PLANNING AND SCHEDULING

USING

MICROSOFT® OFFICE PROJECT 2007

BY

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SUMMARY

The book was written so it may be used as:

- A training manual for a two-day training course, or
- A self-teach book, or
- A reference manual.

The screen shots for the book are mainly taken from Microsoft Office Project Standard 2007 but the book may be used to learn Microsoft Office Project Professional 2007.

The book has been written to be used as the basis for a two-day training course and includes exercises for the students to complete at the end of each chapter. Unlike many training course publications, the course book may then be used by the students as a reference book.

This publication is ideal for people who would like to quickly gain an understanding of how the software operates and explains how the software differs from Primavera P3 and SureTrak, thus making it ideal for people who wish to convert from these products.

CUSTOMIZATION FOR TRAINING COURSES

Training organizations or companies that wish to conduct their own training may have the book tailored to suit their requirements. This may be achieved by removing, reordering or adding content to the book and by writing their own exercises. This book is available in both A4 spiral bound, which lies flat on the desk for training and/or self–teaching, and in B5 paperback as a reference manual. Please contact the author to discuss this service.

AUTHOR’S COMMENT

As a professional project planner and scheduler I have used a number of planning and scheduling software packages for the management of a range of project types and sizes.

The first books I published were user guides/training manuals for Primavera SureTrak and P3 users. These were well received by professional project managers and schedulers, so I decided to turn my attention to Microsoft Project 2000, 2002, 2003 and now Microsoft Office Project 2007. This book follows the same proven layout of my previous books. I trust this book will assist you in understanding how to use Microsoft Project on your projects. Please contact me if you have any comments on this book.

ABOUT THE COVER PAGES

Top right	A power station in the Latrobe Valley, Victoria, Australia
Left	Ruins of Port Arthur convict prison, Tasmania, Australia.
Center right	Reece Dam, Tasmania, Australia spillway in flood. The author was the site engineer for the construction of this spillway.
Bottom right	Petronas Twin Towers Skybridge, Kuala Lumpur, Malaysia

CURRENT BOOKS PUBLISHED BY EASTWOOD HARRIS

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ISBN 1-921059-13-3 Spiral Bound
First Published March 2000

Planning Using Primavera® SureTrak Project Manager Version 3.0 Revised 2006
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SUPERSEDED BOOKS BY THE AUTHOR
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Planning Using Primavera Project Planner P3 Version 3.1
Project Planning Using SureTrak for Windows Version 2.0
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8 FORMATTING THE DISPLAY

This chapter covers the following topics, which are used to format the on-screen display and which are also reflected in print preview and printouts:

Topic	Menu Command
• **Table** – formatting the columns of data	**View**, **Table:Entry**, **More Tables…**, or Select a column and right-click to insert, or Right-click on a column header and edit.
• **Formatting Columns**	Double-click on the column title.
• **Inserting Columns**	Highlight a column and strike the **Ins Key**, or Select **Insert**, **Column…**, or Right-click and select **Insert Column…**.
• **Deleting Columns**	Highlight a column and strike the **Delete** key, or Select **Edit**, **Hide Column**, or Right-click and select **Hide Column**.
• **Format Bars**	**Format**, **Bar Styles…** or double-click on a bar. **Format**, **Gantt Chart Wizard**… **Format**, **Bar…**
• **Row Height**	Drag with the mouse, or Edit the **Table**.
• **Format Text Font**	**Format**, **Font…** to format columns and **Format**, **Text Styles…** to format all other fonts.
• **Timescale**	**Format**, **Timescale…**, or Double-click on the timescale.
• **Gridlines**	**Format**, **Gridlines…**.
• **Relationship Lines**	**Format**, **Layout…**.

The formatting is applied to the current **View** and is automatically saved as part of the View when another View is selected. Views are covered in more detail in the **VIEWS, TABLE AND DETAILS** chapter.

Some formatting functions, such as dragging columns to a different location, are not available in earlier versions of Microsoft Project.

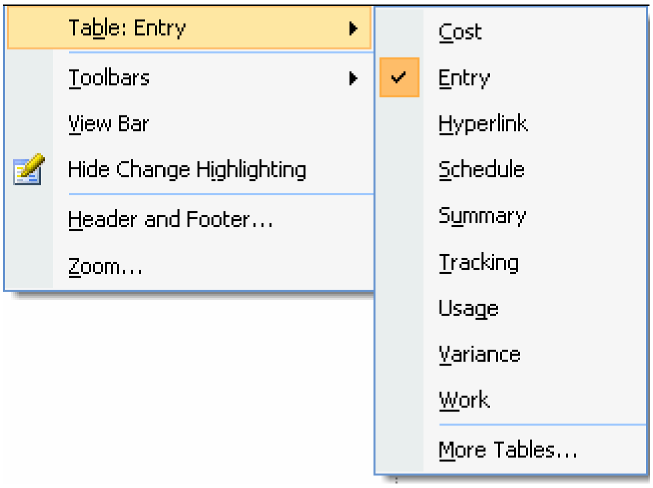
8.1 Formatting the Columns

There are two methods of formatting the columns:

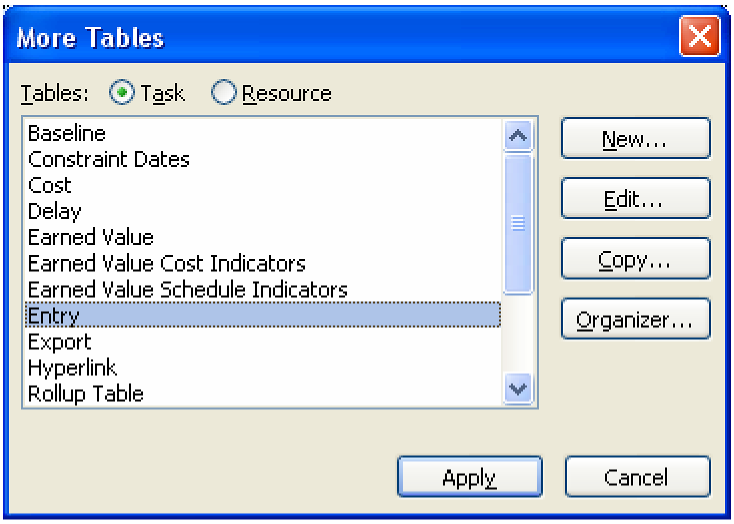
- Using **Table Definition** form, this is where you set up the data columns in the way you want to see the information on the screen and in printouts. You may edit, create and delete **Tables** and select which one is used display the data.
- Inserting, editing and deleting columns of data using the **Column Definition** form.

8.1.1 Formatting Columns Using the Table Function

- Select **View**, **Table:Entry** and select from the list of predefined **Tables** the table you want to display:



- Select **View**, **Table:**, **More Tables…** to open the **More Tables** form:



➢ 

– To create a new Table.

➢ 

– To edit the highlighted Table.

➢ 

– To copy the highlighted Table.

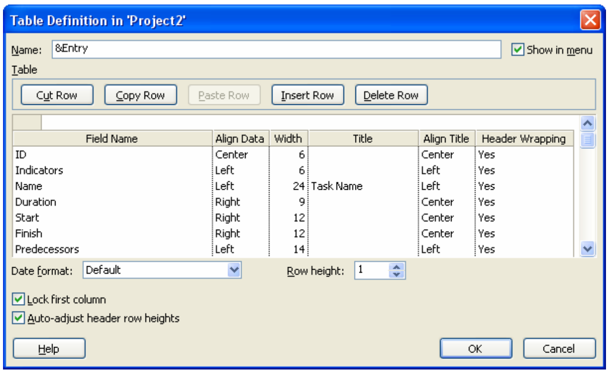
➢ 

– Opens the **Organizer** form which enables you to copy a Table from one opened project to another or to the Global Project.

➢ 

– Applies the selected Table making it visible on the screen.

- When you select New..., Edit... or Copy... you will be presented with the **Table Definition** form:



  - Click on the **Show in menu** box to display the Table in the **View**, **Table:** menu.
  - The columns of data will be displayed on screen from left to right in the same order as the rows in the form.
  - Highlight a row and then you may use the Copy Row, Copy Row, Paste Row, Insert Row or Delete Row buttons.
  - The data to be displayed may be selected from the drop-down box in the **Field Name** column.
  - **Align Data** and **Width** are used for formatting the data in the columns.
  - The Microsoft Project **Field Name** may be replaced by typing your own title in the **Title** box.
  - The **Date format:** drop-down box is used to change the format for this table only.

  i This is a very useful function to ensure that other users of the project file see the intended date format and not their system default date format.

- **Row Height:** sets the default height of all the rows in this table. A row height may be changed by dragging the cell boundary line once a task has been created.
  - **Lock first column** prevents the first column from scrolling and is useful when the first column contains the Task Name.
  - **OK** takes you back to the **More Tables** form where you may click on the **Apply** button to commit the new or edited Table.

To save a table for use in all your new projects, copy the table to the **Global.mpt** template using **Tools**, **Organizer…** and select the **Tables** tab.

You may also copy a **Table** to another project or rename a **Table** using **Tools**, **Organizer…** and selecting the **Tables** tab.

8.1.2 Formatting Time Units

Select **Tools**, **Options…**, **Edit** and:

- The **View Options for time units in "Project"** always specifies the time units, for example **day**, **dy** or **d**.

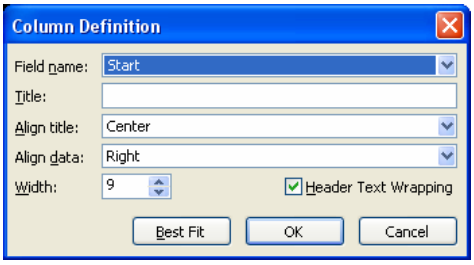
- Check on the **Add space before label** check box to add a space between the value and label in date columns.

- Unchecking **Add space before label** and selecting **d** allows a narrower duration column.

8.1.3 Formatting Columns Using the Column Definition Form

When you use this function, you are editing the **Table** currently in use and your changes are permanent. Double-click on a column description to open the **Column Definition** form where you may edit the selected column in a similar way to the **Table Definition** form.

The IME Mode button, if displayed, allows the customization of the **Input Mode Editor** for some fields. This feature will only be displayed if it is installed with the Eastern Asian operating systems.



8.1.4 Deleting and Inserting Columns

Insert a column by clicking on the column title where you require the new column. This will highlight the column. To insert a new column:

- Select **Insert**, **Column…**, or
- Hit the **Ins** Key, or
- Right-click and select **Insert Column…**.

Delete a column by highlighting the column or by clicking on the title. Then:

- Select **Edit**, **Hide Column**, or
- Hit the **Delete** key, or
- Right-click and select **Hide Column**.

1. There will be no confirmation of deleting a column, but you are allowed to undo the deletion.
2. The term “hide” means “delete” and the column is removed from the Table in this project.

8.1.5 Adjusting the Width of Columns

You may adjust the width of the column either manually or automatically. For manual adjustment, move the mouse pointer to the nearest vertical line of the column. A icon will then appear and enable the column to be adjusted. For automatic adjustment, once again position the mouse pointer to the nearest vertical line of the column, and double right-click the mouse. The column width will automatically adjust to the best fit.

8.1.6 Moving Columns

Columns in a Table may be moved by clicking on the column header. The mouse pointer will change to a and the column may be dragged to a new location

8.2 Formatting the Bars

The bars in the Gantt Chart may be formatted to suit your requirements for display. Microsoft Project has the option to:

- Format all the Task Bars by using :
  - ➢ The **Bar Styles** form, or
  - ➢ The **Gantt Chart Wizard**, which is by far the easiest way to format bars, or
- Format one or more specific Task Bars using the **Format Bar** form.

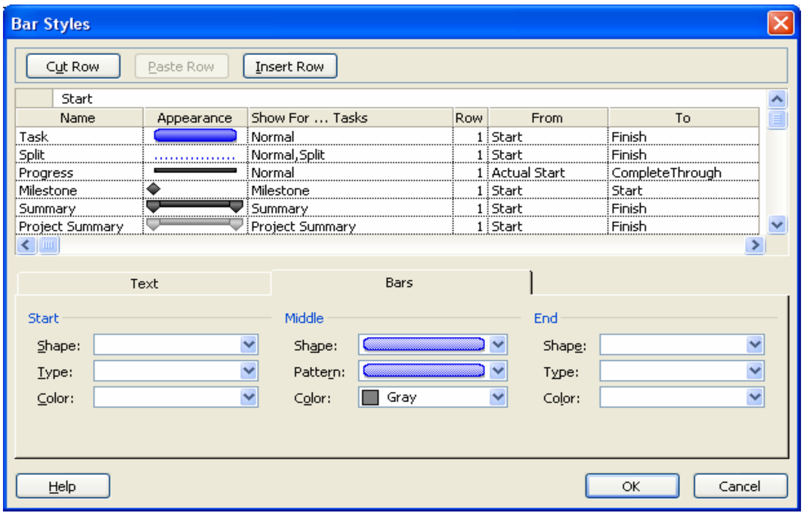
8.2.1 Formatting Bars Using the Gantt Chart Wizard

There is a **Gantt Chart Wizard** available by clicking on the  icon or selecting **Format**, **Gantt Chart Wizard…**. This wizard will overwrite any formatting you may have created. This is a straightforward method of formatting your bars and often this is the best method of formatting bars. It is very simple to use but will not display the Negative Float and Free Float bars. These will have to be added manually using the **Bar Style** form as described next.

8.2.2 Formatting All Task Bars Using the Bar Styles Form

To format all the bars you must open the Bar Style form by selecting:

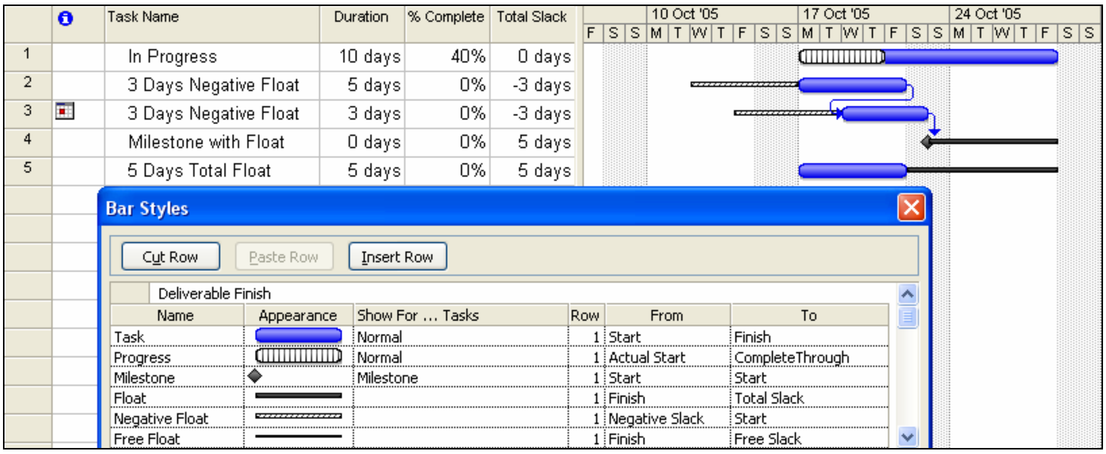
- **Format**, **Bar Styles…**, or
- Double-click anywhere in the Gantt Chart area, but not on an existing bar, as this will open the **Format Bar** form for formatting an individual bar.



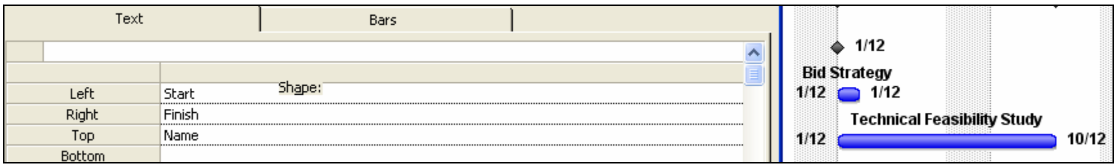
The following notes are the main points for using this function. Detailed information is available in the Help facility by searching for "Bar styles dialog box."

- Each bar listed in the table will be displayed on the bar chart.
- Bars may be deleted with the Cut Row button, pasted using Paste Row button and new bars inserted using the Insert Row.
- The **Name** is the title you may assign to the bar and is displayed in the printout legend. To hide the bar on the legend precede the **Name** with an *.
- The appearance of each bar is edited in the lower half of the form. The bar's start point, middle and end points may have their color, shape, pattern, etc. formatted.

- **Show For … Tasks** allows you to select which tasks are displayed. More than one task type may be displayed by separating each type with a "**,**". Bar types not required are prefixed with "**Not**." For example, the Normal,Rolled Up,Split,Not Summary bar would not display a bar for a summary task. Should you leave this cell blank then all task types will be displayed in this format.
- The bars may be placed on one of four rows numbered from 1 to 4, top to bottom. If multiple bars are placed on the same row, the bar at the top of the list will be drawn first and the ones lower down the list will be drawn over the top.
- **From** and **To** allow you to establish where the bars start and finish. The picture below shows how to format **Total Float, Free Float** and **Negative Float**. Unlike other planning and scheduling software, the Negative Float is drawn from the Start Date of a task and not the Finish Date and therefore a separate bar is required for Negative and Positive Float.

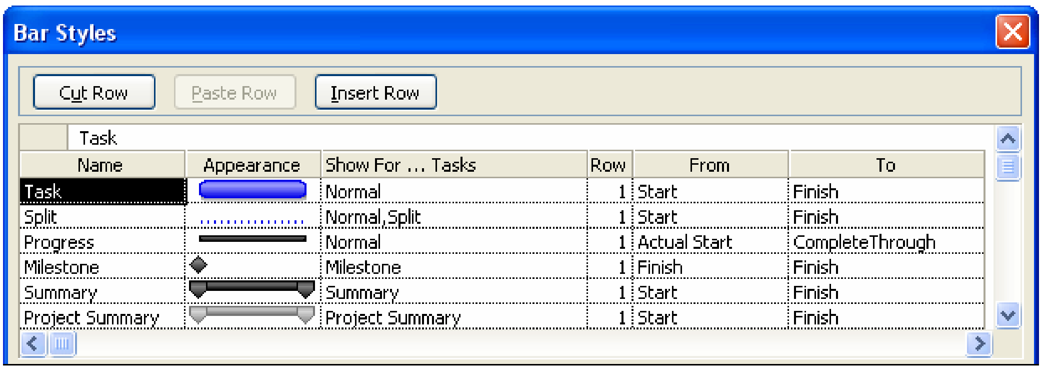


- The **Text** tab allows you to place text inside or around the bar:



- It is not possible to format the font in this **Bar Styles** form. Select **Format**, **Text Styles…** to format the bar text font.

To show Critical and Non-critical tasks the bars should be formatted as shown below, with particular attention paid to the **Show For … Tasks** column. Non-critical Tasks are formatted as **Normal, Non-critical** and Critical Tasks as **Normal, Critical**.

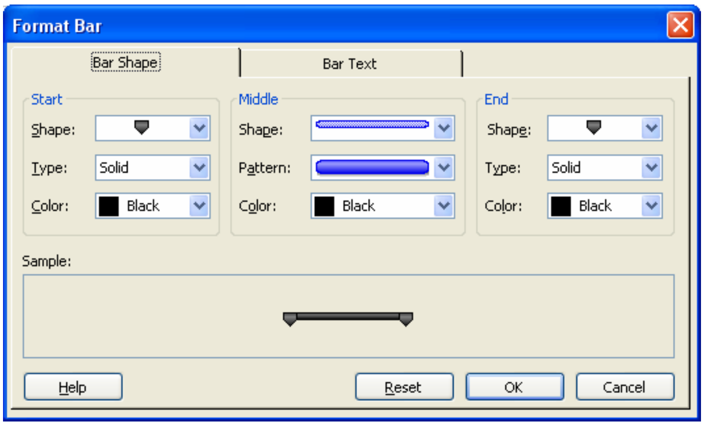


8.2.3 Format One or More Specific Task Bars

One or more individual bars may be formatted to make them look different from other bars.

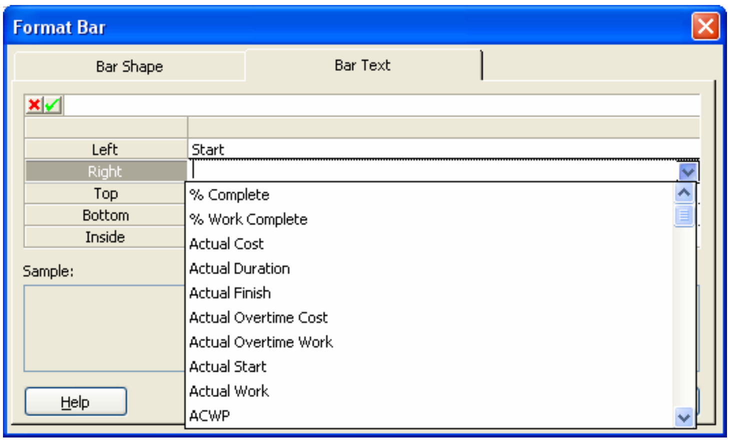
To format one or more bars:

- Select:
  - ➢ One task bar by clicking on it, or
  - ➢ Multiple bars by Ctrl-clicking each bar or left-clicking and dragging with the mouse, then
- Open the **Format Bar** form by:
  - ➢ Selecting **Format**, **Bar…**, or
  - ➢ Moving the mouse over a bar in the bar chart until the mouse changes to a ✥ and double-clicking. When more than one bar has been selected you will need to hold the **Ctrl Key** down when double-clicking on a bar.
- Then select the required bar formatting options from the **Format Bar** form:



- The  is used to restore the default bar formatting to selected bars.

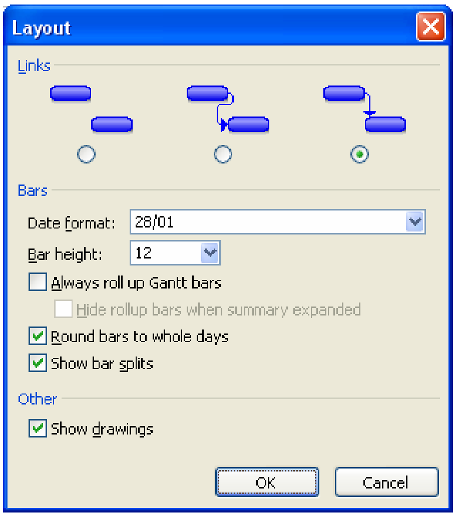
The bar shape may be formatted and text information added in the same way as formatting all the bars described earlier in this chapter.



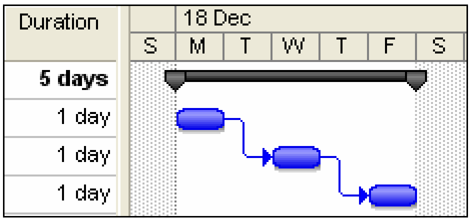
- Select **Format**, **Text styles…** to format the text font.
- A Tasks Bar may be hidden by checking the **Hide task bar** option in the **Task Information** form.

8.2.4 Layout Form – Format Bars Options

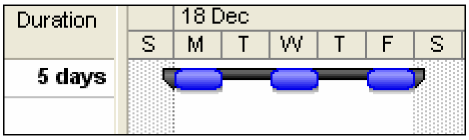
Select **Format**, **Layout…** to open the **Layout** form. This form has some additional bar formatting options for users to customize the appearance of the Gantt Chart.



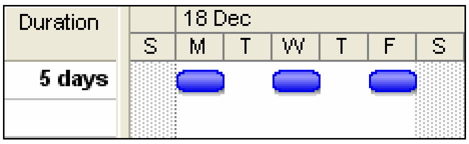
- **Date format:** sets the format for dates displayed on bars only. Dates are displayed on bars using **Format**, **Bar…** or **Format**, **Bar Styles….**
- **Bar height:** sets the height of all the bars. Individual bars may be assigned different heights by selecting a bar shape in the styles form.
- **Always roll up Gantt bars** and **Hide rollup bars when summary expanded** works as follows:
  - Tasks before roll up:



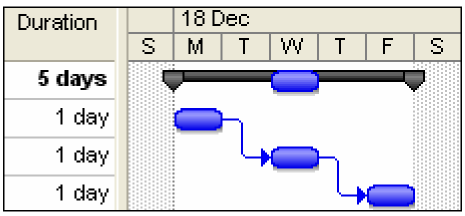
  - With **Always roll up Gantt bars** checked and **Hide rollup bars when summary expanded** unchecked:



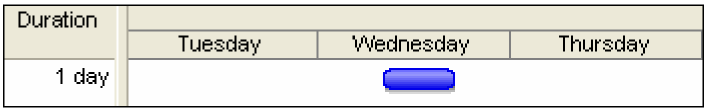
  - With **Always roll up Gantt bars** and **Hide rollup bars when summary expanded** checked:



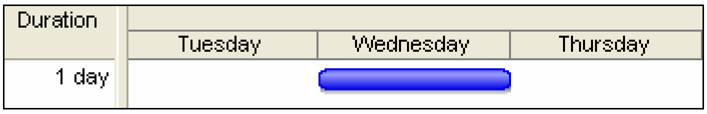
  - An individual bar may be rolled up to a summary task using the **Roll up Gantt bar to summary** option in the **Task Information** form when **Always roll up Gantt bars** options are unchecked.



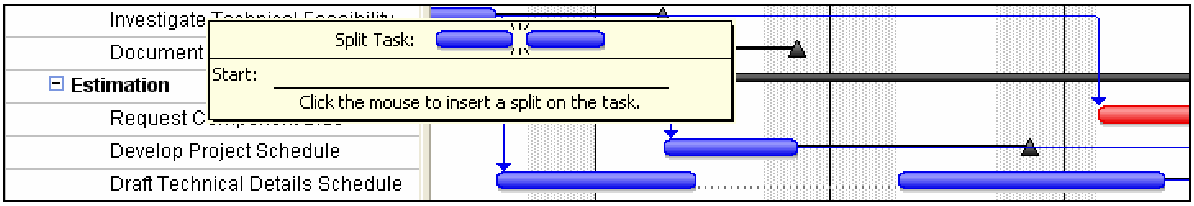
- **Round bars to whole days:**
  - ➢ When this option is unchecked, the length of the task will be shown in proportion to the total number of hours worked per day over the 24-hour time span. For example, an 8-hour working duration bar is shown below:



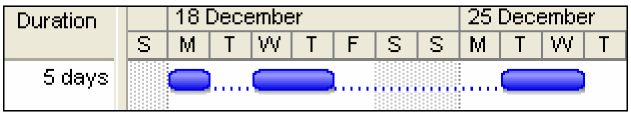
  - ➢ When this option is checked, the task bar will be displayed and spanned over the whole day irrespective of working time:



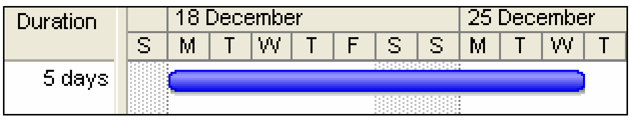
- **Splitting Tasks**
  - ➢ An un-started task may be split using the Split Task icon on the Task Bar, then highlighting the bar to be split and dragging the section of the bar with the mouse to the location where it is planned to conduct the work. The picture below shows Task 10 – Draft Technical Details Schedule – being split. Splits may be removed by dragging the bar back together again.



  - ➢ In-progress tasks may be split manually by dragging the incomplete portion to the right or a split may be created automatically by commencing a task before its predecessor is complete. Splitting in-progress tasks is covered in both the **TRACKING PROGRESS** and **OPTIONS** chapters. The two pictures below are of the same task, first with the option checked and then unchecked:
- **Show bars <u>s</u>plits**
  - ➢ When checked, the activity bar will display splits:



  - ➢ When unchecked, the activity bar will <u>not</u> display splits:



- **Bar Split Dates.** The start and finish dates of splits is not available through the user interface, only the start and finish of the task is available.

8.3 Row Height

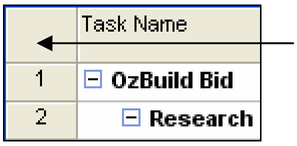
Row heights may be adjusted to display text that would otherwise be truncated by a narrow column.

The row height may be set in the **Table Definition** form by selecting **View**, **Table:**, **More Tables….** From this view select the table you wish to edit the row height in and click on the 

button. Once the **Table Definition** form is open select the row height from the drop-down box next to **Row height:**.

The row height of one or more columns may also be adjusted in a similar way to adjusting row heights in Excel, by clicking on the row and dragging with the mouse:

- Highlight one or more rows that need adjusting by dragging or Ctrl-clicking. If all the rows are to be adjusted, then click on the **Select All** button above row number 1, to highlight all the tasks.



Select All button

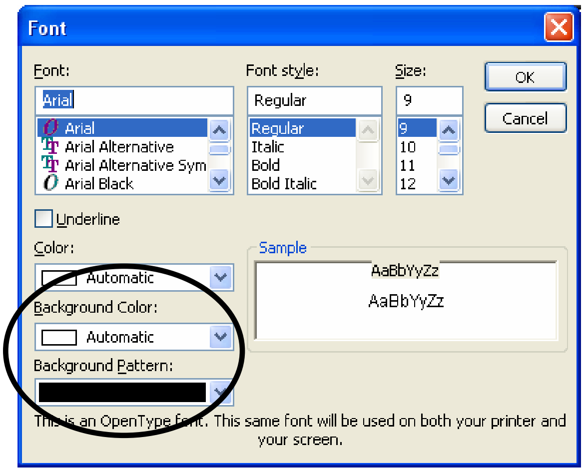
- Then move the mouse pointer to the left-hand side of a horizontal row divider line. The pointer will change to a double-headed arrow. Click and hold with the left mouse button and drag the row or rows to the required height.

8.4 Format Fonts

8.4.1 Format Font Command

The **Format**, **Font…** function allows you to format any selected text in rows or columns:

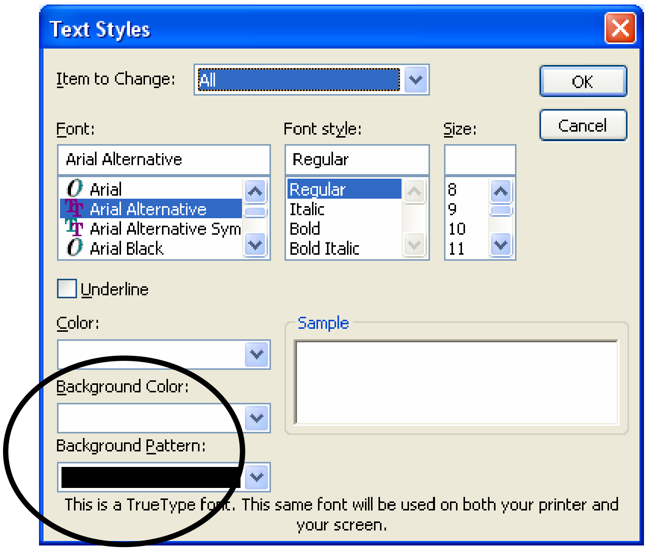
- Select all the rows by clicking on the **Select All** button, this is the box above row number 1, or
- Select one or more rows, columns or cells by Ctrl-clicking or dragging, then
- Select **Format**, **Font…** to open the **Font** form:
- Select the **Font**, **Font style**, font **Size**, **Color** of the text, **Background Color** and **Background Pattern** from the **Font** dialog box.
- The selected font style and type will be applied to the data column or task row in any table.



This function has been enhanced with Microsoft Project 2007 and now allows a **Background Color** and **Background Pattern** that was not available in earlier versions.

8.4.2 Format Text Style

The **Format**, **Text Styles…** command opens the **Text Styles** form and allows you to select a text type from the **Item to Change:** drop-down box and apply formatting to the selected text style. Microsoft Project 2007 added the **Background Color** and **Background Pattern** option:



Text may formatted by using any of the styles listed below:

- **All**: This is all text including columns and rows,
- **Non-critical**, **Critical**, **Milestone**, **Summary**, **Project Summary**, **Marked**, **Highlighted** and **External tasks**,
- **Row** and **Column** titles,
- **Top, Middle** and **Bottom Timescale Tiers**, and
- **Bar Text** left, right, below, above and inside.

8.5 Format Colors

Colors are formatted in a number of forms and there is no single form for formatting all colors:

- **Nonworking time** colors in the Gantt Chart are formatted in the **Timescale** form, double-click on the timescale.
- **Text** colors are formatted in the **Text Styles** and **Font** forms, found under the **Format** command.
- **Gridline** colors are formatted in the **Gridlines** form, also found under the **Format** command.
- **Hyperlink** colors are formatted under **Tools**, **Options…**, **Edit**.
- **Timescale** colors are formatted with the system color scheme used in the **Start**, **Settings**, **Control Panel**, **Display** option.
- The **Logic Lines**, also known as **Dependencies**, **Relationships**, or **Links**, inherit their color from the predecessor's bar color in the Gantt Chart view and may be formatted in the Network Diagram view by selecting **Format**, **Layout…**.

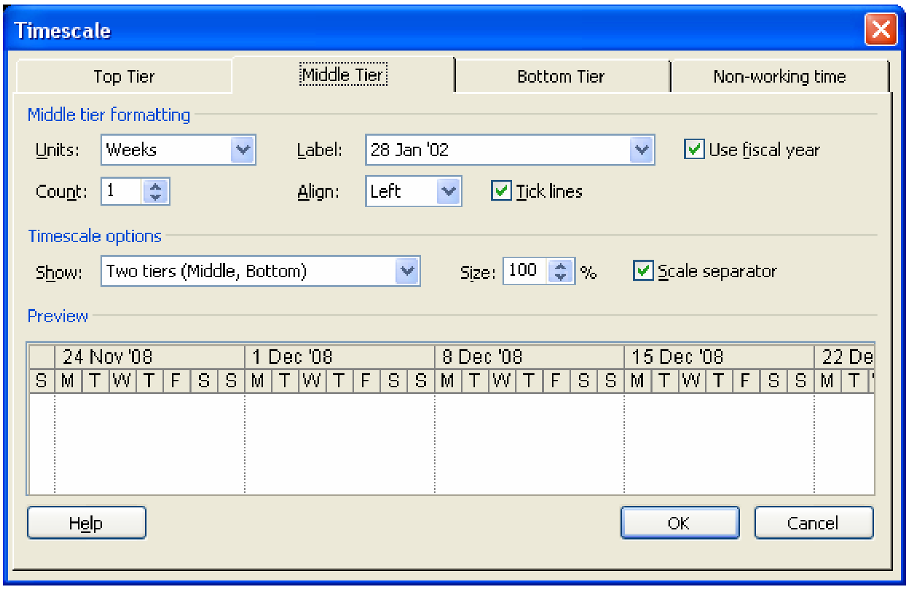
8.6 Format Timescale

8.6.1 Format Timescale Command

The **Timescale** form provides a number of options for timescale display, which is located above the Bar Chart, and the shading of **Nonworking** time. This function was enhanced with the release of Microsoft Project 2002; earlier versions had a Major and Minor scale only.

To open the **Timescale** form:

- Double-click on the timescale, or
- Select **Format**, **Timescale….**



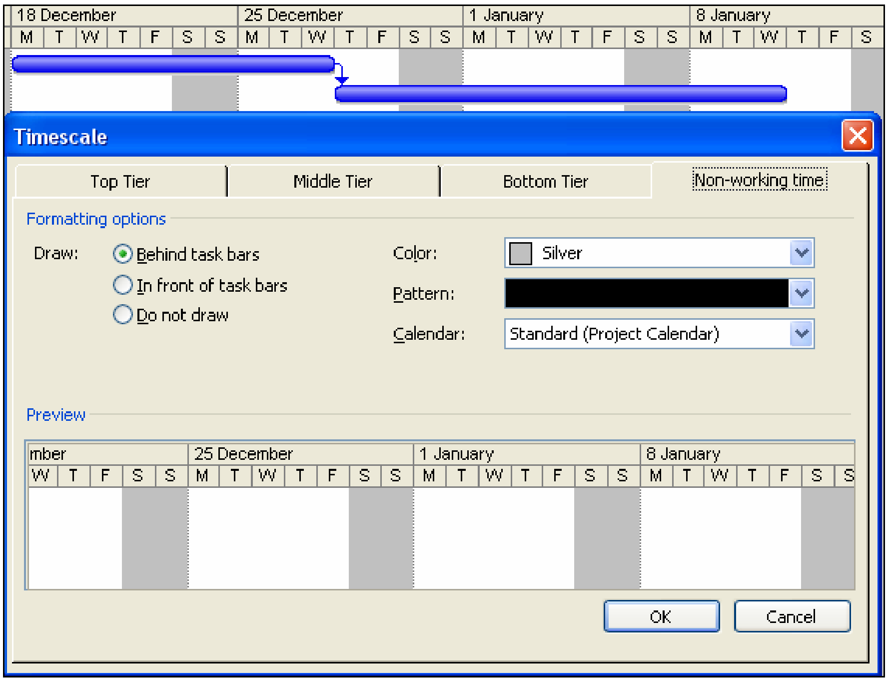
There are many options here, which are intuitive and will not be described in detail.

Top Tier, Middle Tier and Bottom Tier Tab

- These three timescales may have different scales. These are often set at "weeks and days" or "months and weeks." By default, the Top Tier timescale has been disabled. You may enable the three tiers together by selecting Three Tiers (Top, Middle, Bottom) from the **Timescale options**, **Show:**.
- The **Label** will affect how much space the timescale will occupy, so the selection of a long label will result in longer Task bars.
- **Tick lines** and **Scale separator** hide and display the lines between the text.
- **Size:** controls the horizontal scale of the timescale and in association with the **Label:** are the two main tools for scaling the horizontal axis in the Gantt Chart.
- Choose the **Use fiscal year** function to display the financial year and then select the **Tools**, **Options…**, **Calendar** tab to choose the month in which the fiscal year starts.
- Should you wish to number the time periods, for example, **Week 1**, **Week 2**, etc., there are a number of sequential numbering options available at the bottom of the label list.

Nonworking Time Tab

The **Nonworking time** tab allows you to format how the nonworking time is displayed. You may select only one calendar. The nonworking time may be presented as shading behind the bars, in front of the bars or hidden.



8.6.2 View Zoom

The **View**, **Zoom…** function, or clicking on the and icons, is used to adjust the horizontal scale of the Gantt Chart only. It does not work like most other Windows products, which scale the whole work area.

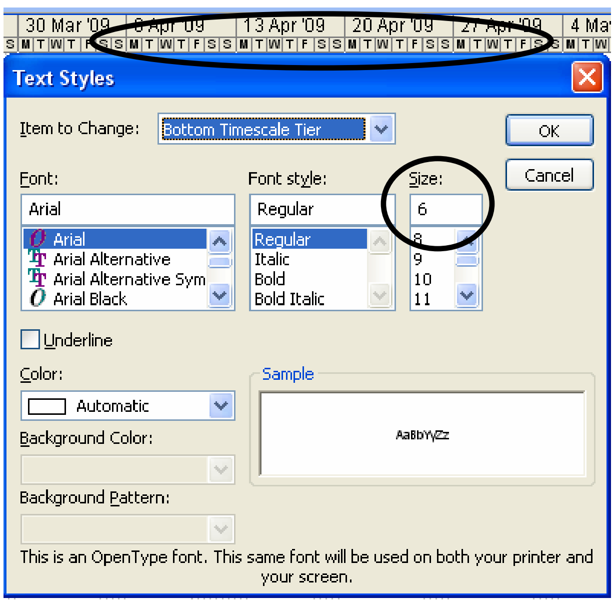
The **View**, **Zoom…** function is not a temporary change and overwrites any customized timescale settings.

8.6.3 Format Timescale Font

To format the Timescale font, select **Format**, **Text styles…** to open the **Text Styles** form.

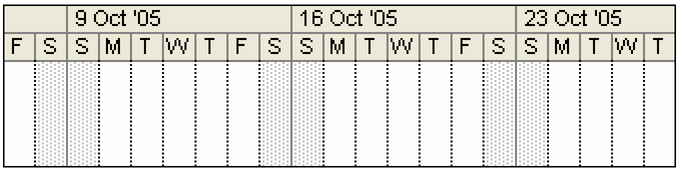
The timescale fonts may be formatted separately by selecting the appropriate line item under **Item to Change:**.

A very tight timescale may be achieved by making the Bottom Timescale Tier a small font as displayed in the picture.

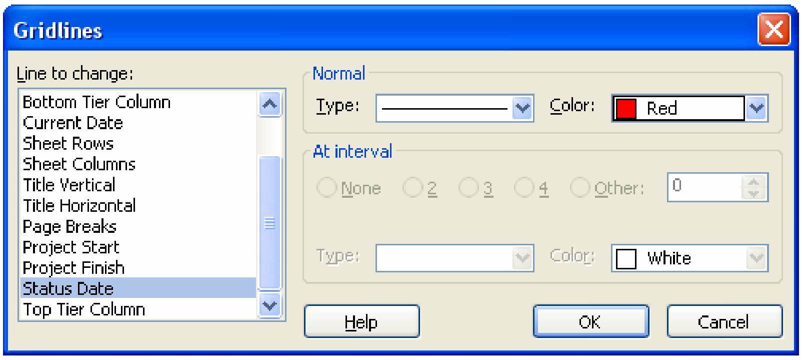


8.7 Format Gridlines

Gridlines are important to help divide the visual presentation of the Bar Chart. This example shows **Middle Tier Gridlines** every week and **Bottom Tier Gridlines** every day.



To format the Grid Line select **Format**, **Gridlines…** to open the Gridlines form:



- Select the gridline from the drop-down box under **Line to change:**.
- Select color and type from under **Normal**.
- Date gridlines may be set to occur at intervals using the **At interval** option.

Some of the titles for the gridlines are not intuitive, so some interpretation is given below:

- For Data Column and Row dividing lines, use **Sheet Rows** and **Sheet Columns**.
- For Timescale and Column Titles, use **Title Horizontal** and **Title Vertical**.
- Gantt Chart area, including lines for **Project Start** and **Finish Date**, **Current** and **Status Date**, are clearly described.
- Page Breaks will only display manually-inserted breaks. A page will only break if the **Manual page breaks** check box in the **Print** form is checked.

Microsoft Project has two dates that may be used to identify the Status Date or Data Date, which is the date that the data has been collected for statusing a project schedule. These two dates are set in the **Project Information** form:

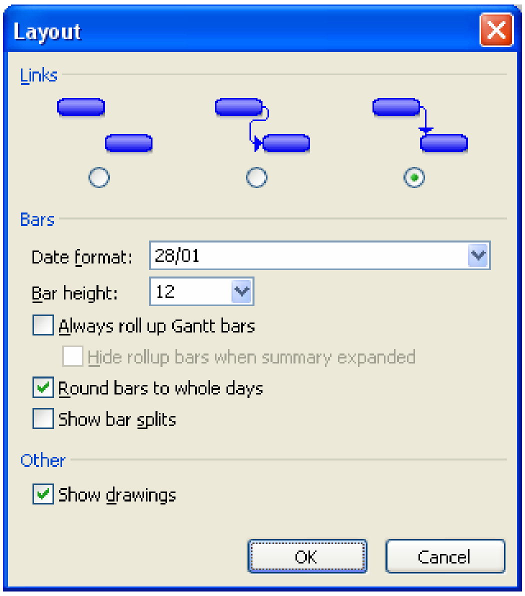
- By default Microsoft Project displays the **Current Date** as a gray dotted vertical line but this is reset to the computer's system date each time the project file is opened. It is suggested that this line be removed.
- The **Status Date** never changes once set and therefore it is suggested that this line should be displayed as per the picture above.

Many laser printers will not print light gray lines clearly, so it is often better to use dark gray or black Sight Lines for better output.

8.8 Format Links, Dependencies, Relationships, or Logic Lines

The Links, also known as Dependencies, Relationships, or Logic Lines, may be displayed or hidden by using the **Layout** form.

- Select **Format**, **Layout…** to open the **Layout** form and click on one of the three radio buttons under **Links** to select the style you require:

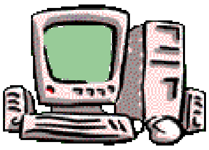


- ➢ The color of the **Link** is inherited from the color of the predecessor task.
- ➢ To display critical path on the relationship lines you will need to format the bars with a different color. This is often set to red.

The color of the successors' relationship lines is adopted from the task bar color. Therefore, re-formatting critical bars with the **Format Bar** form will also re-format the color of the successors' relationship lines and they will no longer display the Critical Path color on the Logic Lines. This will effectively mask the critical path and could provide misleading results.

Primavera products format the relationship separately from the bars and are able to identify the Critical, Driving and Non-Driving relationships, which is not possible with Microsoft Project.

WORKSHOP 6



Formatting the Bar Chart

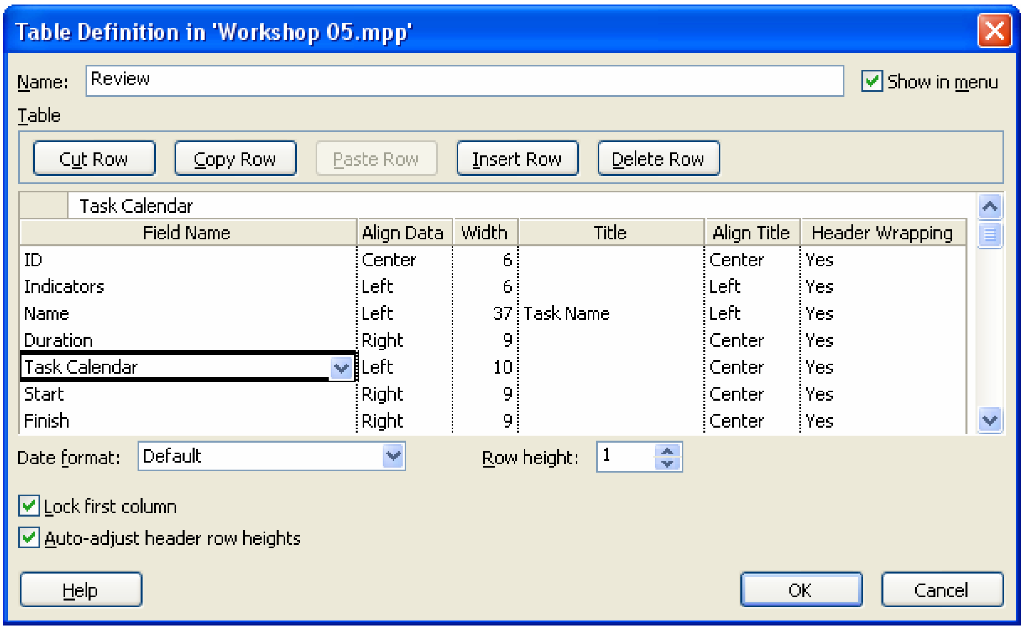
Background

Management has received your draft report and requests some changes to the presentation.

Assignment

Format your schedule as follows:

1. Create a new **Table** titled **Review** by copying the **Entry** table. Select **View**, **Table**, **More Tables…**,
2. Add **Task Calendar** column between **Duration** and **Start** columns in the **Table Definition** form. Left Align this column,
3. Align Data for the Task Calendar on the left,



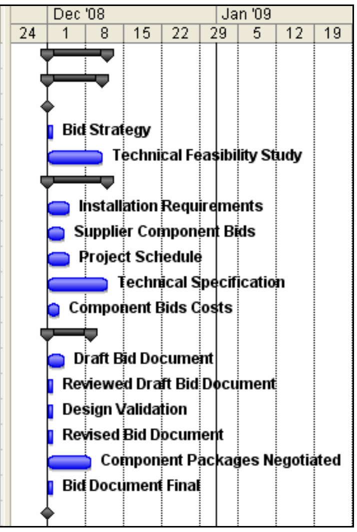
4. Check the **Show in menu** option.
5. Apply the Table.
6. To make the Duration Column narrower, select the **Tools**, **Options**, **Edit** tab. Under the View options select to display Days as "d" and uncheck **Add space before label**.
7. Double-click on the **Duration** column and rename the Title "Dur" and click Best Fit to produce a narrow column.

Continued Over….

WORKSHOP 6 CONTINUED

8. Double-click on the timescale and format the **Middle Tier Timescale** (**Major scale in MSP2000)** with **Units:** of **Months** with **Label:** of **Jan '02** and the **Bottom Tier Timescale (Minor scale in MSP2000)** with **Units:** of **Weeks** with **Label:** of **28,4,…** and **Size:** of 150%.
9. Select **Format**, **Gridlines…** and format the Gridlines with **Middle Tier Columns** (**Major Columns in MSP2000)** to solid black lines and **Bottom Tier Columns (Minor Columns in MSP2000)** to dotted black lines.
10. Double-click in the bar chart area to open the **Bar Styles** form and remove the date from the milestones. If you do not have dates by your milestones then add the dates to the right of the Milestones and then remove them.
11. From the **Bar Styles** form remove the **Resource** and add the task **Name** to the right of each **Task** bar. You will notice there is no name against the milestones, these have to be added separately against the Milestone line in the **Bar Styles** form.
12. Save your **OzBuild Bid** project.
13. Check your result with the example shown below.

		Task Name	Dur	Task Calendar	Start	Finish
1		**OzBuild Bid**	**9d**	**None**	**1 Dec '08**	**11 Dec '08**
2		**Research**	**8d**	**None**	**1 Dec '08**	**10 Dec '08**
3		Bid Request Documents Received	0d	None	1 Dec '08	1 Dec '08
4		Bid Strategy	1d	None	1 Dec '08	1 Dec '08
5		Technical Feasibility Study	8d	None	1 Dec '08	10 Dec '08
6		**Estimate**	**9d**	**None**	**1 Dec '08**	**11 Dec '08**
7		Installation Requirements	4d	6 Day Working Week	1 Dec '08	4 Dec '08
8		Supplier Component Bids	3d	None	1 Dec '08	3 Dec '08
9		Project Schedule	4d	6 Day Working Week	1 Dec '08	4 Dec '08
10		Technical Specification	9d	None	1 Dec '08	11 Dec '08
11		Component Bids Costs	2d	None	1 Dec '08	2 Dec '08
12		**Proposal**	**6d**	**None**	**1 Dec '08**	**8 Dec '08**
13		Draft Bid Document	3d	None	1 Dec '08	3 Dec '08
14		Reviewed Draft Bid Document	1d	None	1 Dec '08	1 Dec '08
15		Design Validation	1d	None	1 Dec '08	1 Dec '08
16		Revised Bid Document	1d	None	1 Dec '08	1 Dec '08
17		Component Packages Negotiated	6d	None	1 Dec '08	8 Dec '08
18		Bid Document Final	1d	None	1 Dec '08	1 Dec '08
19		Bid Submitted	0d	None	1 Dec '08	1 Dec '08



12 FILTERS

This chapter covers the use of **Filters** to select which activities are displayed on the screen and in printouts.

12.1 Understanding Filters

Microsoft Project has an ability to display tasks that meet specific criteria. You may want to see only the incomplete tasks, or the work scheduled for the next couple of months, or the tasks that are in-progress, assigned a specific resource, responsibility, phase, discipline, system or belong to a physical area of a project.

Microsoft Project defaults to displaying all tasks. It has a number of predefined filters available that you may use or edit and you may also create one or more of your own.

A filter may be applied to display or to highlight tasks that meet a criteria and affect both the activities displayed on screen and in printouts.

There are **Task** filters that apply to **Task** views and **Resource** filters that apply to **Resource** views. Both types are created and applied in the same way.

There are two types of filters:

- The first is where you select a **Filter** which exists or has been created using the **Filters** form.
- The second is to create an **AutoFilter** which is very similar to the Excel **AutoFilter** (Drop-down filter) function.

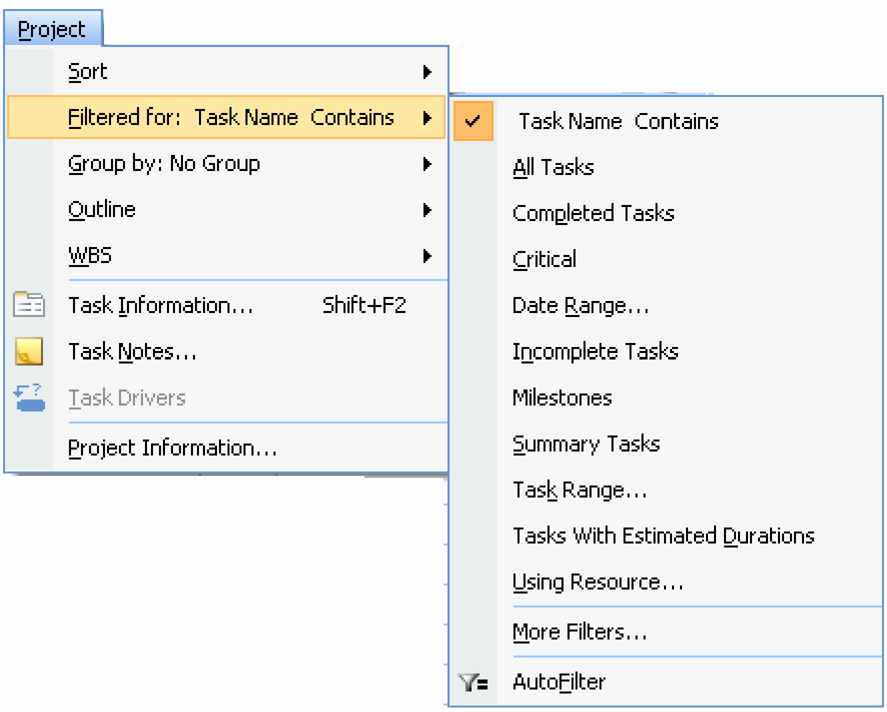
Topic	Menu Command
• Apply a **Filter**	Select **Project**, **Filter for: All Tasks**, or With the **Formatting** toolbar displayed, select the filter from the **Filter** drop-down list.
• Create or modify a **Filter**	Select **Project**, **Filter for: All Tasks**, **More Filters…** to open the **More Filters…** form.
• Turn on **AutoFilter**	Select **Project**, **Filter for: All tasks**, **AutoFilter**, or Click on the **AutoFilter** icon on the **Formatting** toolbar.
• Apply an **AutoFilter**	Click on the icon in the column headers.

12.2 Applying an Existing Filter

Filters may be applied using several methods:

Method 1

Select **Project**, **Filter for: All Tasks**, and select the filter required from the menu.

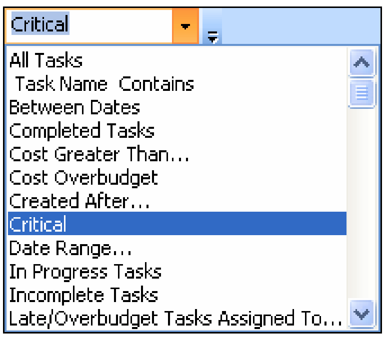


Only filters with the **Show in menu** check box checked in the **Filter Definition** form are displayed in the **Filtered for:** menu. The currently applied filter is always displayed after **Filtered for:** in the menu. See the picture above where the currently applied filter is the **Task Name Contains** filter.

This may not be a complete list of filters, as this list displays only filters selected to be displayed in the menu when they were created.

Method 2

Display the **Formatting** toolbar, and select the filter you require from the drop-down list:

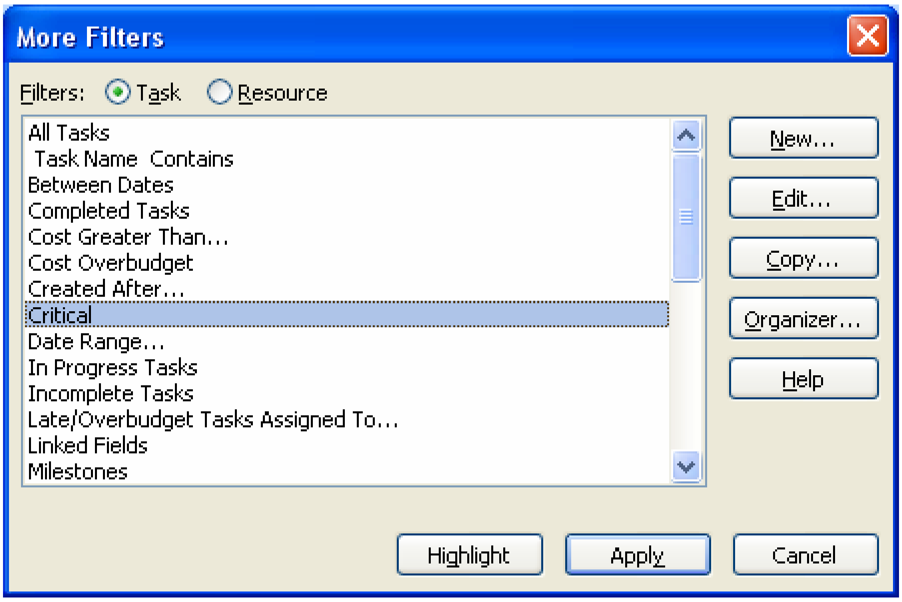


Select **View**, **Toolbars**, **Formatting** to display the formatting toolbar.

This may not be a complete list of filters, as this list displays only filters chosen to be displayed from the **Filter Definition** form in the menu when they were created or edited.

Method 3

Select **Project**, **Filter for: All Tasks**, **More Filters…** to open the **More Filters…** form:



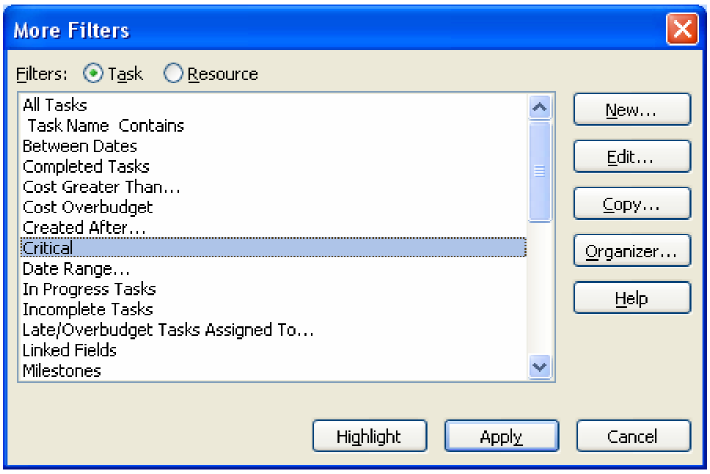
- The two radio buttons at the top of the form allow you to select filters that operate either on a **Task** criteria or on a **Resource** criteria.
  - **Task** criteria will operate on the criteria of most data such as dates, durations, text columns, number columns, outline and WBS.
  - **Resource** criteria will operate on a similar criteria as Tasks but will select the resource value and not the task value.
- Select the required filter from the drop-down list, and
- Select either:
  - 

to highlight the tasks that meet the criteria, or
  - 

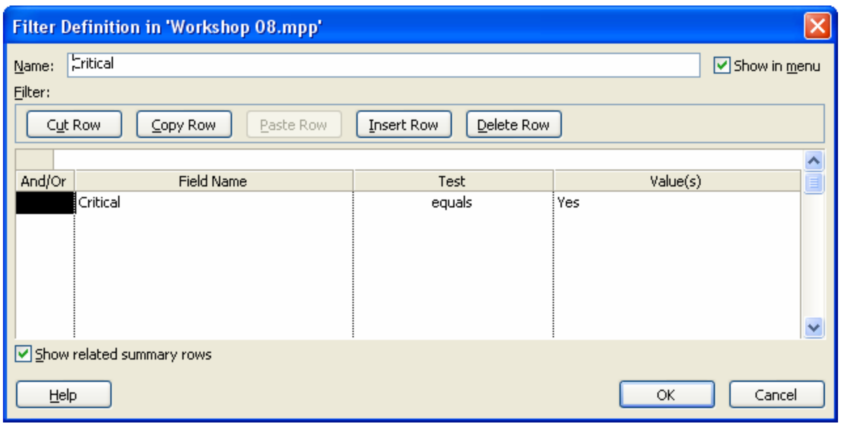
to display only the tasks that meet the criteria.

12.3 Creating and Modifying Filters

Select **Project**, **Filter for: All Tasks**, **More Filters…** to open the **More Filters** form where you may create or modify a filter:



- Click on  to copy a filter to and from another open project.
- Click on:
  -  to create a new filter, or
  -  to edit an existing filter, or
  -  to copy an existing filter.
- The **Filter Definition** form will be displayed. The one-line example below will only display critical tasks.



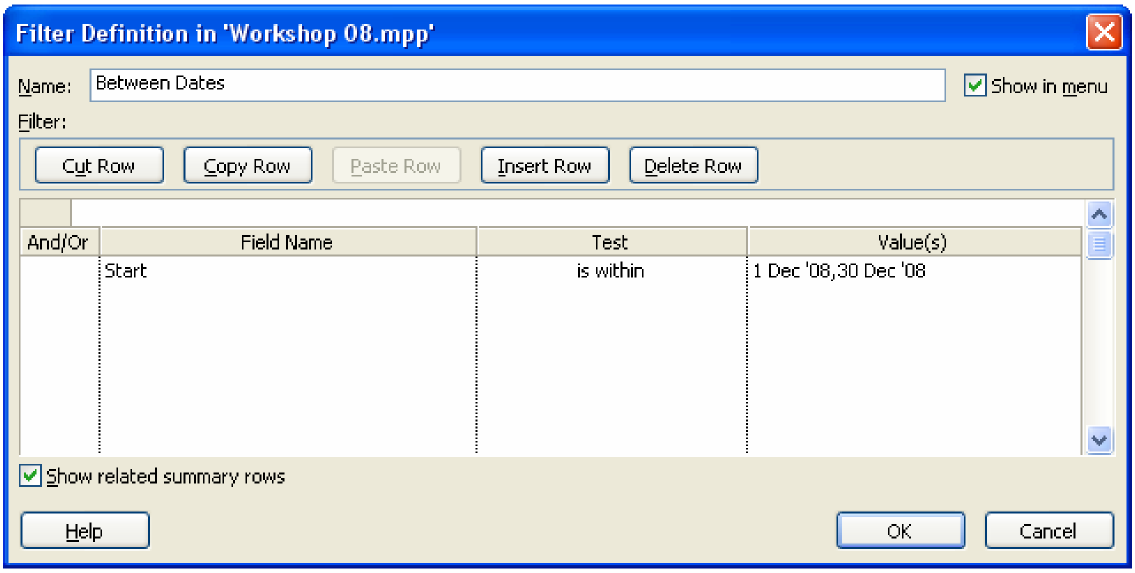
- The filter may be edited in the **Filter Definition** form to display or highlight the required tasks.
- Checking the **Show in menu** box will place the **filter** in the menu.
- Checking **Show related summary rows** will display any associated Summary Tasks.
- Select  to return to the **More Filters** form.

i It is useful to place a space at the start of the filter name when creating a new filter as this will place the filter at the top of the list, as per the **Task Name Contains** filter in the picture at the top of this page.

12.4 Defining Filter Criteria

The filter criteria is determined by four columns of information in the **Filter Definition** form:

- **And/Or** functions when you have two or more lines of data in the **Filter Definition** form to operate on.
- **Field Name** defines the data field you want to operate on.
- **Test** sets the criteria such as "Greater Than" or "Less Than" or "Equals."
- **Value(s)** is/are a date, number, Yes/No or text for the **Test** field to operate on. If more than one value is to be considered, for example when a **Test** is "Between," the two values are separated by a comma "**,**". The example below is a filter that will only display detail activities that will start between 1 Dec 08 and 30 Dec 08.



This chapter will not cover all the aspects of filter definitions but will cover the major principles, so you may experiment when you require a filter.

There are a number of predefined filters with a standard Microsoft Project installation. You should inspect these to gain an understanding of how filters are constructed and applied.

12.4.1 Simple Filters, Operator and Wild Cards

A simple **Filter** contains one line of data and therefore the **And/Or** function is not used. These are the most common filters and meet most common filtering requirements.

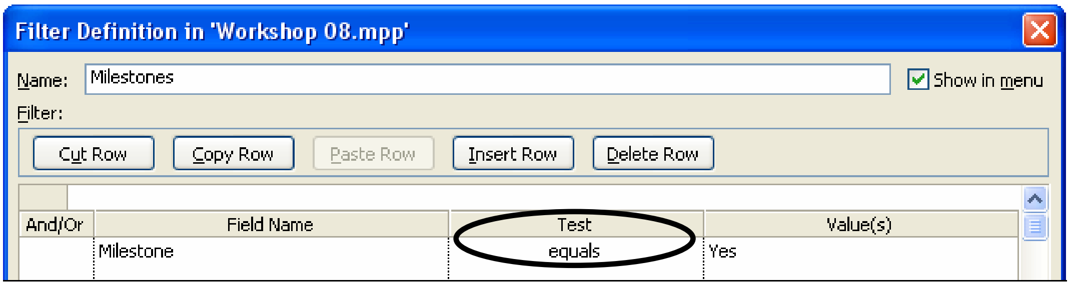
These filters are used for purposes such as displaying tasks which:

- Are not started, complete, or in-progress tasks.
- Have a Start or Finish before or after a particular date.
- Contain specific text.
- Are within a range of dates.

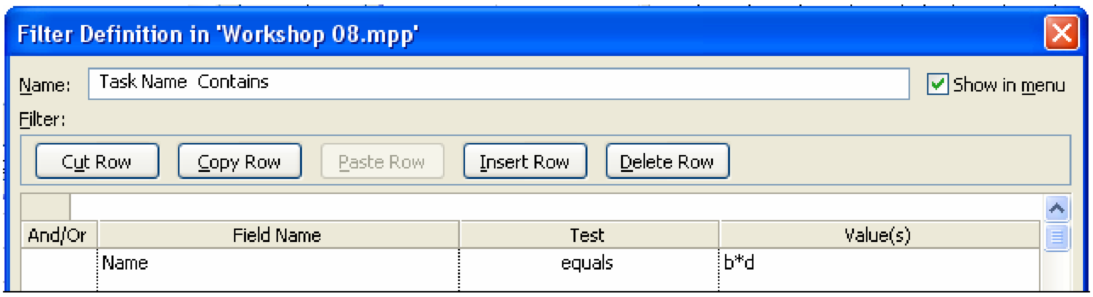
There are some operands you should be aware of:

- Some fields may have “**Yes**” or “**No**” entered in the **Value(s).** The task fields that may be filtered using a “**Yes**” or “**No**” include:
  - Summary, is the task a Summary or Detail task,
  - Critical, is the task identified as critical when the Total Slack is less than or equal to the value entered in the **Calculation** tab or the **Options** form,
  - Milestones,
  - Effort-Driven, and
  - Any other field that may be displayed in columns with a “**Yes**” or “**No**” option.

  The filter below will select all tasks that are not Milestones:

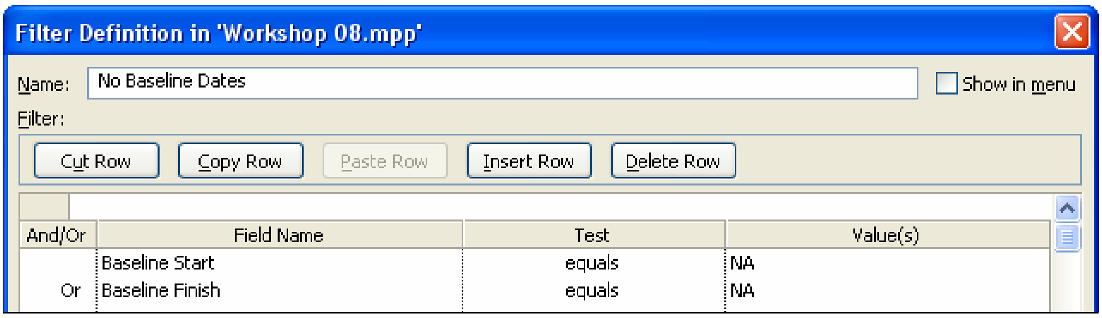


- The **Wildcard** functions are similar to the DOS Wildcard functions and are mainly used for filtering text:
  - You may replace a single character with a “**?**”. Thus, a filter searching for a word containing “b?t” will display words like “bat”, “bit” and “but.”
  - You may replace a group of characters with an *****. Thus, a filter searching for a word containing “b*t” will display words like “blot”, “blight” and “but.”

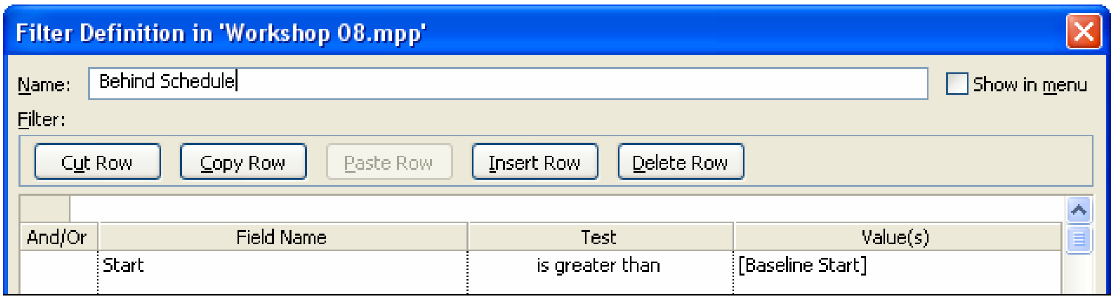


NOTE: For the Wildcard function to operate the **equals Test** must be used. This function does not work with other operands and in this mode works as a **contains** operand.

- **NA** allows the selection of a blank value. The filter below displays tasks without either a Baseline Start or Baseline Finish date:



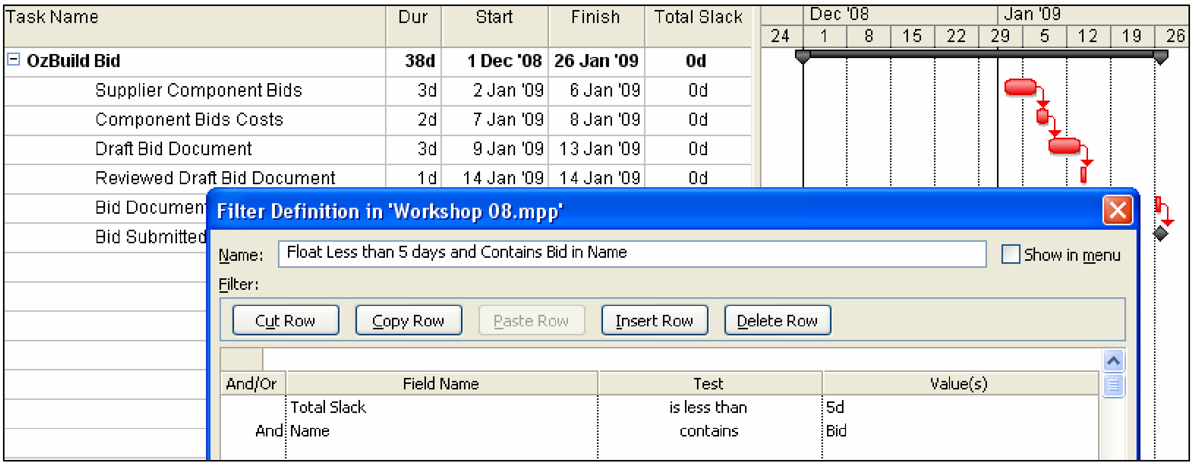
- A **Calculated Filter** compares one value with another. The **Value(s)** field is selected from the drop-down box. The example below will display those tasks that are scheduled to start later than the Baseline start:



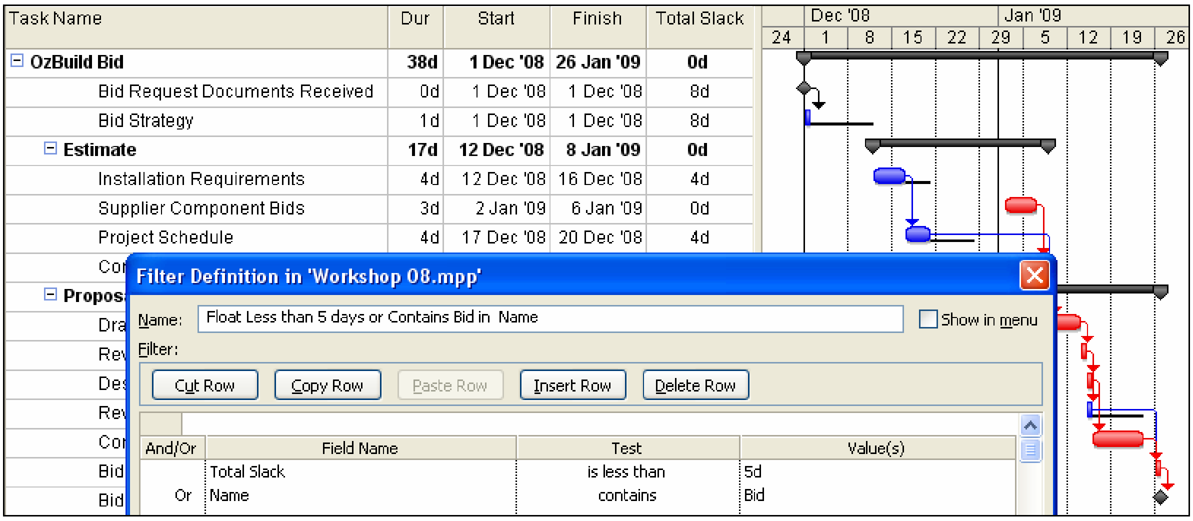
12.4.2 And/Or Filters

The **And/Or** function allows a search for tasks which meet more than one criteria by using the **And/Or** option:

- The filter below displays tasks with Slack less than 5 days **And** contain the word "Bid":

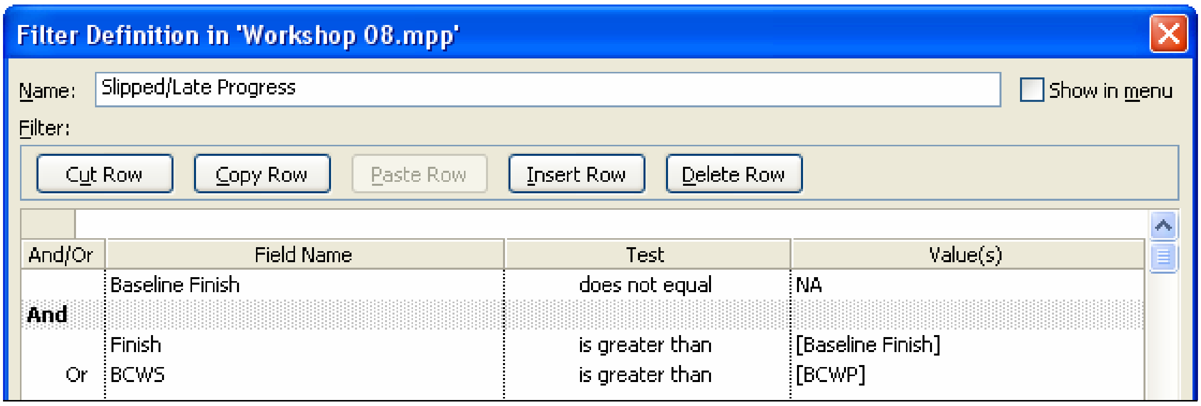


- The filter below is similar to the one above but displays tasks with Slack less than 5 days **Or** contain the word "Bid", It displays many more tasks:



12.4.3 Multiple And/Or

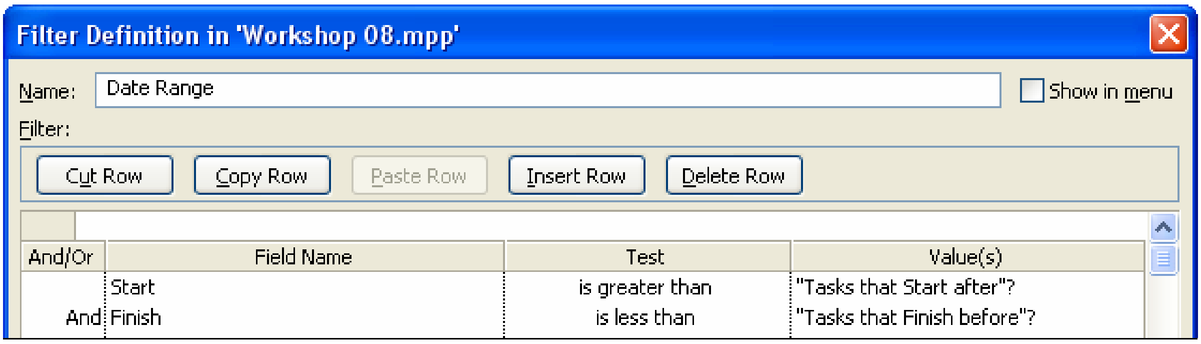
Multiple **And/Or** statements are possible by placing a line with only an **And/Or** statement. The filter below selects tasks that have a Baseline Finish and are scheduled to finish late or are not completing their work quick enough, shown as the Budgeted Cost of Work Performed (Earned Value) is less than the Budgeted Cost of Work Scheduled (Planned Value):



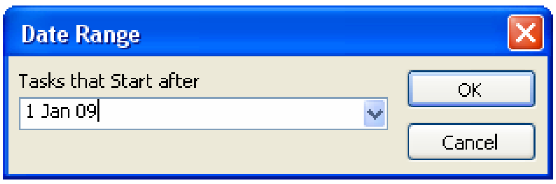
12.4.4 Interactive Filter

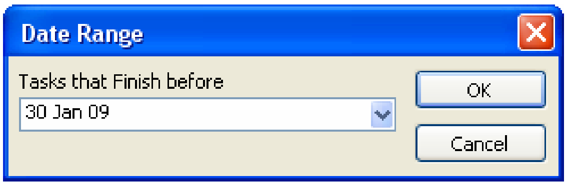
These filters allow you to enter the **Value(s)** of the filtered field after applying the filter. The filter is tailored each time it is applied via a user-prompt. The filter below will ask you to enter a word in the task name.

For this function to operate properly, the text in the **Value(s)** field must commence with a double quote **“** and end with a double quote and question mark **”?** :



After the filter is applied, you will be presented with the **Interactive Filter** form to enter the required text:



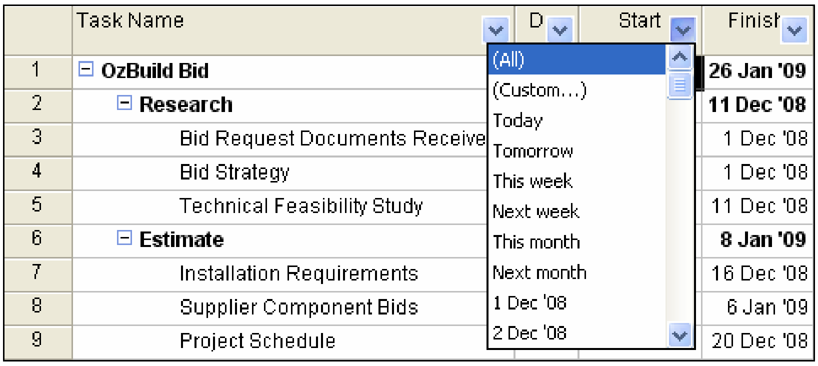


12.5 AutoFilters

Microsoft Project **AutoFilters** are similar to the Excel **AutoFilter** function and allow you to select the filter criteria from drop-down menus in the column headers.

To create an **AutoFilter** based on one parameter:

- Use one of the following methods to turn on the **AutoFilter** function:
  - **Project**, **Filter for: All tasks**, **AutoFilter**, or
  - Click on the **AutoFilter** icon located on the **Formatting** toolbar.
- The column headers will display the icon in the column header. Click on this icon in one of the columns to display a drop-down box:

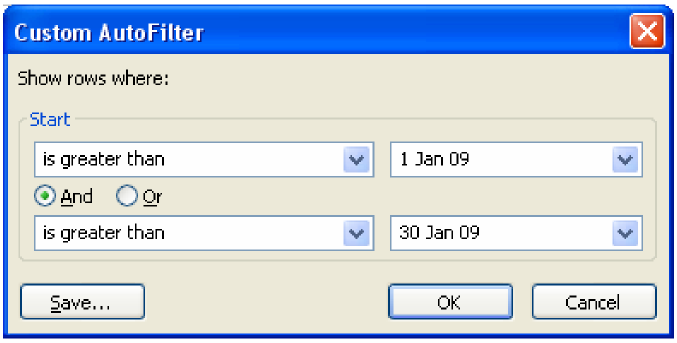


- Select the required criteria from the drop-down box. The period in the drop-down boxes refer to the Current Date, not the Status Date.

You may now select another column and create a filter based on a second parameter to further reduce the number of tasks displayed.

To create a **Custom AutoFilter**, which is based on two parameters:

- Click on the icon in the column headers.
- Select the **(Custom…)** option to open the **Custom AutoFilter** form:



- Select the parameters you want to operate on from the four drop-down boxes and check the **And** or **Or** radio button.
- To save a drop-down filter as a normal filter, click on the Save... button, which opens the **Filter Definition** form.

AutoFilters always select the associated Summary tasks of any selected detailed tasks.

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