



Microsoft Project Tutorial

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Basic Information for MS Project

- What tasks must be done to meet the objectives?
- What tangible results (deliverables) must be produced and when?
- How does each task depend on the other tasks?
- How long does each task take?
- Who's going to do the work?
- What materials are needed in the work?

Installation

- <https://products.office.com/en-us/Project/project-pro-for-office-365>
- Register, download, and install the Microsoft Project Pro for Office 365

Getting Started

- Project should give you the option to open a new blank project when you open it.
- Or select: File tab -> New -> Blank Project.
- Choose: Project -> Project Information -> Start Date, and adjust appropriately

Basic Project Information

- From the “Project” menu select “Project Information” and enter the anticipated project start date.

Project Information for 'Project1' [X]

Start date: Tue 10/20/15 [v] Current date: Tue 10/20/15 [v]

Finish date: Tue 10/20/15 [v] Status date: NA [v]

Schedule from: Project Start Date [v] Calendar: Standard [v]

All tasks begin as soon as possible. Priority: 500 [spin]

Enterprise Custom Fields

Department: [v]

Custom Field Name	Value
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[Help] [Statistics...] [OK] [Cancel]

Default Project Settings

- From the “File” menu select “Options”.

The screenshot shows the 'Project Options' dialog box with the 'Schedule' tab selected. The 'Calendar options for this project' section is set to 'Project1'. Under 'Calendar options', 'Week starts on' is 'Sunday', 'Fiscal year starts in' is 'January', and 'Use starting year for FY numbering' is unchecked. 'Default start time' is '8:00 AM', 'Default end time' is '5:00 PM', 'Hours per day' is '8', 'Hours per week' is '40', and 'Days per month' is '20'. A note on the right states: 'These times are assigned to tasks when you enter a start or finish date without specifying a time. If you change this setting, consider matching the project calendar using the Change Working Time command on the Project tab in the ribbon.'

The 'Schedule' section includes a checked box for 'Show scheduling messages' and a dropdown for 'Show assignment units as' set to 'Percentage'.

The 'Scheduling options for this project' section is also set to 'Project1'. 'New tasks created' is 'Auto Scheduled', 'Auto scheduled tasks scheduled on' is 'Project Start Date', 'Duration is entered in' is 'Days', 'Work is entered in' is 'Hours', and 'Default task type' is 'Fixed Units'. There are several checkboxes: 'New tasks are effort driven' (unchecked), 'Autolink inserted or moved tasks' (unchecked), 'Split in-progress tasks' (checked), 'Update Manually Scheduled tasks when editing links' (checked), 'Tasks will always honor their constraint dates' (checked), 'Show that scheduled tasks have estimated durations' (checked), 'New scheduled tasks have estimated durations' (checked), and 'Keep task on nearest working day when changing to Automatically Scheduled mode' (unchecked).

Working Time Settings

- From the “Project” menu select “Change Working Time”.

Change Working Time [X]

For calendar: **Standard (Project Calendar)** [v] Create New Calendar ...

Calendar 'Standard' is a base calendar.

Legend:

- Working
- Nonworking
- 31** Edited working hours

On this calendar:

- 31** Exception day
- 31** Nondefault work week

Click on a day to see its working times:

October 2015

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Working times for October 20, 2015:

- 8:00 AM to 12:00 PM
- 1:00 PM to 5:00 PM

Based on:
Default work week on calendar 'Standard'.

Exceptions | **Work Weeks**

Name	Start	Finish

Details...
Delete

Help Options... **OK** Cancel

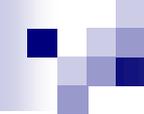
Enter the major tasks

- Type in the major tasks in the “Task Name” box.
- Each row is a separate task

The screenshot shows the Microsoft Project interface. The ribbon is set to 'Task' and includes options like 'Manually Schedule', 'Auto Schedule', 'Inspect', 'Move', and 'Mode'. Below the ribbon, a Gantt chart is visible with a timeline from Tuesday, October 20, 2015, to Sunday, October 25, 2015. A text box in the Gantt chart area says 'Add tasks with dates to the timeline'. Below the Gantt chart is a task table with the following data:

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	→	plan	2 days	Tue 10/20/15	Wed 10/21/15		
2	→	design	5 days	Tue 10/20/15	Mon 10/26/15		
3	→	build	5 days	Tue 10/20/15	Mon 10/26/15		
4	→	test	3 days	Tue 10/20/15	Thu 10/22/15		
5	→	install	3 days	Tue 10/20/15	Thu 10/22/15		
6	→	handover	1 day?	Tue 10/20/15	Tue 10/20/15		

The Gantt chart shows blue bars representing the duration of each task. The 'plan' task is a short bar on the first day. The 'design' and 'build' tasks are longer bars spanning five days. The 'test' and 'install' tasks are three-day bars. The 'handover' task is a single-day bar on the first day.



What tasks must be done to meet the objectives?

- After several have been entered you can group them with a summary task
 - Drag over tasks (row numbers) of a group and under the Tasks tab, select Insert-> Summary.
 - Name summary task, click drop-down triangle arrow to show or hide

What tangible results (deliverables) must be produced and when?

- Just like inserting a Summary task, you can insert a Milestone from the same location (Tasks -> Insert -> Milestone).
- Milestones take zero time (by definition) and are appropriate for marking the completion of a deliverable or phase
- A milestone can be a subtask of a summary (if you want it to be hide-able) or at the same indent level as the summary task (if you want it to show)
- Add as many milestones as you want – they don't cost any time and are just markers.

How long does each task take?

- In the Gantt View, type in durations for each task
 - Can leave question mark for an unsure duration
 - Use abbreviations (m) minutes, (h) hours , (d) days, (w) weeks or (mo) months, or days is default
 - Can change defaults under File -> Options
- “Task mode” is “Manually scheduled” by default. Can turn on “Auto-scheduled.”
 - Right-click a column, insert column -> task mode
 - In auto-scheduled mode, summary task durations will fill-in automatically
 - Or can be adjusted to show slack, switching it to manual

How does each task depend on the other tasks?

- Select a group of consecutively listed tasks, then hit the Link (chain icon) under Tasks
 - Project now links these tasks so that each one cannot start until after the previous one finishes
- Or, select one task, Ctrl-Click one that must start after it finishes, then hit the Link button
- Or, drag from the first to the second in the Gantt Chart view
- Or, manually type numbers into the predecessors column, separated by commas
- Click the link between tasks, change the task dependency
- Or double click the task, change the predecessors settings

Project1 - Project Professional

File Task Resource Report Project View Format Tell me what you want to do...

Clipboard: Paste, Copy, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Color, Background Color

Schedule: Mark on Track, Respect Links, Inactivate

Tasks: Manually Schedule, Auto Schedule, Inspect, Move, Mode

Insert: Summary, Milestone, Deliverable

Properties: Information, Notes, Details, Add to Timeline

10/19/15

Today

Start Tue 10/20/15

ID	Task Mode	Task Name	Duration
1	▶	Definition	2 days
2	▶	start	0 days
3	▶	plan	2 days
4	▶	Execution	12 days
5	▶	design	5 days
6	▶	build	5 days
7	▶	test	3 days
8	▶	Acceptance	4 days?
9	▶	install	3 days
10	▶	handover	1 day?
11	▶	finish	0 days

Task Information

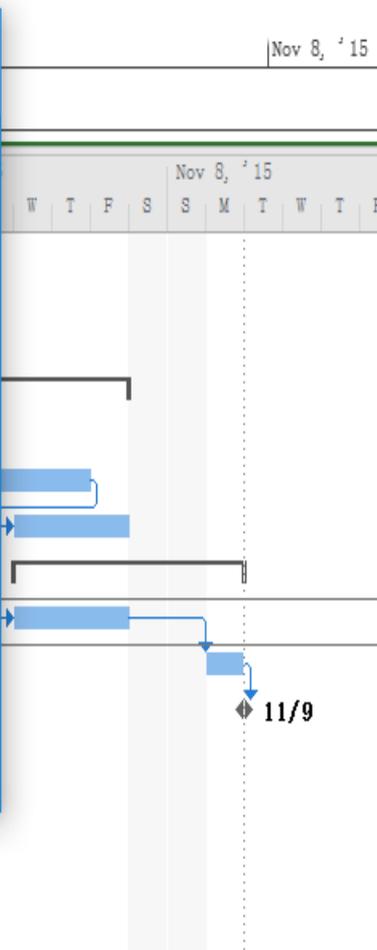
General Predecessors Resources Advanced Notes Custom Fields

Name: Duration: Estimated

Predecessors:

ID	Task Name	Type	Lag
6	build	Finish-to-Start (FS)	-2d

Help OK Cancel

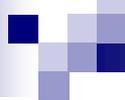


Who's going to do the work? What materials are needed in the work?

- Select Resource -> View -> Resource Sheet
- or, View -> Resource views -> Resource Sheet
- or, learn the shortcut button, bottom right
 - List the names of workers (resources)

The screenshot shows the Microsoft Project interface with the Resource Sheet view active. The ribbon includes File, Task, Resource, Report, Project, View, and Format. The Resource Sheet table is displayed below the ribbon, listing resources and their associated costs.

	Resource Name	Type	Material Label	Initials	Group	Max. Units	Std. Rate	Ovt. Rate	Cost/Use	Accrue At	Base Calendar	Code
1	jack	Work		j		100%	\$50.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
2	john	Work		j		100%	\$20.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
3	tom	Work		t		100%	\$10.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
4	jimmy	Work		j		100%	\$25.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
5	cable	Material	drum	c			\$10.00		\$0.00	Prorated		



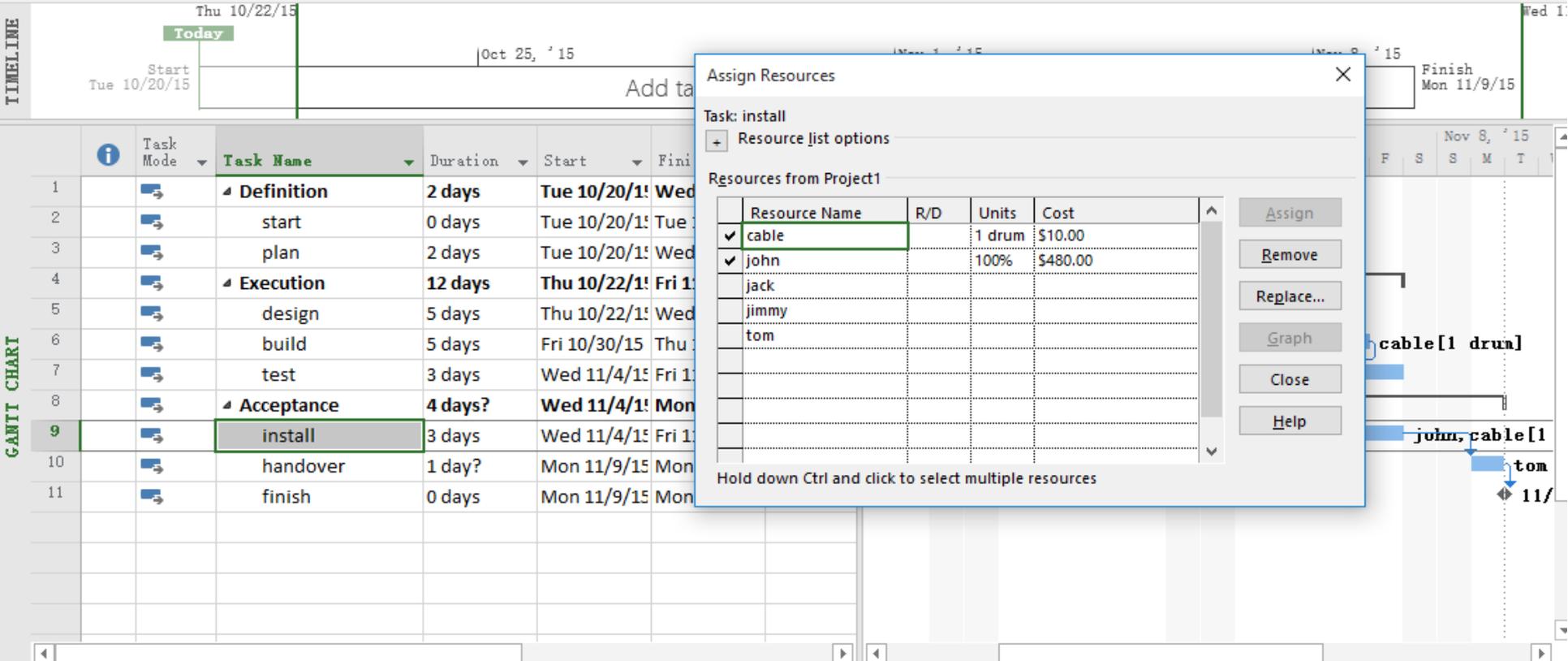
Assign resources to the tasks

- Return to Gantt Chart view (under Tasks or View tab)
- or, shortcut, or right click far left and check View bar
- For each task row, click on the cell in Resource Names column
 - Select a resource from the checklist to assign it to the task

Project1 - Project Professional

File Task Resource Report Project View Format Tell me what you want to do... Sign in

Team Planner View Assign Resources Add Resources Information Notes Details Level Selection Level All Level Leveling Options Clear Leveling Next Overalllocation



Assign Resources

Task: install

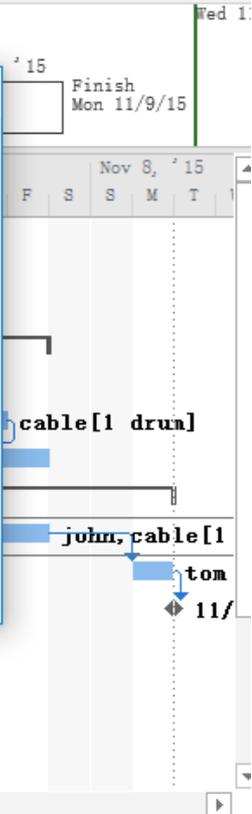
Resource list options

Resources from Project1

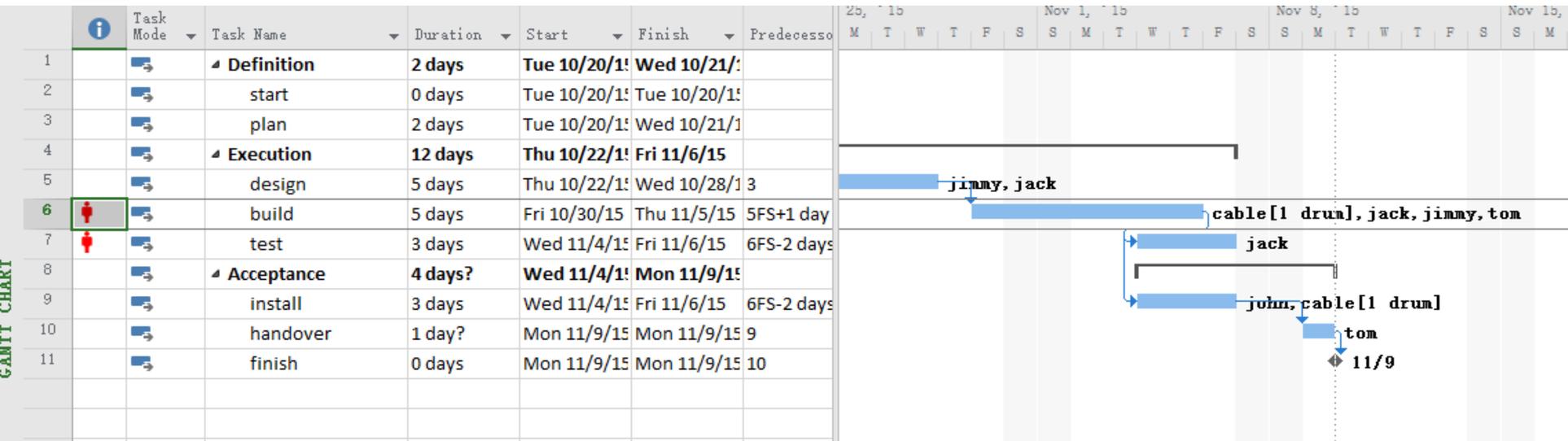
	Resource Name	R/D	Units	Cost
<input checked="" type="checkbox"/>	cable		1 drum	\$10.00
<input checked="" type="checkbox"/>	john		100%	\$480.00
<input type="checkbox"/>	jack			
<input type="checkbox"/>	jimmy			
<input type="checkbox"/>	tom			

Hold down Ctrl and click to select multiple resources

Buttons: Assign, Remove, Replace..., Graph, Close, Help



Over allocated Resource



- Jack is involved in both build and test

Basic Project Statistics

- Select Project-> Project Information -> Statistics...

Project Statistics for 'Project1' X

	Start	Finish	
Current	Tue 10/20/15	Mon 11/9/15	
Baseline	NA	NA	
Actual	NA	NA	
Variance	0d	0d	

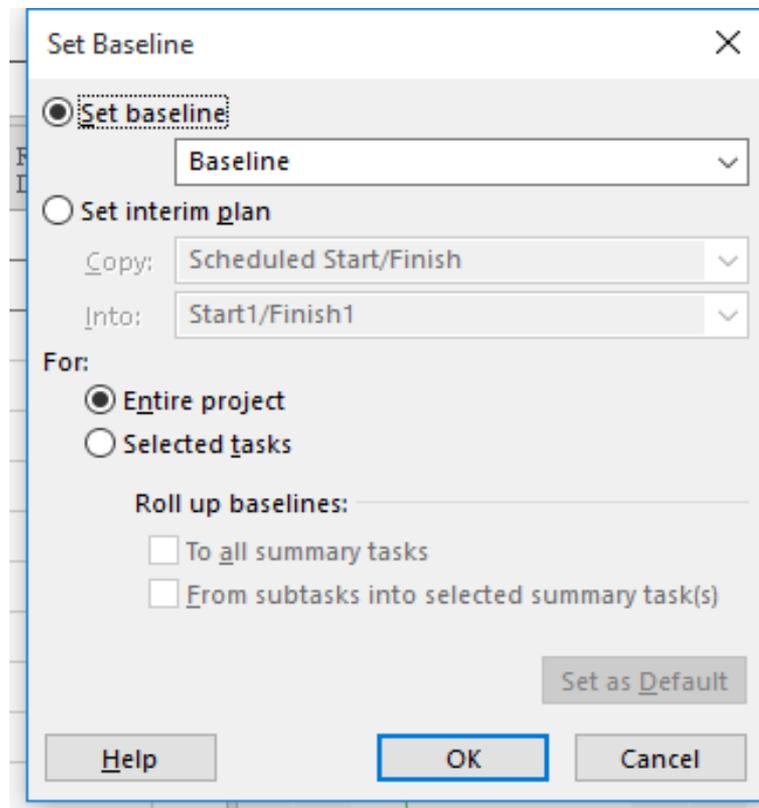
	Duration	Work	Cost
Current	15d?	272h	\$8,980.00
Baseline	0d	0h	\$0.00
Actual	0d	0h	\$0.00
Remaining	15d?	272h	\$8,980.00

Percent complete:

Duration: 0% Work: 0%

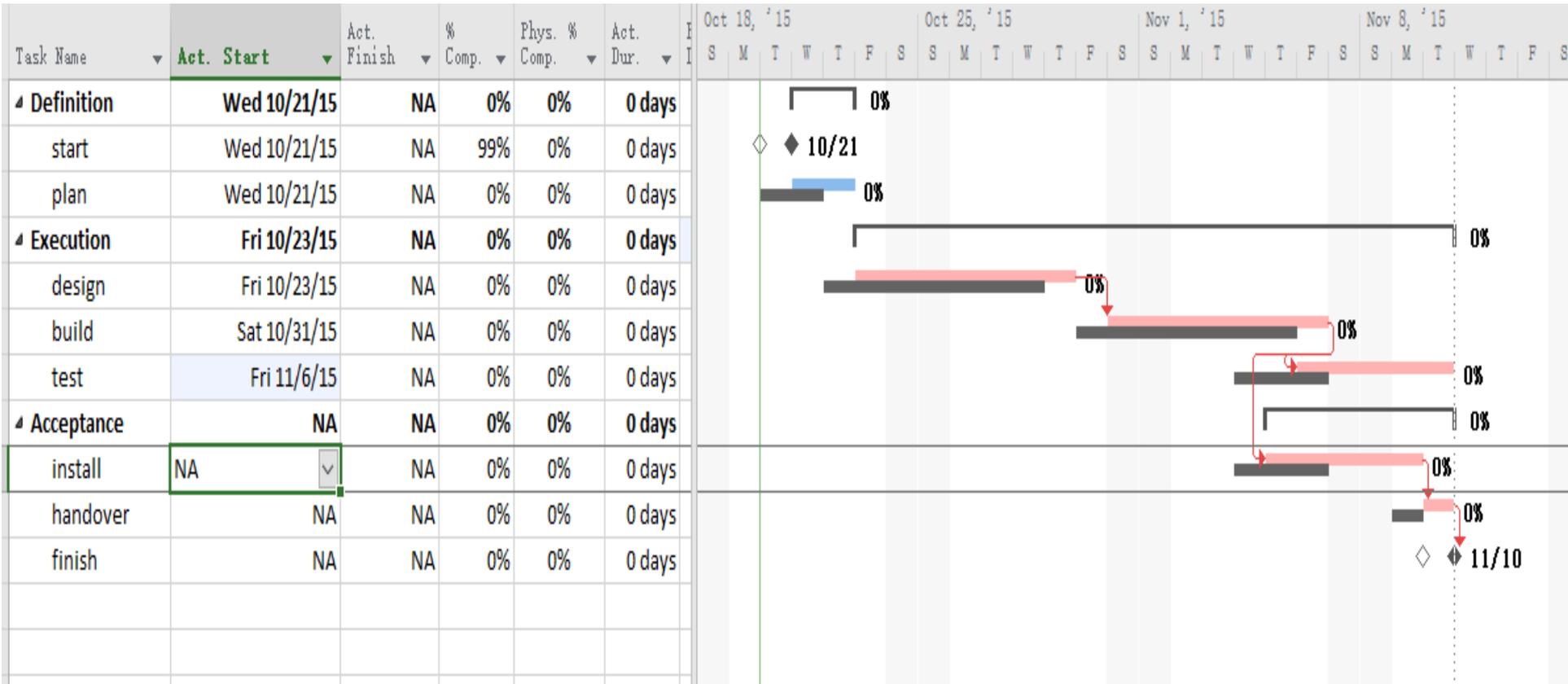
Set Baseline to compare your schedule

- Select Project-> Set Baseline -> Set Baseline ...



Tracking your project

- Select View-> Task Views -> Tracking Gantt Chart
- Select View-> Data -> Table -> Tracking



Details of the tasks

Project1 - Project Professional

File Task Resource Report Project View Format Tell me what you want to do...

Clipboard: Paste, Copy, Format Painter

Font: B, I, U, A

Schedule: 0%, 25%, 50%, 75%, 100%, Mark on Track, Respect Links, Inactivate

Tasks: Manually Schedule, Auto Schedule, Inspect, Move, Mode

Insert: Summary, Milestone, Deliverable

Properties: Information, Notes, Details, Add to Timeline

Task Name	Act. Start	Act. Finish	% Comp.	Phys. % Comp.	Act. Dur.
1 Definition	Wed 10/21/15	NA	0%	0%	0 days
2 start	Wed 10/21/15	NA	99%	0%	0 days
3 plan	Wed 10/21/15	NA	0%	0%	0 days
4 Execution	Fri 10/23/15	NA	0%	0%	0 days
5 design	Fri 10/23/15	NA	0%	0%	0 days
6 build	Sat 10/31/15	NA	0%	0%	0 days
7 test	Fri 11/6/15	NA	0%	0%	0 days
8 Acceptance	NA	NA	0%	0%	0 days
9 install	NA	NA	0%	0%	0 days
10 handover	NA	NA	0%	0%	0 days

TRACKING GANTT

Name: design Duration: 5 days Effort driven Manually Scheduled Previous Next

Dates: Start: Fri 10/23/15 Finish: Thu 10/29/15

Constraint: Start No Earlier Than Date: Fri 10/23/15

Task type: Fixed Units WBS code: 2.1

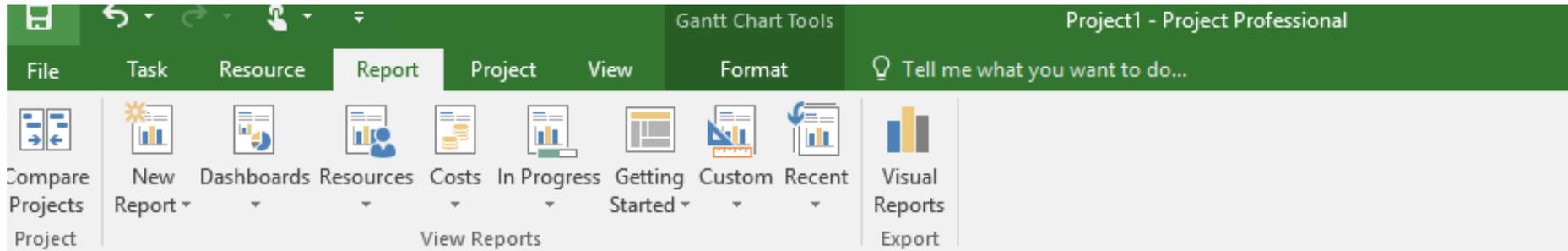
Current Baseline Actual

Priority: 500 % Complete: 0%

ID	Resource Name	Work	R/D	Leveling Delay	Delay	Scheduled Start	Scheduled Finish
4	jimmy	40h		0d	0d	Fri 10/23/15	Thu 10/29/15
1	jack	40h		0d	0d	Fri 10/23/15	Thu 10/29/15

TASK DETAILS FORM

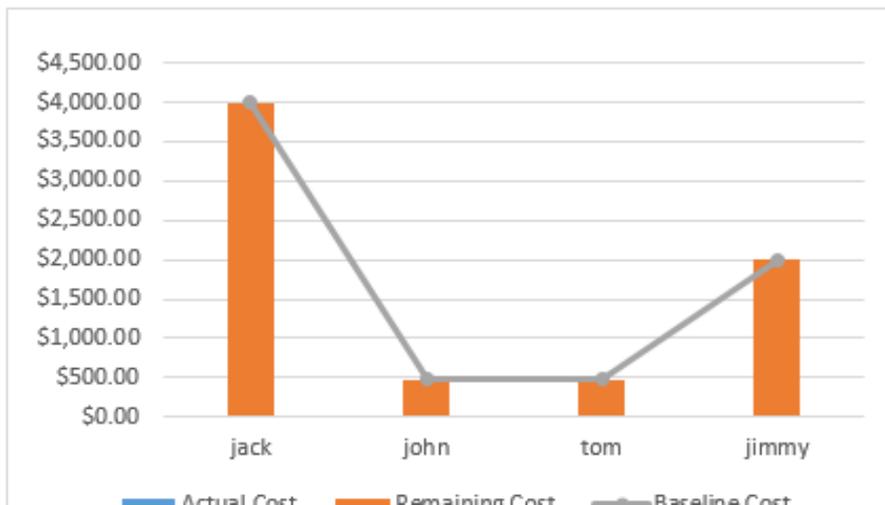
Generate Project Reports



RESOURCE COST OVERVIEW

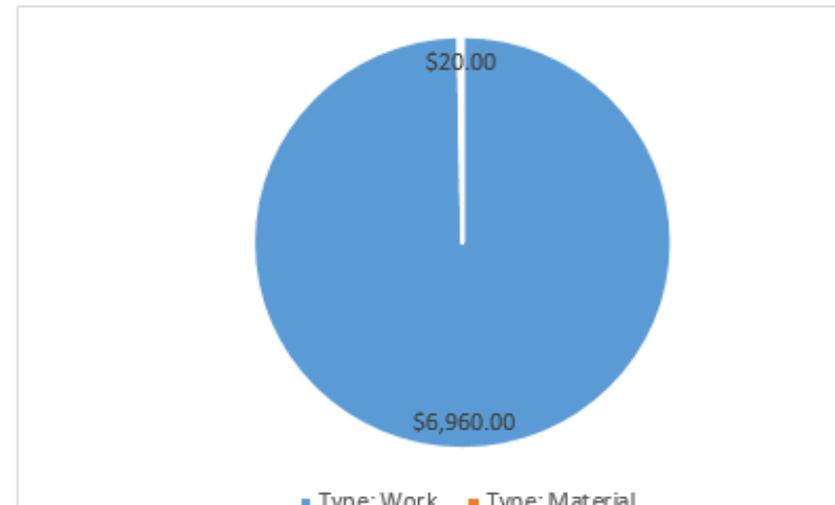
COST STATUS

Cost status for work resources.



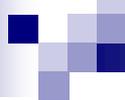
COST DISTRIBUTION

How costs are spread out amongst different resource types.



More Tips

- Ctrl+Z (undo, repeatedly if necessary) if something unexpected happens, or close without saving and return to a saved version.
- Check out templates available online:
 - E.g. Go to File -> New -> Select a Template -> Create
 - Browse, and get ideas about the wide range of applications



Use MS Project in your project

You can use MS Project to:

- Draw Gantt Chart In the section of project planning.
- Tract your project schedule with Tracking Gantt.
- Summarize your project information with the statistics and report functions of MS Project

References

Some of the contents are adapted from

- <http://users.business.uconn.edu/bday/PMTutorial1.ppt>
- <https://support.office.com/en-us/article/Project-2013-videos-and-tutorials-af7d1e17-5fa7-421f-a452-9bbe2cd7b082>
- https://www.youtube.com/watch?v=sPwURRG9_Gs
- <https://www.youtube.com/watch?v=Zlrshh-0s3I>