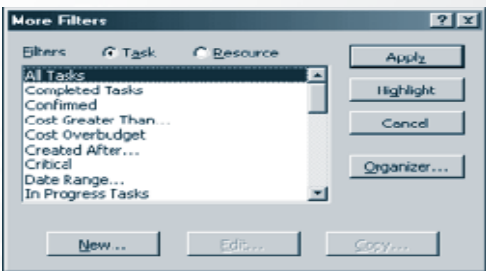


Focusing with Filters

Microsoft Project's filters provide a powerful method for concentrating on areas of interest within the project plan. In the first of a series of articles on the practical use of Microsoft Project, Dominic Moss gives us a detailed insight into how we can make best use of this powerful tool.

As a regular user of Microsoft Project you are no doubt familiar with the range of filters available as standard. The ability to focus on information of a specific nature is invaluable when analysing a project of any size or complexity. Whilst the standard installation of Project provides a total of 51 filters, 30 for tasks and 21 for resources, for some people this is just not enough. Users with a degree of inquisitiveness may already have explored how filters were constructed in previous versions of Project. In this article I aim to explain how you can expand the range and usefulness of filters in Microsoft Project.



Understanding how a filter finds the required data contained in a project file has always been possible by editing or copying filters viewed in the more filters dialogue box. One of the things I most like about Project is the ability to look beneath the surface at how certain elements are constructed. Appreciating how a filter works and having the confidence to experiment can deliver some useful additional analysis when working with project files. Taking an existing filter, copying re-naming and modifying it can produce a totally new and useful filter. The time and effort required are minimal and if the results do not meet your expectations it is easy to try again or scrap the filter created.

Cynics amongst you may not be surprised to learn that whilst there is a filter to show tasks behind schedule there is not one to show where you are ahead of the game. Making a copy of the slipping tasks filter and giving it a new name can easily redress this omission, early tasks or accelerated tasks are just 2 suggestions for a new name for this filter instead of the default Filter1.



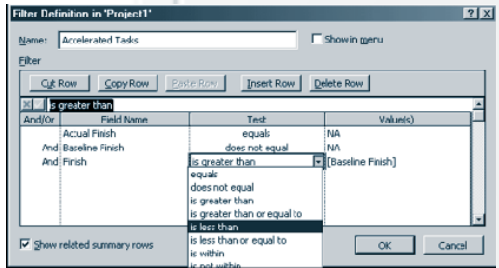
In the filter definition dialogue box there are 3 fields of data to which tests are applied. The first looks at the Actual Finish field which has the test "equals" applied with the required value being NA. In other words we are only interested in tasks that have yet to finish as unless you are Stalin it is difficult to re-write history.

The second test is applied to the Baseline Finish field, which has the test "does not equal" applied with the required value being NA once more. In other words you can only find out if tasks are behind schedule if you have something to measure them against which in this case is the baseline finish.

The final test looks for tasks where the current scheduled finish date "is greater than" the baseline finish date. To identify tasks which are ahead of schedule simply select the cell where "is greater than" is displayed and select the test "is less than".

The first column in the filter definition dialogue shows "And/Or". Using the "And" selection requires the filtered information to comply with all of the tests applied and is more specific in terms of results than the "Or" selection where a task or resource will be displayed if either of one or more test conditions are satisfied. With the exception of the first row displayed in the filter definition dialogue every row has to be preceded by one of these two selections.

You will now be able to identify tasks where you are ahead of schedule this can be useful for a variety of reasons.



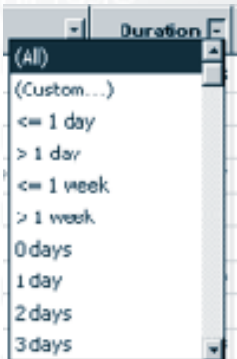
- Identifying tasks where performance is better than estimated on a consistent basis leading to revised and more competitive estimating in future.
- Identifying areas where improved performance is being achieved and applying lessons learnt elsewhere within your organisation.
- What if scenarios - is the time saved worth the additional expense?

If you can think of further benefits to this analysis please let me know. Similarly Project can help you focus upon tasks or resources which are over budget but does not look for instances where you are under budget. In some instances you might be interested where there is a saving against the budget as it may indicate that either the task has not been done in accordance with requirements or that estimates were pessimistic. To achieve this make copies of and rename the Cost Over budget filter for both Tasks and Resources and change the test "is greater than" to "is less than" in the first row for cost.

Focusing with Filters

The inclusion of the Auto Filter feature in Project 98 provides the opportunity for users to construct filters in a trial and error fashion whilst analysing current projects. It allows the user to append further criteria to either standard of customised filters or to build filters from the ground up.

The Critical filter provides a good starting point for the analysis of your schedule. When putting together a project plan you may have a pre-determined deadline, which on your initial schedule may not be achievable. In some Project Management publications this first attempt at a schedule may be called the "first cut project plan". Focusing on the critical tasks in your project provides an indication as to where to look to pull back time, however in a large complex project this filter may return a significant number of tasks. To focus your efforts why not look at the critical tasks which take longer than 1 week. Modifying these tasks and how they are scheduled may deliver more significant time gains than focusing upon critical tasks that last 1 or 2 days. Reducing the overall duration of your schedule is sometimes referred to as "Crashing" the schedule.

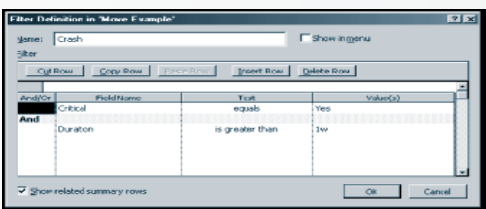


To create a filter to help you "Crash" your schedule filter your project for critical tasks in the normal fashion, from either the Project menu or the Filter drop down selection on the formatting toolbar invoke the Auto Filter. Drop down arrows will now be displayed on most of the table column headings. Select the drop down arrow on the duration column and from the list displayed select >1week - greater than 1 week.

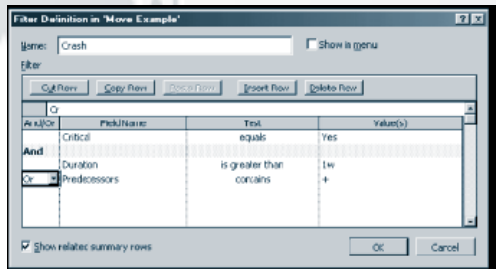
You should now have a reduced number of tasks displayed, they are all critical and have a duration of at least 1 week/5 days. You will notice that the duration column heading is now highlighted blue, indicating that it is this field which the Auto Filter has been applied to. Select the drop down arrow on the duration column heading again and select the (Custom...) option displayed.



It shows that the Auto Filter is showing rows where the duration is greater than 1w. A further test could be applied here using the second drop down selection but it would have to be applied to the same duration field. Select the Save... button and you are now presented with the filter definition dialogue box.



Having renamed the filter, I have shown the name crash in this instance, you could save this filter straightaway by clicking the OK button. Whilst the "Crash" filter is of some benefit you could be missing the ability to focus on other tasks which influence your schedule, your filter currently focuses upon critical tasks with a duration in excess of a week - what about critical tasks that have a predecessor with a lag period? Below the field name duration select the field "predecessors" from the drop down list displayed, below the test value is greater than select "Contains" from the drop down list displayed. In the final values column simply type in a "+" sign. The final step is to select the "Or" command in the And/Or column to the left of the selected field "Predecessors". You now have a filter that identifies critical tasks where either the duration is greater than 1 week or where the predecessor relationship includes an element of lag. This new filter is now available from either the More Filters dialogue box or the filter drop down selection on the formatting toolbar. You can if you wish elect to show the filter in the menu by putting a check in the box next to the filters name.



At this stage it is worth considering the implications of the And/Or operator. In the Accelerated Tasks filter the "And" operator was used for the second and third tests meaning that any task filtered had to meet all three conditions to be displayed. Using the "And" operator delivers a very specific result, using the "Or" operator can deliver a wider less focused result - as long as either of the tests ring true the task will be displayed as a result of the filter being applied.

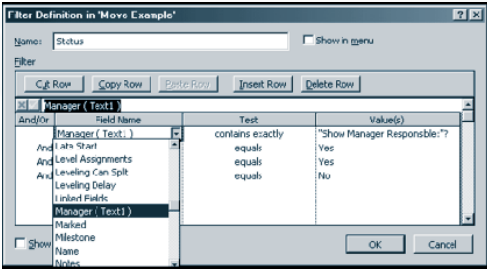
A further use of the And/Or operator in Project 98 is in grouping filter conditions together. In the "Crash" filter we were looking for tasks that were critical "And" where either their duration exceeded one week "Or" where there was a lag in the predecessor relationship. Grouping can be achieved by selecting either "And/Or" in the first column and then leaving the remaining selections in that row blank.

The custom task and resource fields available in Microsoft Project allow for even more rigorous cross-examination of information within a project file. As an example imagine a large project where managers are supposed to sign off key milestones as being approved. A table including two custom fields, text and flag renamed "manager" and "approved" respectively could be constructed and, after applying the milestones filter, the appropriate status entries made in the custom columns. As an aside you can also rename these custom fields in Microsoft Project 98.

	Task Name	Manager	Approved
0	Relocation		No
15	Approval to proceed	Bob	No
17	Appoint Surveyor	Mite	No
18	Acquisition Phase		No
20	Short list tabled	Arne	No
23	Design Phase		No
38	Orders placed		No
46	Orders Completed	Sue	No
47	Transition Phase		No
61	Move Ready	Joe	No
62	Action Phase		No
69	Move Complete	Iar	No

Focusing with Filters ... cont.

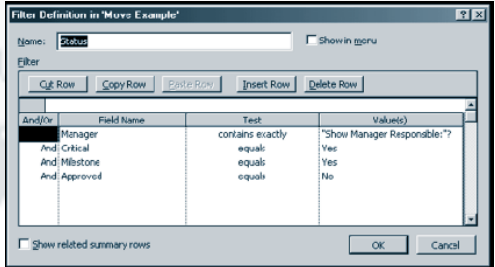
It would be possible to identify critical tasks that had not been signed off by a particular manager by constructing an interactive filter. The easiest way to create an interactive filter, one where you have to enter information on which the filter will be based, is to make a copy of an existing filter. From the More Filters command select the Copy of Late/Overbudget Tasks Assigned To... filter and make a copy of it (the three ... indicate that a further dialogue box will be displayed). The first section of the filter applies a test to the resource name field and shows the value "Show late or overbudget tasks assigned to:?. It is this test which will display a dialogue box and the order of the parentheses, colon and question mark are important to the construction of an interactive filter. Replace the resource field name with the custom field Manager(text1).



You can delete the next 2 sections of the filter, the Baseline Finish test and the And separator. Delete the next 2 rows and in the first column on the second row select the And operator. In the field name column select the "Critical" field, in the test field select the "equals" test and in the value(s) field simply type in the value "Yes". Copy this row and substitute the field "Milestone" for the field Critical. Copy this third row and substitute the field

"Approved(Text1)" for the milestone field and type No instead of Yes in the value(s) field.

You now have a filter that will show you critical milestone tasks that have not been approved by the manager you are interested in checking on. You will have to manually type in the name of the manager, the good news is that the interactive filter is not context sensitive but you do need to type the managers full name as it is entered in the field being filtered.



If I have one criticism of Microsoft Project it is the fact that the "using resource..." filter cannot be copied or edited. It provides a useful drop down menu allowing selection of assigned resources and could be combined with custom filters to allow users to much more easily construct interactive filters of real benefit. Sadly it would appear this is still the case in Project 2000, or at least the Beta version.

If you have followed these suggestions you now have a number of newly created filters. However they are at present only residing within the file in which they were created. In my next article I will explain how to ensure these filters and other useful features are made available by default to all users of Microsoft Project within your organisation. Happy planning.

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MOUS Certification for Microsoft Project 2000

The Microsoft® Office User Specialist (MOUS) certification was introduced by Microsoft as the only Microsoft approved certification program designed to measure and validate users' skills with the Microsoft Office suite of desktop productivity applications (Microsoft Word, Microsoft Excel, Microsoft PowerPoint®, Microsoft Access and Microsoft Outlook®).

Unlike the multiple choice questions familiar to people who have taken any of Microsoft's technical exams, MOUS certification involves the carrying out of designated tasks actually within the application. New to the program are certifications for Microsoft Project 2000 and Project Central.

These may be taken at both Core-level and Expert levels, with the additional option of becoming a MOUS Authorized Instructor. Testing both expertise and efficiency, MOUS exams typically take about 1 hour.

Core-Level Certification

Microsoft claim that "Successful completion of a Microsoft Project 2000 core-level MOUS certification examination indicates a comprehensive understanding of Microsoft Project 2000 and is intended for individuals already working or seeking work in small companies with multiple responsibilities as well as computer engineers, LAN managers, webmasters, programmers, analysts and others responsible for projects consisting of up to 200 tasks."

Core-Level Exam Objectives

Exam objectives were identified by a group of project management, academic and industry experts as task skills representative of a comprehensive, working-knowledge of Project 2000. The objectives are categorized by "skill set", or general areas of operation within Microsoft Project 2000.

Expert-Level Certification

On the subject of the Expert-Level Certification Microsoft say: "Successful completion Project 2000 expert-level MOUS certification indicates a comprehensive understanding of Microsoft Project 2000 and many of the application's advanced features and is appropriate for individuals already working or seeking positions in larger organizations as a Microsoft Project resource, as a consultant implementing Microsoft Project solutions and others responsible for creating schedules for projects of any complexity, implementing multi-project resource management, project tracking, updating project information, assigning resources, publishing to the web and developing customized planning solutions. Attainment of expert-level certification may also demonstrate to superiors and prospective employers an understanding of basic and some advanced project management concepts. Thereby serving as preparation for formal training in project management and the methodological certifications offered by professional, project

management organizations."

Expert-Level Exam Objectives

Objectives were identified by a group of project management, academic and industry experts as task skills representative of a comprehensive, working-knowledge of Project 2000 and many of its advanced features. The objectives are categorized by "skill set", or general areas of operation within Microsoft Project 2000.

MOUS Authorized Instructor

For individuals who deliver training on Microsoft Project, the MOUS Program offers a specialized program designed to validate instructional expertise. In addition, Microsoft will provide many new opportunities to promote your services, including a special MOUS AI logo for use on business cards, resumes and websites.

To qualify for MOUS AI certification on Microsoft Project, you must complete both the core and expert-level Microsoft Project 2000 MOUS certification exams, and present evidence of your instructional ability.

Full details including costs and where to take MOUS exams are at www.mous.net