, Program

According to the PMBOK:

- A *project* is a temporary endeavor undertaken to create a unique product, service, or result.
- A *program* is a group of related projects managed in a coordinated way to obtain benefits and control **not available from managing them individually.**

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a. What Is Project, Program



**Key Terms**

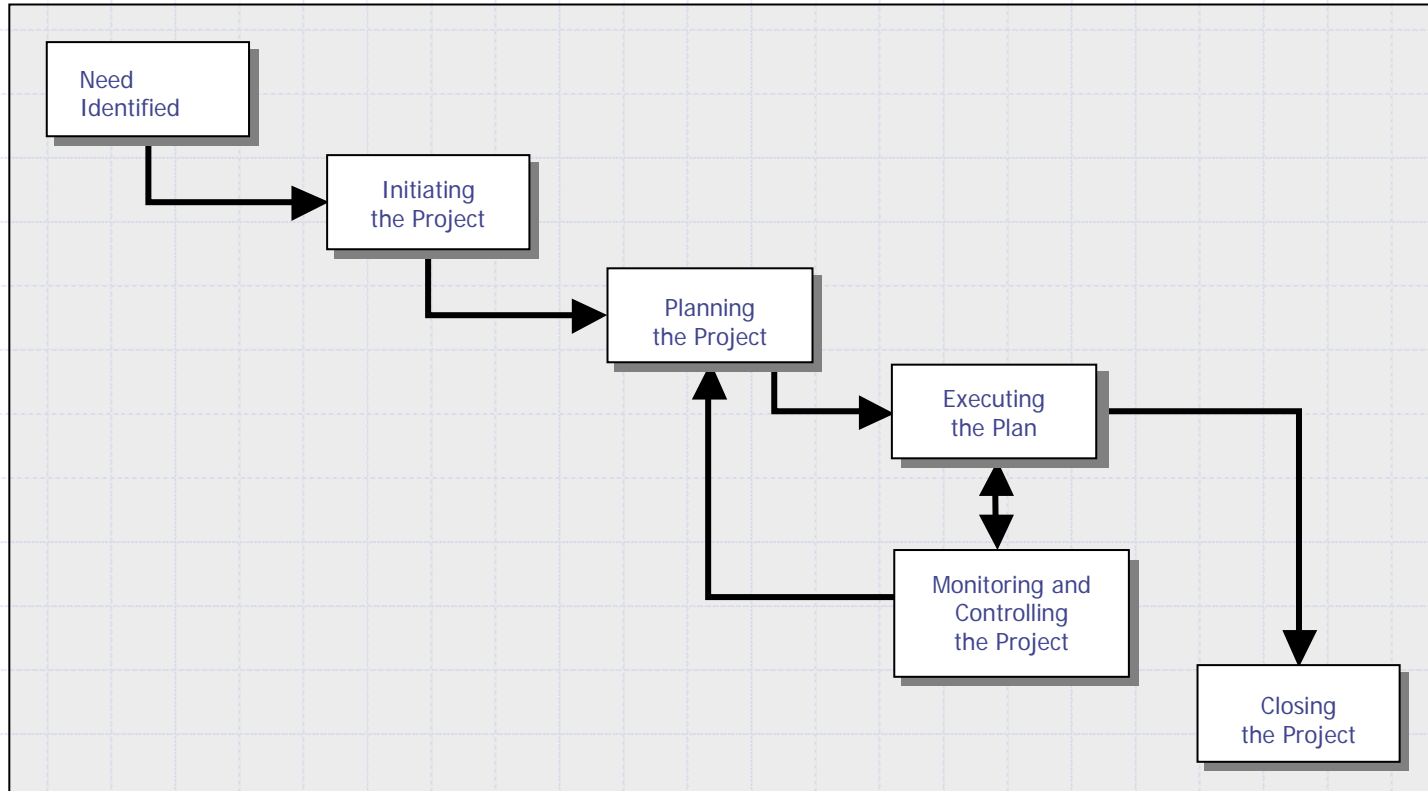
- **Activity:** task to be done in a specific duration to accomplish the project
  
- **Resources:** to perform a task we should have our resources (labor, material, equipment, S/C, miscellaneous )
  
- **Schedule:** to distribute the activities on the project time bar to fulfill the job on time.



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*Primavera*

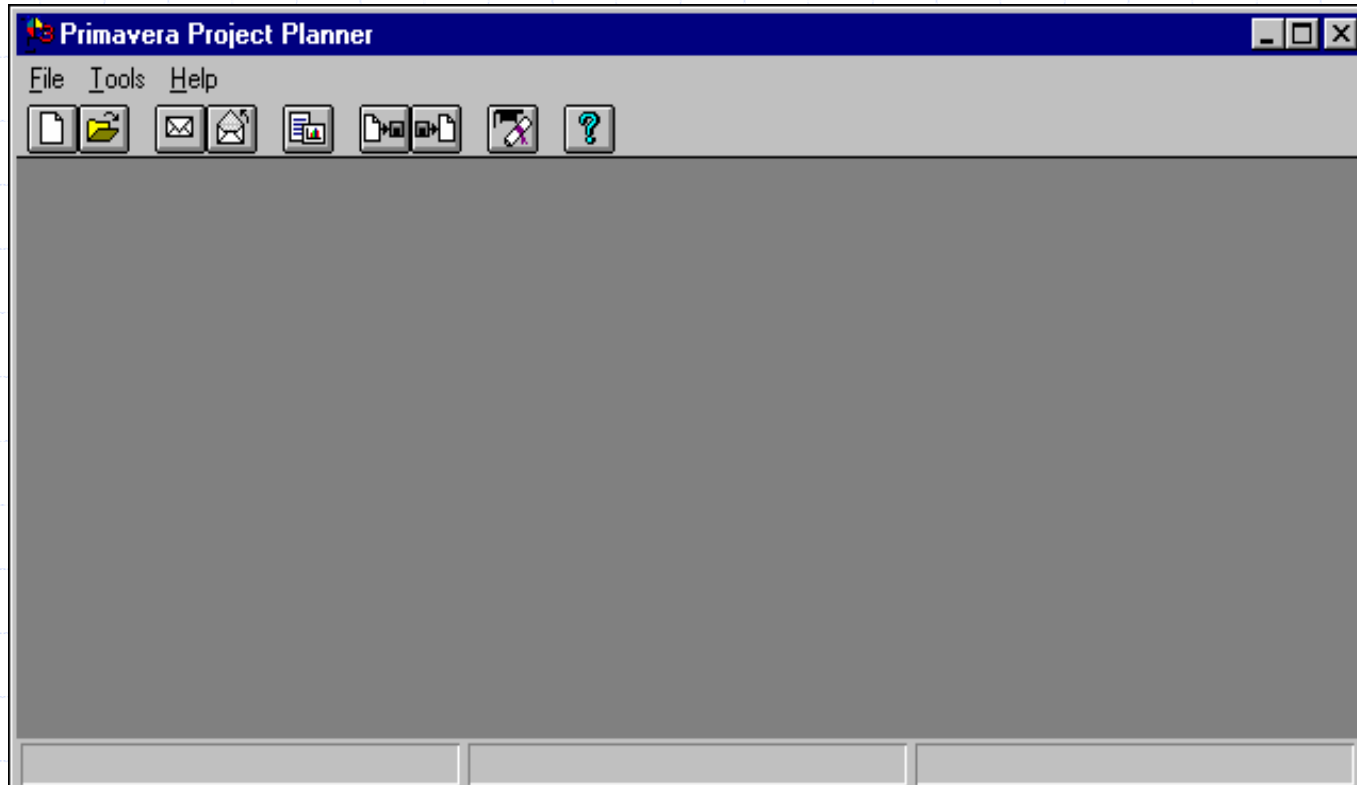
**What Is Project Management**



*Figure 1.1 depicts the process flow of the Project Management Process Groups.*

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Open P3



When you start P3, the initial screen is blank until you open an existing project or add a new project. To add a new project, choose the New icon in the toolbar.

## 2. Develop Projects

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***2. Develop Projects***

- a. Add a new projects
- b. Work with activities and different relationships
- c. How to Calculate and Adjust the Schedule
- d. Create and save layouts, filter
- e. Define calendars
- f. Activity Code

# Project Management Course *Primavera* Level 1

## Add New Project

The screenshot shows the 'Add a New Project' dialog box with the following fields and controls:

- Current folder:** d:\p325\projects (with a 'Browse...' button)
- Project name:** [Text input field]
- Number/Version:** [Text input field]
- Project title:** [Text input field]
- Company name:** [Text input field]
- Planning unit:** Day (dropdown menu)
- Workdays/week:** 5 (spin box)
- Week starts on:** Monday (dropdown menu)
- Project start:** 06MAY99 (calendar dropdown)
- Project must finish by:** [Calendar dropdown]
- Decimal places:** 2 (spin box)
- Add this new project to a project group
- Project group:** [Dropdown menu]
- Project ID:** [Text input field]
- Buttons:** Add, Cancel, Help

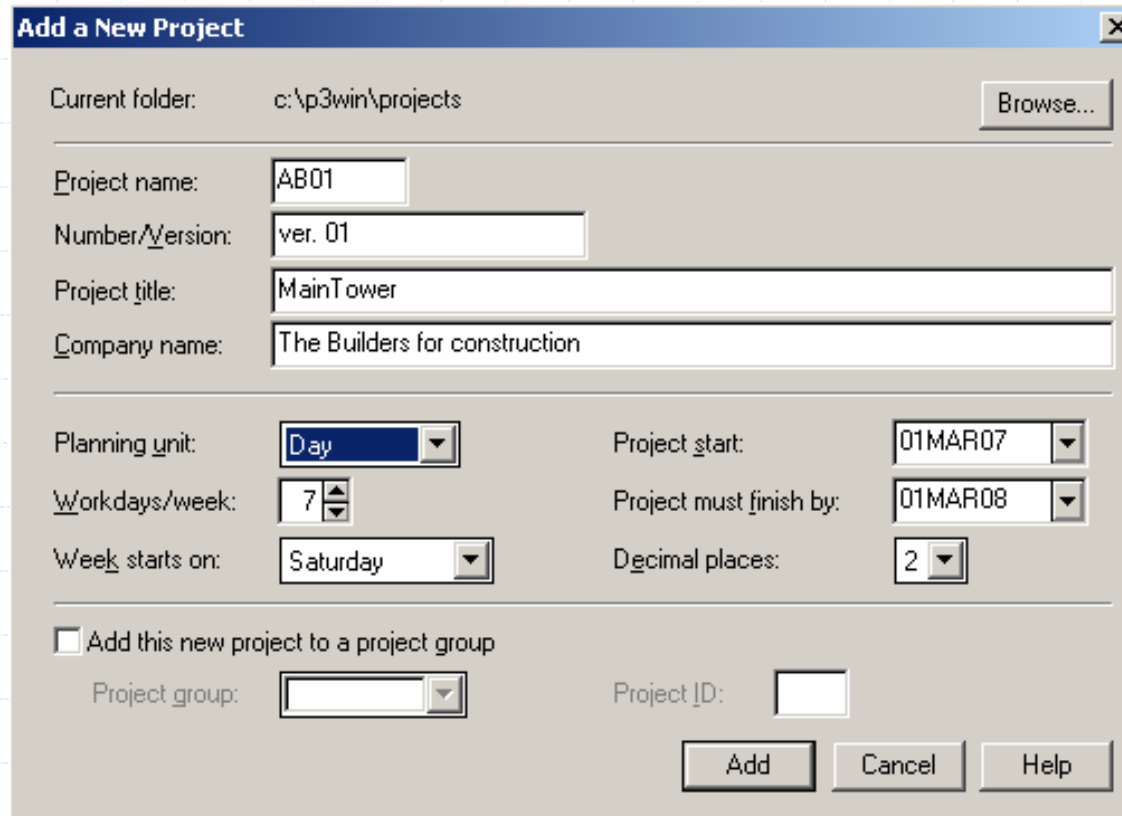
Annotations and instructions:

- Enter the project name.* (points to Project name field)
- Store the project anywhere on your workstation or network fileserver.* (points to Current folder field)
- These defaults automatically create a daily project based on a five-day workweek.* (circles the Planning unit, Workdays/week, and Week starts on fields)
- When you finish entering Data, Click Add* (points to the Add button)
- Set the number of decimal places to show onscreen and in printed reports for resource and cost data.* (points to the Decimal places field)
- Enter a project finish date only if you want to constrain the project end date.* (points to the Project must finish by field)

**To get this Window, Go to menu bar, Choose File, New,**

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## Add New Project



**Add a New Project**

Current folder: c:\p3win\projects Browse...

Project name: AB01

Number/Version: ver. 01

Project title: MainTower

Company name: The Builders for construction

Planning unit: Day

Project start: 01MAR07

Workdays/week: 7

Project must finish by: 01MAR08

Week starts on: Saturday

Decimal places: 2

Add this new project to a project group

Project group:

Project ID:

Add Cancel Help



**Create a new project including the above Data**

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New Project

The screenshot displays the Primavera Project Planner interface. At the top, the title bar reads 'Primavera Project Planner - [PROD]'. Below it is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Format', 'Tools', 'Data', 'Window', and 'Help'. A toolbar contains various icons for file operations and project management. The main window shows a Gantt chart layout. A red box highlights the 'Edit Bar' area, which includes a dropdown menu and a date field showing '16JUN99 Wed'. Below this, a table lists activity data for the year 1999, with columns for months (JUN, JUL, AUG, SEP, OCT) and specific dates. A blue vertical line is drawn from the 'Dur' column of the table down to the 'Bar Area' of the Gantt chart. A red dashed box encloses the 'Columns Area' and 'Bar Area' sections. The status bar at the bottom contains the text 'Enter activity ID.', 'Classic Schedule Layout', and 'All Activities'.

Activity ID	Activity Description	Orig Dur	1999																				
			JUN			JUL			AUG			SEP			OCT								
			31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	4	11	18

**P3 verifies that no other activities have the same ID and then displays the activity data and a bar. P3 assigns a default duration of 1 day to the activity.**

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### Add An Activity

The screenshot shows the Primavera Project Planner interface. The main window displays a Gantt chart for activity P100, 'Define Product Requirements'. The activity is represented by a bar starting on June 16, 1999, and ending on June 21, 1999, with a duration of 5 days. The interface includes a menu bar (File, Edit, View, Insert, Format, Tools, Data, Window, Help), a toolbar, and a status bar at the bottom showing 'Classic Schedule Layout' and 'All Activities'.

Activity ID	Activity Description	Orig Dur	1999																				
			JUN			JUL			AUG			SEP			OCT								
P100	Define Product Requirements	5	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	4	11	18

Annotations in the image:

- 1: Points to the Activity ID (P100).
- 2: Points to the Activity Description (Define Product Requirements).
- 3: Points to the Original Duration (5).
- 4: Points to the start of the activity bar on the Gantt chart.
- 5: Points to the 'Data date' (June 16, 1999).
- 6: Points to the activity bar on the Gantt chart.

P3 displays an early date bar beginning on the data date and finishing five days later.

Add act. By using activity Form (press F7)





## Exercise share with Lecturer

Create a project , and add the following activities :

- ◆ Main Data
  - Name : AB01
  - Project title: Main Tower
  - Company Name: The Builders for construction
  - Project Start Date : 1<sup>st</sup> March, 07
  - Project must finish by : 1<sup>st</sup> March , 08

- ◆ Activity Details:

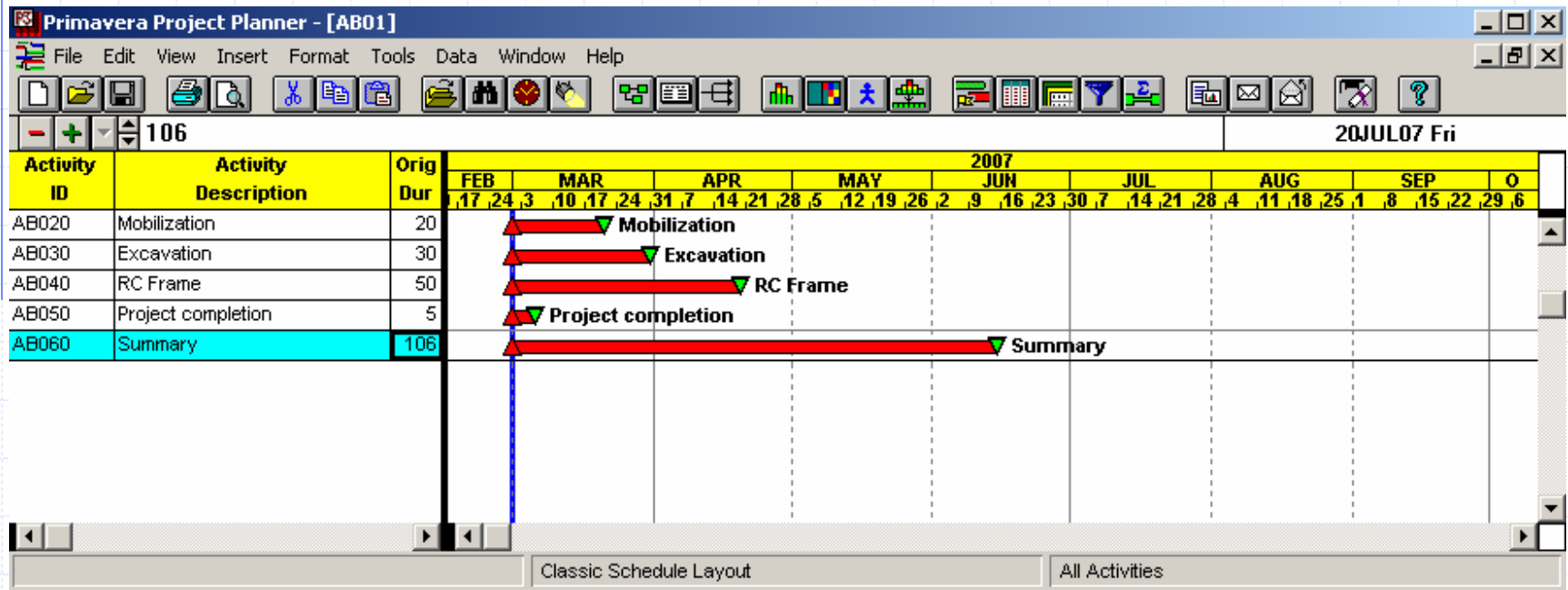
ID	Description	Dur.
----	-------------	------

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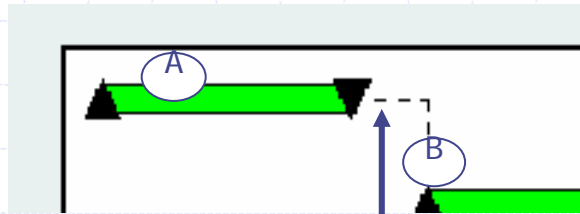
**Exercise share with Lecturer**

Result will be as the following



- Key Term
  - Activity logics
    - Predecessors
    - Successors
  - Activity different relationships:-
    - SS: Start - Start
    - FS: Finish - Start
    - FF: Finish - Finish
    - SF: Start - Finish

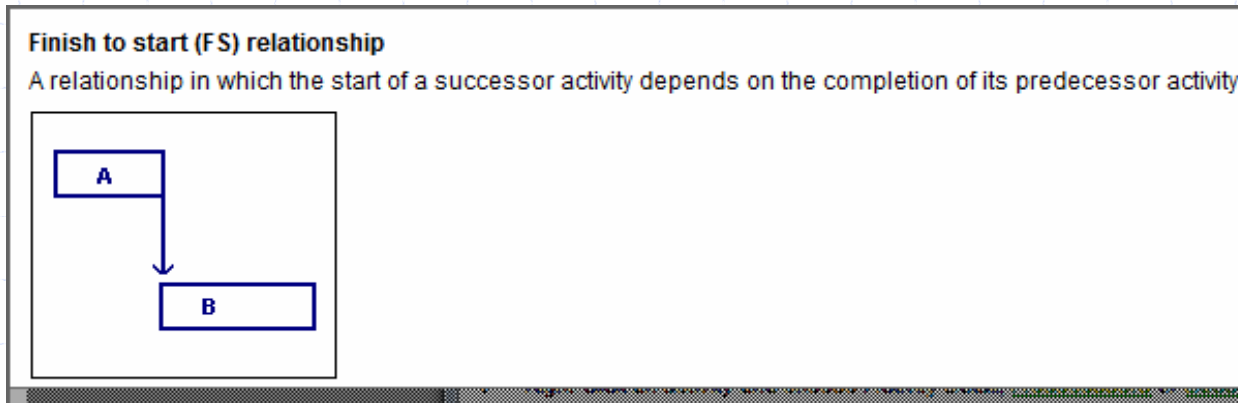
## Relationships



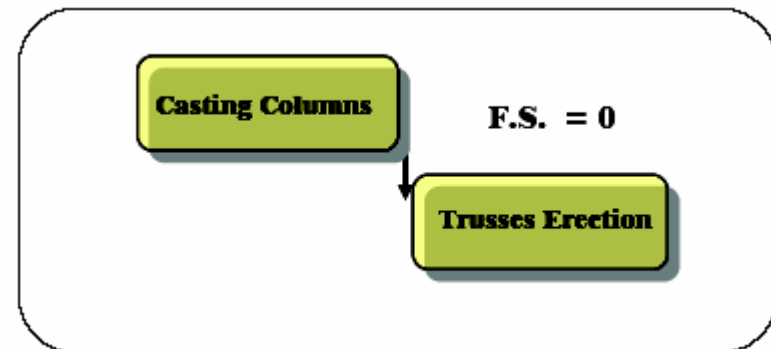
(A) Is the predecessor of (B)  
(B) Is the successor of (A)



## Relationships



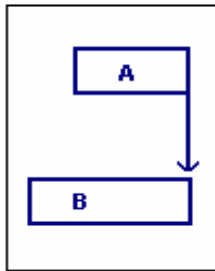
Sample:  
columns and Slab,  
Excavation and Foundation



## Relationships

### Finish to finish (FF) relationship

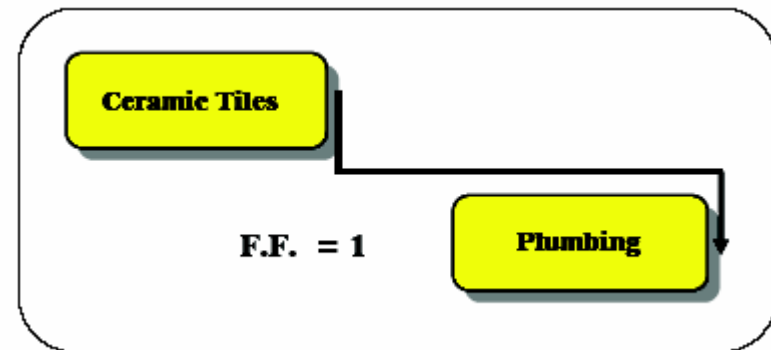
A relationship in which the finish of a successor activity depends on the finish of its predecessor activity.



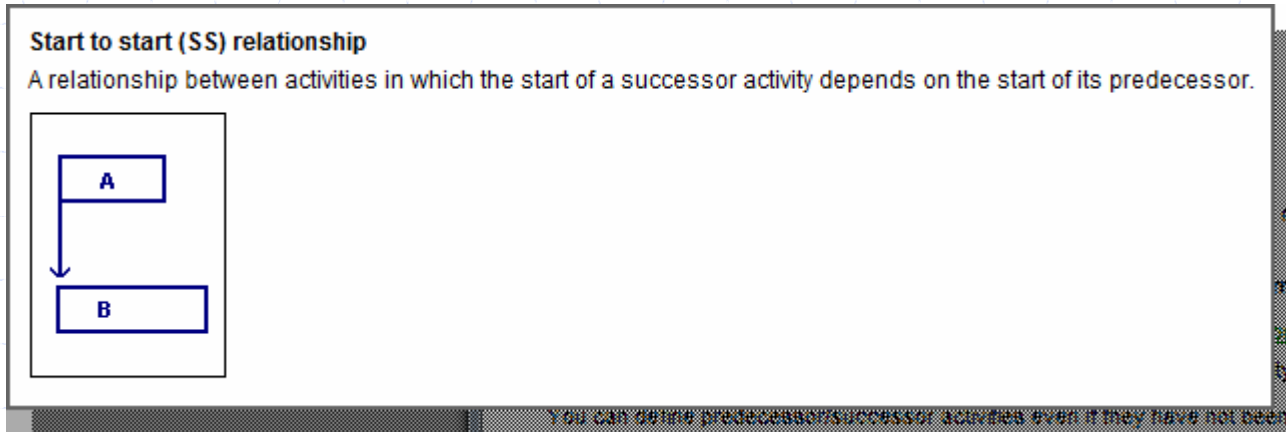
If the predecessor activity **drives** the early schedule dates for the successor activity.

Sample:

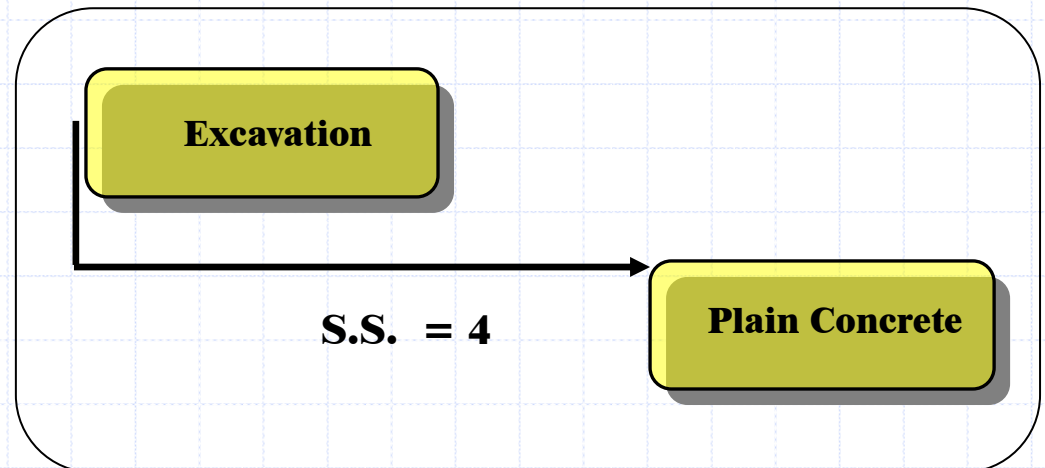
Slab conduits and Slab,  
Excavate Footing, Footing  
Formwork



## Relationships



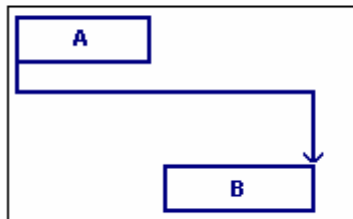
Sample:  
Block, Plaster  
Excavate Footing, Footing  
Formwork



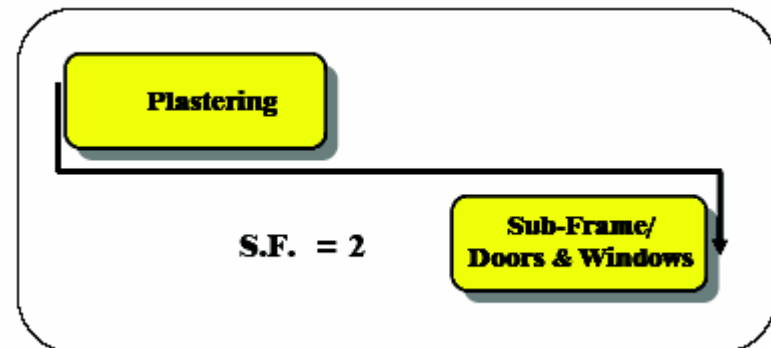
## Relationships

### Start to finish (SF) relationship

A relationship between activities in which a successor activity cannot complete until its predecessor activity starts.



Sample:  
Wall conduits, plaster



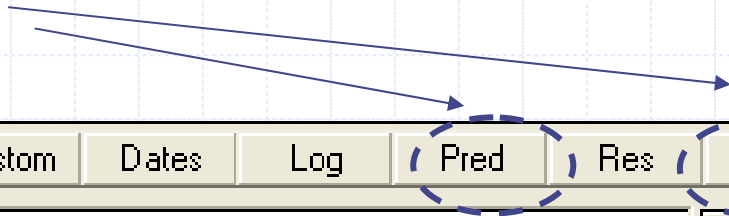


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**Relationships**

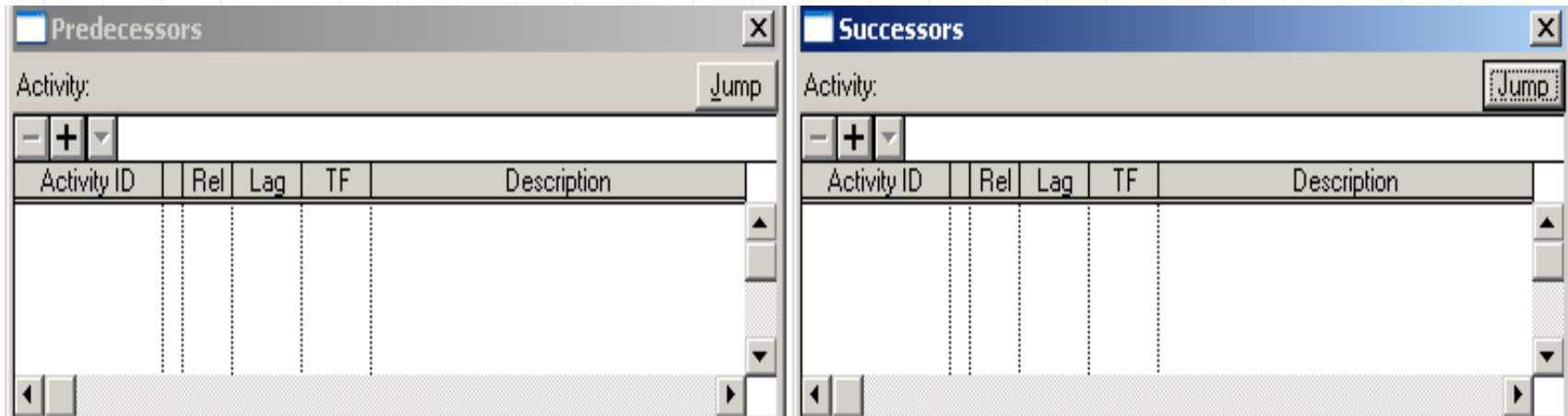
To apply the relationship between activities:

- press F7
- press both bottoms



Budget	Codes	Constr	Cost	Custom	Dates	Log	Pred	Res	Succ	WBS	Help	
ID	AS									Previous	Next	<<Less
OD	0	Pct	0.0	Cal	1	<input type="checkbox"/> ES		<input type="checkbox"/> EF		TF:		
RD	0	Type		LS				LF		FF:		
Dept	Resp	Phas	Step	Item	WBS							

## Add Relationships



- Activate the activity
- In the pred. window write the predecessor act., add the relationship
- Repeat the same with the secc. window

# Project Management Course Using Primavera Level 1



## Exercise

Use the previous project and change the duration as the following:

ID	Desc	dur	Pred	relation	SUCC.
AB010	Contract award	1		FS	AB020
AB020	Mobilization	20		FS	AB030
AB030	Excavation	30		FS	AB040
AB040	RC Frame	50		FS	AB050
AB050	Project completion	5		FS	AB060
AB060	Summary	106			

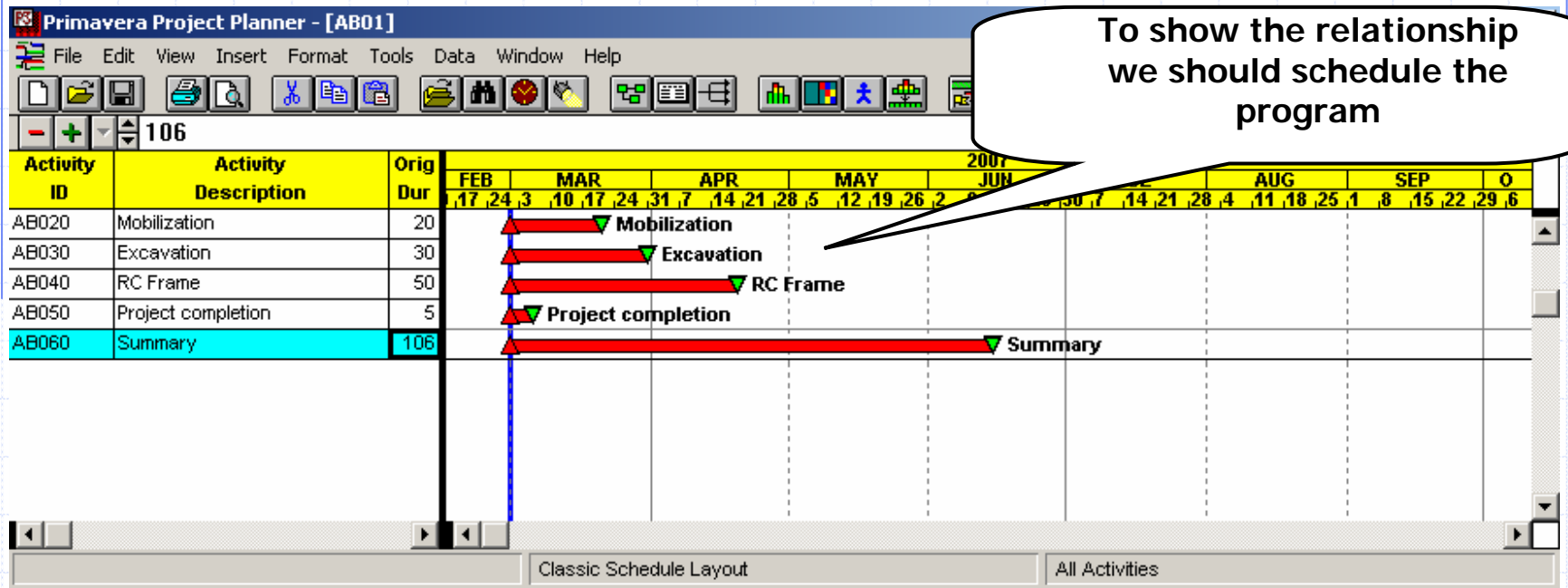


Then fill the pred. columns



## Exercise share with Lecturer

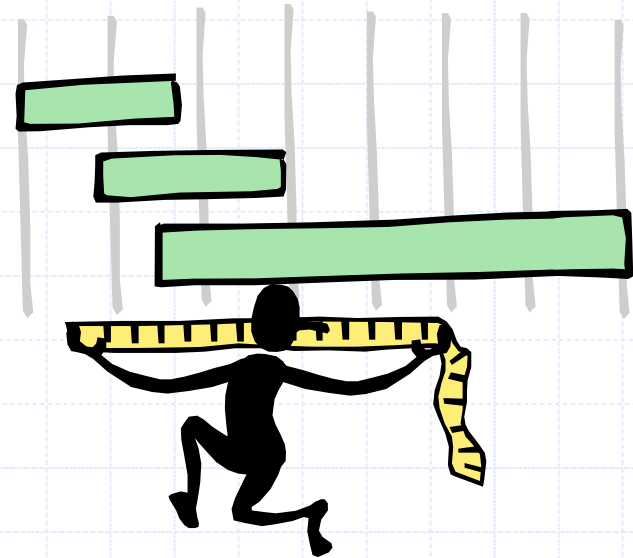
Result will be as the following



# Project Management Course Using Primavera Level 1

## How To schedule a project

- P3 calculates the earliest start and finish dates for each activity from the beginning to the end of the project,
- then calculates the latest start and finish dates for each activity, working from the end of the project back to the first activity.
- During the backward pass, P3 also calculates float values.
- P3 uses the project planning unit and calendar definitions to calculate these dates.
- Calculate a schedule Choose Tools, Schedule, or



# Project Management Course Using \_\_\_\_\_ - Level 1 *Primavera*

## How To schedule a project

The screenshot shows the Primavera Project Planner interface. The 'Tools' menu is open, and the 'Schedule...' option is selected. The activity list on the left contains the following items:

Activity ID	Activity Description
AB010	Contract award
AB020	Mobilization
AB060	Summary
AB030	Excavation
AB040	RC Frame
AB050	Project completion

The Gantt chart on the right shows a task named 'Contract aw' starting on 19FEB07. The chart includes a grid for months (FEB, MAR) and days (17, 24, 3, 10). The status bar at the bottom indicates 'Schedules the project' and 'All Activities'.

- Option 1: press F9, specify a data date, and click Schedule Now.
- Option 2: Choose Tools, Schedule  
specify a data date, and click Schedule Now.

# Project Management Course

## Using Primavera Level 1

### How To schedule a project

1 press F9

Primavera Project Planner - [AB04]

File Edit View Insert Format Tools Data Wind Help

AB050 17FEB07 Sat

Activity ID	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	2007								
							FEB	MAR	APR						
AB010	Contract award						17	24	3	10	17	24	31	7	14
AB020	Mobilization														
AB060	Contract award														
AB030	Excavation														
AB040	RC Frame														
AB050	Project completion														

2 specify a data date.

01MAR07

3 click Schedule Now.

Schedule Now

Cancel

Help

Options...

Scheduling report

Constraints

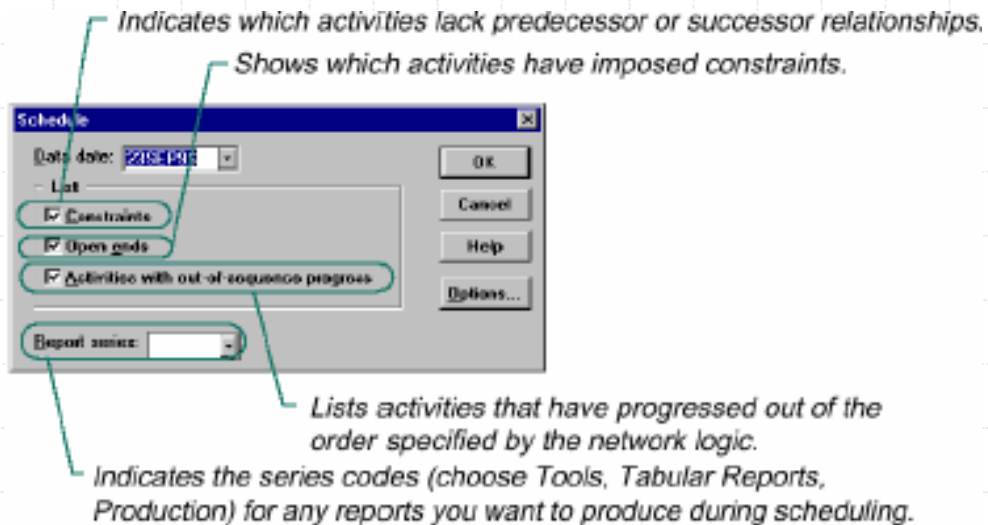
Open ends

Activities with out-of-sequence progress

Run report series:

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## Calculating a Schedule



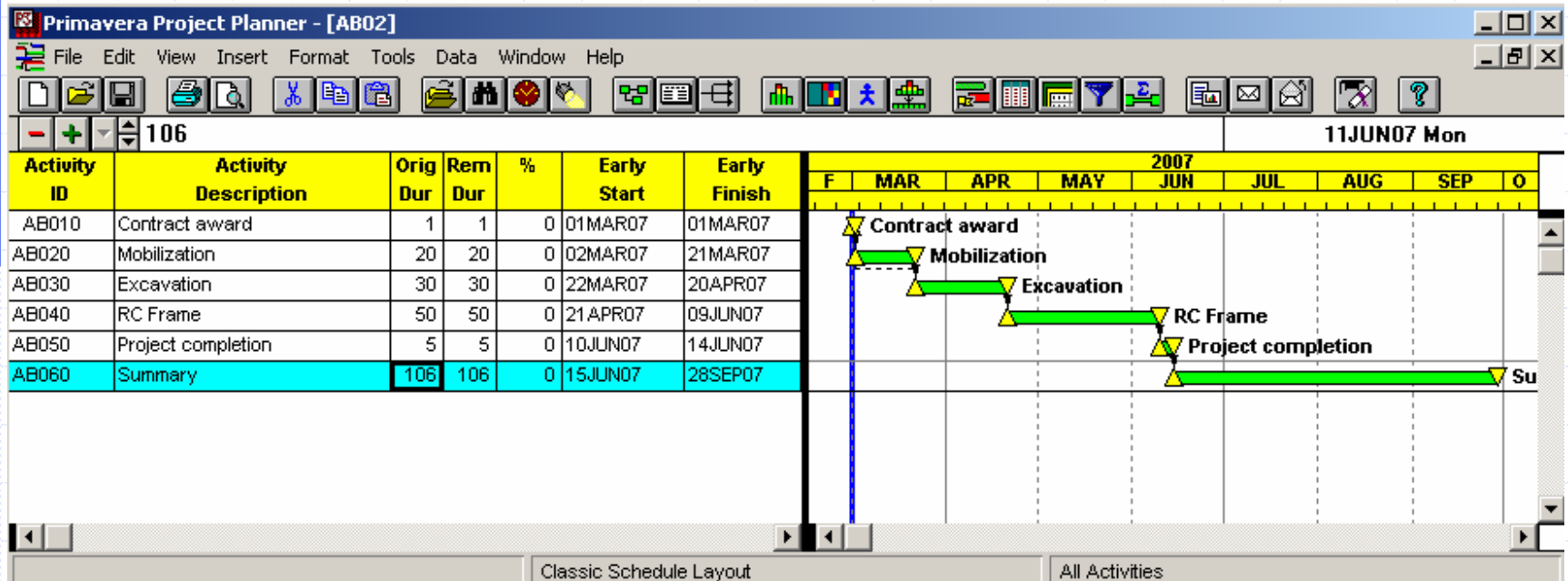


# Project Management Course

## Using Primavera Level 1

### Exercise

Result will be as the following



# Project Management Course Using Primavera Level 1



## Exercise

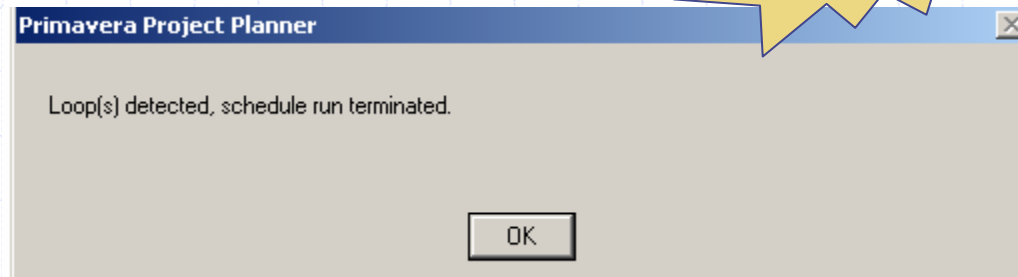
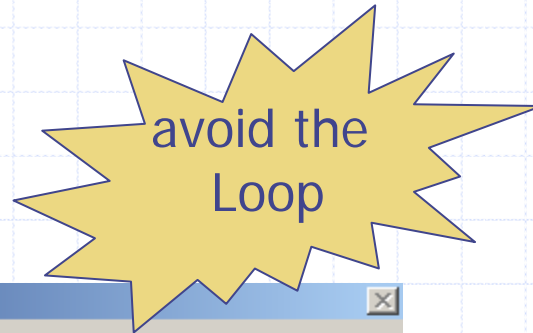
Add the following relationship

ID	Desc	dur	Pred	relation	SUCC.
AB040	RC Frame	50		FS	AB020

Then schedule the program “

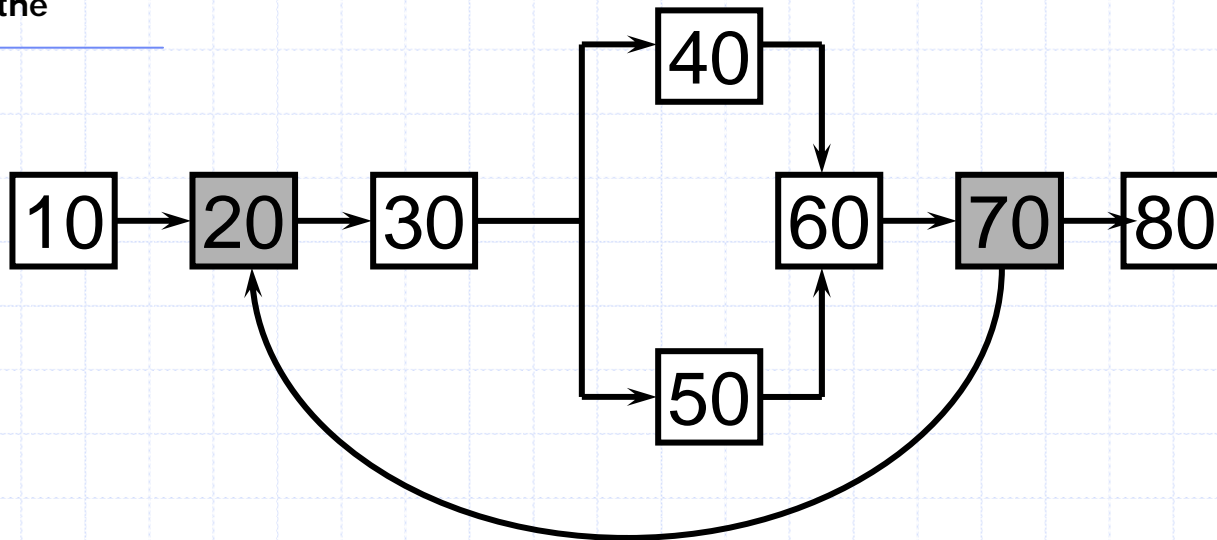
- Press F9
- Press “ENTER”

## The Loop



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What is the  
Loop



- ☑ Loops indicate circular logic between two activities
- ☑ P3 will not calculate until the loop is eliminated
  - Determine proper logic
  - Re-run schedule

# Project Management Course

## Using Primavera Level 1

### How To schedule a project

The screenshot shows the Primavera Project Planner interface. The 'Tools' menu is open, and the 'Schedule...' option is highlighted. The 'Activity ID' and 'Activity Description' table is visible on the left. The Gantt chart on the right shows the project schedule for 2007, with a vertical line indicating the current date.

Activity ID	Activity Description
AB010	Contract award
AB020	Mobilization
AB060	Summary
AB030	Excavation
AB040	RC Frame
AB050	Project completion

Early Finish	2007	
	FEB	MAR
	17	24
	3	10
		Contract aw

- Choose Tools, Schedule
- specify a data date, and click Schedule Now.

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The screenshot displays the Primavera Look application window titled "Primavera Look - [Untitled-Sheet 1 of 4]". The window contains three reports, with the second and third reports highlighted by a dashed red box:

**Constraint listing -- Scheduling Report Page: 2**

Activity	Date	Constraint
AB010		Start Milestone
AB050		Finish Milestone
AB060		Hammock Activity

**Open end listing -- Scheduling Report Page: 3**

Activity	Date	Constraint
AB010		has no predecessors
AB050		has no successors

**Loop report -- Scheduling Report Page: 4**

Loop #	Activity	Description
1	AB020	Mobilization
	AB030	Excavation
	AB040	RC Frame
	AB020	

The status bar at the bottom indicates "Line: 1 Col: 1" and "NUM".

# Project Management Course Using Primavera Level 1



## Exercise

Use the previous project and change the duration as the following:

ID	Description	Dur.	PRED.	relation	SUCC.
AB010	Contract award	1		FS SS	AB020 AB060
AB020	Mobilization	20		FS	AB030
AB030	Excavation	30		SS	AB040
AB040	RC Frame	50		FF	AB050
AB050	Project completion	5			
AB060	Summary	106		FF	AB050



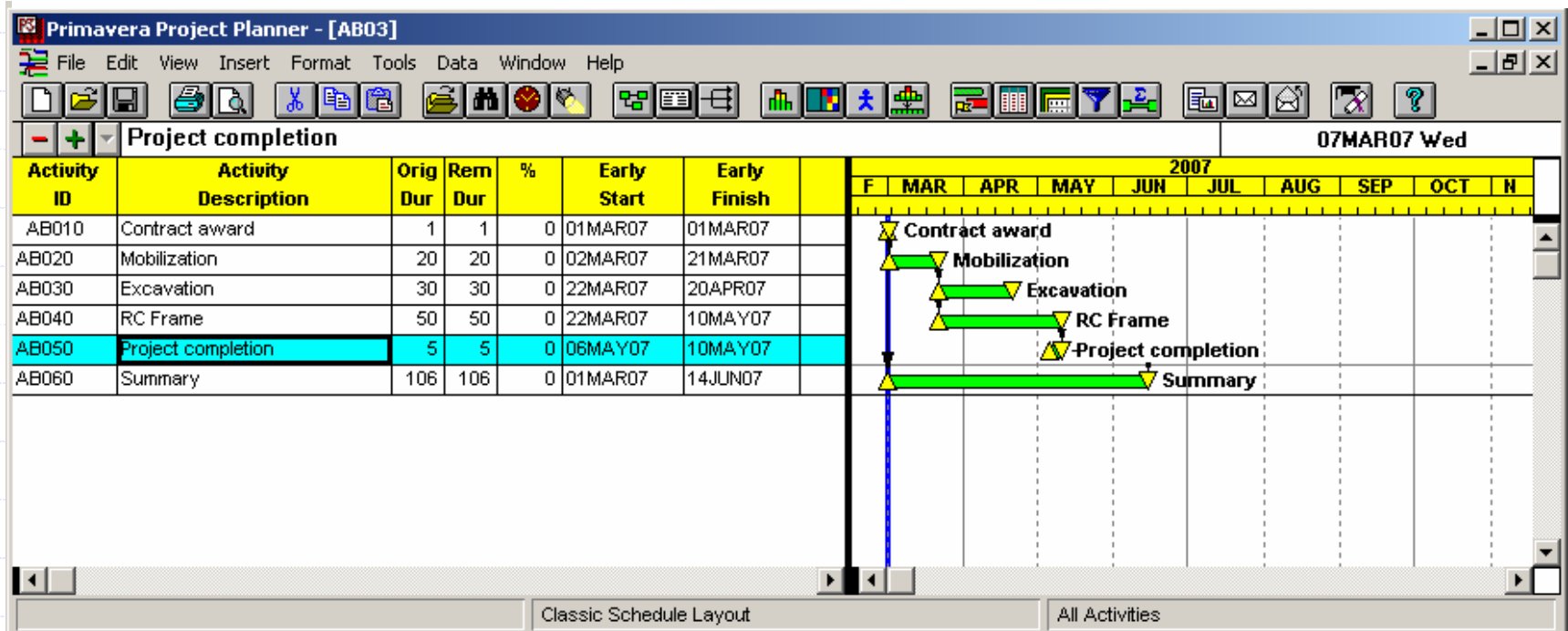
Then fill the pred. columns

# Project Management Course

## Using Primavera Level 1

### Exercise

Result will be as the following





## Activity types

• Task: the most common activity with start, finish date. Could be updated with progress less than 100%

• zero duration activity

- ◆ Start Milestone,
- ◆ Finish Milestone,
- ◆ Flag

They used to indicate the start/finish of a major event or any other important point in the project., flag only has predecessors, cannot has a successors

Only 0% or 100% are available

• Hammock: used to monitor the elapsed beginning-to-end duration of a group of activities (i.e. the hammock duration is the number of days between the beginning of the first act. And the end of the last act. In the group and not the sum. Of the act's duration)



## Exercise

Modify the activities types to be as the following:

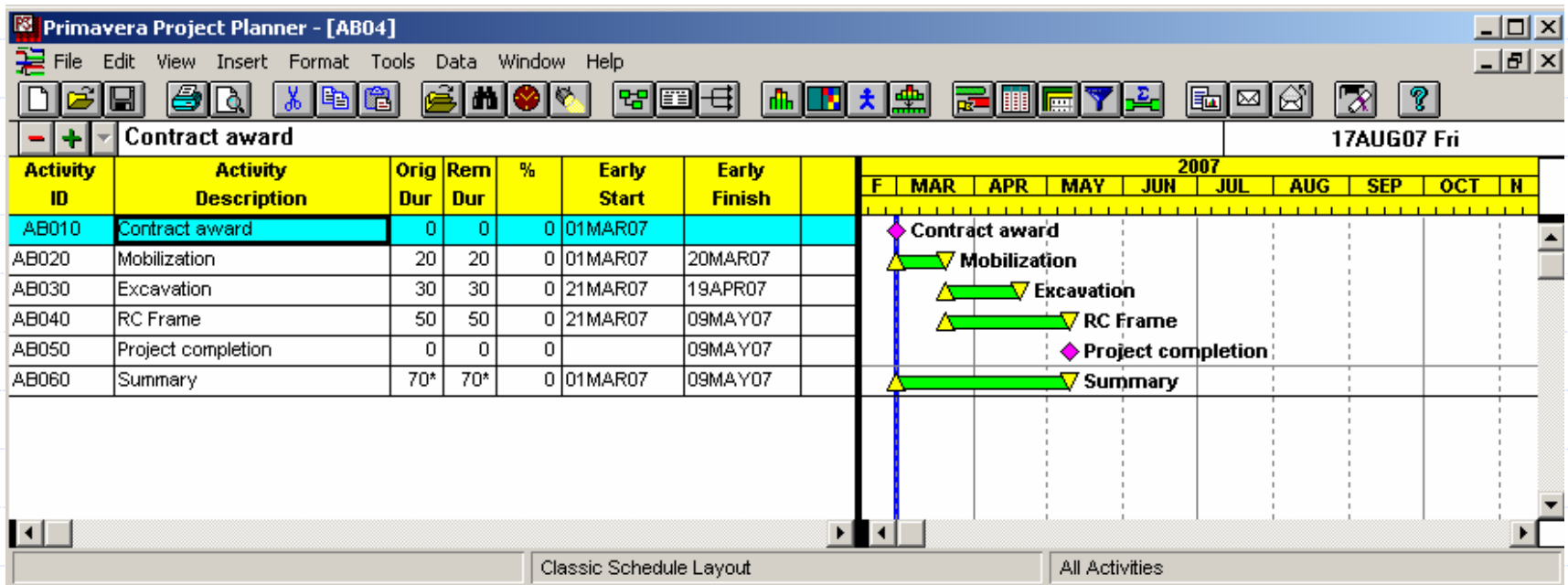
- a. Contract award      Start MS
- b. Mobilization      task
- c. Excavation      task
- d. RC Frame      task
- e. Project completion      Finish MS
- f. Summary      Hammock

# Project Management Course

## Using Primavera Level 1

### Exercise

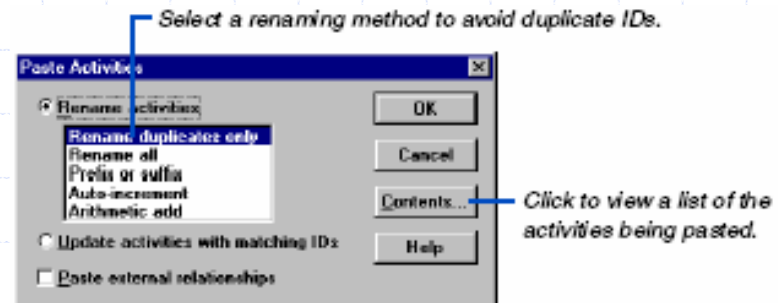
Result will be as the following



## Project Management Course Using Primavera Level 1

### Work with activity

- ↗ Select activities
- ↗ Cut
- ↗ Copy
- ↗ Past
- ↗ Edit activities
- ↗ Define activity types
- ↗ Find activities
- ↗ Delete
- ↗ Dissolve
- ↗ Extract
- ↗ Row Height
- ↗ Assign activity IDs
- ↗ Rename activity IDs



**Undo ↶ is not available in P3**

## Calendars

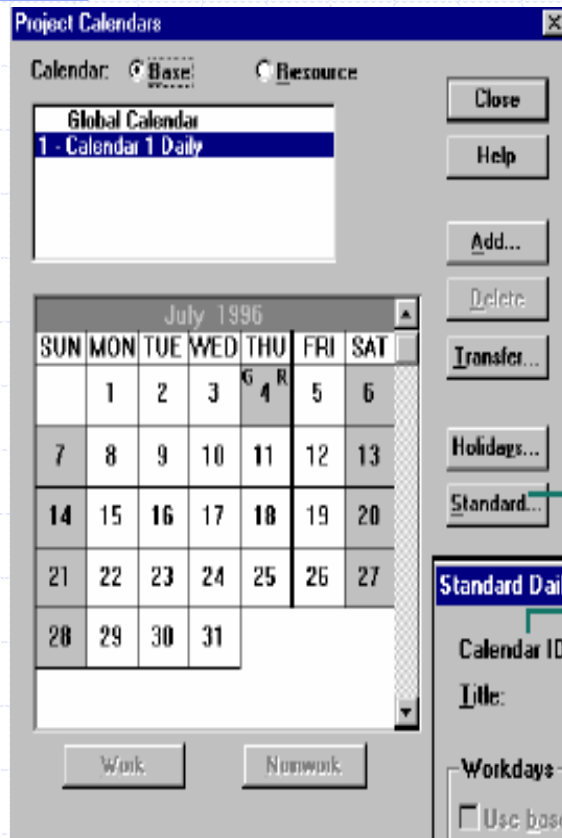
- *Define calendars:* P3 enables you to establish up to 31 calendars per project to accommodate different work patterns. For example:
  - ◆ if some activities require a 5- day workweek, while others are performed part- time (such as Monday, Wednesday, and Friday) or
  - ◆ Work period during Ramadan at site is less than at period at engineering work (designer at India)

you can create different calendars (up to 31) and assign the activities to them.

# Project Management Course

## Using Primavera Level 1

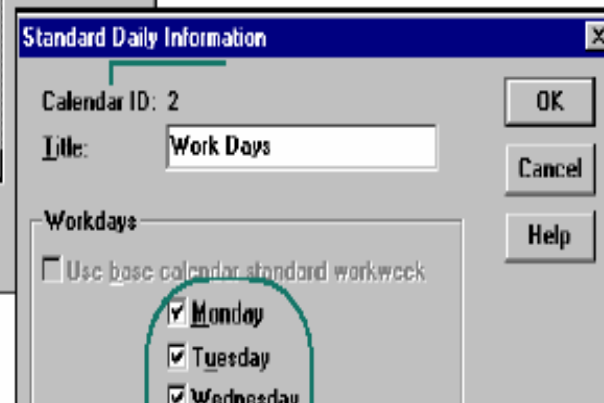
### Calendars



Go to Data then press Calendar

1. Click Add to add a new calendar.

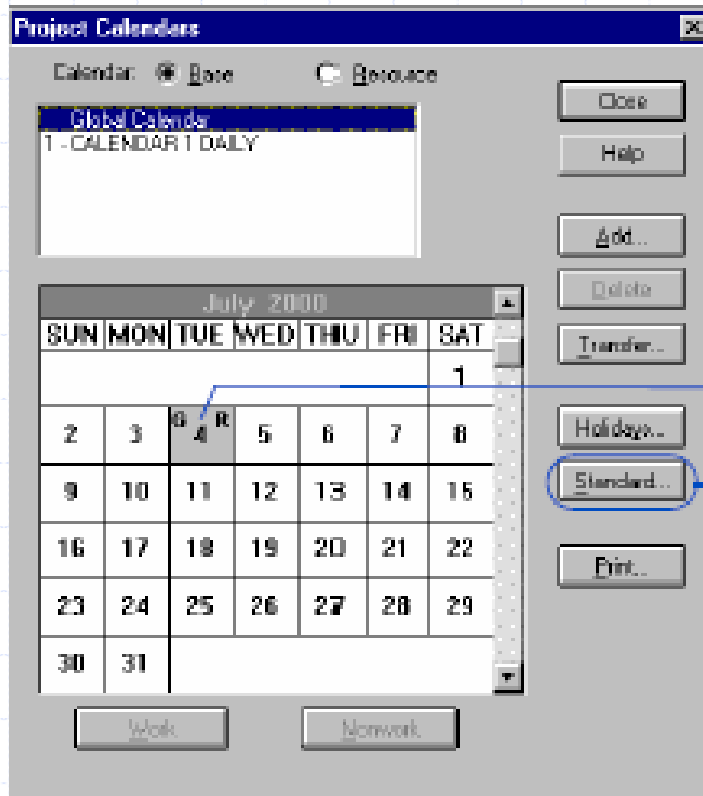
2. Click Standard to define the workweek.



## Global Calendar

The global calendar defines non-work periods that apply to all calendars. Use the global calendar to designate all holidays and non-work periods your company observes, especially if you plan to use more than one calendar. P3 automatically reflects these non-work periods in all project calendars so you need not define them on each calendar you use.

Display the global calendar. Choose Data, Calendars, and select Global Calendar in the Calendars dialog box.



*July 4 is a global holiday for all calendars.*

*Click to define global calendar information such as project start and finish dates.*



## Project Management Course Using Primavera Level 1

What is the Layout

- # The appearance of the project depends on its layout.
- # A layout is a picture of the project that stores visual elements such as
  - ◆ the format of activity bars.
  - ◆ The columns format,
  - ◆ the organization of activities,
  - ◆ and screen colors.
- # P3 displays the default layout, called the Classic Schedule Layout,

# Project Management Course

## Using Primavera Level 1

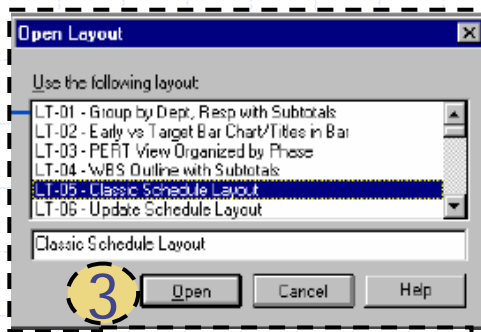
### How To Open/Save A layout

The screenshot shows the Primavera software interface with the 'Layout' menu open. The menu path is highlighted with numbered callouts: 1 points to the 'View' menu, 2 points to the 'Layout' menu, 3 points to the 'Open...' option, and 4 points to the 'Save As...' option. The main window displays a Gantt chart for the year 2007, with activities such as 'Contract award', 'Mobilization', 'Excavation', 'RC Frame', 'Project completion', and 'Summary' shown as bars. The status bar at the bottom indicates 'Classic Schedule Layout' and 'All Activities'.

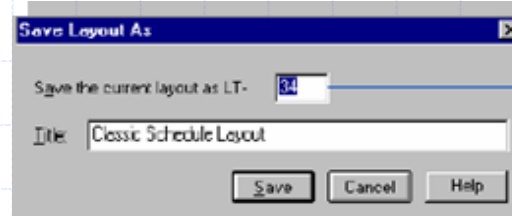
Activity ID	Activity Name	Early Finish
AB010	Contract award	20MAR07
AB020	Mobilization	19APR07
AB030	Excavation	09MAY07
AB040	RC Frame	09MAY07
AB050	Project completion	09MAY07
AB060	Summary	09MAY07

# Project Management Course Using Primavera Level 1

## How To Open/Save A layout



P3 displays a list of layouts for the current project. Double-click the layout you want to open.



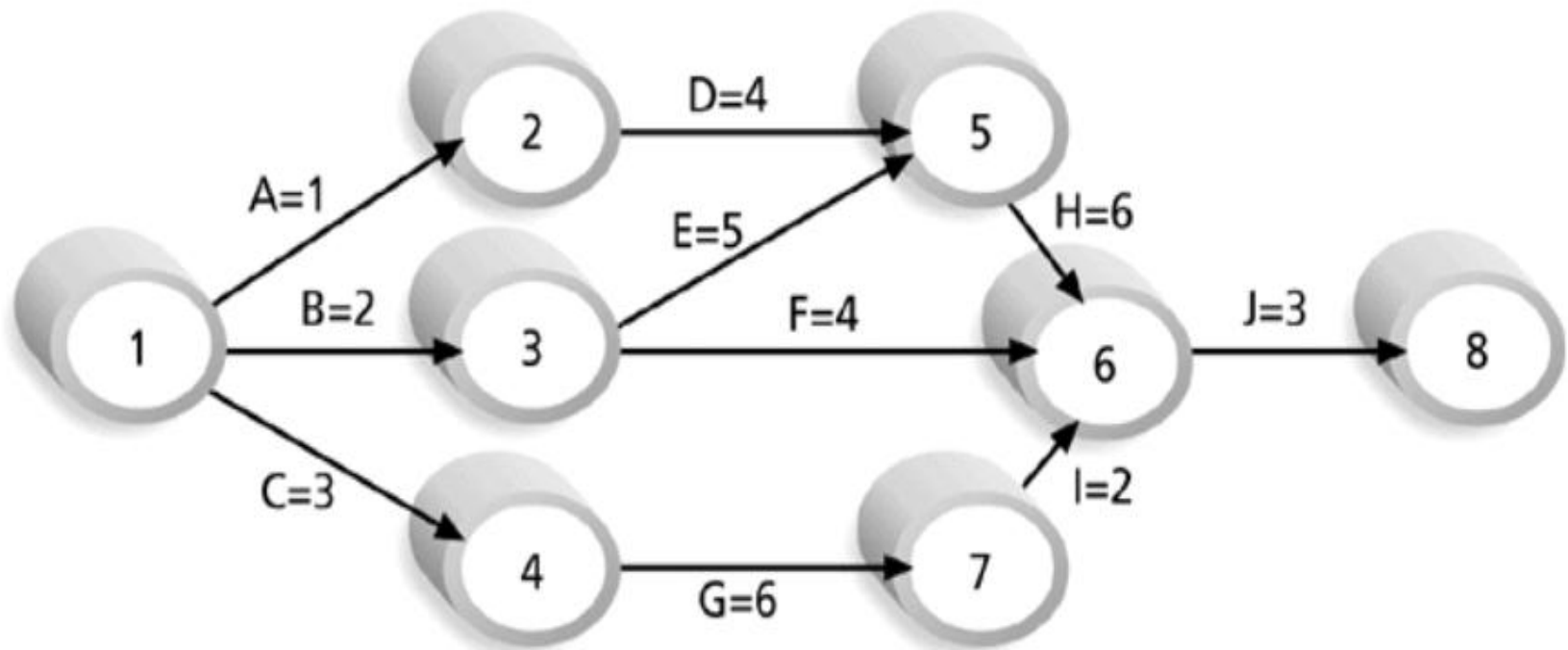
P3 assigns the next available layout number. Accept it or enter a new number.

**What is the Critical Path Method (CPM)**

- ☑ CPM is a project network analysis technique used to manage total project duration
- ☑ A critical path for a project is the series of activities that determines the *earliest time* by which the project can be completed
- ☑ The critical path is the *longest path* through the network diagram and has the least amount of float

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What is the Critical Path Method (CPM)



Note: Assume all durations are in days; A=1 means Activity A has a duration of 1 day.

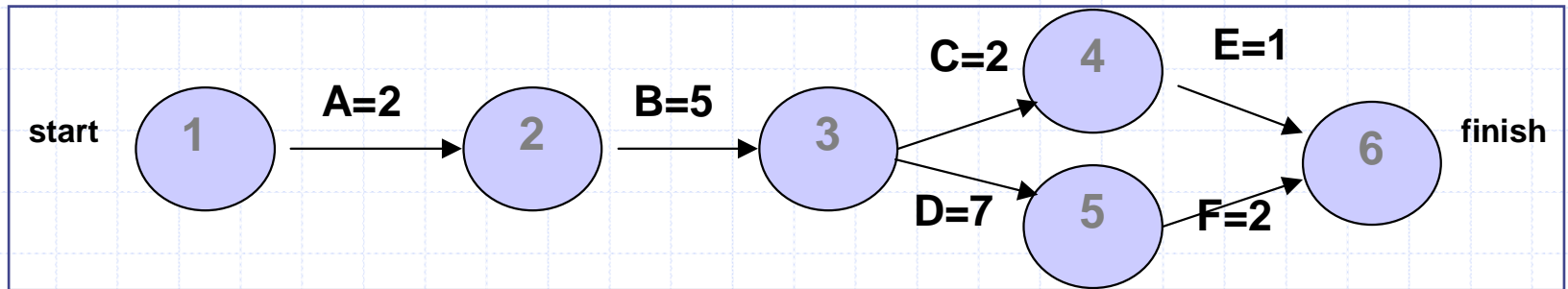
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Finding the Critical Path

- ☑ We have to calculate it manually to feel it (Very Important)
- ☑ First develop the project network diagram
- ☑ Calculate the durations for all paths on the project network diagram
- ☑ The path with the longest duration is the critical path
- ☑  If one or more activities on the critical path takes longer than planned, the whole project schedule will slip *unless* corrective action is taken

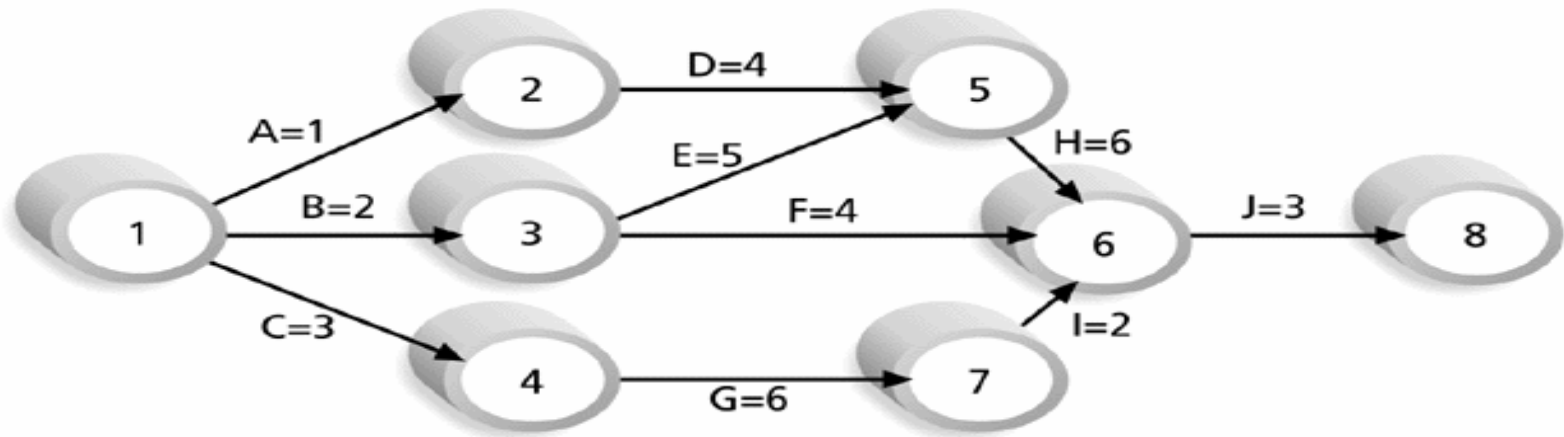
Finding the Critical Path

- ☑ Consider the following project network diagram. Assume all times are in days.



- How many paths are on this network diagram?  
ABDF, ABCE
- How long is each path?
- Which is the critical path?
- What is the shortest amount of time needed to complete this project?

Finding the Critical Path



Note: Assume all durations are in days.

- Path 1:     A-D-H-J     Length = 1+4+6+3 = 14 days
- Path 2:     B-E-H-J     Length = 2+5+6+3 = 16 days
- Path 3:     B-F-J     Length = 2+4+3 = 9 days
- Path 4:     C-G-I-J     Length = 3+6+2+3 = 14 days

Since the critical path is the longest path through the network diagram, Path 2, B-E-H-J, is the critical path for Project X.



More on the Critical Path



Misconceptions:

- ❑ The critical path is the one with all the critically important activities.

✘

- ❑ The critical path cannot change as the project progresses.

✘

- ❑ There can be only one critical path

✘

**More on the Critical Path**



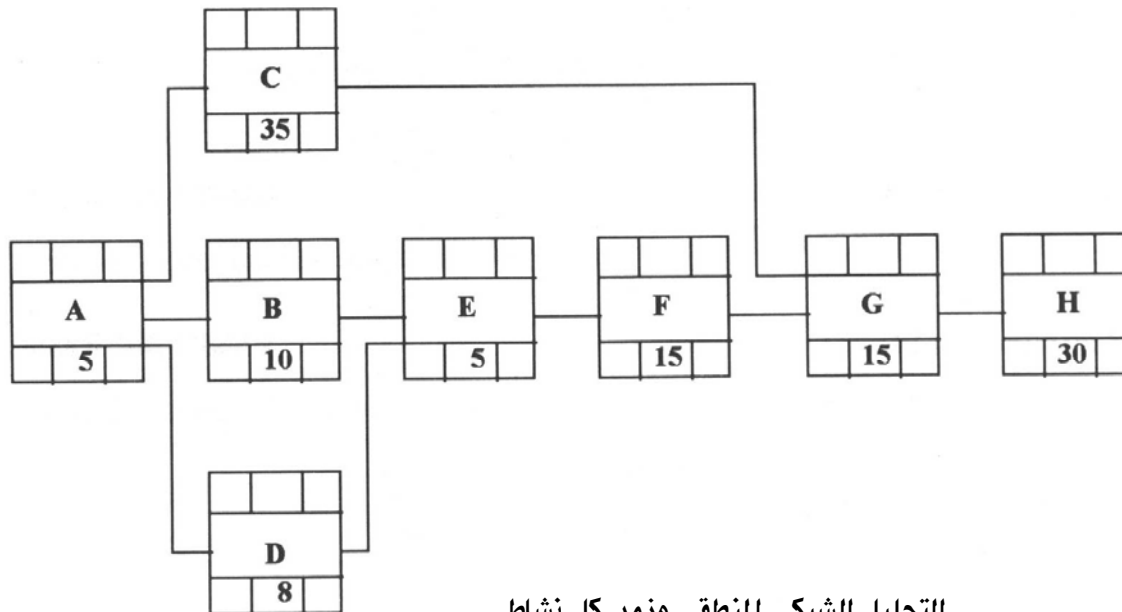
**Misconceptions:**

- The critical path is the one with all the critically important activities.  
✘ Wrong: Critical path considers only task durations for criticality
  
- The critical path cannot change as the project progresses.  
✘ Wrong: Yes, it can.
  
- There can be only one critical path  
✘ Wrong: If the lengths of multiple paths are the same and they are the longest, they are all critical.

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Exercices

<b>E.S.</b>		<b>E.F.</b>
<b>Activity Description</b>		
<b>L.S.</b>	<b>D.</b>	<b>L.F.</b>

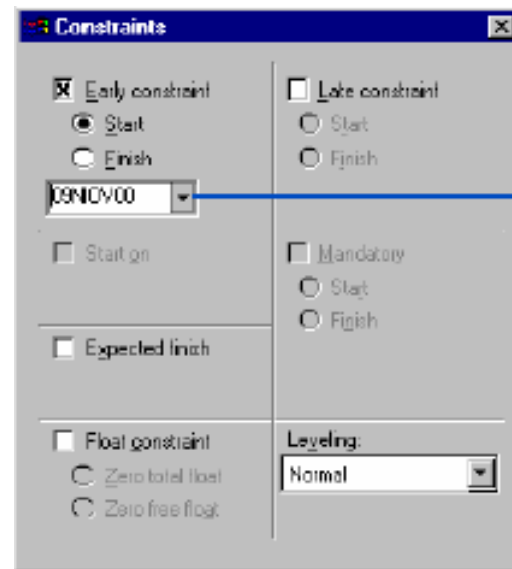


التحليل الشبكي المنطقي وزمن كل نشاط

# Project Management Course Using Primavera Level 1

## Activity Constraints

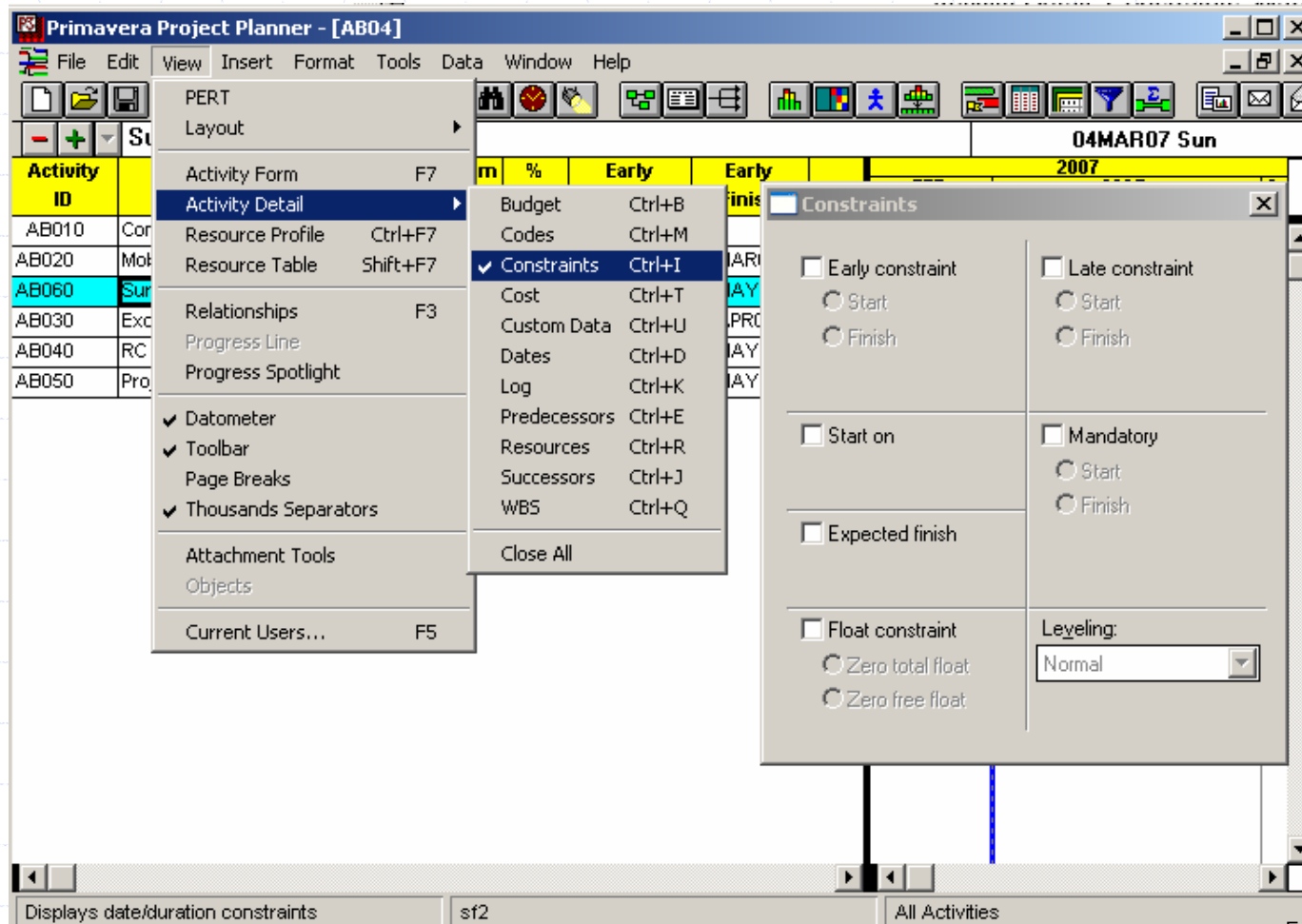
- Use constraints when activities must start or finish at a specific time and/ or date.
- P3 provides two types of constraints: date constraints and float constraints.
- Use date constraints when a specific date controls an activity or project.



*This early start constraint restricts the activity from starting any earlier than November 9.*

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How to open activity Constraints window



## What is Float

### **Float**

The amount of time an activity can be delayed without delaying the overall completion date. Also defined as the time between when an activity can start and when it must start.

Free float is the amount of time an activity can be delayed without delaying the early start of any dependent activities

$$\text{Free Float} = \text{Late Finish} - \text{Early Start} - \text{Duration}$$

Total float is the amount of time activities may be delayed from their early start without delaying the planned project finish date

$$\text{Total Float} = \text{Late Finish} - \text{Early Finish}$$



- Float helps identify schedule problems and analyze schedule status.
- if the *Total Float* is Negative this mean your program is behind schedule
- P3 calculates a negative total float only when you impose a constraint or a project finish date; the late dates are earlier than the early dates, which indicates that the activity is behind schedule.

## Project Management Course Using Primavera Level 1

### Activity Code System

✓ Use the Activity Codes Dictionary to define a set of codes you can use to categorize project activities to be able to:

- ✓ organize,
- ✓ Group,
- ✓ select,
- ✓ summarize activities;
- ✓ produce reports, and graphics

based on the defined activity codes.

✓ To define activity codes Choose Data, Activity Codes, then choose the Activity Codes option.

✓ For each code you want to define, type a name containing up to four alphanumeric characters, specify a length of up to 64 characters, and type a description.



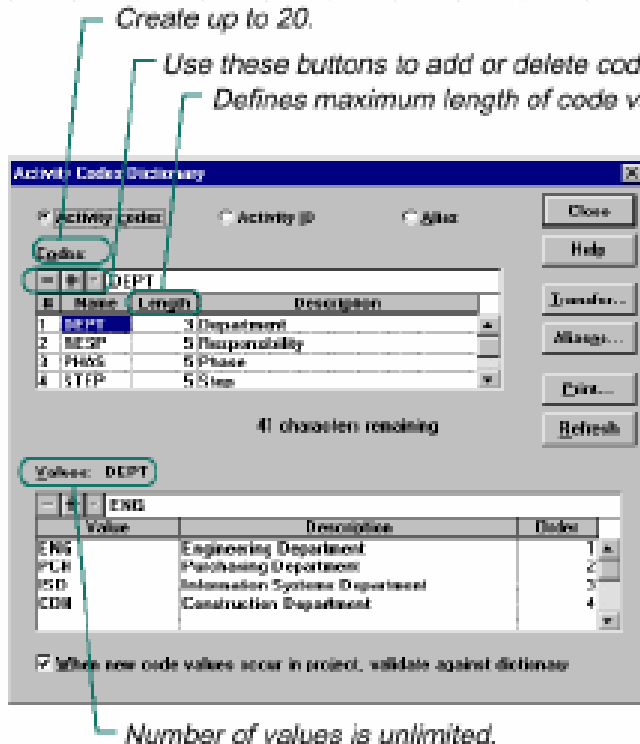
Activity code vary from planner to other, according to your character, experience, type/nature of the project, and your company requirement, policies.



# Project Management Course

## Using Primavera Level 1

### Activity Code System



- To define values and descriptions In the Codes section of the Activity Codes Dictionary:
- ✓ select the activity code to which you want to assign values and descriptions.
  - ✓ In the Values section, type a value and description.
  - ✓ Specify an order number from 1 to 255 if you want the value to appear in an order other than the default alphanumeric sequence.

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***Using \_\_\_\_\_ - Level 1***  
***Primavera***

Activity Code System

### 3. Manage Projects

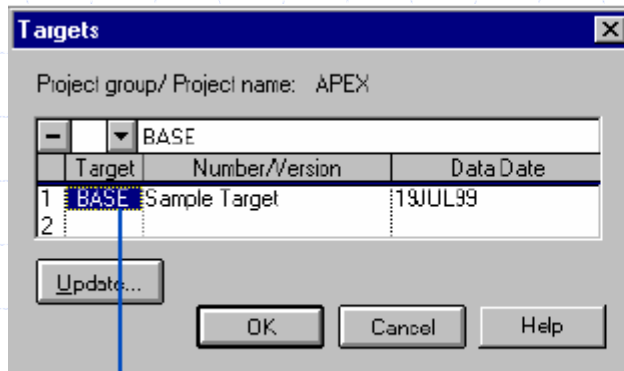
Schedule the project

All the participants to create the actual data and update the project accordingly

## **Creating a Target Project**

- Before you update a schedule the first time, we suggest that you create a target plan.
- The simplest target plan is a complete copy of the original schedule. As the project progresses, use the target as a benchmark or baseline for comparing the target dates, and costs to those for the current schedule. You can also use the target to measure project status and performance.
- To create a copy of the current project and designate it as a target, choose Tools, Project Utilities, Targets.

## Creating a Target Project



*Type a name for the target project, or select an existing project to use as a target from the drop-down list, then click OK.*

You can create another plan (Target 2) and update it at the end of each period; then compare Target 2 to the current project to identify slippage or recovery since the last period. Create as many targets as you want, but you can compare only two targets to the current schedule at a time.

Project Utilities

**Copying Projects**

- Use the Copy command to create a duplicate of any project. Copy a project to:
  - Explore “what-if” scenarios using the duplicate project, so the original project files do not change.
  - Also make a copy before update
  - You can also quickly create a new project from an existing one if the new project uses data similar to the old one. Simply copy the existing project and rename the duplicate.

Choose Tools, Project Utilities, Copy.

Project Utilities

**Copying Projects**

To copy part of a project, select a filter.

Type the name of the new project.

The 'Copy' dialog box contains the following fields and options:

- From:** d:\p325\projects (Browse... button)
- Project group/Project name:** HWY1
- Project ID:** Planning unit: Day
- Number/version:** Construction
- Title:** Highway Widening
- Company:** C.M. Construction, Inc.
- Filter:** All - All Activities
- To:** d:\p325\projects (Browse... button)
- Project group:** HWY2
- Project name:** [Empty]
- Planning unit:** Day
- Project ID:** [Empty]
- Number/version:** Construction
- Title:** Highway Widening
- Company:** C.M. Construction, Inc.
- Add the following characters:** [Empty] to the  left or  right of the current IDs.


Buttons: Copy, Cancel, Help

Select the project group or project to copy.

## Project Utilities

### **Deleting Projects**

The Delete command permanently deletes a project from the specified folder, including layouts and report/graphic specifications.

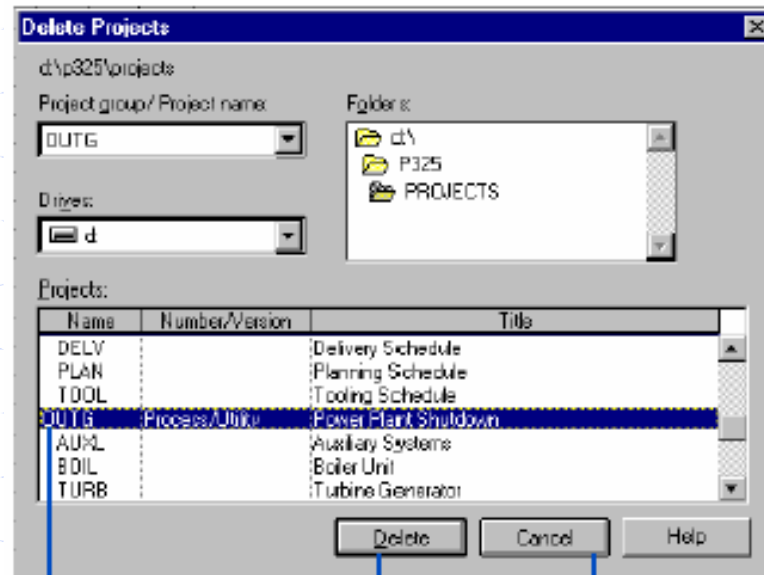
 *Before you select this option, you may want to back up your project files.*

To delete a project, choose Tools, Project Utilities, Delete. Use the Drives and Folders fields to select projects in other locations. You cannot delete an open project.



# Project Management Course Using Primavera Level 1

## Project Utilities



1 Select the project to delete.

2 Click Delete.

3 Click Cancel when you finish deleting projects.

## Back Up

### •**Backing Up Projects**

- P3 enables you to back up projects to diskettes or to another folder and then to restore projects from the backup as needed.
- Choose Tools, Project Utilities, Back Up. Backing up projects protects project data and enables you to share projects with users at remote sites. P3 automatically backs up
  - Layouts
  - Report
  - graphic specifications
  - project dictionaries
  - filter specifications.
- The Back Up command does not delete the project files from the folder.

# Project Management Course

## Using Primavera Level 1

### Back Up

Enter the location of the projects/project groups you want to back up.

Select the projects/project groups to back up.

Specify a destination for the backup copy.

Compress the backup files to save disk space.

Choose this option to quickly back up all projects in the current group. When you restore the backup, only the project groups are listed.

Choose this option if you need to restore individual projects from project groups.

**Back Up**

From: D:\P3WIN\PROJECTS

Back up the following projects:

Back up	Name	Title
<input checked="" type="checkbox"/>	APEX	Plant Expansion and Modernization
<input type="checkbox"/>	AUTO	Robotics Automation System
<input type="checkbox"/>	BLDG	Office Building Addition
<input type="checkbox"/>	CONV	Conveyor System
<input type="checkbox"/>	BASE	Plant Expansion Project - Baseline

To: D:\BACKUPS

Compress files

Remove access list during backup

**Select All**

Select:

Project groups

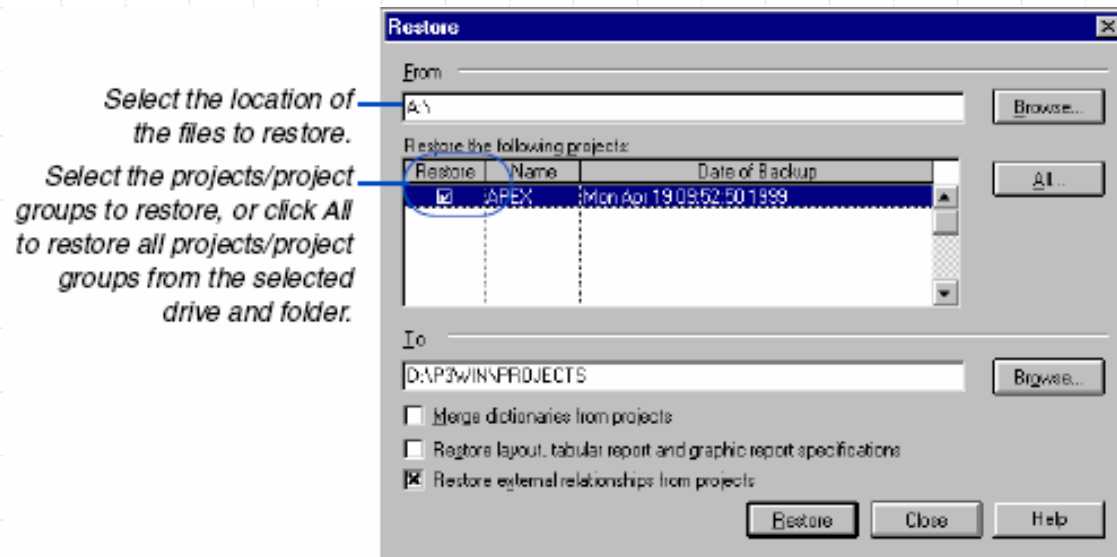
Projects

Project groups and projects

All options exclude dummy project groups.

## Restoring Projects and Project Groups

- Restore projects and project groups from the backup diskette(s) or folder to the selected folder using the Restore command.  
Choose Tools, Project Utilities, Restore.



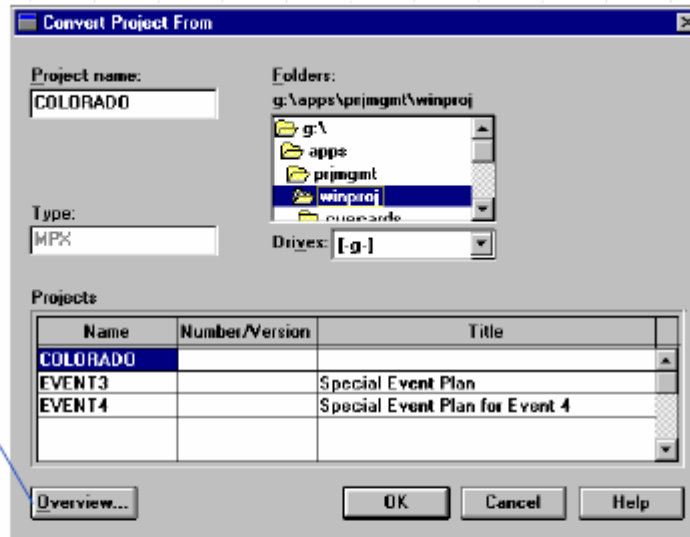
## Converting Data to and from Microsoft Project

P3 enables you to convert Microsoft 3.0 or 4.0 projects to P3 format. You can also save P3 projects as a Microsoft .MPX file.

**Convert a Microsoft Project to P3** Choose Tools, MPX Conversion Utility, then choose File, Convert an MPX Project to a P3 Project. In the Projects section, select the Microsoft project to convert. Click OK. In the Convert Project To dialog box, specify a new name for the converted project.

# Project Management Course

## Using Primavera Level 1



Click to review more information about the project before you convert it.

**Convert a P3 project to Microsoft Project** Choose Tools, MPX Conversion Utility, then choose File, Convert a P3 Project to an MPX Project. Select a project in the Projects section and click OK In the Convert Project To dialog box, enter a new name for the converted project.

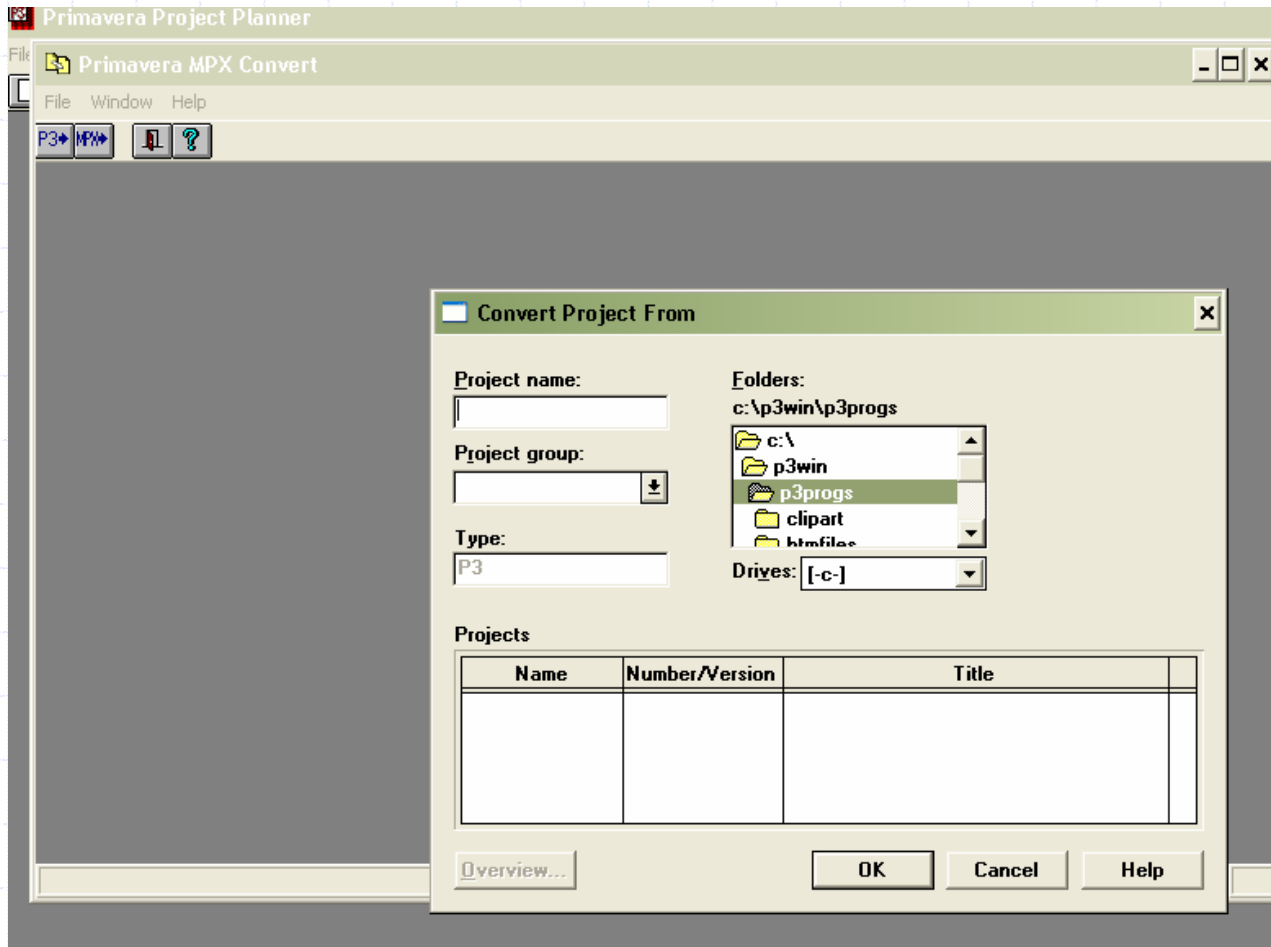
# Project Management Course Using Primavera Level 1

## Converting Data to and from Microsoft Project



# Project Management Course Using Primavera Level 1

## Converting Data to and from Microsoft Project

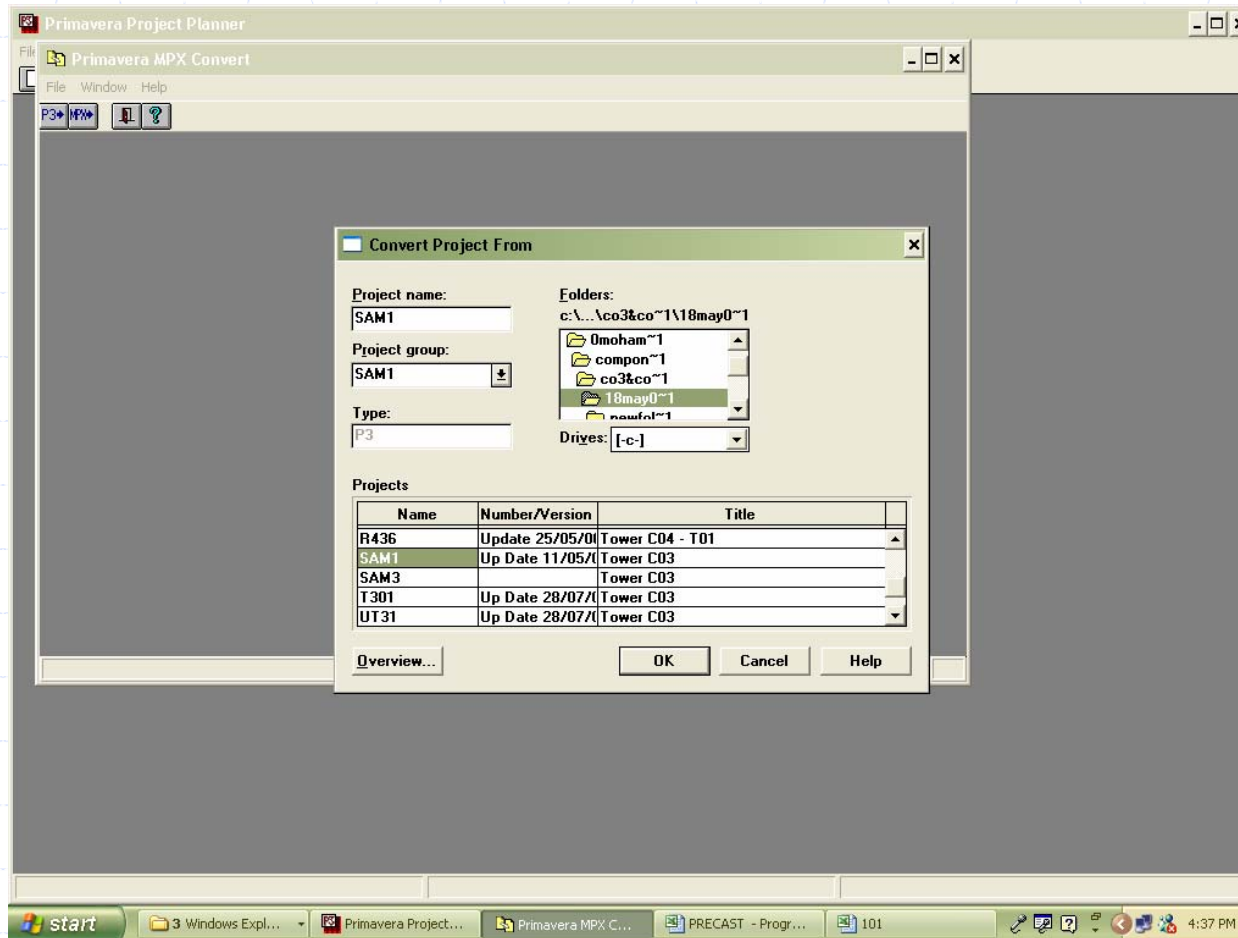




# Project Management Course

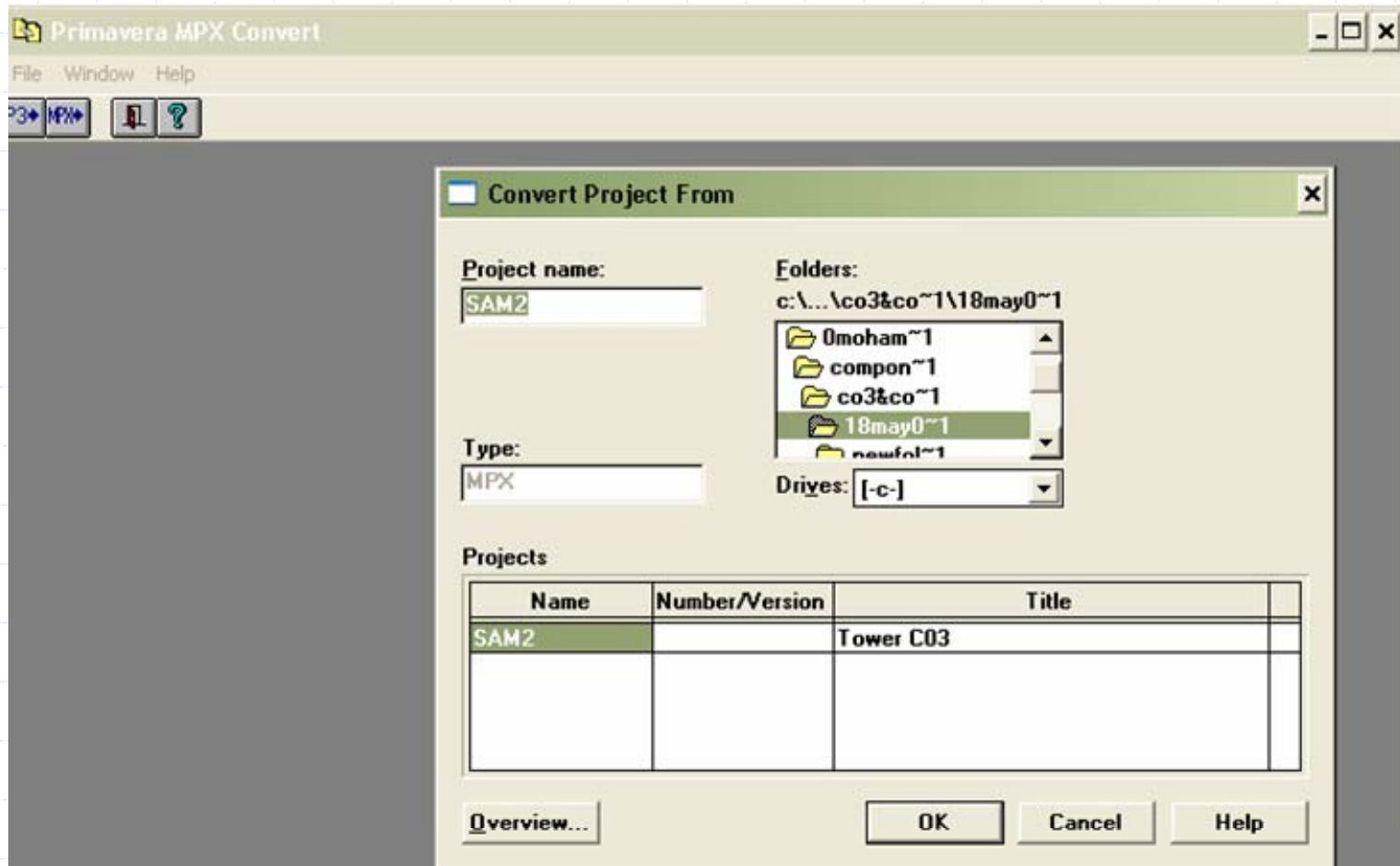
## Using Primavera Level 1

### Converting Data to and from Microsoft Project



# Project Management Course Using Primavera Level 1

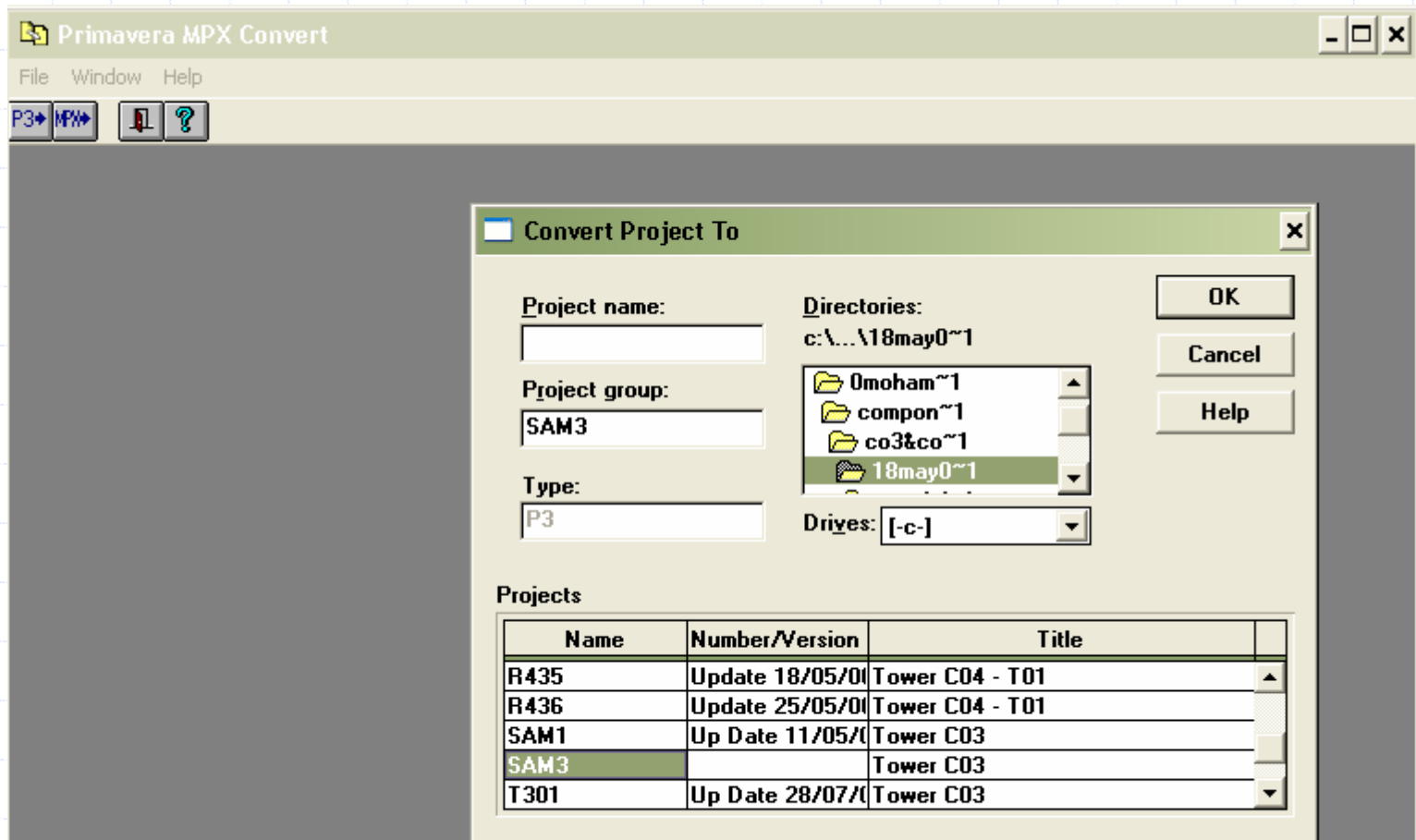
## Converting Data to and from Microsoft Project



# Project Management Course

## Using Primavera Level 1

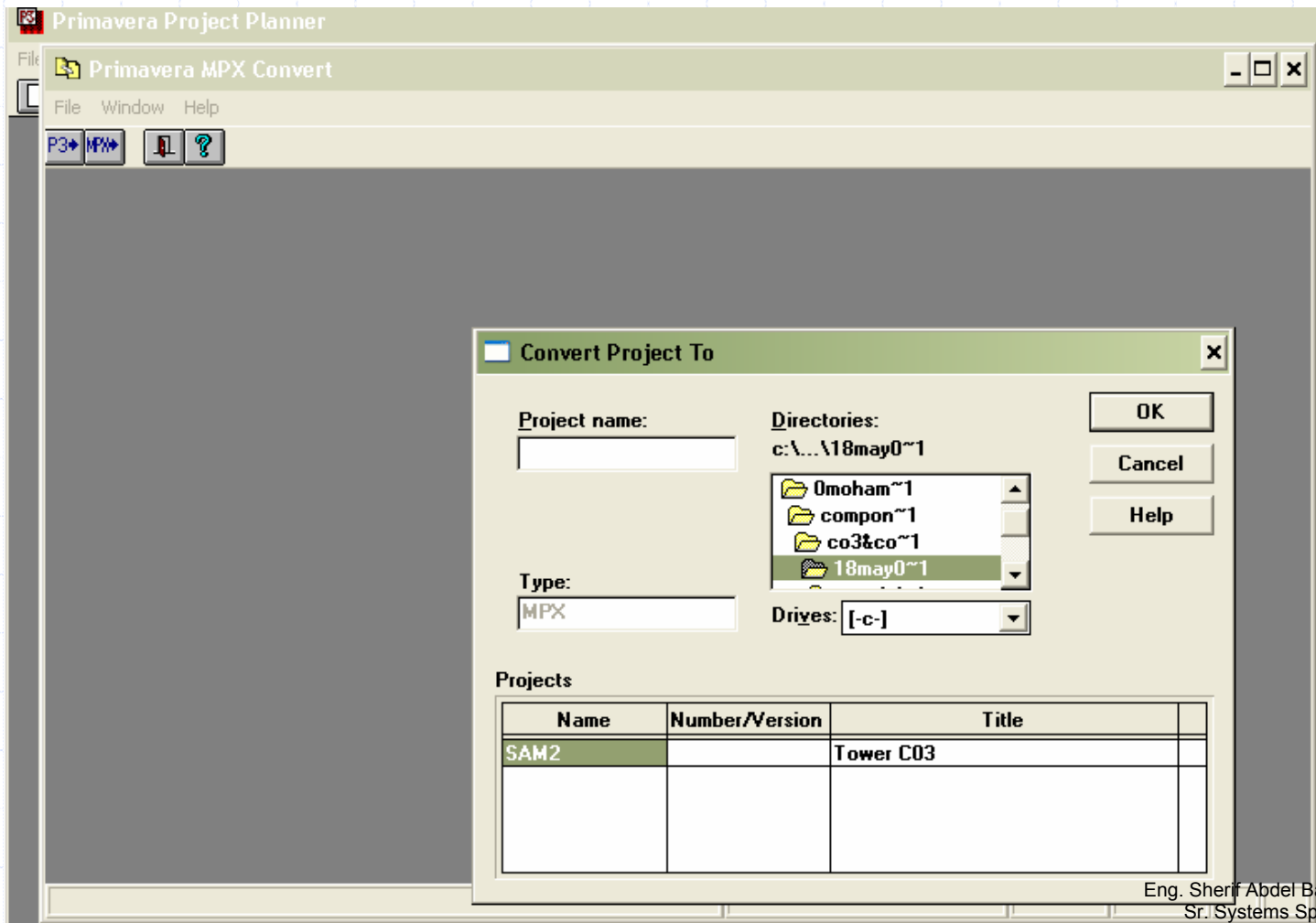
### Converting Data to and from Microsoft Project



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## Using Primavera Level 1

### Converting Data to and from Microsoft Project



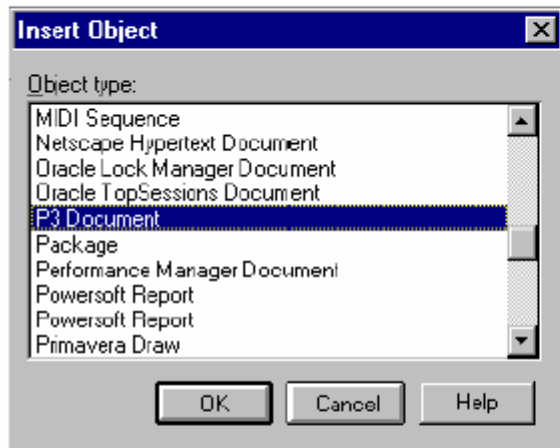
## Using OLE to Highlight Project Events

You can create , drawings, text, graphs, or other objects with an OLE server application, and integrate those objects into your layout.

An OLE server is an application whose objects can be embedded or linked into other documents. Once you embed or link objects into a layout, you can edit the objects from within the layout without exiting P3.

## Using OLE to Highlight Project Events

**Create and embed a new object** Select the activity or group title band to which you want to attach the object. Choose Insert, Object.



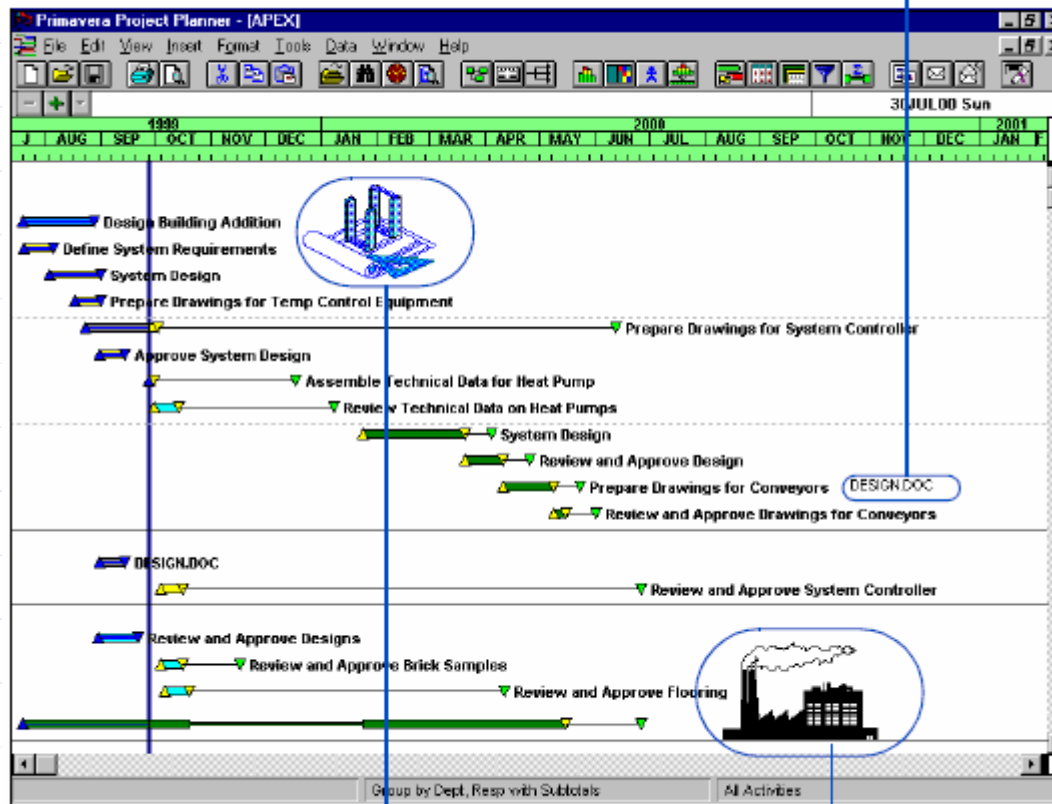
Select the application that creates the type of object you want to embed. The Insert Object dialog box lists all the server applications installed on your system. Click OK to open the selected server application. Create a new object. Choose File, Update from the menu bar of the server application.

# Project Management Course

## Using Primavera Level 1

### Using OLE to Highlight Project Events

Include design documents for specific phases.



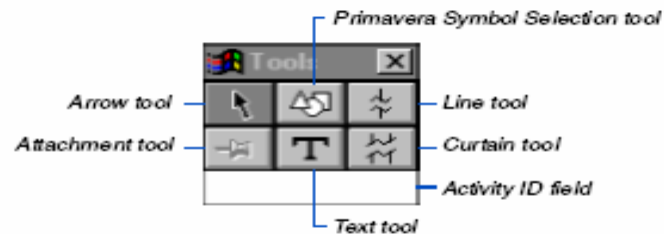
Insert pictures to highlight project activities.

## Using OLE to Highlight Project Events

### Using Tools to Attach Objects to the Layout

The Attachment Tools enable you to select objects, change the attachment of objects, quickly link bitmaps and Primavera Draw objects to your layout, add text, shading, and date lines to the Bar chart.

**Display Attachment tools** In the Bar chart, choose View, Attachment Tools.



If the Primavera Symbol Selection tool or Text tool is selected, the activity ID field at the bottom of the Tool palette displays the activity ID or group title band to which the object will attach when you release the mouse button. If you select an attached object in the layout, the Activity ID field will display the Activity ID or group title band to which the object is currently attached.



*You must display the Tool palette to select OLE objects in the Bar chart.*



## 4. Analysis , Presentations, Reports

## Project Management Course Using Primavera Level 1

Group, sort, filter, and summarize data:

- P3 provides extensive grouping and sorting capabilities so you can view a project from many different perspectives.
- Sorting arranges activities in any order you select, such as by early start to view activities sorted according to time.
- Grouping organizes activities into categories that share a common attribute. For example, focus on activities by responsibility, or date. Or, for a hierarchical view of the project, outline the project by its work breakdown structure.

# Project Management Course

## Using Primavera Level 1

Group, sort, filter, and summarize data:

Organize, Sort

Select the data items for grouping.

Mark to combine the selected data items together in one group band.

Mark this checkbox to show unclassified activities in the layout.

Specify whether groups appear in ascending or descending order.

Organize

Organize by  Activity data item  Work breakdown

Group by:

Group by	Order	Font	Bkgnd	Text	New page	Total
Project		Arial, 14, B	Blue	Yellow		None
Department	Ascend	Arial, 12	Green	Black		None
Responsibility	Ascend	Arial, 9, B	Yellow	Blue		None

Display All values in one band

Reorganize automatically

Display unassigned and unclassified activities

Sample

Project

Sort by:

Sort on	Order
Early start	Ascend
Total float	Ascend

Options... Organize Now Cancel Help

**Group, sort, filter, and summarize data:**

Organize

Organize by

Activity data item     Work breakdown

Group by:

Group by	Order	Font	Bkgrnd	Text	New page	Total
Phase	Ascend	Arial 11 B	Blue	Yellow		None
Responsibility	Ascend					
Item	Ascend					

Display All values in one band

Reorganize automatically

Display unassigned and uncategorized activities

Sample

Phase

Sort by

Sort on	Order
Early start	Ascend

Options...    Organize Now    Cancel    Help

Select a font for text in bands.

Select the background color of bands.

Select the text color.

Click to set banding options.

If you are combining values in one band, P3 only uses the font, colors, and other options set for the first item in the Group By list.

# Project Management Course Using Primavera Level 1

## What is the Filter:

### •*Selecting Activities by Filter:*

•Filters control the activities P3 displays in the project window. When you want to work with a part of your project, a filter temporarily limits the activities displayed, based on criteria you specify.

Select a filter and click OK to apply it.

Click to view or change the criteria for a selected filter.

Choose how to apply the filter.

Choose to highlight activities that match the filter's criteria.

ID	Description
All	All Activities
None	No Activities
FL-01	Automation System Project Activities
FL-02	Building Addition Project Activities
FL-03	Conveyor System Project Activities
FL-04	Schedule Update
FL-05	Six-Month Lookahead
FL-06	Work in Progress
FL-07	Near Critical Activities
FL-08	Activities With Logs

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## Using Primavera Level 1

Type a title that describes the activities you want the filter to select.

Specify up to four levels of filtering criteria.

Choose whether activities must meet all selection statements or at least one.

**Filter Specification**

Title:  << >>

Level:  must meet  All  Any of the following criteria:

Selection criteria

Select if	Is	Low Value	High Value
Responsibility	EQ	NOLAN	
Total float	LT		5

Specify a value in this column when selecting a range of data.

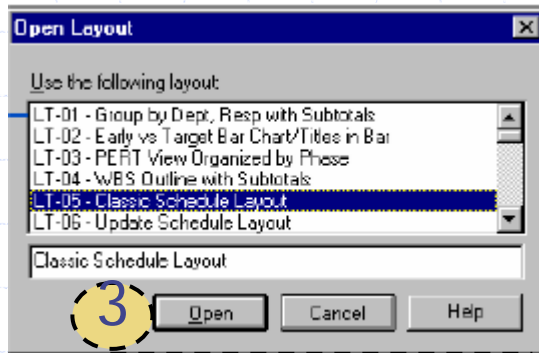
***Project Management Course***  
***Using Primavera Level 1***

<b>Column</b>	<b>Description</b>
Select if	Identifies the data used for the selection. Enter up to seven lines of selection statements per level.
Is	Enables you to restrict the number of activities selected by choosing one of the following criteria codes:  EQ - Equal To NE - Not Equal To GT - Greater Than LT - Less Than WR - Within Range NR - Not Within Range CN - Contains (the text string) SN - Does Not Contain (the text string)
Low Value/ High Value	Identifies specific activity data to use for the selection. Enter data in the High Value column only when using WR or NR as criteria codes.

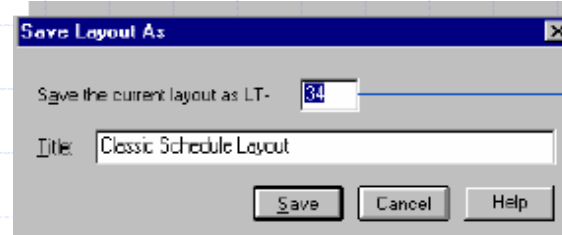
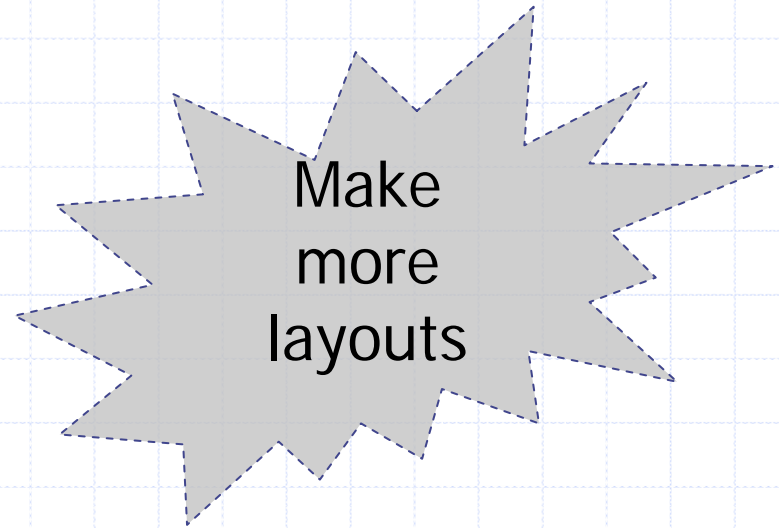
# Project Management Course

## Using Primavera Level 1

### How To Open/Save A layout



P3 displays a list of layouts for the current project. Double-click the layout you want to open.



P3 assigns the next available layout number. Accept it or enter a new number.



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•***Print***

•***Total bar***

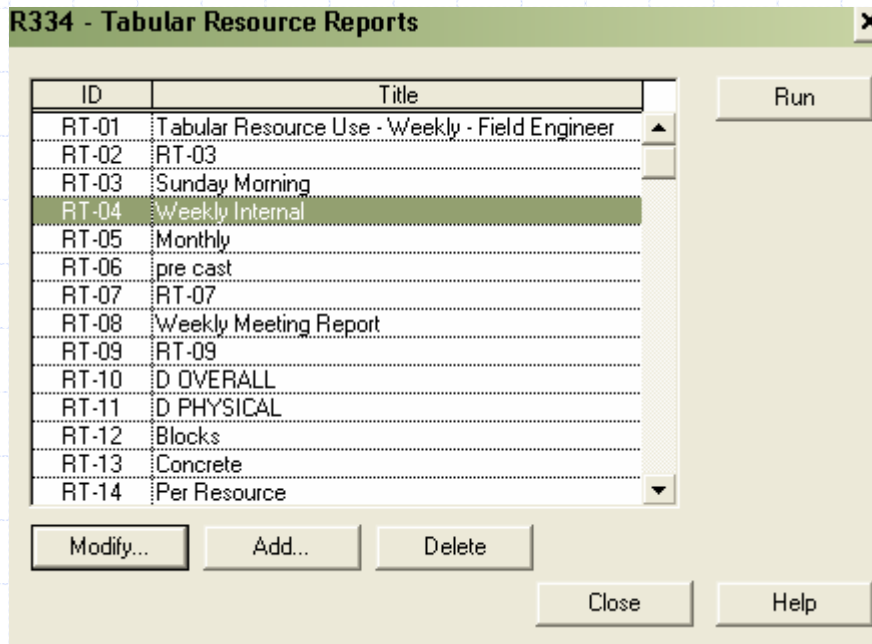
•***Sub-total bar***

•***Summary bar***

•***reports***

**Project Management Course**  
**Using Primavera Level 1**

tabular resource report



tabular resource report

RT-04 R334 - Tabular Resource Reports

Title: Weekly Internal << >> Run

Resource Selection Selection Timescale

Resource selection:

Profile if	Low Value Resource	Low Value Cost Account	High Value Resource	High Value Cost Account
WR	1		9	

Transfer... OK Cancel Help

## tabular resource report

RT-04 R334 - Tabular Resource Reports

Title: Weekly Internal << >> Run

Resource Selection Selection Timescale

Level 1 must meet  All of the following criteria:  
 Any

Selection criteria:

Element/ Area/ Bu	Select if	Is	Low Value	High Value
Element/ Area/ Bu		EQ	CD	

Transfer... OK Cancel Help

## tabular resource report

**RT-04 R334 - Tabular Resource Reports**

Title:  << >> Run

Resource Selection | Selection | Timescale

Options

Start date:  Timescale units:

End date:  Days shown per week:

Resource usage can be profiled for each of three schedule dates

Schedule 1:  Schedule 2:  Schedule 3:

Export data to file

File type:  File name:

Transfer... OK Cancel Help

# Project Management Course Using Primavera - Level 1

## tabular resource report

TARGET NUMBER 1 NOT DEFINED FOR PROJECT SAM2

Sama Dubai

PRIMAVERA PROJECT PLANNER

Area 5-Building&Water Way Edge Work

REPORT DATE 7FEB07 RUN NO. 64 13:40

TABULAR RESOURCE REPORT-MONTHLY

START DATE 9AUG06 FIN DATE 6SEP10

Tabular Resource Use - Monthly

DATA DATE 10OCT06 PAGE NO. 1

PERIOD	---AVAILABLE---		-----EARLY SCHEDULE----		-----LATE SCHEDULE----		---TARGET 1 SCHEDULE---		
	BEGINNING	NORMAL	MAXIMUM	USAGE	CUMULATIVE	USAGE	CUMULATIVE	USAGE	CUMULATIVE
		ENG	- engineer			UNIT OF MEASURE = hr		TARGET = EARLY	
1JUL96		0	0	.00	.00	.00	.00	.00	.00
1AUG96		0	0	.00	.00	.00	.00	.00	.00
1SEP96		0	0	.00	.00	.00	.00	.00	.00
1OCT96		0	0	.00	.00	.00	.00	.00	.00
1NOV96		0	0	.00	.00	.00	.00	.00	.00
1DEC96		0	0	.00	.00	.00	.00	.00	.00
1JAN97		0	0	.00	.00	.00	.00	.00	.00
1FEB97		0	0	.00	.00	.00	.00	.00	.00

Line: 1 Col: 1

NUM

# Project Management Course

## Using Primavera Level 1

### tabular resource report

PERIOD		---AVAILABLE---		---EARLY SCHEDULE---		---LATE SCHEDULE---		---TARGET 1 SCHEDULE---	
BEGINNING	NORMAL	MAXIMUM	USAGE	CUMULATIVE	USAGE	CUMULATIVE	USAGE	CUMULATIVE	
1200		- DIG/AMB. TANK/S. LAGOON		UNIT OF MEASURE =					
1AUG06	0	0	8810.28	36207.73	8810.28	36207.73	.00	.00	
1SEP06	0	0	8283.34	44491.07	8921.22	45128.95	.00	.00	
1OCT06	0	0	13313.49	57804.56	10437.80	55566.75	.00	.00	
***DATA DATE***									
1NOV06	0	0	29104.00	86908.56	6446.32	62013.07	.00	.00	
1DEC06	0	0	25579.16	112487.72	700.67	62713.74	.00	.00	
1JAN07	0	0	24693.41	137181.13	995.37	63709.11	.00	.00	
1FEB07	0	0	20453.52	157634.65	673.01	64382.12	.00	.00	
1MAR07	0	0	18883.91	176518.56	1324.92	65707.04	.00	.00	
1APR07	0	0	16180.65	192699.21	3511.87	69218.91	.00	.00	
1MAY07	0	0	10991.05	203690.26	12414.42	81633.33	.00	.00	
1JUN07	0	0	7879.53	211569.80	13293.30	94926.63	.00	.00	
1JUL07	0	0	7818.88	219388.68	11360.78	106287.42	.00	.00	
1AUG07	0	0	6630.56	226019.23	5367.45	111654.86	.00	.00	
1SEP07	0	0	6341.96	232361.19	1835.90	113490.77	.00	.00	
1OCT07	0	0	3894.19	236255.38	6368.28	119859.04	.00	.00	
1NOV07	0	0	3085.32	239340.69	1682.41	121541.45	.00	.00	
1DEC07	0	0	1460.65	240801.34	1693.81	123235.26	.00	.00	

**Project Management Course**  
**Using Primavera Level 1**

tabular resource Loading

RL-10 R334 - Resource Loading Reports

Title: PMs PROFILE << >> Run

Resource Selection **Format** Selection Timescale

Generate report in P3 Font... Arial, Regular, 87

Export report in CSV format to the file C:\0\X\PMP.csv Browse

Organize

Organize by: RES - Resource Group/subtotal by: <none>  Summary report

Options

Truncate activity description

Repeat activity title on all horizontal sheets

Display row totals  Left  Right

Page width: 132 Column width: 5

Divide by: 1 Decimals: 0

Sort by:

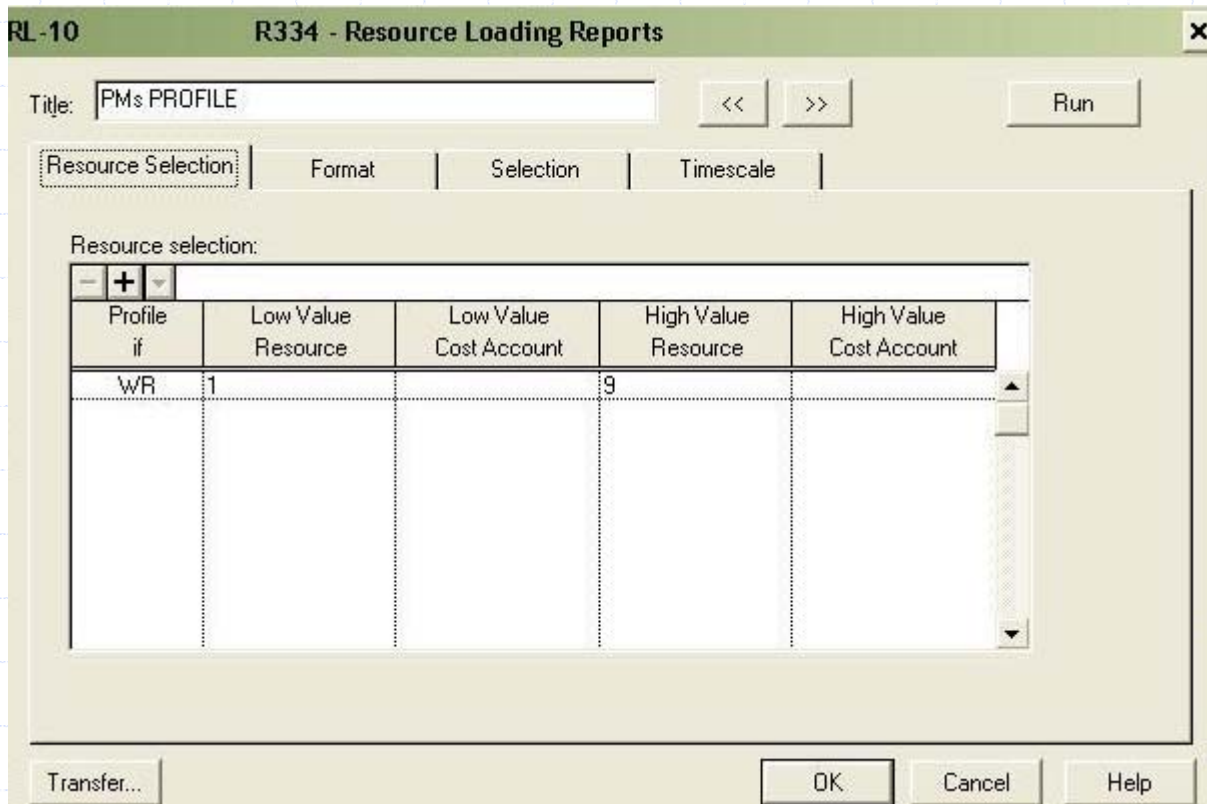
Sort on	Order
Main Item	Ascend
Level	Ascend

Transfer... OK Cancel Help



**Project Management Course**  
**Using Primavera Level 1**

tabular resource Loading



Project Management Course  
Using Primavera Level 1

tabular resource Loading

RL-10 R334 - Resource Loading Reports

Title: PMs PROFILE << >> Run

Resource Selection | Format | Selection | Timescale

Level 1 must meet  All of the following criteria:  
 Any

Selection criteria:

Select if	Is	Low Value	High Value
Level	SN 48		
Level	SN 49		
Level	SN 50		
Level	SN 51		

Transfer... OK Cancel Help

**Project Management Course**  
**Using Primavera Level 1**

tabular resource Loading

RL-10 R334 - Resource Loading Reports

Title: PMs PROFILE << >> Run

Resource Selection | Format | Selection | Timescale

Date range

Start: CAL 03MAY04 End: CAL 12JUN06

Usage

Total  Exclude actual usage

Peak

Average:

Display

Unit: Week  Show fiscal years

Days shown per week: 5 Start month: October

Only include values within date range

Transfer... OK Cancel Help

# Project Management Course

## Using Primavera Level 1

### tabular resource Loading

**RL - 10** **R334 - Resource Loading Reports** [X]

Title:  << >> Run

Resource Selection | **Format** | Selection | Timescale

Generate report in P3 Font... Arial, Regular, 87

Export report in CSV format to the file  Browse

Organize

Organize by:  Group/subtotal by:   Summary report

Options

Truncate activity description

Repeat activity title on all horizontal sheets

Display row totals  Left  Right

Page width:  Column width:

Divide by:  Decimals:

Sort by:

Sort on	Order
Main Item	Ascend
Level	Ascend

Transfer... OK Cancel Help

## tabular resource Loading

**RL -10 R334 - Resource Loading Reports** [X]

Title:  << >> Run

Resource Selection | Format | Selection | Timescale

Generate report in P3 Font... Arial, Regular, 87

Export report in CSV format to the file  Browse

Organize

Organize by:  Group/subtotal by:   Summary report

Options

Truncate activity description

Repeat activity title on all horizontal sheets

Display row totals  Left  Right

Page width:  Column width:

Divide by:  Decimals:

Sort by:

Sort on	Order
Main Item	Ascend
Level	Ascend

Transfer... OK Cancel Help

# Project Management Course

## Using Primavera Level 1

### tabular resource Loading

Primavera Look - [Untitled]

File Edit View Insert Format Table Window Help

KERZNER INTERNATIONAL

REPORT DATE 07FEB07 RUN NO. 2358  
01AUG03 FIN DATE 29DEC08\*  
14:00

PRIMAVER.  
RESOURC  
DATA DATE 21OCT06  
TOTAL U

RESOURCES-LABOUR-MONTHLY

RESOURCE	RESOURCE DESCRIPTION	TOTAL	JAN 2006	FEB 2006	MAR 2006	APR 2006	MAY 2006	JUN 2006	JUL 2006	AUG 2006	SEP 2006	OCT 2006	NOV 2006	DEC 2006
1200	DIG/AMB. TANK/S.LAGO	4472			15	49	334	347	398	367	345	555	1213	851
1300	CONVENTION CENTER	1690					21	52	56	56	52	238	689	525
1350	ACTIVE POOL GRILLE	160					6	20	22	22	20	19	14	37
1500	WATER PARK-STRUCTURE	13998	55	51	90	226	527	671	975	1171	1421	1945	4181	2685
1600	WATER PARK BUILD -BU	4523										144	1214	3164
1650	WATER PARK-UTILITIES													
	<b>REPORT TOTAL</b>	<b>24843</b>	<b>55</b>	<b>51</b>	<b>105</b>	<b>275</b>	<b>888</b>	<b>1090</b>	<b>1451</b>	<b>1617</b>	<b>1838</b>	<b>2901</b>	<b>7312</b>	<b>7261</b>

## ***Workshops:***

- ~ Creating an activity code
- ~ Adding Activities
- ~ Creating Relationships
- ~ Scheduling
- ~ Updating the Schedule

# Questions/Discussion





# Project Management Course Using Primavera Level 1

## Important Notes

- To Change Project Main Data:  
FILE + PROJECT OVERVIEW
- To change/modify ID numbers :  
File + Open + activate (Tick) exclusive Bottom
- F7 is a short cut to Activity form
- to fix the ID number Increment  
Tools + Option + Activity Inserting
- to assign code to the activity  
Activity Form (F7) + Codes  
Or  
Add column + assign the code thru it
- To activate the automatic (FS) relationship
- Insert + Autolink
- To fix the Project Must finish Date  
Project overview
- To know the current deviation based on the target  
Format + Column+ add Column choose :Variance 1 Early Finish “

## Important Notes

➤ To change/modify ID numbers :

File + Open + activate (Tick) exclusive Bottom

➤ Sign \* is an indicator of a constraint is assigned to that activity

➤ To Schedule

Tools + Schedule “ Which Gives You A Report Of current constraint, open end activities, out of sequence logic”

➤ Press (F9) if to Perform Scheduling Only (no report is required)

➤ To summarized the whole project

Tools + Summarize All

## Important Short-Cut

CTRL+I: Constraint Window

CTRL+E: Predecessor Window

CTRL+J: Successor Window

CTRL+W: Save Layout Window

CTRL+O: Open Project Window

CTRL+P: Print Window

CTRL+F: Find Activity Window

## Important Short-Cut

- CTRL+K: Log Window
- CTRL+M: Activity Code Window
- CTRL+N: Add New Project Window
- CTRL+W: Save Layout Window
- CTRL+O: Open Project Window
- CTRL+P: Print Window
- CTRL+F: Find Activity Window