MSP How to guide – session 4 (Presentation skills)

1. Revision of presentation related content covered in previous sessions

Types of data

In Session 1 we covered the main types of data in MS Project:

- Project data (eg name of project)
- Task data (eg name of task)
- Resource data (eg name of resource/person)
- Assignment data (relates to the person's contribution to the task

Views are quite specific to the type of data you are looking at. Usage views start with Task and Resource data, then drill down to assignment data. Project data is only accessible via forms but can be used for headers, footers and in Portfolio summaries if using Microsoft Project Server (EPM).

You can also get cross tabular data, eg cash flow per month, through Useage views or the analysis toolbar.

Fields

In Session 1 we covered the inbuilt generic fields available for customisation:

- Text Fields (30 fields, handy for assigning responsibility)
- Number Fields (20 fields – all integers)
- Flag Fields (20 fields – all yes/no)
- Cost Fields (10 general cost formatted fields)
- Start/Finish/Duration fields (10 start/finish date formatted fields tied to 10 Duration fields, integrates to Baseline functions)
- Baseline fields (11 start/finish date formatted fields tied to 11 Baseline duration fields, 11 Baseline Cost fields and 11 Baseline work fields)

These may be renamed, formulas added and various indicators set up via **Tools, Customise, Fields**. They may then be added to any table (relevant to field) in any view (relevant to field).

Consider exploring Traffic lights by modifying number field using **Tools, Customise, Fields**. You need to define numbers then use Graphical Indicators function for each number.

2. Reporting basics

You can get information out of MS Project in a number of ways:

- By printing/capturing screen based views
- By using **Reports** functionality from the **View** menu
- By sending data to excel and manipulating there
- By integration to other Microsoft products such as Visio, Sharepoint etc

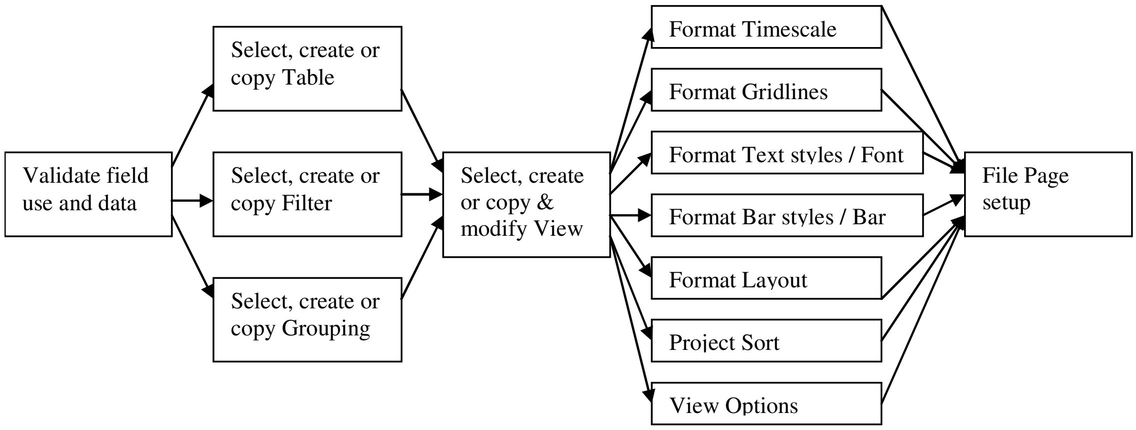
These notes will focus on View based reporting.

Remember when reporting to think of the recipient – what do they want ? it may help to sketch out a prototype with a pen first.

The keys to reporting are:

- Tables (specific to type of data)
- Filters (specific to type of data)
- Grouping (specific to type of data)
- Views (specific to type of data)
- Formatting functions (specific to type of view)
- Page setup (specific to view)
- View Options (specific to view)
- Sorting (specific to view)
- Print functions (depending on printer, paper size etc)

<u>The process to create a View based report</u>



A couple of key points/tips:

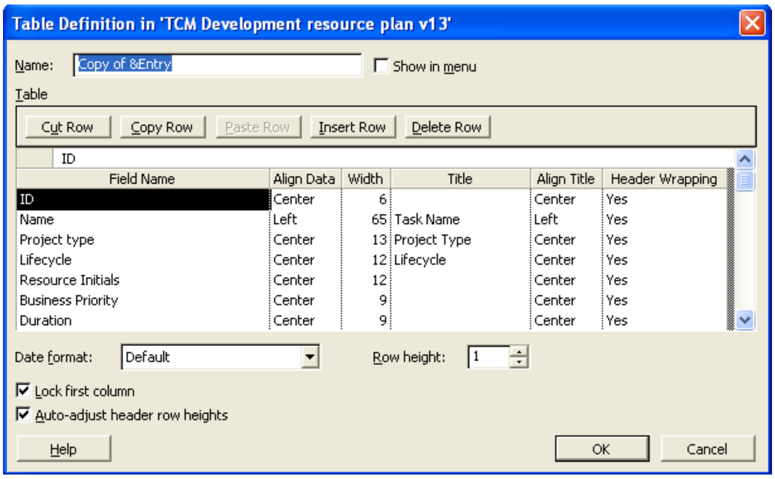
- Don't reinvent the wheel – copy and modify an existing view/table/filter/grouping that is close to what you want
- Don't modify default views/tables/filters – copy and rename them then modify them
- You can share views/tables/filters/grouping/calendars/fields etc with others via organiser
- There are two levels to most menus when working with views/tables/filters/grouping
- When you name views/tables/filters/grouping use upper case or a blank characters before the description to send to top of menu lists (they sort alphabetically)

3. Tables

Tables are predefined selections of fields and change the displayed columns in the spreadsheet component of the view (if there is one). Note there are two levels to the Table menu with a number of additional hidden Tables. You can modify Tables in a number of ways:

- On screen by double clicking column headings and/or by inserting and/or removing columns
- Using the **View, Table, More Tables** function and defining/applying them. Remember to copy an existing Table and modify

Be careful when activating a Table, that will change the Table the View automatically brings up in the future.



Customising Tables is fairly intuitive, the following captures some obscure stuff:

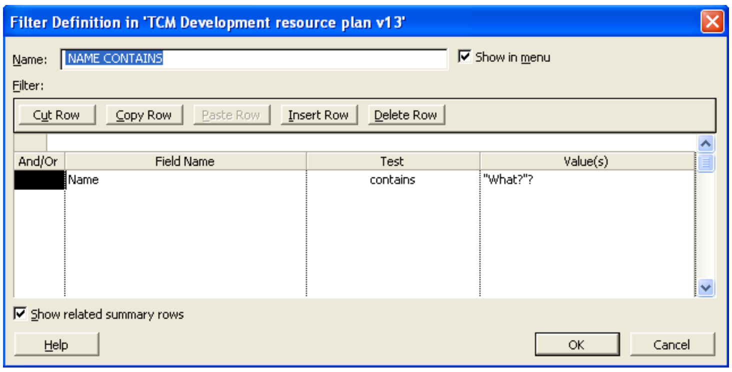
- Lock first column means when you click on a Task using the first column, it selects the whole task, not just the cell(s)
- Show in menu is the show/hide command for the two levels of Table menu
- If you rename the field using **Tools, Customise, Field** then you shouldn't need to change title. MS Project gives you the option to override the column description.
- Row heights – recommend you leave on Auto-adjust
- If you **Apply** the Table after customising or creating a new table, the active view will forever more use that Table which may not be what you want.

4. Filters

Filters are a predefined selection of tasks (hiding those you don't wish to see) based on predefined criteria. There are two ways to Filter – Auto Filter and Defined Filter. Auto Filter works in a similar way to Excel. The following notes are based on defined Filters.

Filters compare a field with either a value or another field, for each Task or Resource. Filters can be activated by:

- Drop menu in toolbar
- Using the **Project, Filtered for, More Filters** function and defining/applying them
- Associating with a View



The example above and below shows a filter using a wild card, looking at the Task Name (Description) field. When asked the word "Design" was entered and the filter was applied to the sample file resulting in the following, showing only those tasks with the word "Design" in the description.

		Task Name	Resp	Duration	Start	Finish
1		**"Typical" Project**		**162 days**	**8 Jan '08**	**21 Aug '08**
23		**Stage 2 - Delivery**		**79 days**	**1 Apr '08**	**18 Jul '08**
35		**Design**		**20 days**	**18 Apr '08**	**15 May '08**
37		Develop Draft high level solution design document	Corp IT	3 days	22 Apr '08	24 Apr '08
41		Review & finalise high level solution design document	Corp IT	2 days	2 May '08	5 May '08
45		Release Management review design and determine release strategy	Corp IT	1 day	6 May '08	6 May '08
48		Joint Design Review workshop (DR)	Corp IT	1 day	15 May '08	15 May '08

Customising Filters is fairly intuitive, the following captures some obscure stuff:

- Filters can compare a field with a value or a field with another field
- Filters can work in "Highlight" mode rather than "Select" mode, see **Project**, **Filtered For**, **More Filters**
- Apply the **All Tasks** or **All Resources** to clear a filtered view
- Filters do not refilter if you change data
- **Show related summaries** puts Tasks in context if descriptions are poor and shows the Summaries relating to each Task selected
- **Show in menu** is the show/hide command for the two levels of Filter menu
- Inverted commas followed by a question mark in the **Value** column allows you to enable an interactive dialogue box each time you run filter, see above example. Text placed between inverted commas will appear in dialogue box.
- You can build multiple conditions using and/or. You can use the and/or on the same line as the criteria (eg A and B) or on a separate line for more complex logic (eg A and {B or C})
- Filters can be linked to customised toolbars which is very handy

Filters can be very handy tools to help you with planning and tracking. A couple of favourites of ours are which we keep in our "toolbox":

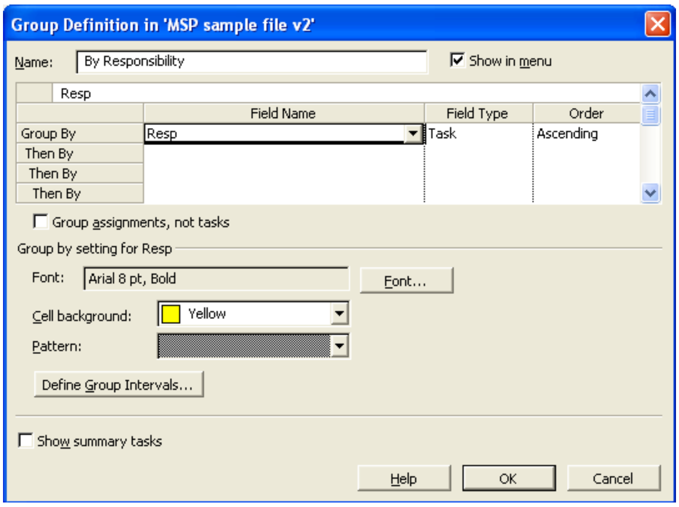
- Find a task – Show me where Task **Name**, **Contains**, entered text
- Missing logic – Show me where **Predecessor**, **Equals**, blank <u>and</u> **Summary, Equals**, No
- Missing Resource – Show me where **Resource Name**, **Equals**, blank <u>and</u> **Summary**, **Equals**, No <u>and</u> **Milestone**, **Equals**, No
- Incomplete tasks – Show me where **% Complete**, **Not Equals**, 100
- May need status update – Show me where **Start**, **Less Than**, entered date <u>and</u> **% Complete**, **Not Equals**, 100 <u>and</u> **Summary, Equals**, No

5. Grouping

Most people structure their projects using the outline and summary tasks, typically by phase. There is often a need to structure the schedule by other criteria, eg by responsibility rather than by phase. MS Project has adopted Grouping functions for this, similar to that used in Primavera Suretrak and Open Plan Professional. Grouping looks at the content of a field, so ties into how you have used customised fields. Grouping generally does not include summaries so descriptions need to be quite good. You shouldn't really modify the schedule in this view though, keep it for reporting. Groups can be activated by:

- Drop menu in toolbar
- Using the **Project, Group by, More Groups** function and defining/applying them
- Associating with a View

The most common use of Groups we have found is by using a text field to represent responsibility for each task (Prime) and then grouping by that text field as per the following example.



The example below shows group based on the Text2 column being used for "Responsibility" when applied to the sample file. Note you can expand and collapse groupings and they show sub totals at a summary level.

		Task Name	Resp	Duration	Start	Finish
		⊞ Corporate IT		**161 days**	**10 Jan '08**	**21 Aug '08**
		⊟ Originating Business Unit		**158 days**	**8 Jan '08**	**15 Aug '08**
3		Idea or directive, register & kick off project	Orig BU	0 days	8 Jan '08	8 Jan '08
5		Develop idea through workshop or discussions	Orig BU	1 day	9 Jan '08	9 Jan '08
7		Develop White paper	Orig BU	3 days	14 Jan '08	16 Jan '08
8		Gain White paper Business Unit GM approval	Orig BU	3 days	17 Jan '08	21 Jan '08
10		Gain Steering Committee approval to proceed (assume 1w)	Orig BU	0 days	29 Jan '08	29 Jan '08
16		Develop benefits estimate	Orig BU	2 days	15 Feb '08	18 Feb '08
17		Risk assessment	Orig BU	3 days	19 Feb '08	21 Feb '08
18		Develop Business Case document	Orig BU	5 days	26 Feb '08	3 Mar '08
19		Gain Business Case Business Unit GM approval	Orig BU	4 days	4 Mar '08	7 Mar '08
21		Gain Steering Committee Business Case approval (assume 2w)	Orig BU	0 days	24 Mar '08	24 Mar '08
22		Gain Funding approval (assume 1w)	Orig BU	0 days	31 Mar '08	31 Mar '08
46		Determine Business process impact (before, after and delta)	Orig BU	3 days	6 May '08	8 May '08
47		Develop Business process plan document	Orig BU	3 days	9 May '08	13 May '08
65		Update/prepare training material	Orig BU	7 days	2 Jul '08	10 Jul '08
75		Conduct User training	Orig BU	2 days	11 Jul '08	14 Jul '08
83		Gain user feedback	Orig BU	5 days	11 Aug '08	15 Aug '08
		⊟ Project Office		**153 days**	**22 Jan '08**	**21 Aug '08**
9		Submit White paper to Steering Committee for approval	Proj Off	1 day	22 Jan '08	22 Jan '08
20		Submit Business Case to Steering Committee for approval	Proj Off	1 day	10 Mar '08	10 Mar '08
31		Determine any special Steering committee needs	Proj Off	1 day	3 Apr '08	3 Apr '08
88		Capture learnings	Proj Off	1 day	21 Aug '08	21 Aug '08
90		Archive files	Proj Off	1 day	19 Aug '08	19 Aug '08
91		Project Completed & closed	Proj Off	0 days	21 Aug '08	21 Aug '08

Customising Grouping is fairly intuitive, the following captures some obscure stuff:

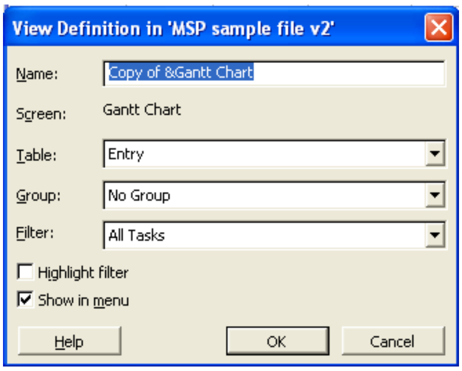
- Apply **No Group** to clear grouping
- MS Project sorts by the text used in the Text field, be conscious of that and maybe include numbers to enforce the desired sort order. In the above example if we wanted to list Project Office before Original BU we would use "1 – Proj Off" instead of "Proj Off".
- You can do multiple groupings nested, eg group by responsibility then by phase
- Show in menu is the show/hide command for the two levels of Group menu

6. Views

Views are the heart of all presentation and formatting. If you modify bar color, for example, in one view and then change to another view the color will also change. Similarly a header that you add to one view will not appear on another. Think of creating a new view as being similar to putting a lump of clay on a pottery wheel, it looks ugly but is the basis for future customisation. When activated, views automatically activate the relevant Table, Filter and Group. We recommend you copy an existing view rather than using the **New** function.

Views can be activated by:

- Selecting from the left hand View bar (if active)
- Selecting from the **View** menu
- Using the **View, More Views** function and defining/applying them



Customising Views is fairly intuitive, the following captures some obscure stuff:

- Be careful which half of the screen is active before applying view (blue band left hand side)
- There are different styles of Task view (Sheet, Gantt, Network diagram, Usage, Calendar, Form)
- There are different styles of Resource view (Sheet, Usage, Graph, Form)
- You can have multiple versions of each, eg 3 different types of Gantt Chart
- **Show in menu** is the show/hide command for the two levels of View menu. The top level View menu also appears on View bar

7. Formatting

Formatting is one of those areas where you play around and self teach. Captured here are the more obscure and useful tips. Remember they apply to the active view.

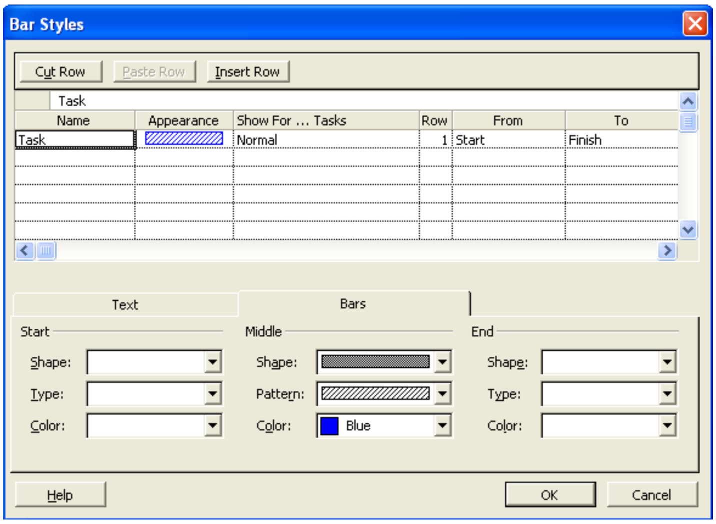
Formatting options include:

- Font – used by exception (eg to pick out a key milestone) refer Format Text styles instead and use sparingly
- Bar – used by exception (eg to pick out a key milestone) refer Format Bar styles instead and use sparingly
- Timescale – more detail behind the zoom in and out icons. You can define three levels of timescale and define the counting sequence and labels. Keep it simple – daily or weekly or monthly and modify % size. If daily left hand align the bottom tier labels to reflect week commencing. You ca also select which calendar to draw as non working time.
- Gridlines – reasonably intuitive. The most used ones are adding and removing vertical lines to timescale as well as removing Current date and adding a bold line for Status date

- Text styles – you select the type of thing you wish to modify before modifying, eg make milestones italic so they stand out. Also handy for reducing font size of bar text to reduce depth in Gantt chart printouts
- Bar styles – reasonably complex but amazingly capable, see below. Gantt chart wizard is one attempt to reduce complexity.
- Layout – should have been called "none of the above". Changing style of dependencies to the middle selection is much clearer. Reducing bar height to 10 helps with depth in Gantt chart printouts.
- Details – where present, eg in a Usage view, you can change the data presented

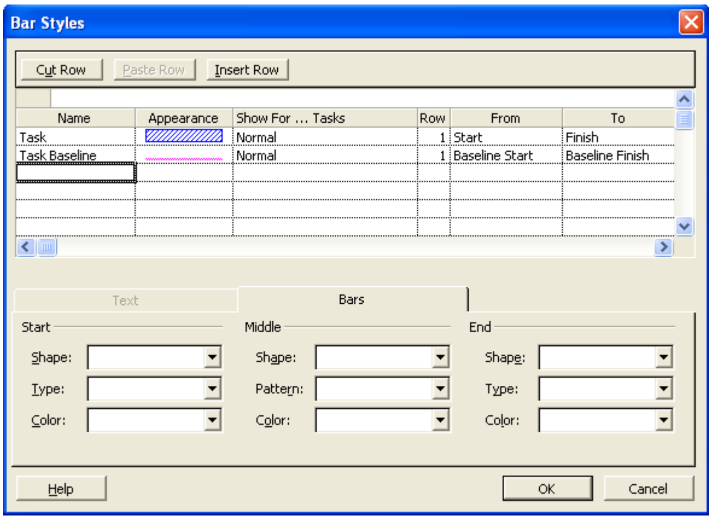
Demystifying Format Bar Styles

The easiest way to understand this function is to remove everything and try to draw a task.

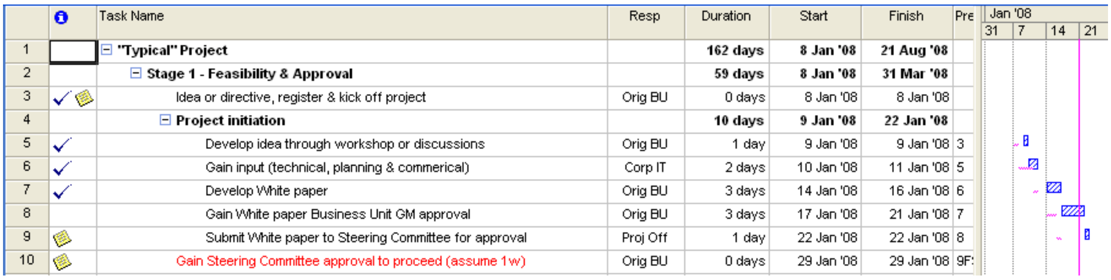


You get to label this thing you want to draw, define it's appearance, restrict drawing it to a certain type of thing (a task is referred to as a "Normal") then define when to start drawing the thing and when to end drawing the thing.

So to draw the Baseline we would add a second line something like the following:



You would end up with (using the sample file with dependencies turned off in Format layout):



		Task Name	Resp	Duration	Start	Finish	Pre
1		**"Typical" Project**		**162 days**	**8 Jan '08**	**21 Aug '08**	
2		**Stage 1 - Feasibility & Approval**		**59 days**	**8 Jan '08**	**31 Mar '08**	
3	✓	Idea or directive, register & kick off project	Orig BU	0 days	8 Jan '08	8 Jan '08	
4		**Project initiation**		**10 days**	**9 Jan '08**	**22 Jan '08**	
5	✓	Develop idea through workshop or discussions	Orig BU	1 day	9 Jan '08	9 Jan '08	3
6	✓	Gain input (technical, planning & commerical)	Corp IT	2 days	10 Jan '08	11 Jan '08	5
7	✓	Develop White paper	Orig BU	3 days	14 Jan '08	16 Jan '08	6
8		Gain White paper Business Unit GM approval	Orig BU	3 days	17 Jan '08	21 Jan '08	7
9		Submit White paper to Steering Committee for approval	Proj Off	1 day	22 Jan '08	22 Jan '08	8
10		Gain Steering Committee approval to proceed (assume 1w)	Orig BU	0 days	29 Jan '08	29 Jan '08	9F:

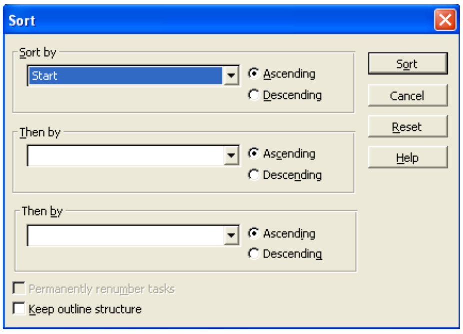
Customising Bar Styles takes some practice. The following captures some more obscure stuff:

- Lower things on the list overwrite higher things on the list if the bar is at the same date. So if we wish to color in completed tasks we would define a black bar lower on the list from **Actual start** to **% Complete**
- Higher things on the list define the color of the logic links (inconsistent with the above, frustrating !)
- Milestones must have **From** and **To** set to the same date, eg both Start or both Finish otherwise they wont appear
- You can nest the **Show For** to create more complex conditions eg Show for **Milestone, Critical**
- You can add bar text above, below, left and/or right by defining a field to put there then entering text in that field for that task. Note **Format, Text styles** allows you to change the font and size of this text.

8. Sorting

Sorting is quite powerful, especially the function to renumber. Be careful !! Sorting is fairly intuitive, you activate sorting from **Project**, **Sort**, **Sort by**. Sorting only affects the active view. The key thing to remember is to uncheck "Keep outline structure".

Sorting is best used together with a specific view such as a customised Task Sheet, filtering out summaries and removing indentation. You may wish to combine with grouping too.

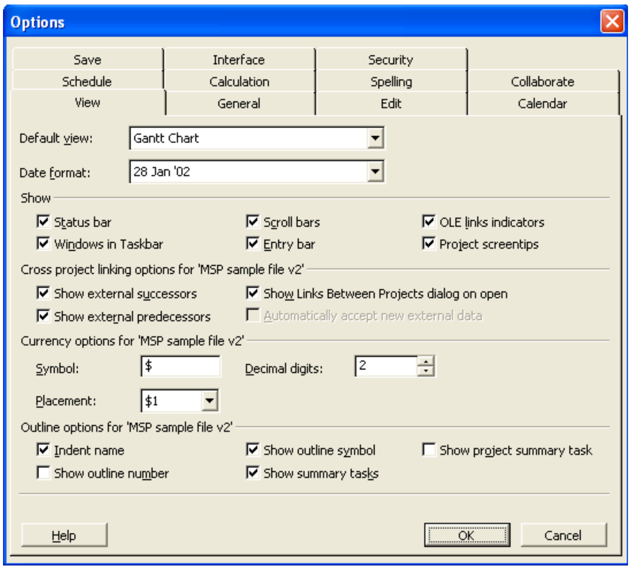


Sorting is fairly intuitive, the following captures some obscure stuff:

- Use the **Reset** button to remove sorting
- Keep outline structure means restrict sorting to only within Summary tasks, generally turn that off.

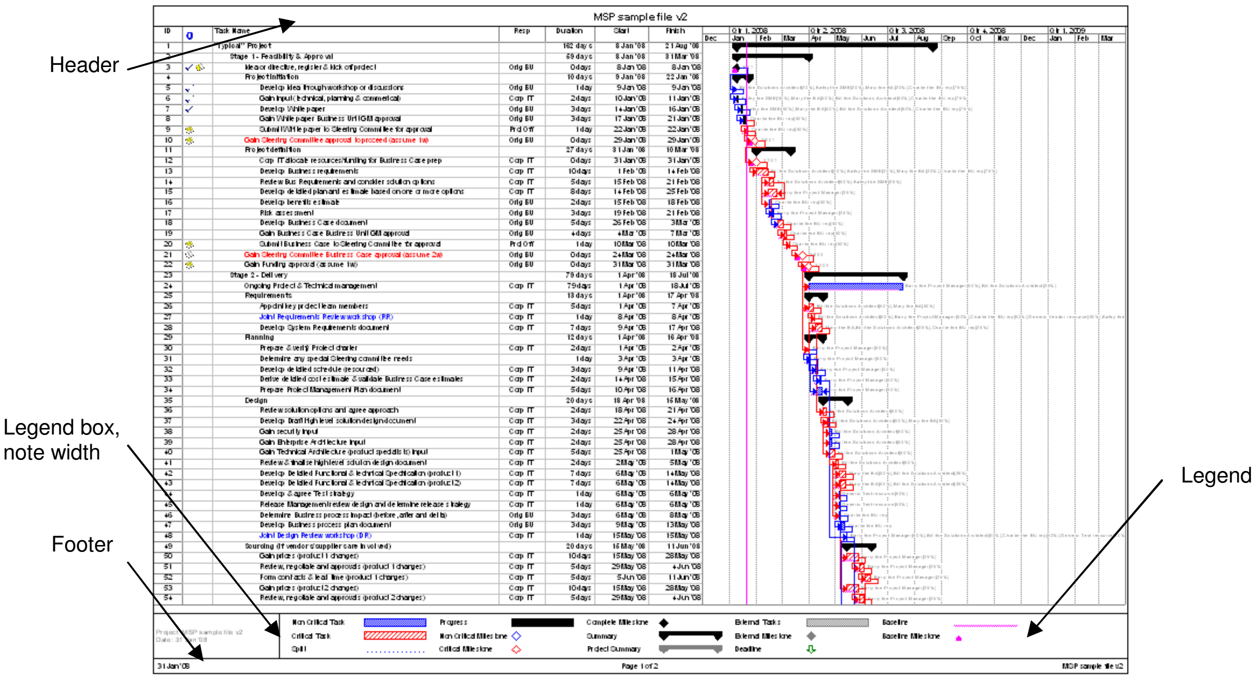
9. View options

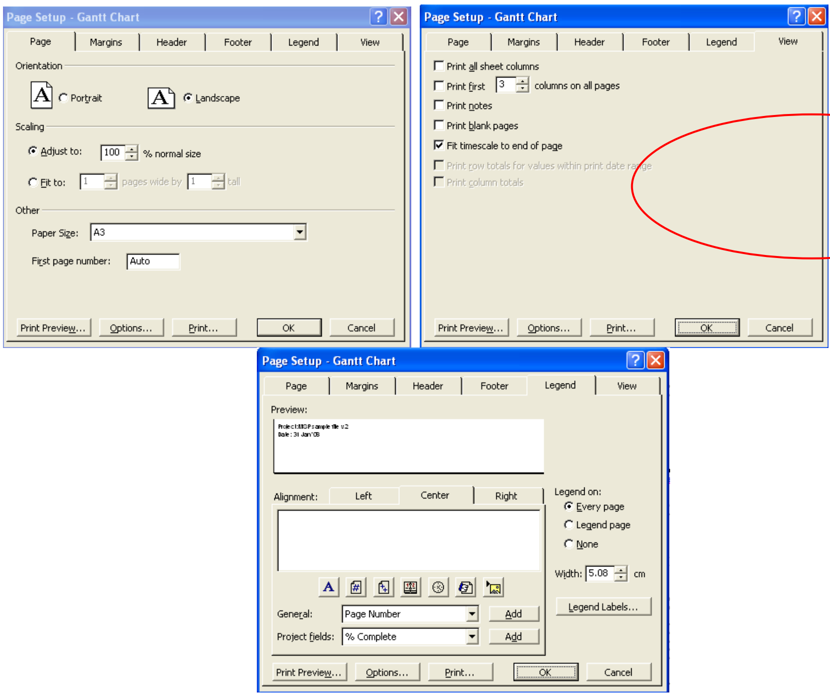
View options are well hidden. They are typically used in conjunction with sorting (to remove indents) as well as having some other minor functions such as date format and showing links to/from other projects. Remember they mostly only apply to the active view.



10. Page setup

As a final enhancement consider Page setup. Everything on the Page setup menu is specific to the active view.





It’s fairly intuitive, the following captures some obscure stuff:

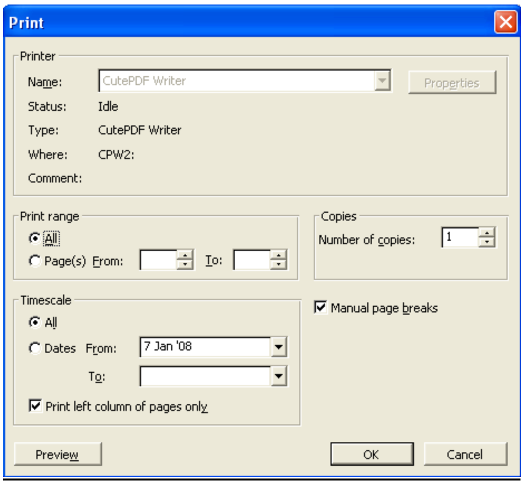
- Scaling is only present for Postscript printers, doesn’t always work
- Paper size relates to Printer, select printer first
- Print all sheet columns means ignore where you left vertical screen divider
- Fit timescale to page – lucky dip, sometimes turning off gives a better result
- Width in the Legend tab refers to the box on the left hand side of legend
- Legend draws everything defined in Format, Bar Styles using names defined for each item
- Left, Centre and Right in Footer, Header and Legend (box) allows you to get Project information and place on your report – good for standardised reporting
- Header you can include logos

It is good practice to add a print date and file name to all your reports as well as company name and project name in the header. Remember to recognise security status such as "Commercial-in-Confidence", document numbers and version control.

11. Printing

Printing takes a little practice to get things to fit on a page or pages. Various tips to fitting include:

- Height – Format Layout (bar height), Format Text styles (font size for bar text)
- Width – Format Timescale, Column selection and width, date format (narrower), vertical screen divider location

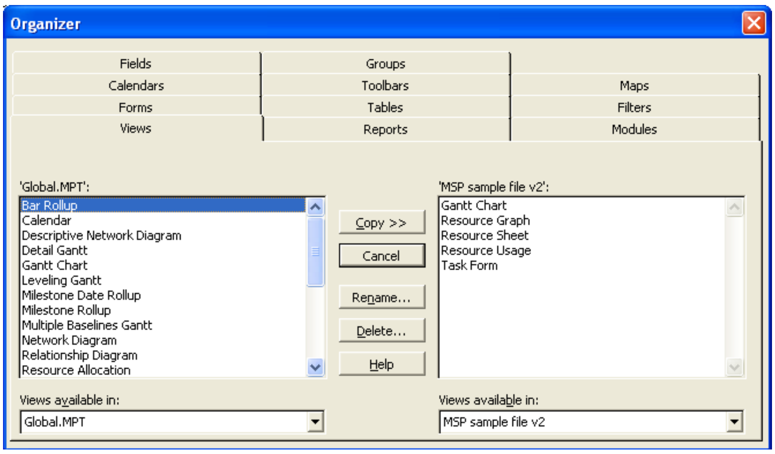


Printing is fairly intuitive; the following captures some obscure stuff:

- Restrict Timescale to print from a certain date, especially for in progress projects, consider restricting to left hand columns of pages
- Always preview first, preview will retain the "Print from" settings
- Consider printing slightly before start date to slightly after finish date
- Page setup "Fit Timescale to end of page" it might be better to turn off
- Printing to A3 via a pdf then printing the pdf on an A4 is useful if you only have an A4 printer available.
- If Emailing files, Email pdfs ideally

12. Organiser & Global.mpt

- Global.mpt is a template file on your computer which opens when you open MS Project. It contains some standard Views, Tables, Filters, Groups that are applied to all projects. Files in the global.mpt are available in any new project created on your computer i.e. new projects are based on Global.mpt.
- For toolbars to work, they have to be in Global.mpt, similarly any customised Filter, Macro or Form the toolbar may call up.
- Typically, any changes you make to views, tables, filters, calendars, reports, and forms are local and apply only to the active project file. Changes must then be copied across using Organiser in order to change global.
- Use **Tools, Organiser** to swap Tables, Filters, Views, Groups, Calendars, Custom Fields, Toolbars, Forms and Reports between project files and/or the Global.mpt. It is easy to use – put a project on the left and one on the right then swap whatever you wish.



13. Analyser Toolbar

- If this toolbar isn't visible in Project, go to **View, Toolbars, Analysis**.
- **Adjust Dates macro** – not recommended to use this at all.
- **Analyze Timescaled Data In Excel macro:** This macro helps transfer detailed, timescaled data from the Usage views into Excel. (Not available in Project 2007 – use visual reports to analyse your project data by using **Pivot Chart** reports in Excel. Go to **Report**, **Visual Reports** and follow the instructions in the wizard.)
- **Copy picture to Office Wizard:** This wizard copies an image of the timescaled data from the Usage views into Word, PowerPoint or Visio.
- **PERT Analysis macro:** This will hide or unhide the PERT Toolbar, which provides access to all the tools and forms for using PERT analysis on projects. To perform a PERT Analysis, click on the **PERT Entry Sheet** and enter the optimistic, expected, and pessimistic durations for each task. If a task's duration is not expected to vary, enter the expected duration in all three fields. Click **Calculate Pert**, **OK**.

14. Drawing Toolbar

- The Gantt Chart is the only view that has the capability to have drawings placed on the view. If this toolbar isn't visible in Project, go to **View, Toolbars, Drawing**.
- Use the Drawing toolbar to add comments straight onto the Gantt. You can also place graphical files straight onto Gantt this way too.
- If you switch to the Gantt Chart view but they are disabled (i.e. they are grayed out), it means the **Show Drawings** options is turned off. To enable this, go to **Format, Layout, Show Drawings**.
- Note that drawn images may shift or appear skewed when the Gantt Chart is printed. They need to be adjusted manually through trial and error.