

Using Microsoft Project Software to Validate Task Relationships in a Project Schedule

Project teams are heavily dependent on their project schedule to keep them on track and on time to meet significant project milestones. The project schedule is a critical roadmap to project success. For this reason, the project schedule must accurately document the tasks required and the dependencies between those tasks.

The list of tasks must be at a level of detail that allows the project leader to manage and control the project. Equally important, the tasks must be properly linked to yield an appropriate timeline, complete with critical path. Because linking – the identification of predecessors and successors – is so crucial, our tool of the month is the use of Microsoft (MS) Project to validate that all tasks are properly linked. To ensure the terms “predecessor” and “successor” are understood:

- A predecessor task is one that must be completed before one or more other tasks can begin
- Then of course, a successor task is one that cannot start until its “predecessor(s)” have been completed.

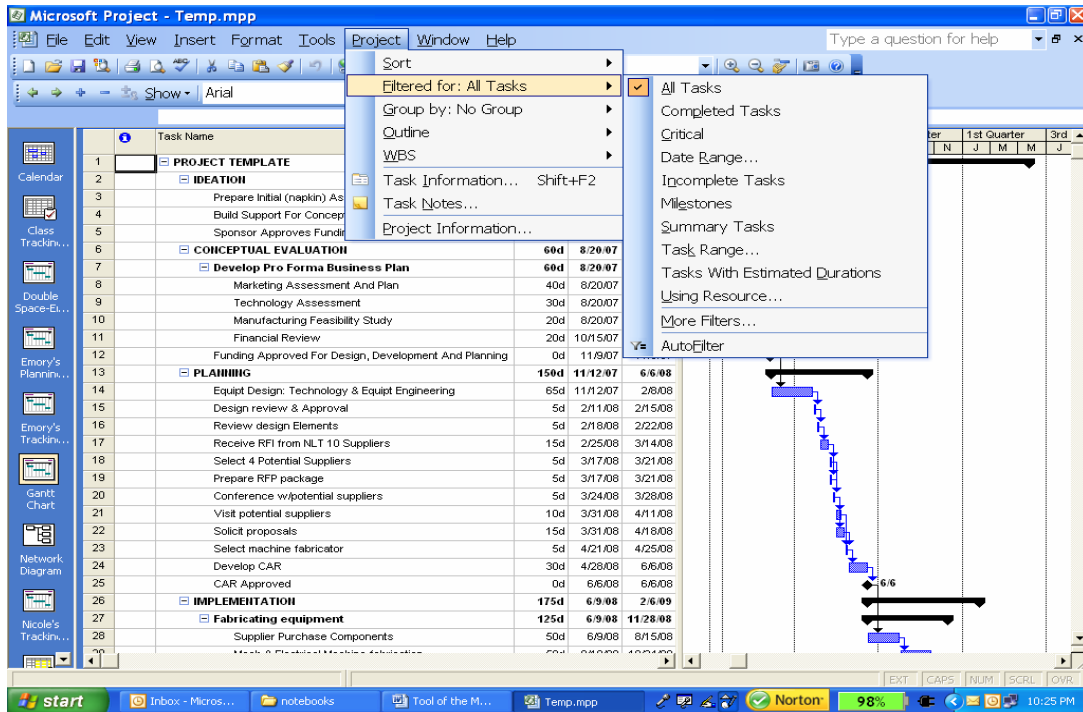
Every detail-level task in a project schedule must have at least one predecessor and at least one successor. The only exceptions are the first task in the schedule and the last. Without these links:

- The critical path will not be correct.
- The dynamic characteristic of the schedule is lost. You will not be able to see the total impact on your schedule if a critical path task is late.

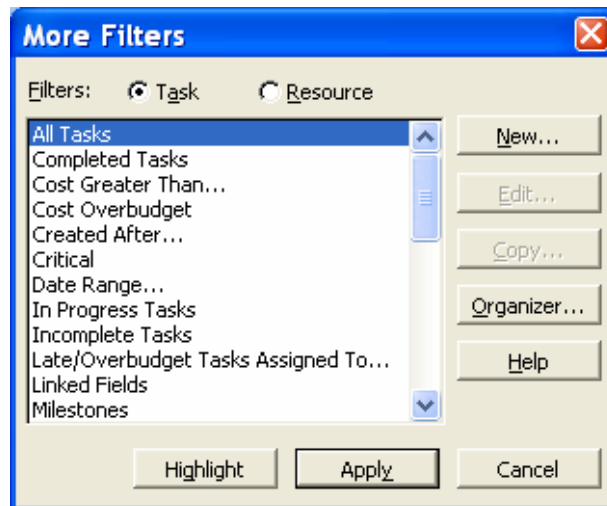
Filters are the easiest way to validate that all tasks are linked. A filter is a software option that allows the user to select only those tasks that meet a certain criteria – for instance, those tasks that have no predecessor. To create a filter in MS Project, follow these steps:

1. Ensure that all tasks are displayed by clicking the **Show, All Tasks**, icon on the toolbar.
2. Select **Project** from the main menu.

3. Select **Filtered For** from the pull-down menu. Note that the current filter, for example, **All Tasks**, displayed.

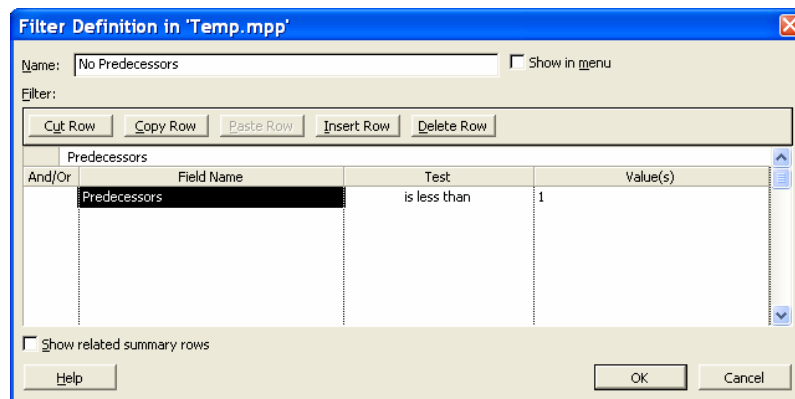


4. To create a custom filter, select **More Filters** to reveal the filters dialog box.



5. Specify that the filter is to be **task** related.

6. Click the *New* button.
7. The *Filters Definition* box is displayed.



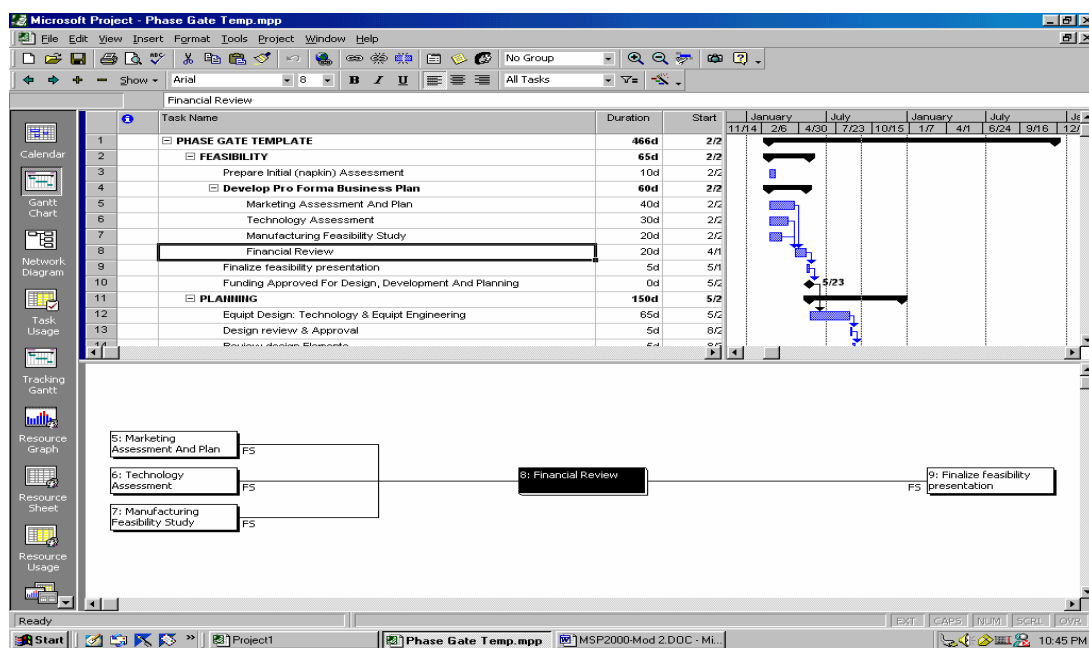
8. Type a descriptive name in the *Name* field, such as *No Predecessors*.
9. Complete the filter specifications as follows:
 - Select *Predecessors* as the field name.
 - Select *Less Than* as the Test.
 - Type the number *1* as the Value.
 - Click *OK* to confirm the filter.
10. Select *Apply* to put the filter into use.

A similar series of steps may be used to create a filter for *No Successors*.

Once you have validated that all predecessors and successors are in place, analyze your links for correctness. An excellent technique for analyzing dependencies is to use a split screen within the *Gantt* view in the upper half of your screen and the *Relationship Diagram* view in the lower half. To accomplish this, follow these steps:

1. With the *Gantt* View on-screen, select *Window* from the menu.
2. Select *Split* from the pull-down.
3. Select the bottom window by clicking within it.
4. Select *View* from the menu.

5. Select **More Views** from the pull-down.
6. Select **Relationship Diagram**.
7. Select **Apply**.
8. In the **Gantt** View, move through the project, one task at a time, to analyze and validate dependency logic. At each task, ask the question – “does this make sense; is this the way we would do this?”



Once you have verified that the links are in place and that they are correct, the project team can work the schedule with confidence that it will lead them to a successful result.

Microsoft Project can be one of the most helpful tools you will find when developing the timeline for your project. By taking full advantage of the services available within the software and ensuring that all of your project tasks are linked and properly validated, your project implementation team will be sure to have an even better roadmap to success.