

Getting Started in MS Project 2010

This document guides you through ONE WAY to enter a project plan into MS Project, then baseline it and record actuals to track progress. There are many ways to do this – both in general approach and in ways to do individual actions. What you have here is one basic approach. If you work with or plan to work with MS Project more, I recommend the book “Microsoft Project 2010: The Missing Manual” by Bonnie Biafore, published by O’Reilly. She covers everything in a straightforward and practical manner, grounding the features of the MS Project tool in the realities of what a project manager needs to accomplish.

That said, let’s start with some terminology mapping. What we call a sub-deliverable, MS Project calls a “Summary Task” (or “Top-Level Task” or “First-Level Task”). What we call a major task, MS Project will call a “Subtask” (to imply it is subordinate to a “Summary Task”). We can still break our major tasks into what we call sub-tasks. The type of task dependency we focus on is called a “Finish-to-Start” dependency, or predecessor, and this is the default dependency type within MS Project. Also note that MS Project sometimes calls a task dependency or predecessor a “Link”. Got it? Okay, here we go!

Defining elements of the project

When you open MS Project the first time, you are automatically in a Gantt Chart view of a new (empty) project. If not, well, you will find that MS Project is Microsofty in its interface. So do the intuitive thing: File → New → Blank project.

Use the Project tab to define general elements of your Project:

- Project Information → Start date
Set this to the date you expect work to begin. For example, for the PARTY project plan, you would enter Sept 1, 2011.
- WBS → Define Code
Here, if you like, you can specify the alphabetic code string for first-level tasks. Under Code Mask in the first row of the “Sequence” column, click the drop-down to select “Uppercase Letters (ordered)”.

Now down in the spreadsheet area, insert a column to show WBS:

- Right click the Task Mode column header, select Insert column, select (or type) WBS.

At this point, you should see these columns. You may need to grab the vertical line that separates the spreadsheet area from the Gantt chart and move it to the right to see them all:

- i
- WBS
- Task Mode
- Task Name
- Duration
- Start
- Finish
- Predecessors
- Resource Names

Now you're ready to enter the project tasks, etc.

Creating the project plan

You will work under the Task tab to enter your project tasks and associated information. When you are entering tasks in MS Project, you can enter them in "Manually Scheduled" mode or "Auto Scheduled" mode. As you would guess from the names of these modes, you hard-enter start and finish dates in manually scheduled mode, and in auto scheduled mode you let MS Project use task dependencies to generate start and finish dates (which you could then modify).

You will want to utilize the Auto Scheduled mode (let the software do the work!). Then you can manually schedule individual tasks where you need to force a specific Start or Finish date.

FYI, to change between Manually Scheduled and Auto Scheduled modes:

- If you want to change the mode for entering new tasks, see the New Tasks entry in the status bar at the bottom of the screen. Click it and change to the other mode.
- If you want to change the mode for an existing task, click the cell in the Task Mode column for that task, and switch modes.

Here we go! Time to enter our project plan...

1. Because MS Project defaults to Manually Scheduled mode, you need to click the status bar at the bottom of the screen to switch to Auto Scheduled mode.
2. Enter the Sub-Deliverables, Tasks, and Milestones of your project:
 - a. Entering Sub-Deliverables:
 - i. Enter the name of the sub-deliverable in Task Name. Enter nothing else.
 - b. Entering Tasks:
 - i. Enter Task Name
 - ii. Enter Duration
 1. You can specify duration in minutes, hours, days, weeks (e.g., 4d, .5 d, 50m, 3h, 1w)
 - iii. Use the green right-arrow in the upper task bar to "indent" the task to be under a Sub-Deliverable (or under a Major Task). You'll only need to do this for the first one; MS Project assumes the new tasks you enter after that are on the same level.
 - c. As you finish the tasks for an Sub-Deliverable and are ready to enter the next Sub-deliverable, enter the next sub-deliverable in Task Name and then use the green *left*-arrow to push it back to that level.
 - ❖ ***DON'T WORRY ABOUT YOUR WBS CODES!*** When you're done, we can ask MS Project to renumber the WBS codes.
 - d. Entering Milestones:
 - i. Position your cursor in the Task Name field and click the Milestone icon in the Insert section of the upper task bar.
 - ii. In Task Name, enter the milestone question, and preface it with the milestone number, e.g., "MS 1: Are we there yet are we there yet?"

- iii. None of our milestones are at the task level (I don't believe in that), so use the green left-arrow to make sure your milestones are at the Activity (Sub-Deliverable) level. You can put all of your milestones at the end of the task list.
 - iv. Finally, we want to Manually Schedule our Milestones – i.e., force them to certain calendar dates. To do this:
 - 1. Click in the Task Mode column of the Milestone.
 - 2. Click the down arrow and select Manually Scheduled.
 - 3. In the Start column, enter the Milestone date. It will automatically populate the Finish column with the same date.
3. When all activities, tasks, and milestones are entered, ask MS Project to renumber the WBS codes. It should be this simple: Project tab → WBS → Renumber → Entire project.

However, it did weird stuff for me. It started my tasks at Activity code C instead of A, and when I indicated “Entire project” it didn't renumber anything. So you may need to:

- o Double-click the Task Name of your very first task (the first Sub-Deliverable) and in the pop-up box, select the Advanced tab, then at the WBS code field, enter “A”.
- o Select all tasks, then do Project tab → WBS → Renumber → Selected tasks.

And if THAT doesn't work (like, if “Selected tasks” is not available in your Renumber options at that point), then double-click each Sub-Deliverable WBS and make it the capital letter you want it to be. Then when you Re-number the “Entire project” it should number the tasks correctly within each Sub-Deliverable grouping.

4. Now it is time to enter your task dependencies... and unleash the power of Auto Scheduling!
- a. Find the “Predecessors” column (you may have to move the border line between the spreadsheet and graph areas to the right to uncover it).
 - b. For each task that is dependent on one or more other tasks, use the Predecessors column to enter the id of tasks (or of a full Sub-Deliverable) that must be completed prior to this task starting.

Note that MS Project expects you to speak in terms of the MS Project task ID (the line number in the leftmost column of the task list) rather than WBS code in specifying Predecessors.

Where you have a simple string of tasks, each task leading to the next, you can select the set of tasks, then click the Link icon in the upper task bar. This generates the applicable task ids in the Predecessor column.

5. Now sit back to review and refine your plan. *Are there any Start or Finish dates that are not what you need them to be?*

For example, in our PARTY project plan, there are 7 tasks that depend on the date of the party. When the party date is established, you then need to force (manually enter) the dates for those tasks. The WBS Worksheet included in the PARTY example of Initiating and Planning provided in Appendix B of the *Techniques for Managing Projects* book explains how the dates for these 7 tasks depend on the date of the party.

You can overkey a Start or Finish date for auto-scheduled tasks without changing the Task Mode of the task. You would want to change the Task Mode property of the task if you need to ensure future plan adjustments do not modify the dates.

6. One last note in regard to entering tasks: MS Project 2010 has a “Recurring task” option. This is pretty cool for things like producing a weekly status report or conducting a monthly progress presentation to stakeholders. To create a recurring task, with your cursor in the Task Name field, click Task in the upper tool bar, then Recurring task. The pop-up dialog box lets you indicate frequency (e.g., daily, weekly, monthly) and start and end dates for recurrence.
7. Next, you need to assign the lowest-level tasks to individual team members. First, define the resources (people) on your project. To do this, use the View tab to select the Resource Sheet view. There, enter each resource in a separate row. For projects that are not billing or charging back resource costs, all you enter is the Resource Name.

When you’ve entered all your resources, use the icon at left in the upper task bar to go back to your Gantt view. There, add a column for Resource Names to assign one or more resources to each of the lowest-level tasks. Note that you do NOT assign resources to Sub-Deliverables, or to Major Tasks if the Major Task has been broken into Sub-Tasks. It is common practice, though, to assign Milestones to the Project Manager.

8. Refine the Gantt Chart for display and printing. In your Gantt Chart view, click the Format tab, then click the Format drop-down, then Bar Styles to:
 - a. Set your Task bars to show WBS at left of the bar and Resource Name at right.
 - b. Set your Summary Task (Sub-Deliverable) bars to show WBS at left and Name at right (as in Task Name, but here it is called just Name).
 - c. Set your Milestones to show Start (date) at left and Name at right. Note that your Milestones are Manually Scheduled! You will need to identify that particular “bar style” to request Start and Name to show on either side of the diamond symbol.
9. Save your project file – though I hope you’ve been doing this all along! Just your usual Microsoft save: File → Save → give it a good name and put it in a good place.

When you are ready to begin executing the project plan

1. Set your plan to be the project schedule “baseline”. To do that, follow this path from the Project tab: Project → Schedule: Set Baseline → Set Baseline For Entire Project.
2. Structure the columns to focus on tracking progress against the baseline plan:
 - Add these 7 columns: % Work Complete, Actual Start, Actual Finish, Baseline Start, Baseline Finish, Start Variance, Finish Variance
 - You can “hide” these columns now, if you want to: Start, Finish, Duration, Predecessors

Our focus in tracking the progress of a project is the variance between Baseline Start and Actual Start, and even more importantly, between Baseline Finish and Actual Finish!

3. Now you are ready to enter actuals. It is best to work under the Task tab when entering actuals. Use these 3 columns to enter the actual task progress information:

Actual Start, Actual Finish, and % Work Complete.