



PROJECT SOLUTIONS GROUP



EXCEPTIONAL SOLUTIONS
THROUGH EFFECTIVE PROJECT MANAGEMENT

Project Solutions Group, Inc.



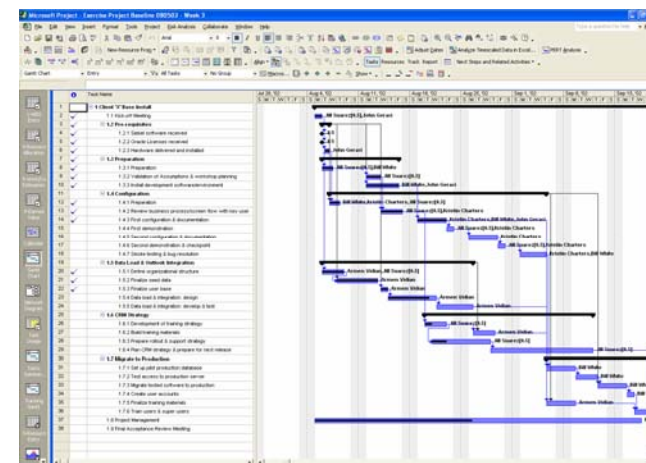
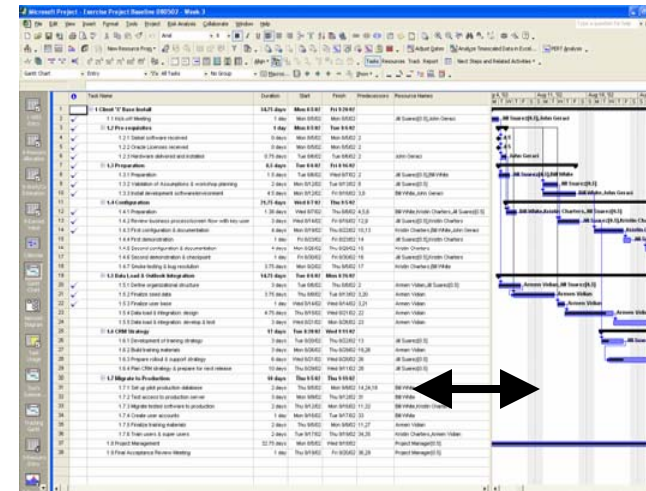
Objectives

- Formatting & Printing Gantt Charts
- Leveling Resources
- Calculating Costs & Pricing Information
- Collecting & Entering Project Actuals
- Understanding How MS Project Calculates Work, Duration & Units
- Baselining/Rebaselining the Project
- Measuring Project Status
- Linking Multiple Projects
- Generating Custom Reports
- Exporting Information to Excel
- Have fun...



Formatting and Printing Gantt Charts

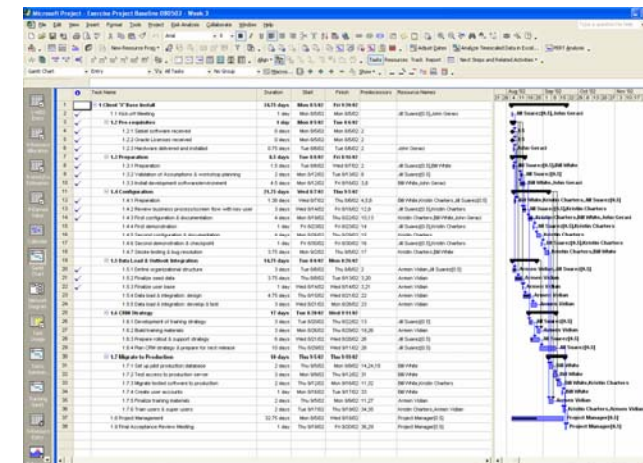
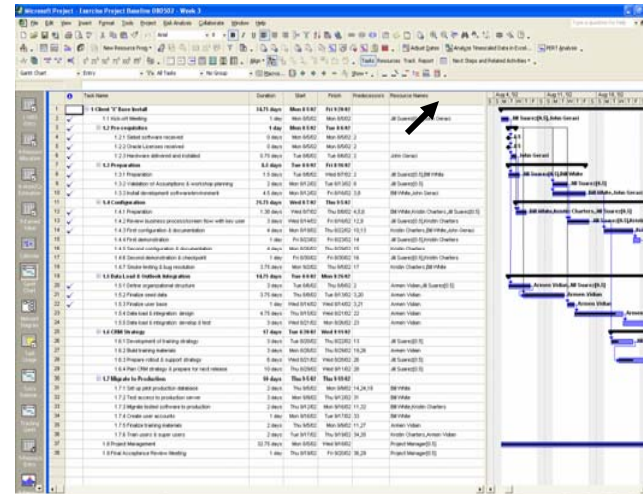
- ❖ Adjust the size of the Gantt Chart pane by moving the Horizontal Split Bar right or left





Formatting and Printing Gantt Charts

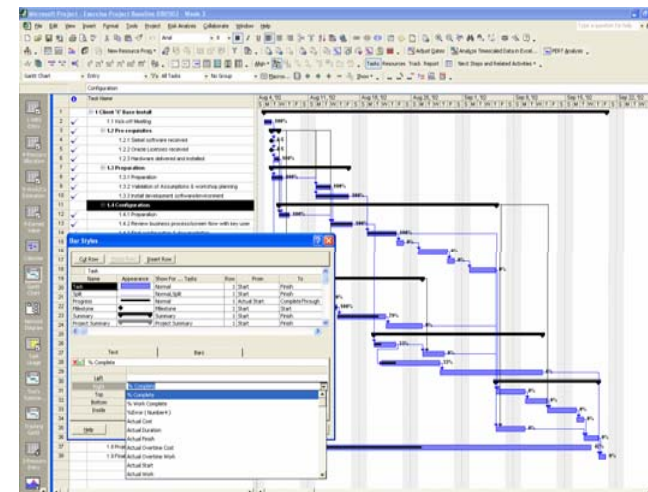
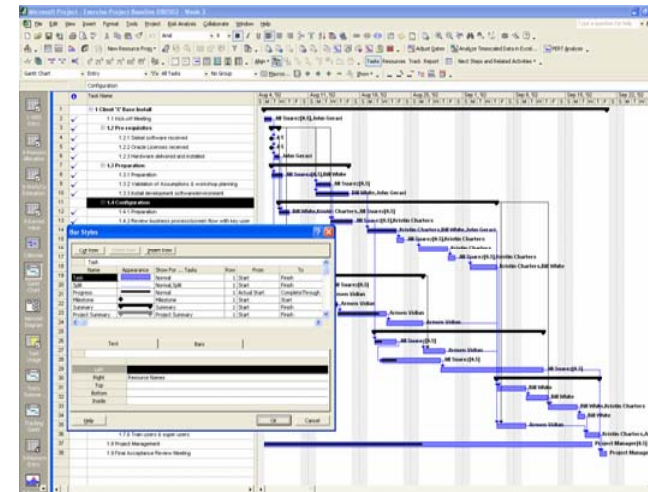
❖ Adjust the timescale by clicking on the Zoom-In and Zoom-Out icons.





Formatting and Printing Gantt Charts

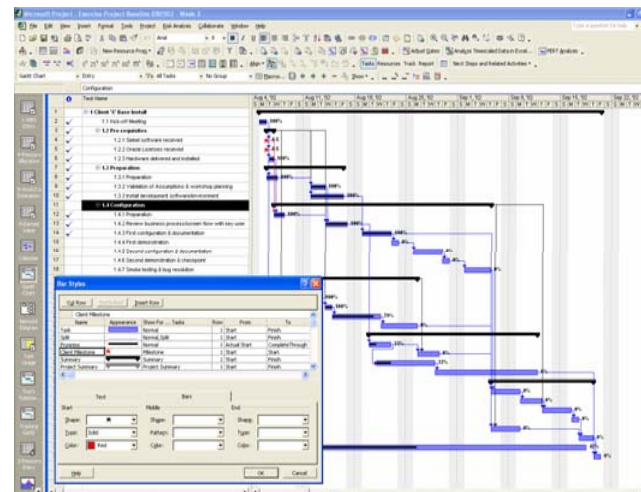
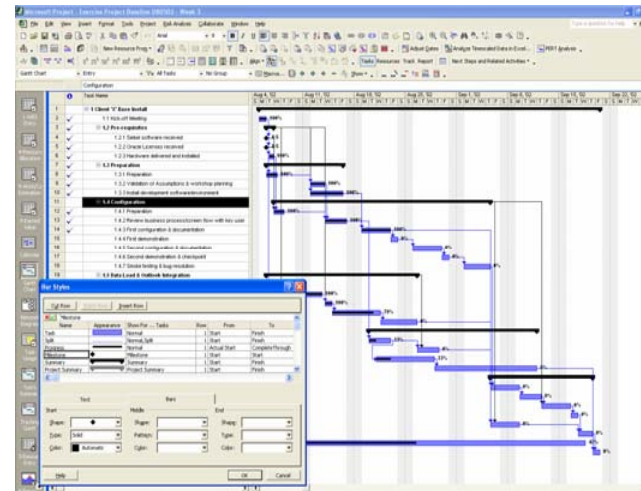
- ❖ Change or remove text in the Gantt Chart using the Bar Styles window.





Formatting and Printing Gantt Charts

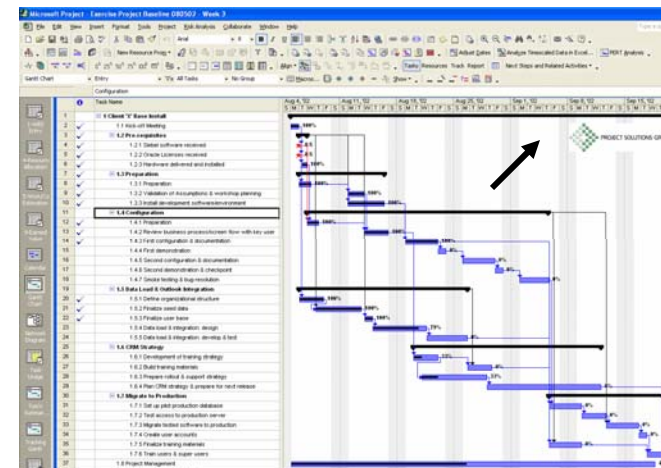
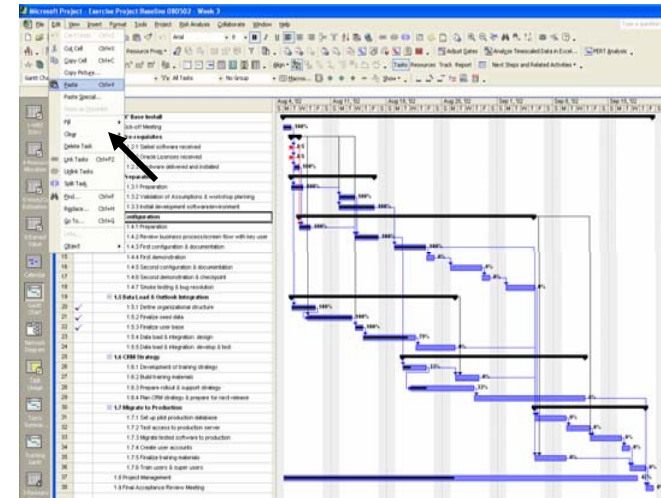
- ❖ Change or create shapes in the Gantt Chart using the Bar Styles window.





Formatting and Printing Gantt Charts

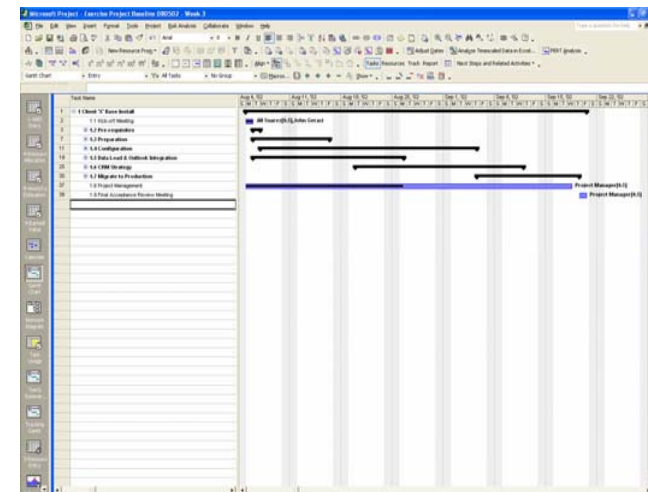
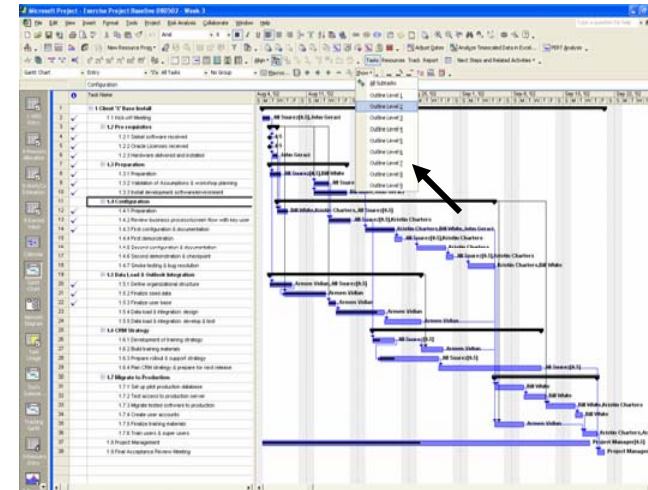
- ❖ Add pictures, drawings or logos to your Gantt Chart by inserting or pasting objects.





Formatting and Printing Gantt Charts

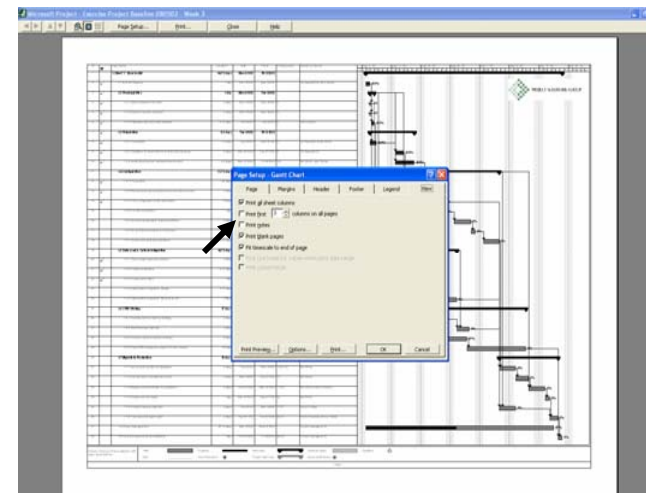
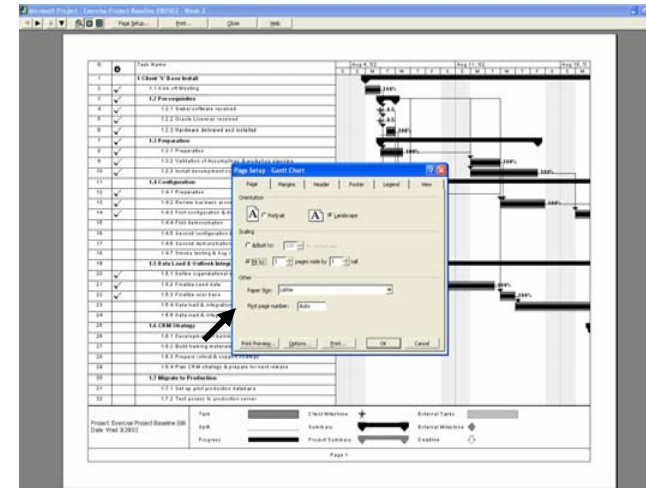
- ❖ Reduce the complexity and number of rows by collapsing the WBS to only show summary rows using Show Outline Level.





Formatting and Printing Gantt Charts

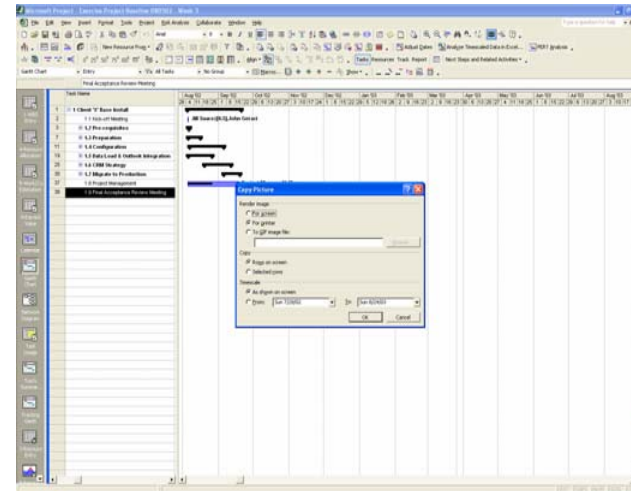
- ❖ Print the entire Gantt Chart view by adjusting the number of pages with Fit To and the Print All Columns options in the Page Setup window.





Formatting and Printing Gantt Charts

- ❖ Copy the Gantt Chart (or any other view) to another application like Word or PowerPoint by using the Copy Picture icon.



ID	Task Name	Aug '02					Sep '02				Oct '02			
		28	4	11	18	25	1	8	15	22	29	6	13	20
1	1 Client 'X' Base Install	[Gantt bar spanning from Aug 28 to Sep 22]												
2	1.1 Kick-off Meeting	[Gantt bar from Aug 28 to Aug 28]												
3	1.2 Pre-requisites	[Gantt bar from Aug 28 to Aug 28]												
7	1.3 Preparation	[Gantt bar from Aug 28 to Aug 28]												
11	1.4 Configuration	[Gantt bar from Aug 28 to Aug 28]												
19	1.5 Data Load & Outlook Integration	[Gantt bar from Aug 28 to Aug 28]												
25	1.6 CRM Strategy	[Gantt bar from Aug 28 to Aug 28]												
30	1.7 Migrate to Production	[Gantt bar from Aug 28 to Aug 28]												
37	1.8 Project Management	[Gantt bar from Aug 28 to Aug 28]												

Jill Suarez[0.5], John Geraci

Project Manager[0.5]



Leveling Resources

- ❖ **Microsoft Project supports two kinds of leveling:**
- ❖ **Time Constrained – Will only move tasks within their available Slack to attempt to resolve overallocations, but will never move the end date.**
- ❖ **Resource Constrained – Will move tasks around until all overallocations are resolved regardless of the impact to the end date.**



Leveling Resources

- ◆ In the Resource Leveling window make the following selections:
- ◆ » Manual: MS Project will only level resource on your command
- ◆ » 'Hour by Hour' or 'Day by Day': determines what overallocation unit of measure MS Project will look for and level
- ◆ » Level entire project: will level all activities, not a range of dates
- ◆ » Standard: Levels project activities in order based on dependencies, float, priorities, constraints and start dates.
- ◆ » Level only within available slack: use this for time-constrained projects. Uncheck this for resource-constrained projects.
- ◆ » Leveling can adjust individual assignments on a task: if multiple resources are assigned to a task, will allow delayed start of some resources. Uncheck.
- ◆ » Leveling can create splits in remaining work: allows MS Project to split an in-progress task and schedule the remainder of the work at a later date. Uncheck.
- ◆ » Click Level Now

Resource Leveling

Leveling calculations

Automatic Manual

Look for overallocations on a **Day by Day** basis

Clear leveling values before leveling

Leveling range for 'BCI-Solution'

Level entire project

Level From: Tue 7/11/00 To: Fri 10/20/00

Resolving overallocations

Leveling order: Standard

Level only within available slack

Leveling can adjust individual assignments on a task

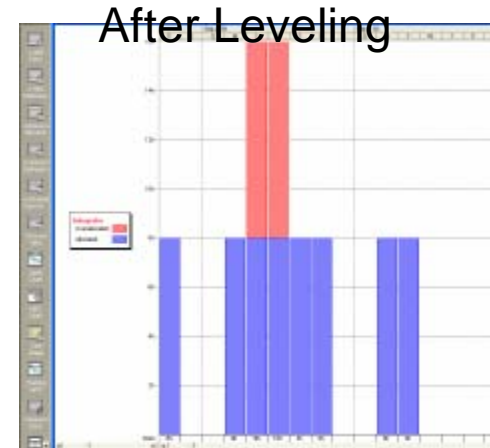
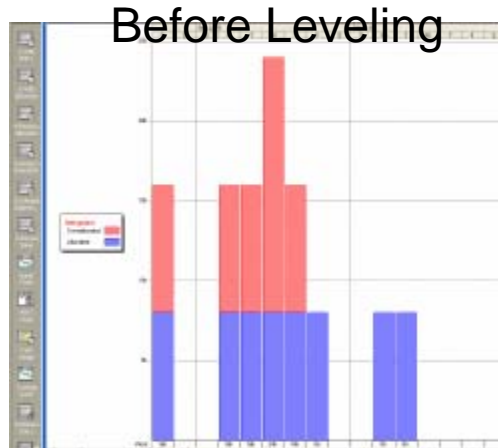
Leveling can create splits in remaining work

Help Clear Leveling... Level Now OK Cancel

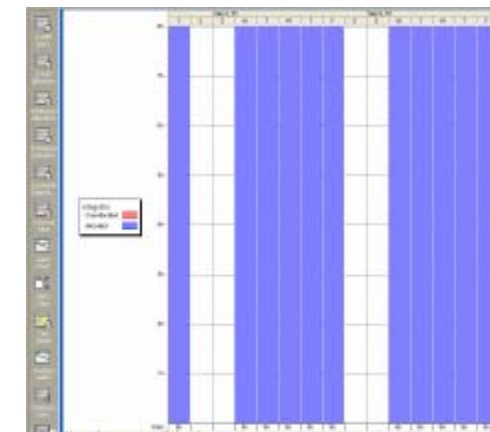
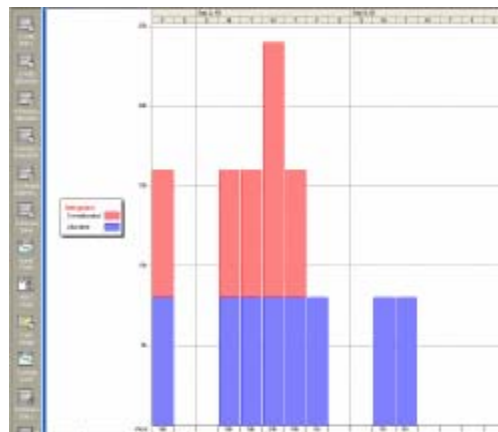


Leveling Resources

Time-
Constrained
Leveling



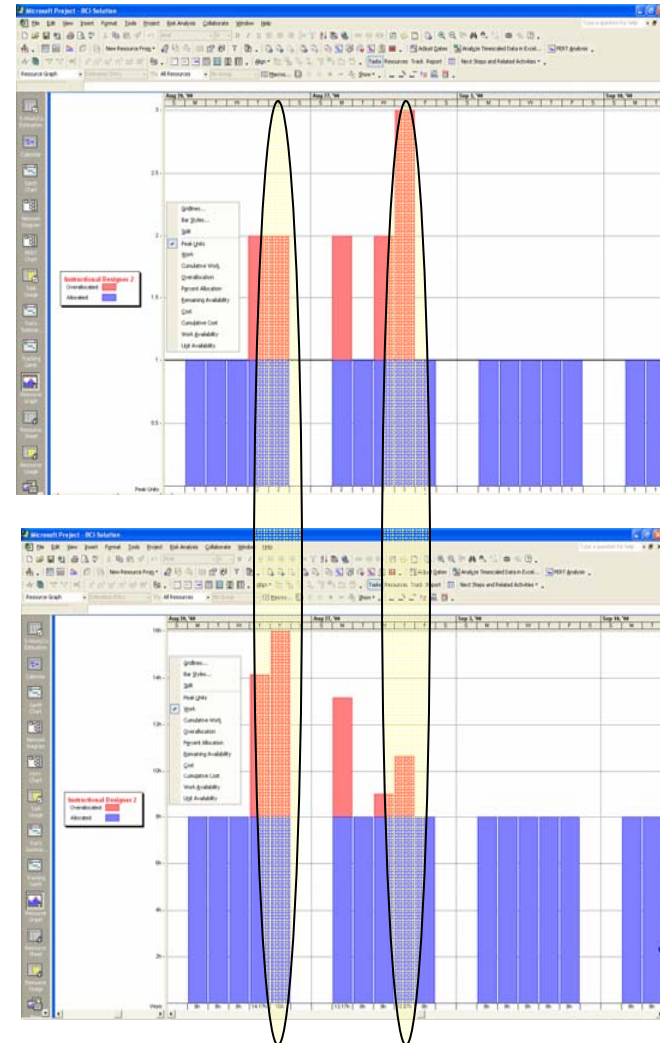
Resource-
Constrained
Leveling





Leveling Resources

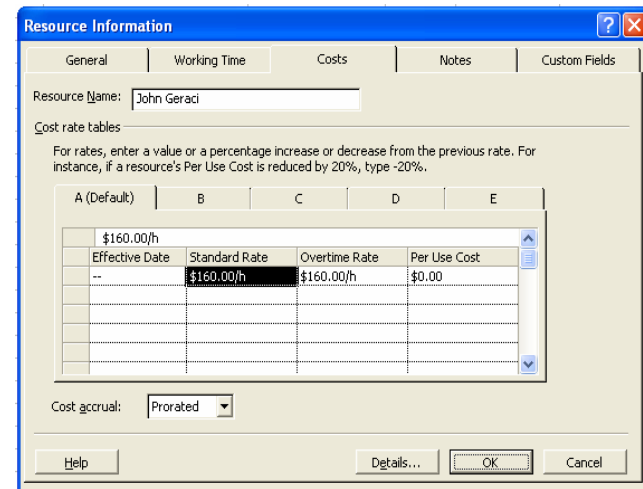
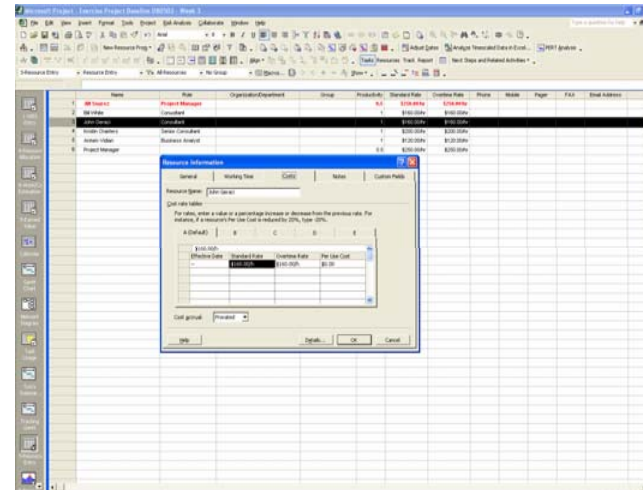
- ❖ Always view overallocations with Work and not Peak Units.





Calculating Costs & Pricing Information

- ❖ Microsoft Project contains 5 rate tables that allow you to associate different rates to a resource.
- ❖ One rate can be a external bill rate and another could be loaded resource rates (without margin).





Calculating Costs & Pricing Information

❖ By selecting different rate tables in an assignment view, Microsoft Project recalculates the associated costs.

Microsoft Project - Exercise Project Baseline 080502 - Week 3

Task Name	Cost Rate Table	Cost	Act. Cost
1 Client 'X' Base Install		\$162,560.00	\$78,710.00
2 Kick-off Meeting		\$2,280.00	\$2,280.00
Jill Suarez		\$1,000.00	\$1,000.00
John Geraci		\$1,280.00	\$1,280.00
3 Pre-requisites	A	\$960.00	\$960.00
4 Siebel software received	B	\$0.00	\$0.00
5 Oracle Licenses received	C	\$0.00	\$0.00
6 Hardware delivered and installed	D	\$960.00	\$960.00
John Geraci	E	\$960.00	\$960.00
7 Preparation		\$16,620.00	\$16,620.00
8 Preparation		\$3,100.00	\$3,100.00
Jill Suarez		\$1,500.00	\$1,500.00
Bill White		\$1,600.00	\$1,600.00
9 Validation of Assumptions & workshop planning		\$2,000.00	\$2,000.00
Jill Suarez		\$2,000.00	\$2,000.00
10 Install development software/environment		\$11,520.00	\$11,520.00

Microsoft Project - Exercise Project Baseline 080502 - Week 3

Task Name	Cost Rate Table	Cost	Act. Cost
1 Client 'X' Base Install		\$86,125.00	\$36,880.00
2 Kick-off Meeting		\$640.00	\$640.00
Jill Suarez		\$0.00	\$0.00
John Geraci		\$640.00	\$640.00
3 Pre-requisites	A	\$160.00	\$160.00
4 Siebel software received	B	\$0.00	\$0.00
5 Oracle Licenses received	C	\$0.00	\$0.00
6 Hardware delivered and installed	D	\$160.00	\$160.00
John Geraci	E	\$160.00	\$160.00
7 Preparation		\$7,310.00	\$7,310.00
8 Preparation		\$1,550.00	\$1,550.00
Jill Suarez		\$750.00	\$750.00
Bill White		\$800.00	\$800.00
9 Validation of Assumptions & workshop planning		\$0.00	\$0.00
Jill Suarez		\$0.00	\$0.00
10 Install development software/environment		\$5,760.00	\$5,760.00
Bill White		\$2,800.00	\$2,800.00



Calculating Costs & Pricing Information

❖ Non-resource or non-reoccurring costs can be entered in the Fixed Cost field. The sum of the fixed costs and resource costs are totaled in the Cost field.

Microsoft Project - Exercise Project Baseline 080502 - Week 3

Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline
1 Client "X" Base Install	\$0.00	Prorated	\$80,125.00	\$149,830.00
2 1.1 Kick-off Meeting	\$0.00	Prorated	\$640.00	\$2,280.00
3 1.2 Pre-requisites	\$0.00	Prorated	\$160.00	\$1,280.00
4 1.2.1 Siebel software received	\$0.00	Prorated	\$0.00	\$0.00
5 1.2.2 Oracle Licenses received	\$0.00	Prorated	\$0.00	\$0.00
6 1.2.3 Hardware delivered and installed	\$0.00	Prorated	\$160.00	\$1,280.00
7 1.3 Preparation	\$0.00	Prorated	\$7,310.00	\$16,240.00
8 1.3.1 Preparation	\$0.00	Prorated	\$1,550.00	\$6,560.00
9 1.3.2 Validation of Assumptions & workshop planning	\$0.00	Prorated	\$0.00	\$2,000.00
10 1.3.3 Install development software/environment	\$0.00	Prorated	\$5,760.00	\$7,680.00
11 1.4 Configuration	\$0.00	Prorated	\$23,145.00	\$43,360.00
12 1.4.1 Preparation	\$0.00	Prorated	\$2,195.00	\$4,880.00
13 1.4.2 Review business process/screen flow with key user	\$0.00	Prorated	\$2,950.00	\$3,600.00
14 1.4.3 First configuration & documentation	\$0.00	Prorated	\$6,800.00	\$12,480.00
15 1.4.4 First demonstration	\$0.00	Prorated	\$1,300.00	\$2,600.00
16 1.4.5 Second configuration & documentation	\$0.00	Prorated	\$3,200.00	\$6,400.00
17 1.4.6 Second demonstration & checkpoint	\$0.00	Prorated	\$1,300.00	\$2,600.00
18 1.4.7 Smoke testing & bug resolution	\$0.00	Prorated	\$5,400.00	\$10,800.00
19 1.5 Data Load & Outlook Integration	\$0.00	Prorated	\$9,975.00	\$12,560.00

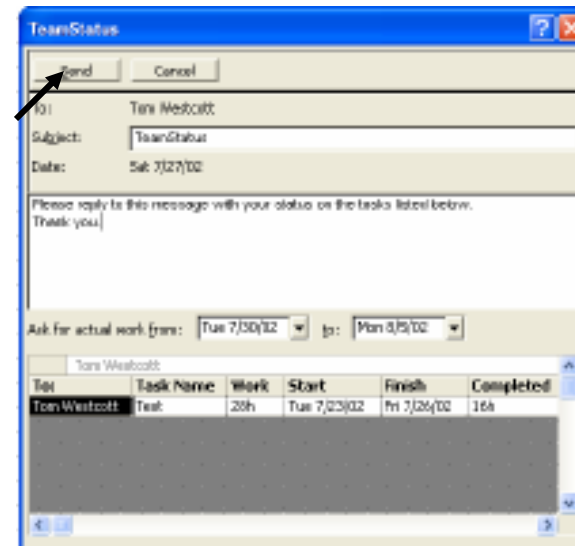
Microsoft Project - Exercise Project Baseline 080502 - Week 3

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2 1.1 Kick-off Meeting	\$0.00	Prorated	\$640.00	\$2,280.00
3 1.2 Pre-requisites	\$0.00	Prorated	\$160.00	\$1,280.00
4 1.2.1 Siebel software received	\$500,000.00	Prorated	\$500,000.00	\$
5 1.2.2 Oracle Licenses received	\$250,000.00	Prorated	\$250,000.00	\$
6 1.2.3 Hardware delivered and installed	\$0.00	Prorated	\$160.00	\$1,280.00
7 1.3 Preparation	\$0.00	Prorated	\$7,310.00	\$16,240.00
8 1.3.1 Preparation	\$0.00	Prorated	\$1,550.00	\$6,560.00
9 1.3.2 Validation of Assumptions & workshop planning	\$0.00	Prorated	\$0.00	\$2,000.00
10 1.3.3 Install development software/environment	\$0.00	Prorated	\$5,760.00	\$7,680.00
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Collecting & Entering Actuals

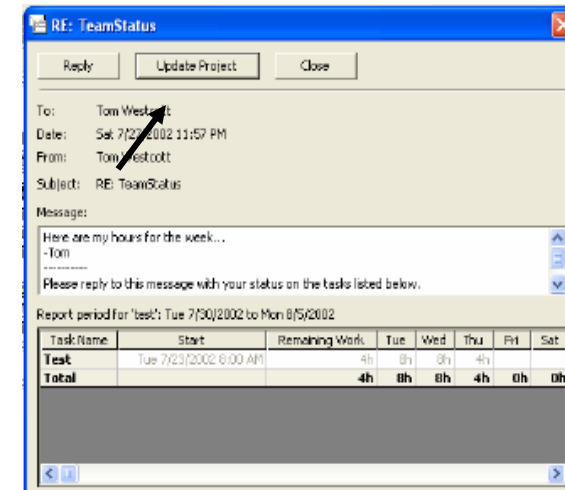
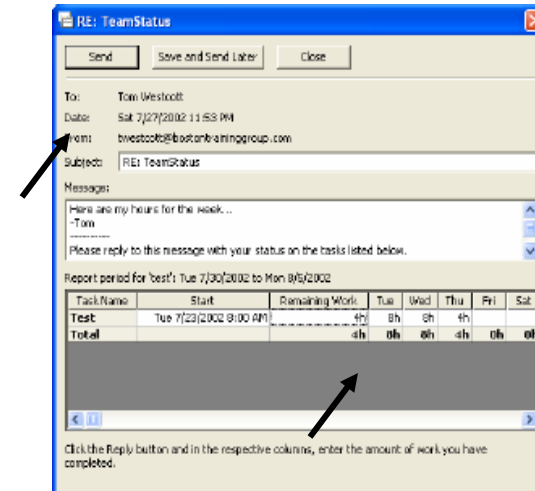
- Actuals can be collected manually or through automated features like Workgroup (98-2000 using Outlook) and Project Central (2000) or Project Server with Web Access (2002).





Collecting & Entering Actuals

- ❖ When the team member receives the status request in their inbox, they enter their actuals and hit Reply.
- ❖ When the Project Manager receives the reply, they hit Update and the Project Plan is updated automatically with the actuals.





Collecting & Entering Actuals

- ❖ Never enter actuals in the following fields!!!
- ❖ **Work**
- ❖ **Duration**
- ❖ **Start**
- ❖ **Finish**
- ❖ **Cost**
- ❖ Always enter actuals here:
- ❖ **Actual Work**
- ❖ **Actual Duration**
- ❖ **Actual Start**
- ❖ **Actual Finish**
- ❖ **Actual Cost**

Task Name	Act. Start	Act. Finish	Actual Work	Remaining Work	% Comp.	Details
1. Client "X" Base Install	Mon 8/5/07	BA	438 hrs	437 hrs	43%	
2. Kick-off Meeting	Mon 8/5/07	Mon 8/5/07	12 hrs	0 hrs	100%	
3. Pre-configuration	Mon 8/5/07	Tue 8/6/07	6 hrs	6 hrs	100%	
4. Select software received	Mon 8/5/07	Mon 8/5/07	0 hrs	0 hrs	100%	
5. Create software received	Mon 8/5/07	Mon 8/5/07	0 hrs	0 hrs	100%	
6. Hardware delivered and installed	Tue 8/6/07	Tue 8/6/07	6 hrs	0 hrs	100%	
7. Preparation	Tue 8/6/07	Wed 8/7/07	16 hrs	8 hrs	100%	
8. Validation of assumptions & workshop planning	Mon 8/12/07	Tue 8/13/07	8 hrs	0 hrs	100%	
9. Install development software/environments	Mon 8/12/07	Fri 8/16/07	72 hrs	0 hrs	100%	
10. Configuration	Wed 8/15/07	BA	146 hrs	116 hrs	46%	
11. Prepare business process/requirements flow with key user	Mon 8/19/07	Fri 8/24/07	36 hrs	0 hrs	100%	
12. Final configuration & documentation	Tue 8/20/07	Tue 8/20/07	24 hrs	0 hrs	100%	
13. Review business process/requirements flow with key user	Mon 8/19/07	Fri 8/24/07	36 hrs	0 hrs	100%	
14. Final configuration & documentation	Tue 8/20/07	Tue 8/20/07	24 hrs	0 hrs	100%	

Task Name	Act. Start	Act. Finish	Actual Work	Remaining Work	% Comp.	Details
1. Client "X" Base Install	Mon 8/5/07	BA	438 hrs	437 hrs	43%	
2. Kick-off Meeting	Mon 8/5/07	Mon 8/5/07	12 hrs	0 hrs	100%	
3. Pre-configuration	Mon 8/5/07	Tue 8/6/07	6 hrs	6 hrs	100%	
4. Select software received	Mon 8/5/07	Mon 8/5/07	0 hrs	0 hrs	100%	
5. Create software received	Mon 8/5/07	Mon 8/5/07	0 hrs	0 hrs	100%	
6. Hardware delivered and installed	Tue 8/6/07	Tue 8/6/07	6 hrs	0 hrs	100%	
7. Preparation	Tue 8/6/07	Wed 8/7/07	16 hrs	8 hrs	100%	
8. Validation of assumptions & workshop planning	Mon 8/12/07	Tue 8/13/07	8 hrs	0 hrs	100%	
9. Install development software/environments	Mon 8/12/07	Fri 8/16/07	72 hrs	0 hrs	100%	
10. Configuration	Wed 8/15/07	BA	146 hrs	116 hrs	46%	
11. Prepare business process/requirements flow with key user	Mon 8/19/07	Fri 8/24/07	36 hrs	0 hrs	100%	
12. Final configuration & documentation	Tue 8/20/07	Tue 8/20/07	24 hrs	0 hrs	100%	
13. Review business process/requirements flow with key user	Mon 8/19/07	Fri 8/24/07	36 hrs	0 hrs	100%	
14. Final configuration & documentation	Tue 8/20/07	Tue 8/20/07	24 hrs	0 hrs	100%	



Understanding Work, Duration & Units

❖ The Magic Formula:

$$❖ W = DU$$

- ❖ *W = Work*
- ❖ *D = Duration*
- ❖ *U = Units*

- ❖ Tasks can either be:
- ❖ **Fixed Units (Default)**
- ❖ **Fixed Duration**
- ❖ **Fixed Work**

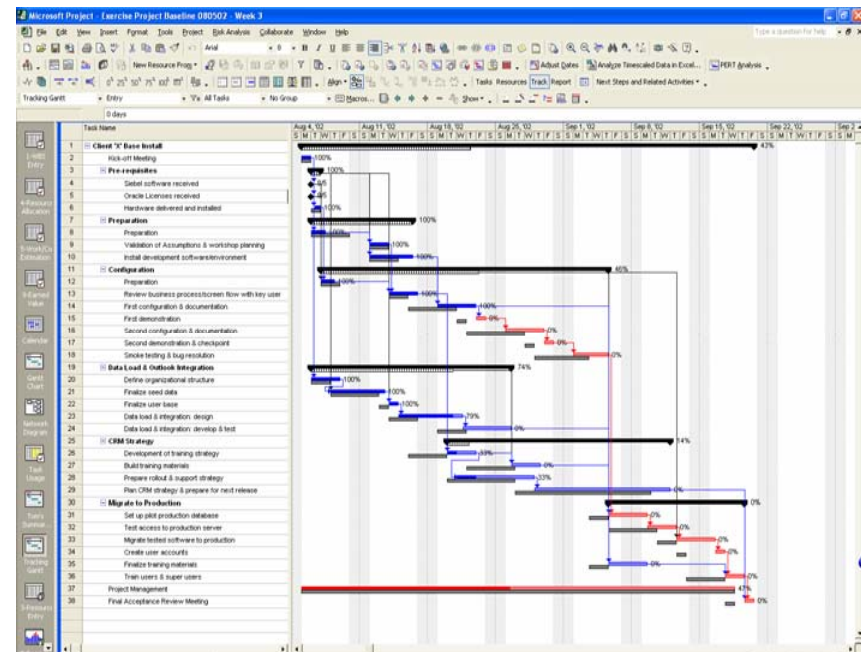
Task Name	Type	Duration	Work	Resource Names	Notes
1 Starting Task		1 day	8 hrs	Tom	
3 Change Duration	Fixed Duration	2 days	16 hrs	Tom	Changes Work
4 Change Work	Fixed Duration	1 day	16 hrs	Tom[2]	Changes Units
5 Change Unit	Fixed Duration	1 day	16 hrs	Tom[2]	Changes Work
7 Change Duration	Fixed Work	2 days	8 hrs	Tom[0.5]	Changes Units
8 Change Work	Fixed Work	2 days	16 hrs	Tom	Changes Duration
9 Change Unit	Fixed Work	0.5 days	8 hrs	Tom[2]	Changes Duration
11 Change Duration	Fixed Units	2 days	16 hrs	Tom	Changes Work
12 Change Work	Fixed Units	2 days	16 hrs	Tom	Changes Duration
13 Change Units	Fixed Units	0.5 days	8 hrs	Tom[2]	Changes Duration



Baselining/Rebaselining the Project

❖ Q. What is a baseline?

❖ A. A snapshot of the agreed to schedule (dates and milestones), costs and resources, that is used to compare performance versus commitments, and measure variance, slippage and overruns.





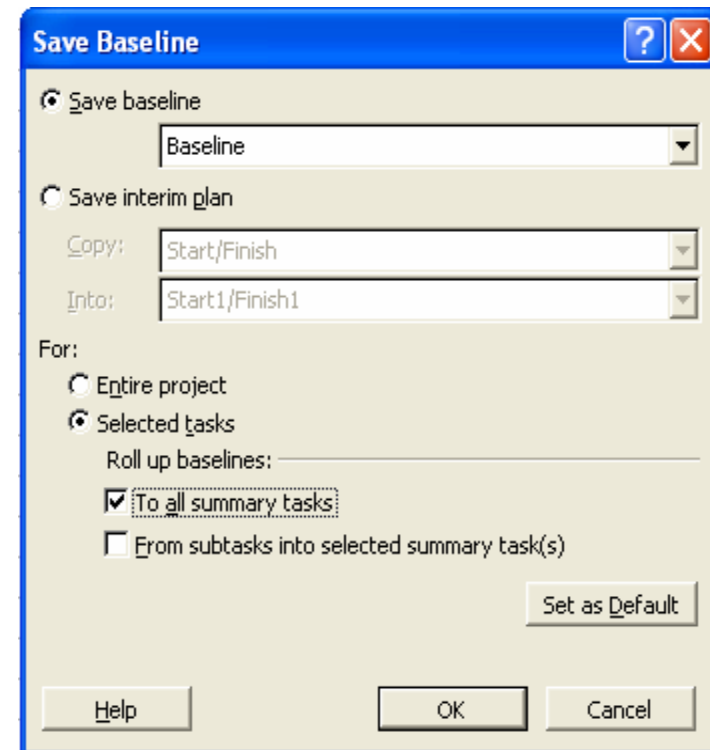
Baselining/Rebaselining the Project

- ❖ **Baseline only when planning is done and commitments to schedule, cost and resources are obtained (contracted).**
- ❖ **Rebaseline only when changes to schedule, cost and resources are agreed to (contractually), and only rebaseline those areas (not the entire project).**



Baselining/Rebaselining the Project

- ❖ To save a baseline, go to Tools – Tracking – Save Baseline.
- ❖ To rebaseline a portion of the project, choose Selected Tasks and To All Summary Tasks.
- ❖ To rebaseline the entire project, choose Entire Project





Baselining/Rebaselining the Project

- ❖ **Saving multiple baselines (2002) is useful for taking snapshots of project performance before and after approved changes and analyze the impacts of each change over time.**



Measuring Project Status

- ❖ The most accurate method for measuring total project performance (schedule and cost) is Earned Value. Earned Value is a leading indicator.
- ❖ Critical Path Method is a method for measuring schedule slippage only, but is not predictive.



Measuring Project Status

Earned Value Method

Microsoft Project - Exercise Project Baseline 080502 - Week 3

File Edit View Insert Format Tools Project Risk Analysis Collaborate Window Help

Arial 8 B I U

New Resource From Adjust Dates Analyze Timescaled Data in Excel...

Tasks Resources Track Report Next Steps and Related Activities

Tracking Gantt Earned Value All Tasks No Group Macros...

Task Name	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	EAC	BAC	VAC
1 Client 'X' Base Install	\$82,040.00	\$67,166.93	\$78,210.00	(\$14,873.07)	(\$11,043.07)	0.82	0.86	\$162,560.00	\$149,830.00	(\$24,633.89)
2 Kick-off Meeting	\$2,280.00	\$2,280.00	\$2,280.00	\$0.00	\$0.00	1	1	\$2,280.00	\$2,280.00	\$0.00
3 Pre-requisites	\$1,280.00	\$1,280.00	\$960.00	\$0.00	\$320.00	1	1.33	\$960.00	\$1,280.00	\$320.00
4 Siebel software received	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	0	\$0.00	\$0.00	\$0.00
5 Oracle licenses received	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	0	\$0.00	\$0.00	\$0.00

Critical Path Method

Microsoft Project - Exercise Project Baseline 080502 - Week 3

File Edit View Insert Format Tools Project Risk Analysis Collaborate Window Help

Arial 8 B I U

New Resource From Adjust Dates Analyze Timescaled Data in Excel...

Tasks Resources Track Report Next Steps and Related Activities

Tracking Gantt Tracking All Tasks No Group Macros...

Task Name	Start	Finish
1 Client 'X' Base Install	Mon 8/5/02	Fri 9/20/02
2 Kick-off Meeting	Mon 8/5/02	Wed 9/18/02
3 Pre-requisites	Mon 8/5/02	NA
7 Preparation	0d	2d
11 Configuration		
19 Data Load & Outlook Integration		
25 CRM Strategy		
30 Migrate to Production		
31 Set up pilot production database		
32 Test access to production server		
33 Migrate tested software to production		
34 Create user accounts		
35 Finalize training materials		
36 Train users & super users		
37 Project Management		
38 Final Acceptance Review Meeting		

Project Statistics for 'Exercise Project Baseline 080502 - Week 3'

	Start	Finish
Current	Mon 8/5/02	Fri 9/20/02
Baseline	Mon 8/5/02	Wed 9/18/02
Actual	Mon 8/5/02	NA
Variance	0d	2d

	Duration	Work	Cost
Current	34.75d	867h	\$162,560.00
Baseline	32.75d	787h	\$149,830.00
Actual	15.05d	430h	\$78,210.00
Remaining	19.7d	437h	\$83,850.00

Percent complete:
Duration: 43% Work: 50%



Linking Multiple Projects

- ❖ **Master Project with Inserted Projects – Use if projects are under a single program and schedules, budgets and resources must be rolled up.**
- ❖ **Linking Projects with Dependencies – Use if projects have task dependencies but are otherwise managed independently.**



Linking Multiple Projects

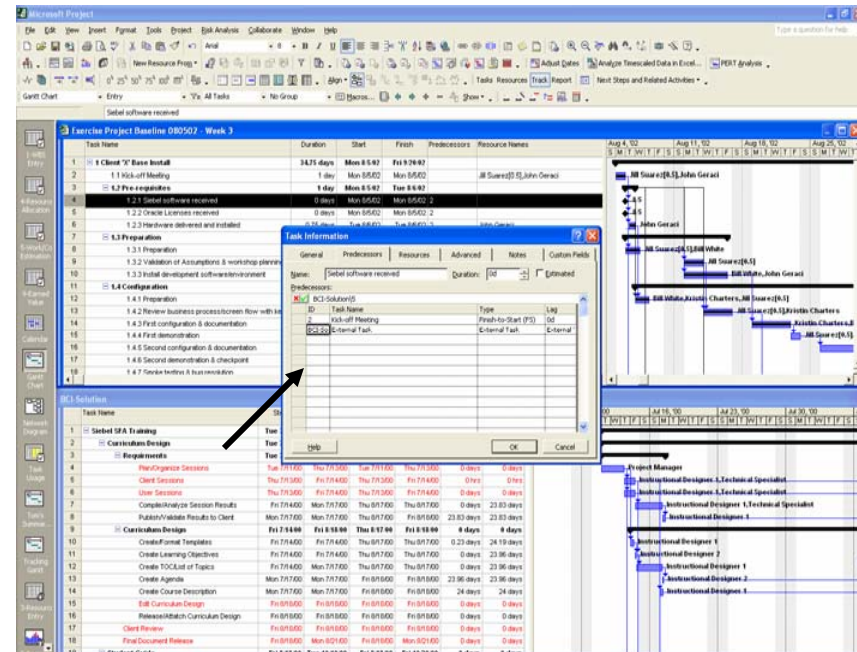
- ❖ Insert Projects into a Master Plan by selecting Insert Project from the Insert menu.

	Duration	Start	Finish	Predecessors	Resource Names
	573.75 days	Tue 7/11/00	Fri 9/20/02		
	1 day	Mon 8/5/02	Mon 8/5/02		Jill Suarez(0.5),John Geraci
	1 day	Mon 8/5/02	Tue 8/6/02		
1.2.1 Siebel software received	0 days	Mon 8/5/02	Mon 8/5/02	2	
1.2.2 Oracle Licenses received	0 days	Mon 8/5/02	Mon 8/5/02	2	
1.2.3 Hardware delivered and installed	0.75 days	Tue 8/6/02	Tue 8/6/02	2	John Geraci
1.3 Estimation Case Study X	73.69 days	#####	#####		
1.4 Preparation	8.5 days	Tue 8/6/02	Fri 8/16/02		
1.4.1 Preparation	1.5 days	Tue 8/6/02	Wed 8/7/02	2	Jill Suarez(0.5),Bill White
1.4.2 Validation of Assumptions & workshop planning	2 days	Mon 8/12/02	Tue 8/13/02	9	Jill Suarez(0.5)
1.4.3 Install development software/environment	4.5 days	Mon 8/12/02	Fri 8/16/02	3,9	Bill White,John Geraci
1.5 Configuration	21.75 days	Wed 8/7/02	Thu 9/5/02		
1.5.1 Preparation	1.38 days	Wed 8/7/02	Thu 8/8/02	4,5,6	Bill White,Kristin Charters,,Jill Suarez(0.5)
1.5.2 Review business process/screen flow with key u.	3 days	Wed 8/14/02	Fri 8/16/02	13,10	Jill Suarez(0.5),Kristin Charters
1.5.3 First configuration & documentation	4 days	Mon 8/19/02	Thu 8/22/02	11,14	Kristin Charters,Bill White,,John Geraci
1.5.4 First demonstration	1 day	Fri 8/23/02	Fri 8/23/02	15	Jill Suarez(0.5),Kristin Charters
1.5.5 Second configuration & documentation	4 days	Mon 8/26/02	Thu 8/29/02	16	Kristin Charters



Linking Multiple Projects

- ❖ To link tasks in different projects, open the projects and select **Arrange All** in the **Window** menu.
- ❖ Enter the predecessor in the format:
 - ❖ *Filename\ID#*



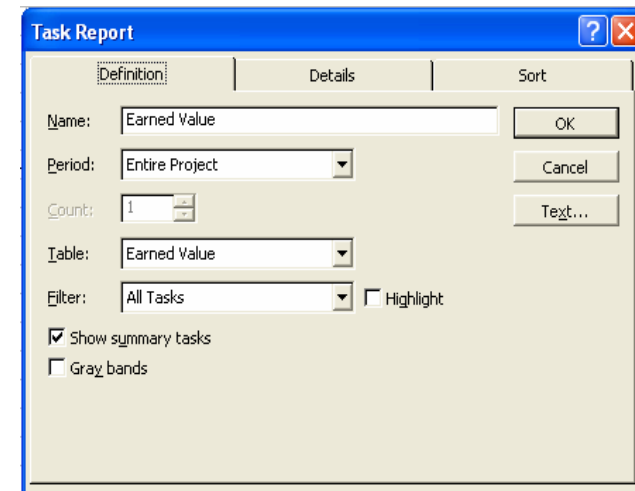
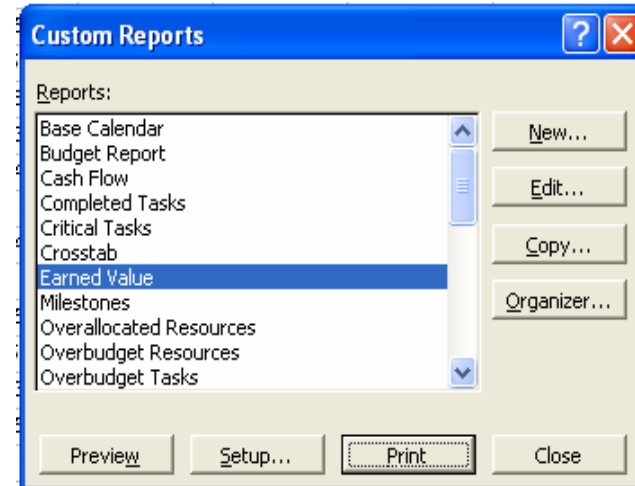


Custom Reports

❖ You can create custom reports from scratch or copy and edit an existing report as a template.

❖ **Process:**

- ❖ Create Custom Fields
- ❖ Create Filter
- ❖ Create Table
- ❖ Create Report





Exporting Information

- ❖ Microsoft Project has an export wizard to Excel for additional reporting and quick data manipulation.

