Project Day Numbering

How to format a Microsoft Project schedule to use Project Dates instead of Calendar Dates

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Often times a schedule is prepared without knowledge of an actual start date. For example, a proposal may be prepared and shown to a customer who wants to know what happens on each day of the project without regard to a calendar date. This paper shows how to present a schedule using "Project Days" instead of calendar days by using custom fields and formulas.

Reality Check

First, before I get started, it is actually not possible to divorce a project schedule from a physical calendar in Project 2007 and earlier. In Project 2010 we will be able to use manual scheduling, but this will still not completely remove the calendar from the equation. This paper shows how to reformat project information to give the appearance of scheduling based on "Project Days."

Change Time Scale

Change the time scale on the right side of the Gantt view to reflect Project Days by selecting Format/Time Scale… and then selecting an appropriate format (see Figure 1):
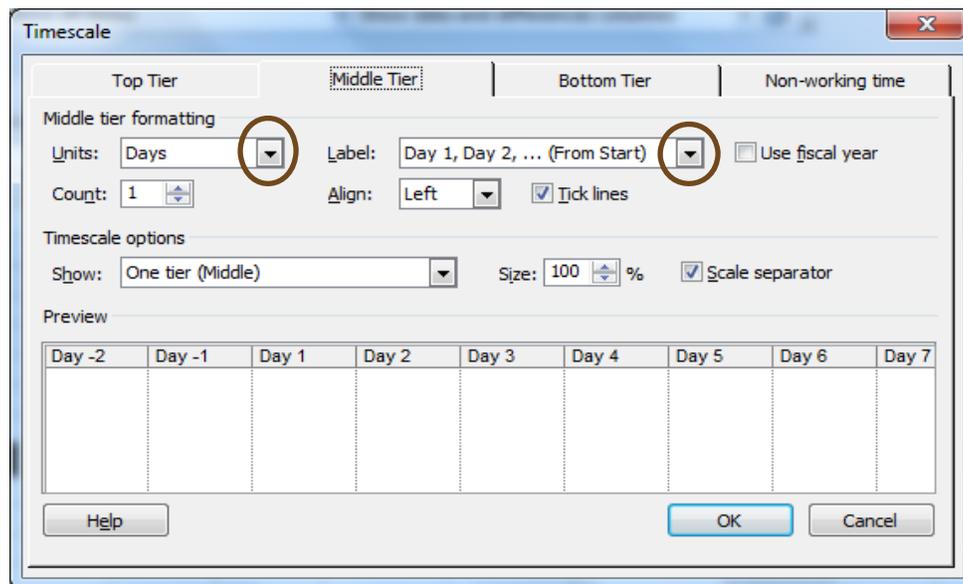

Figure 1 Change Appearance of Gantt View Time Scale

Identify Start and Finish columns

Using two spare text fields (Text1 and Text2), insert them into the Gantt view and label them as "StartP" and "FinishP." You can use any convenient name including "Start" and "Finish"; I am adding the "P" suffix only for clarity in this paper.

Columns may be inserted from the Insert Menu. When the Insert Column dialog box appears, be sure to specify the desired names as shown in Figure 2 and Figure 3. Make sure to insert columns for both Start and Finish if you want them both to show.
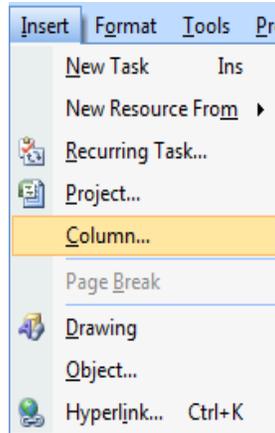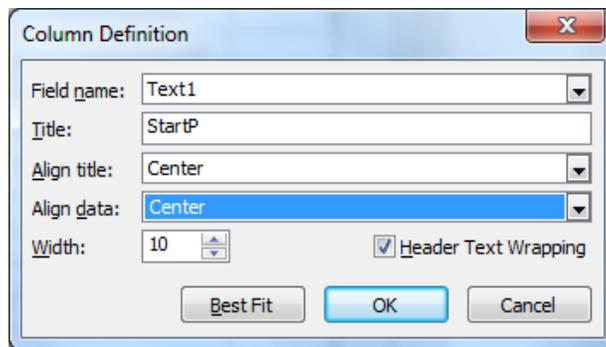

Figure 2 Inserting a Column

Figure 3 Specify Column Appearance

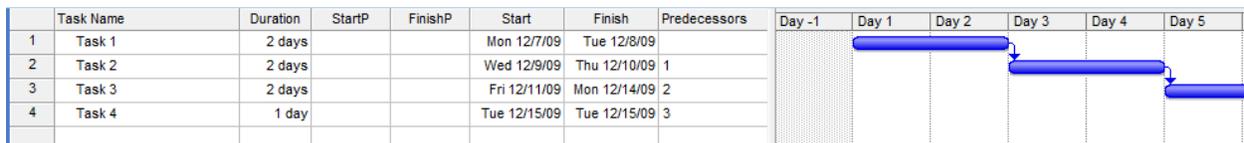Here is an example of the work so far, see Figure 4:

	Task Name	Duration	StartP	FinishP	Start	Finish	Predecessors
1	Task 1	2 days			Mon 12/7/09	Tue 12/8/09	
2	Task 2	2 days			Wed 12/9/09	Thu 12/10/09	1
3	Task 3	2 days			Fri 12/11/09	Mon 12/14/09	2
4	Task 4	1 day			Tue 12/15/09	Tue 12/15/09	3

Figure 4 Gantt Chart with Formatted Time Scale

Formulas

Assuming the new dates will display as Day 1, Day 2, Day 3... a formula will concatenate the string "day" including a trailing space followed by another formula that will calculate the difference in work days between the project start date and the start (or finish) date of a task.

Formulas are added to a custom field by right clicking on the custom field header and then selecting "Customize Fields…" as shown in Figure 5:
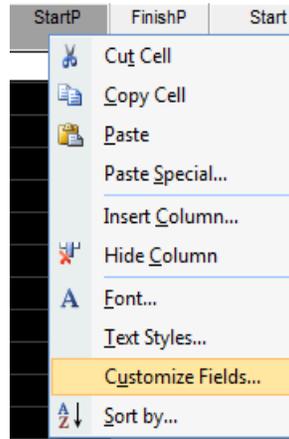

Figure 5 Customize a Field

In the Customize Fields dialog box, select the formula button as shown in Figure 6.

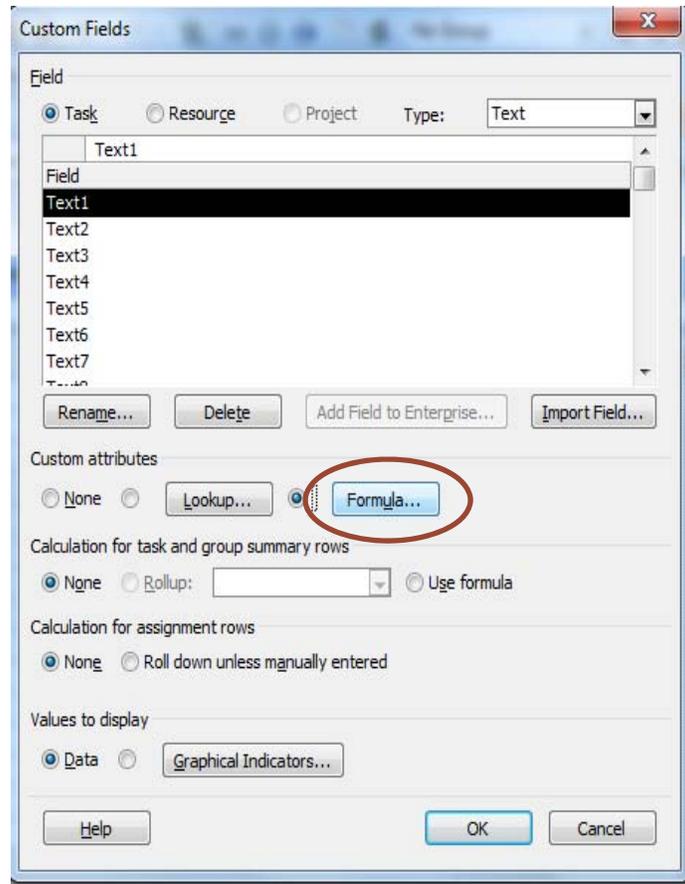Figure 6 Accessing the Formula Dialog (Customize Fields Dialog Box)

In the formula dialog box enter one of the following formulas:

For Start Dates:

"Day " & ProjDateDiff([Project Start],[Start],[Project Calendar])/[Minutes Per Day]+1

For Finish Dates:

"Day " & ProjDateDiff([Project Start],[Finish],[Project Calendar])/[Minutes Per Day]+1

Some explanation is necessary. Several constants are available to Microsoft Project including the project start date, project calendar and number of work minutes per day. Since Microsoft Project calculates durations in minutes, it is necessary to correct the calculations to provide results in days. Also, it is necessary to add 1 to the result since a the first task in the project will start on Project Day 1 instead of Project Day 0; the ProjDateDiff function returns a value of 0 for tasks starting on the project start date and the 0 base offset must be accounted for in the calculation.

The [Project Calendar] variable is optional and is specified when a specific calendar is required for the project. If no calendar is specified in the formula, Microsoft Project uses the default project calendar found in Project/Project Information.

Hide Project Dates

Remove the computed Start and Finish dates from the view. The result now looks like Figure 7

	Task Name	Duration	StartP	FinishP	Predecessors		Day -1	Day 1	Day 2	Day 3
1	Task 1	2 days	Day 1	Day 3						
2	Task 2	2 days	Day 3	Day 5	1					
3	Task 3	2 days	Day 5	Day 7	2					
4	Task 4	1 day	Day 7	Day 8	3					

Figure 7 Completed Format of Gantt View

Shifting Start Dates

Occasionally, the original schedule may be developed around a local holiday that happens somewhere in the middle of the schedule. If this becomes a problem, use the Adjust Dates macro from the Analysis Toolbar to shift the tasks in time. This is a good method to move all the tasks once an official project start date is known.

For additional information about Project Management, please contact us:

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