

# Project 2010 Advanced

Stephen Moffat, The Mouse Training Company



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## **Project 2010 Advanced**

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Project 2010 Advanced

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# 1 Refresh of the basics

All graphics related to Microsoft in this book is in compliance with Microsoft guidelines and thus permitted by Microsoft.

**BY THE END OF THIS SECTION YOU WILL BE ABLE TO IDENTIFY**

- Title Bar
- Ribbons
- The Project window
- Ask a Question

## Guide information

### Introduction

Project 2010 is a powerful application that allows you to plan, resource, manage and report on a project no matter how large, it contains calculations, graphs. Project to web data and sharepoint information is available to be built in to the project file so that the project can be managed across continents via the internet or intranet allowing the use of a central pool of common resources to enable the project managers to efficiently interact and plan through project difficulties.

### How To Use This Guide

This manual should be used as a point of reference following attendance of the introductory level Project 2010 training course. It covers all the topics taught and aims to act as a support aid for any tasks carried out by the user after the course.

The manual is divided into sections, each section covering an aspect of the introductory course. The table of contents lists the page numbers of each section and the table of figures indicates the pages containing tables and diagrams.

### Objectives

Sections begin with a list of objectives each with its own check box so that you can mark off those topics that you are familiar with following the training.

### Instructions

Those who have already used a Project file before may not need to read explanations on what each command does, but would rather skip straight to the instructions to find out how to do it. Look out for the arrow icon which precedes a list of instructions.

## Keyboard

Keys are referred to throughout the manual in the following way:

ENTER – Denotes the return or enter key, DELETE – denotes the Delete key and so on.

Where a command requires two keys to be pressed, the manual displays this as follows:

CTRL + [P] – this means press the letter “p” while holding down the Control key.

## Commands

When a command is referred to in the manual, the following distinctions have been made:

When Ribbon commands are referred to, the manual will refer you to the Ribbon –

E.G. “Choose home from the Ribbons and then B for bold”.

When dialog box options are referred to, the following style has been used for the text –

E.G. “In the Page Range section of the Print dialog, click the Current Page option”

Dialog box buttons are Emboldened – “Click OK to close the Print dialog and launch the print.”

## Notes

Within each section, any items that need further explanation or Points for extra attention devoted to them are denoted by shading. For example:

*“Project will not let you close a file that you have not already saved changes to without prompting you to save.”*

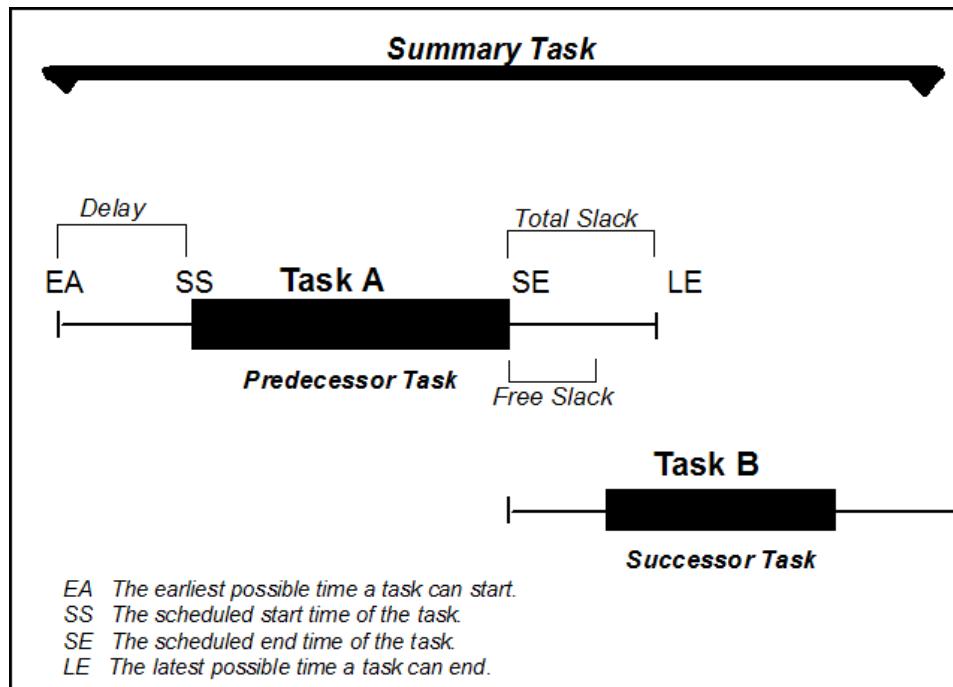
**or**

*“Project will not let you close a file that you have not already saved changes to without prompting you to save.”*

## Project information refresh

### Microsoft Project Language

The project management industry uses specific language and terminology. Some of these terms are illustrated below.

**Figure 1-1:** Clarification Of Terms

### Non Critical Tasks

In the illustration above, two tasks have a relationship. Task A is the predecessor task, and Task B is the successor task. Both of these tasks are considered to be non-critical because they both have flexibility. Let's focus on Task A. EA marks the earliest possible time Task A can start. SS marks the scheduled start time for Task A. By default, all tasks are scheduled to start at the earliest possible time, unless you specify otherwise. In the example above, Task A is scheduled to start later and therefore has been delayed. SE marks the scheduled end time for Task A, and LE marks the latest possible time Task A can end. Both of these tasks have slack. (the amount of time a task can slip before it affects another task's dates or the project finish date.) Free slack is the amount of time Task A can be delayed before affecting the start time of Task B, and total slack is the amount of time that Task A can be delayed before affecting the finish date of the project.

The summary task summarizes Tasks A and B.

### Critical Tasks

Critical tasks, not shown above, have no slack; therefore, delaying this type of task would mean delaying the project.

## Critical Path

A critical path is a series of critical tasks. All tasks on a critical path must be completed on time for the project to finish on time. If one task on a critical path is delayed, then the project is delayed. In Microsoft Project, a critical path is shown on the Gantt chart and the Network Diagram Chart in red.

## Terminology

Term	Usage
Actual Usage	A measure of the resource expended in completing or partially completing a task.
ALAP	Refers to a task that should be started 'As Late As Possible', using all the free-float time available.
ASAP	Used to indicate a task that should be started 'As Soon As Possible', taking into account the start date of the project and its predecessor tasks.
Baseline	The original project plan, including the time schedule and resource and cost allocations. The baseline is used for comparing projected values to actuals, and facilitates the tracking and analysing of a project's progress.
Cost Variance	A project tracking function recording the difference between the budgeted cost of the work performed and the actual cost. Values below the baseline show an overspend and positive values denote cost savings.
Critical Path	The sequence of tasks or activities whose schedules and durations directly affect the date of overall project completion.
Earned Value	This is a measure of a project's performance, and is calculated by multiplying a task's planned cost by the percentage of work completed.
Float (slack)	The amount of time by which a non-critical task can be delayed before it affects another task's schedule.
Gantt chart	A graphical representation of a project schedule showing each task as a bar, the length of which is proportional to its duration. Many project management packages use a spreadsheet section to the left of the Gantt chart to display additional information.
Hammock Task	A task whose duration is calculated based on the time span between its predecessor and successor activities.
Histogram	A bar chart that shows resource workloads over a time period.
Lag	The amount of time between the finish of a predecessor task and the start of a successor task.
Lead	The amount of time that a task is permitted to start before its predecessor is finished.
Loading	A measurement of resource usage on a task per unit of time. Different methods of loading may be used depending on what's available in your project management application and what's applicable for your particular project.
Loading(back)	A loading pattern that allocates resource usage as late in the task as possible.
Loading (contour)	The contour-loading pattern assesses which resources are left over after allocation to the critical tasks and spreads these resources among the remainder.

Loading(fixed)	When using fixed-loading algorithms, you specify the actual amount of resource allocated to the encompassing tasks.
Loading(front)	Front loading systems will attempt to allocate resources as early in the task as possible.
Loading(uniform)	This loading pattern allocates the resource usage on a by day basis in a task. This will usually be done without causing any one task to be over committed.
Milestone	A project event that represents a checkpoint, a major accomplishment or a measurable goal.
Negative float	Refers to an unscheduled delay before an actual task start time that must be recovered if the project is not to be delayed.

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OBS codes	Organisational Breakdown Structure codes are used to identify tasks by resource groups in a hierarchical format. OBS codes are often used to reflect departmental structure in a company or code of accounts, and can also be used for filtering tasks.
Network Diagram	Project Evaluation and Resource Tracking charts, also called network diagrams. Network Diagrams are a graphical depiction of task dependencies, and resemble flow charts. Dependencies are shown by connecting lines or arrows indicating the work flow.
Predecessor	In dependency relationships, the predecessor is the task that must be started or completed first.
Project Management	Best defined as a body of knowledge, a set of principles, or techniques dealing with the planning and control of projects.
Resource	Any person, group of people, item or equipment, service or material used in accomplishing a project task.
Resource Levelling	The process of resolving resource conflicts. Most project management programs offer an automated resource levelling routine that delays tasks until the resources assigned to them are available.
Resource Driven	Task durations determined by the program and based on the number of an allocation of resources, rather than the time available. Both individual tasks and entire projects can be resource-driven.
Sub-project	A group of activities which are treated as a single task in a master project schedule. Subprojects are a way of working with multiple projects that keep all the data in one file rather than in independent files.
Successor	In a dependency relationship between two tasks, the successor is the task that must await the start or completion of the other.
WBS codes	Work Breakdown Structure codes are used to identify tasks in a hierarchy. Many project management applications associate these codes with an outline structure. WBS codes can be used to filter the project schedule for tracking and reporting purposes.

## The stages of project management

The process of project management is divided into specific stages which can be defined as follows: -

- Define the Project
- Plan the project
- Implementation
- Monitoring and Adjusting
- Evaluation

Definition of the word Project: - 'A planned undertaking'

The skills of project management are gathered from a wide range of experiences. Consciously or sub consciously we all apply these skills in the daily administration of our work.

Where a major undertaking has to be completed, these skills are not only brought into focus but must be applied in a much more structured format.

We must take on the jargon and techniques of the Project Manager as well as become familiar with the "Tools of the trade".

- To review the skills that are relevant to project management
- The ability to define the Goal, Objective, Specifications and Limitations of a project.
- The ability to define the individual tasks in sufficient detail and sequence to meet the objective with the minimum of problems, and within the defined time scale.

Task attributes should include some or all of the following

- Objectives
- Time constraints
- Milestones
- Task(s) on which this Task is Dependant
- Estimated Duration: -
- Task(s) that are dependent on this task
- (Optimistic estimate)
- Itemised task Budget
- (Pessimistic estimate)
- Resources required to complete the Task.
- The ability to manage the progression of the tasks in terms of their resources, start times and finish times.
- The production of appropriate progress reports.

As the complexities of these undertakings increase so the importance of discipline and structure increase and the Project Manager must look to the tools that can help which is where Microsoft Project comes into the picture.

## Defining The Project.

Setting out the Goal and the Objectives together with the Specification and Limitations within which the undertaking must be completed.

## Plan The Project

Planning of all the activities, resources, and estimation of materials and time scales. Some of this planning may have to be done at an appropriate level for cost estimation before the project can be agreed. Once the decision to go ahead has been taken the skills of the Project Manager are used to define the details of the planning stage. When this has been completed and agreed it will become the "Plan" or the base line against which progress can be measured.

## Implementation

A leap into the void!

Notes:	A poorly planned project will take three times longer than the original plan. A well-planned project will only take twice as long.
	A project that will be completed without changes, on time and within budget has never been known in the past and will never happen in the future.
	Microsoft Project will help!

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## Monitoring And Adjusting

### Recording Actual Progress

Once the project is under way, the progress of each activity is recorded. This information can then be compared against the Plan and the differences highlighted.

### Revising The Schedule

The process of minimising the effect of problems and delays on meeting project deadlines is achieved by adjusting and updating the Schedule to meet the changed circumstances.

### Evaluation.

As the project progresses and when it has been completed the process of evaluation should be used to learn the lessons for the next time.

## Microsoft Project - Operational Basics

### Microsoft Project Has The Following Capabilities:

- 1 million tasks per project (depending on free RAM)
- 1 million resources per project
- Calendar dates from 1984 to 2049

### Highlights

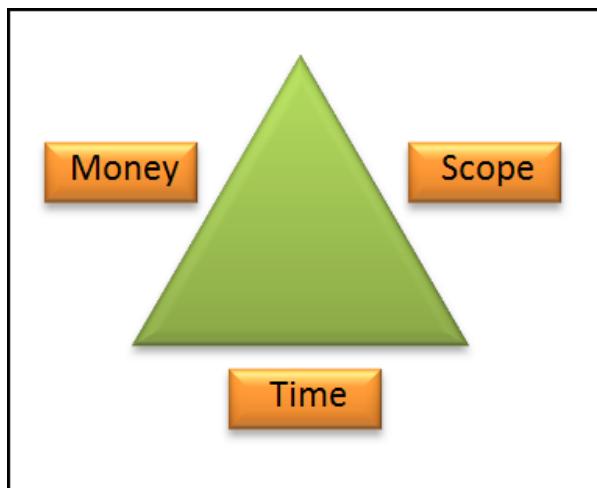
- Gantt charts to show project schedules graphically on a time scale (with scaling from minutes to years).
- Network Diagrams to show task relationships.
- Outlining to group and arrange project tasks in hierarchical order.
- Filters to view selected information.
- Resource usage and Graph views and reports to quickly identify resource availability and costs.
- Split views to see any two screens simultaneously.
- Custom fields so you can track additional information unique to your project.

## The project triangle

### What Is The Project Triangle?

If time, money, or what your project accomplished were unlimited, you wouldn't need to do project management. Unfortunately, most projects have a specific time limit, budget, and scope.

It is this combination of elements (time, money, and scope) that we refer to as the project triangle. (These competing elements are also known as the triple constraints of a project.) Understanding the project triangle will enable you to make better choices when you must make tradeoffs.



**Figure 1-2:** The Project Triangle

If you adjust any one side of the triangle, the other two sides are affected.

For example, if you decide to adjust the project plan to:

- Bring in the scheduled finish date, you might end up with increased costs and a decreased scope.
- Meet the project budget, the result might be a longer schedule and a decreased scope.
- Increase scope, your project might take more time and cost more money in the form of resources, such as workers.

Changes to your plan can affect the triangle in various ways, depending on your specific circumstances and the nature of your project. For example, in some instances, shortening your schedule might increase costs. In other instances, it might actually decrease costs.

In terms of the project triangle, resources are considered a cost item. So as you adjust resources to accommodate more or less work or to reflect their availability, your costs go up or down correspondingly. These costs are based on resource pay rates.

You also may notice that as you adjust resources, your schedule changes. For example, if you have several resource overallocations and you level the project, the schedule might now include split tasks and delays that extend the finish date.

### Where's The "Stuck" Side Of The Triangle?

In most projects, at least one side of the triangle is “stuck,” meaning that you can’t change it. On some projects, it’s the budget. No matter what, you won’t get more money for the project. On others, it’s the schedule; the dates can’t change. Or it’s the scope; there will be no change in deliverables.

The trick is in finding the “stuck” or fixed sides of your project’s triangle. That tells you what you can change and where you can adjust if there’s a problem. Phrasing the problem as a statement can help you clarify which side of the triangle is in trouble.

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Knowing which side of your triangle can't be changed will help you know where you can adjust. So when you begin optimizing, consider the following order of decisions.

- First, decide which of the three elements is fixed. This is typically the element most important to the success of your project (finishing on time, on budget, or with the agreed-upon scope).
- Then, determine which side your current problem occurs on. Once you've done that, you'll know what elements you have to work with to get your project back on track.

If the problem side and the fixed side are the same, you have the remaining two sides of the triangle to work with. For example, if your project has to finish on time and your problem is that it's taking too long, you can adjust resources or adjust scope to get the project back on track.

If the problem side is different from the fixed side, you'll want to optimize by adjusting the remaining side. For example, if your project has to finish on time and it's grown in scope, you only have the cost side to play with by, for example, by adding resources.

Know that when you adjust one side of the triangle of time, money, and scope, the other two sides are likely to be affected. They can be affected positively or negatively, depending on the nature of your project.

*After adjusting your project plan, check the other two elements again to make sure nothing has become unworkable. For example, if you adjusted your plan to bring in costs, check whether your finish date is still acceptable*

# 2 More Tasks & Tables

**AFTER COMPLETING THIS SECTION YOU WILL BE ABLE TO:**

- Understand more about tables.
- Lead and Lag Times
- Edit tables by adding and removing columns
- Change column labels
- Create a table

## More about Tables

Much of the data the system holds can be entered and/or viewed in a table format. The system will allow the user to organise these tables so they can be used to maximum effect.

The content of the table is also dependent on the area of project management they are used for. There is a difference between tables for Tasks and table for Resources.

### Modifying (Or Editing) An Existing Table

The idea of changing a table structure is to make its use more appropriate to the users needs in terms of what information the user needs to view. For a task table there are over one hundred possible columns from which the structure can be chosen. For Resources the number of possible columns is approximately thirty.

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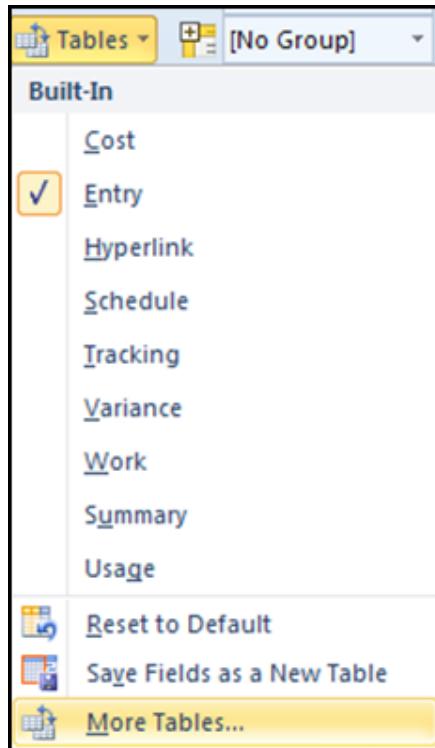
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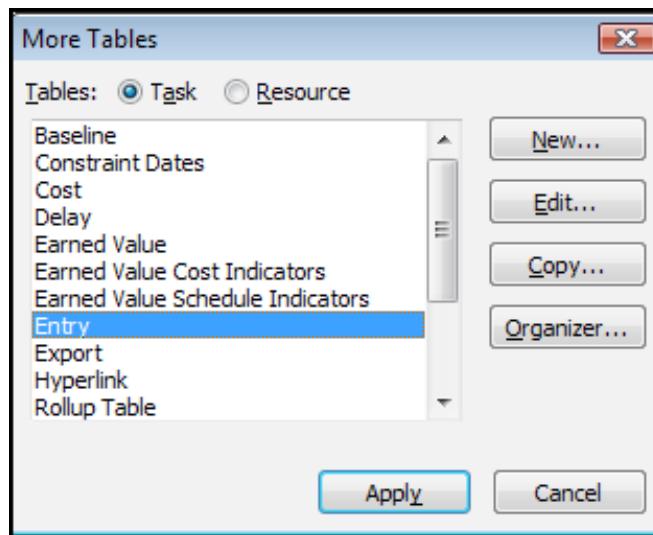
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**Figure 2-1:** More Tables Menu

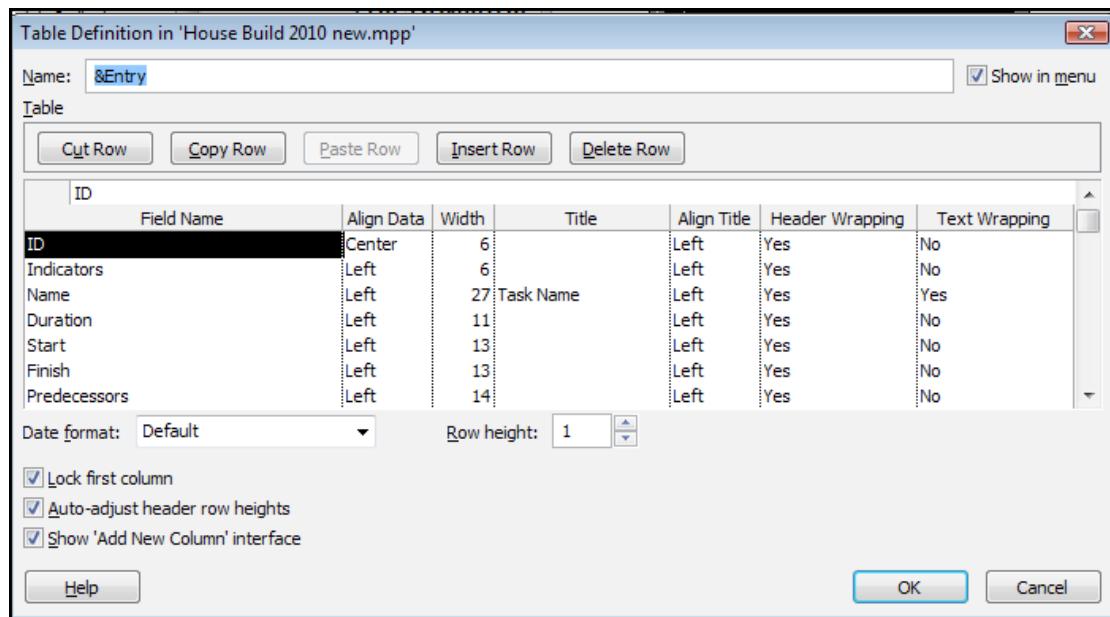
➤ To View And Edit A Table.

**mouse**

- i. From the ribbon, select the View tab, data group, Tables , from the menu choose More Tables. The box that will be shown can be switched between Task or Resource tables.

**Table 6-2:** More Tables Dialog

- ii. From whichever aspect is selected, a list of the existing tables will be shown. Select from this list the one you want to change/modify then press the Edit button.
- iii. The following dialog box (Figure 2-2) will show a list of the fields that make up the table.

**Figure 2-2:** Table Definition

- iv. If a new field is required then position the pointer at the required position and use the mouse to press the Insert Row [Column] button. A space will appear and the new field can be selected.
- v. To remove a field, point to it and use the mouse to press the Delete row button.
- vi. Use the Align data option to specify which way you would like the data in the cell aligned.
- vii. Use the width field to specify the default width of the column in the table
- viii. Enter a title in the title column if you don't wish to use the field name
- ix. Align the title in the align title column
- x. The last two columns specify whether you would like the data in the column or the title to be wrapped.
- xi. Specify a date format for any date fields entered
- xii. In the row height box specify a row height for any selected fields that will appear in the table (not the dialog)
- xiii. If you wish the table to appear in the table menu tick the box in the top right corner
- xiv. When all options have been set click ok to apply the modifications to the table.

➤ To Apply A Table

**mouse**

- i. Choose a tabular task or resource view in the main project window by going to the View button on the view ribbon, choose a Table.
- ii. From the Tables submenu in the data group on the view ribbon , choose the desired table when you wish its use.

### Creating A New Table

New Tables can be created by selecting the New button from the More Tables box. The structure of the table is built up by selecting the fields in the appropriate order.

You can only apply tables to tabular views such as the Resource Sheet, the Task Sheet, or the tabular portion of the Gantt Chart. When you choose the Tables option, the list of available tables will change, depending on the current view.



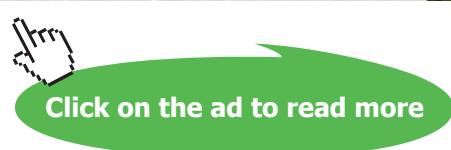


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➤ To Create A New Table

**mouse**

- i. From the ribbon, select the View tab, data group, Tables , from the menu choose More Tables. The box that will be shown can be switched between Task or Resource tables.
- ii. When you decide which type of table you would like to create click on the new button.

**Or**

- iii. Another option which saves time is to copy an existing table and add or remove fields as necessary and rename it. Click on the copy button when you have selected the table with closest design to what you want from the more tables dialog
- iv. When the table definition box appears enter a name for the table and tick whether you wish it to appear in the tables menu.
- v. Add, edit or delete fields as covered in the previous section.
- vi. Click ok to save the table.

*If the table you need doesn't appear in the Table submenu, choose More Tables. From the More Tables dialog box, select the desired table, and then choose Apply.*

## Transfer and store Objects

### Global Template And Organiser

Chances are you may be involved with more than one project and in using more than one project file you may feel the need to reuse useful tables in other projects. There is no need to recreate them in other files we have the organiser tool to allow us to transfer these objects for reuse elsewhere

The global template is the file that is used every time you create a new project file this works similarly in word and excel. It stores all the objects necessary to create a file with no data. Using the organiser to transfer any of the objects we create into it every time we create a new project those objects will be available for use in the new file. This includes tables, views, filters, groups, reports, macros, calendars (tasks or resource objects)

Even better when these objects are in the global template any file you open created from another source that lacks the useful objects you have been using you simply transfer them from the global template into the new file and they are then available for use.

- To Transfer Objects To And From The Global Template

**mouse**

- i. Access the more tables dialog as previously discussed.

*The more views, more filters, more groups, more reports dialogs have the same option for the organiser button*

- ii. Click on the organiser button a dialog will open

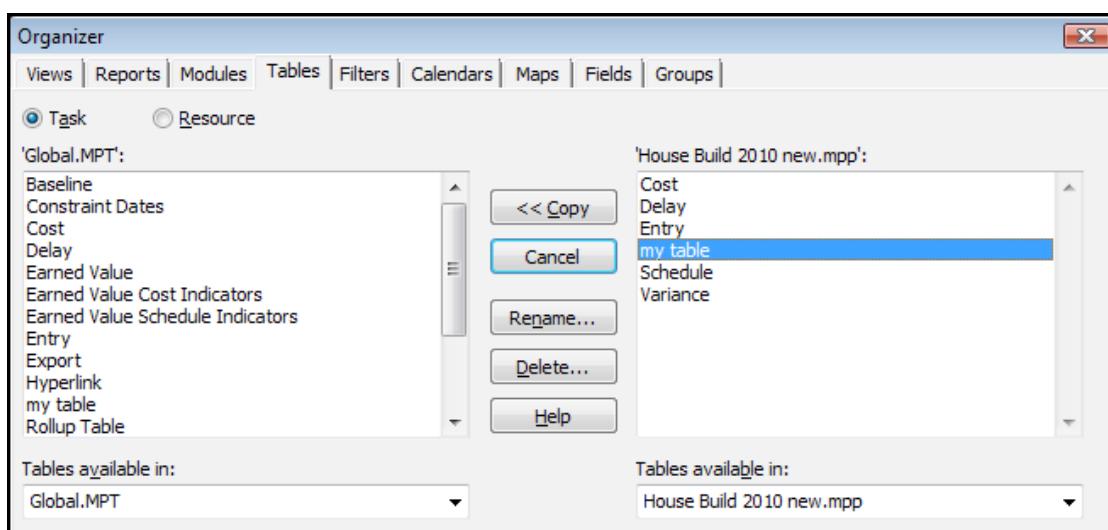
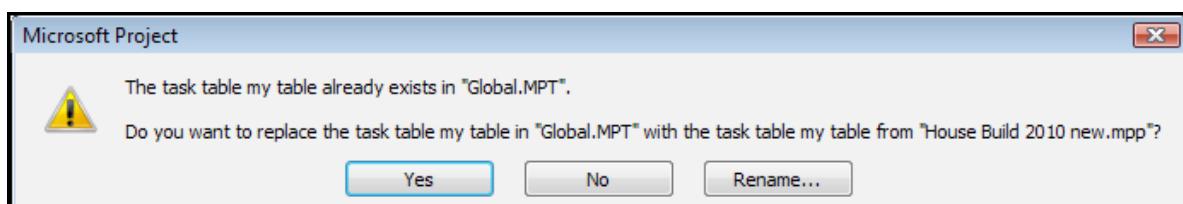


Figure 2-3: Organiser

- iii. Down at the bottom identify which file you are in and which file you are going to transfer objects to and from. If you have several project files open use the drop down arrows in the boxes to correctly identify the files.  
*MPT is the filetype of a template, MPP is the filetype for a project file although it does not specify the version.*
- iv. Select objects in the file you want to transfer from and click on the copy button to transfer to the global.mpt file if a file from another source is being used copy the other way for your objects to be used in other files.
- v. If the object you wish to copy to the global.mpt exists (and it might if you have made further editions and are copying it again), a dialog will appear prompting you on what to do.



**Figure 2-4:** Organiser Copy Warning

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What if  
you could  
build your  
future and  
create the  
future?

One generation's transformation is the next's status quo.  
In the near future, people may soon think it's strange that  
devices ever had to be "plugged in." To obtain that status, there  
needs to be "The Shift".

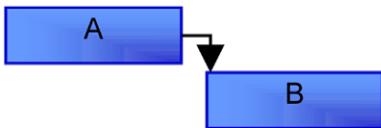
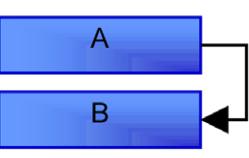
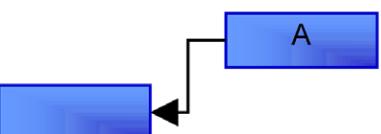
- vi. Make a choice as to what you wish to do, clicking the rename button allows you to copy the object with a different name allowing the retention of both objects.
- vii. Click the rename button to rename any of the created objects in your file
- viii. Click the delete button to remove any created objects from either side of the organiser if they no longer serve any use.

*You are advised not to delete any inbuilt objects from the global.mpt file as this could then cause limited use of project when new files are created.*

- ix. When the transfer of objects is complete click the cross in the top right hand corner of the dialog to close the organiser.
- x. Creating any new project now will include the objects you have transferred ready for immediate use.

## More on linking tasks

In order that the system is able to display the overall time aspects of the project, each Task must be defined in terms of the Tasks on which it is dependent and in turn those Tasks that are dependent on it. It is also possible to define in what way these dependencies exist.

Link type	Example	Description
<b>Finish-to-start (FS)</b>		<p>The dependent task (B) cannot begin until the task that it depends (A) on is complete. For example, if you have two tasks, "Dig foundation" and "Pour concrete," the "Pour concrete" task cannot begin until the "Dig foundation" task is complete.</p>
<b>Start-to-start (SS)</b>		<p>The dependent task (B) cannot begin until the task that it depends (A) on begins. The dependent task can begin anytime after the task that it depends on begins. The SS link type does not require that both tasks begin simultaneously. For example, if you have two tasks, "Pour concrete" and "Level concrete," the "Level concrete" task cannot begin until the "Pour concrete" task begins.</p>
<b>Finish-to-finish (FF)</b>		<p>The dependent task (B) cannot be completed until the task that it depends on (A) is completed. The dependent task can be completed anytime after the task that it depends on is completed. The FF link type does not require that both tasks be completed simultaneously. For example, if you have two tasks, "Add wiring" and "Inspect electrical," the "Inspect electrical" task cannot be completed until the "Add wiring" task is completed.</p>
<b>Start-to-finish (SF)</b>		<p>The dependent task (B) cannot be completed until the task that it depends on (A) begins. The dependent task can be completed anytime after the task that it depends on begins. The SF link type does not require that the dependent task be completed concurrent with the beginning of the task on which it depends. For example, the roof trusses for your construction project are built offsite. Two of the tasks in your project are "Truss delivery" and "Assemble roof." The "Assemble roof" task cannot be completed until the "Truss delivery" task begins.</p>

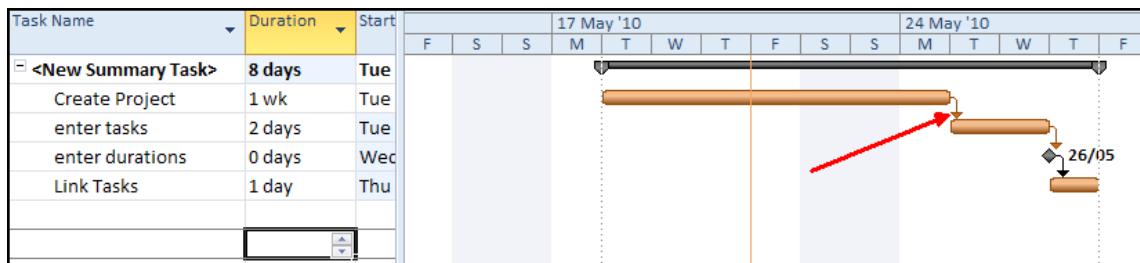
## Changing The Link Type

After creating a link between tasks it is entirely possible that the type of link you have created (remember the default link is finish to start FS) you may wish to change the link to another type, this has tremendous implications for the length of the project and the use of the resources. There are three methods for achieving this:

- To Change The Link On The Gantt

**mouse**

- i. Ensure you are in Gantt view.



**Figure 2-5:** Double Click The Link

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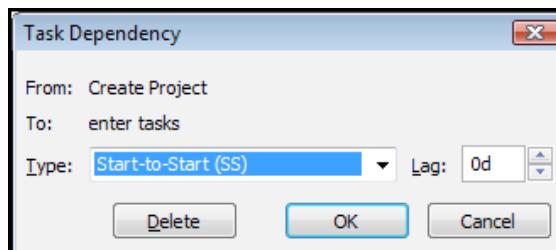
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- ii. Double click on the link between the two tasks you wish to edit the link for on the Gantt chart a dialog will open.



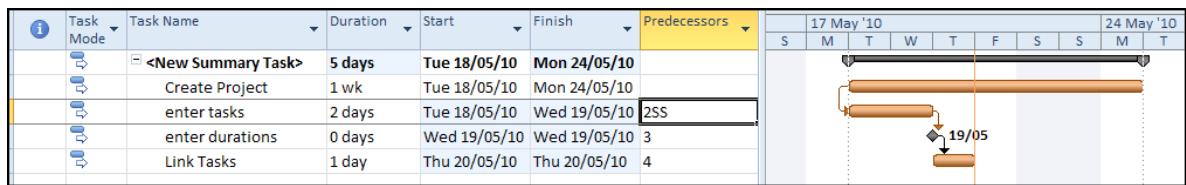
**Figure 2-6:** Task Dependency Dialog

- iii. Change the link type in the drop down box to the desired type click ok to apply the change.

➤ To Change The Link With The Predecessors

#### mouse & Keyboard

- i. Either resize the Gantt chart to allow the viewing of the predecessors column or use the tab key in the table to tab across to it for the task you wish to edit the link for.
- ii. The fs link is by default not shown in the predecessors column but add one of the other link type contractions after the predecessor number and press enter the link will change and the result shown in the Gantt chart. The picture below shows a start to start relationship.

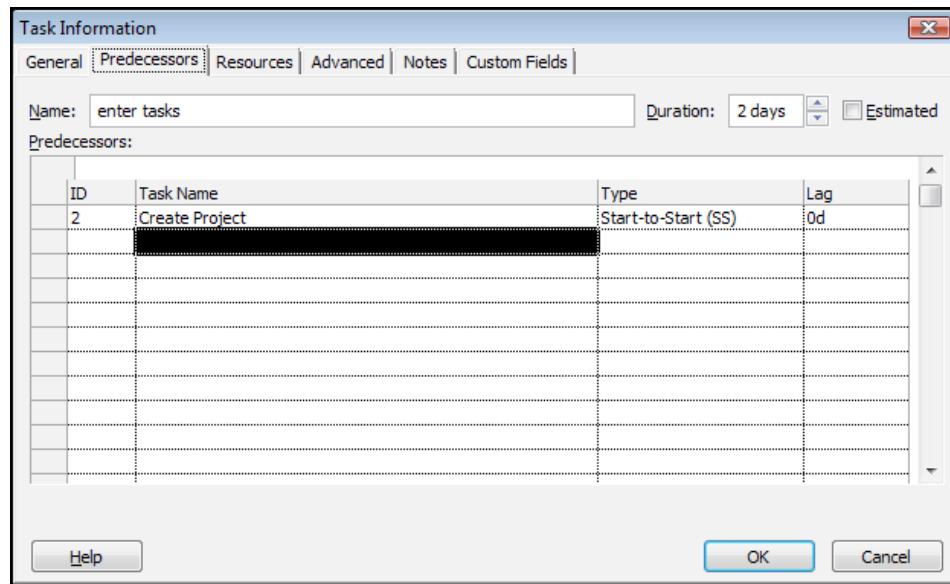


**Figure 2-7:** Using The Predecessors Column

➤ To Change The Link With The Task Information Dialog

#### mouse

- i. Open the task information dialog for the task you wish to change the link for.
- ii. Go to the predecessors tab.

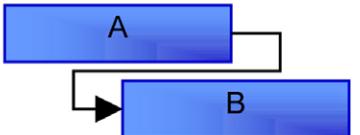
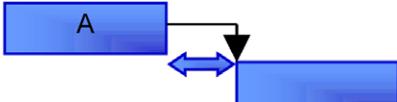


**Figure 2-8:** Predecessors In Task Information Dialog

- iii. Here you are able to change the task you are linked to and change the type of link you want to use.
- iv. Click ok when you have made the necessary adjustments

### More Links, Lead And Lag Times

From the previous examples you have seen in the task information dialog, predecessors tab and in the task dependency dialog a box called lag this is a box allows you to fine tune these Link relationships by specifying Lag or Lead times as required.

Type	Example	Description
<b>Lead</b>		Lead time is an overlap between two tasks that are linked by a dependency. For example, if a task can start when its predecessor is half finished, you can establish a finish-to-start dependency and specify a lead time of 50% for the successor task. You enter the lead time as a negative value
<b>Lag</b>		Lag time is a delay between two tasks that are linked by a dependency. For example, if there must be a two-day delay between the finish of one task and the start of another, you can establish a finish-to-start dependency and specify two days of lag time for the successor task. You enter the lag time as a positive value.

Applying lead and lag time in the dialog boxes should now be easy but the method of entering it in the predecessors column may not be so obvious although it is the most efficient way of working with your links

- To Apply Lead/Lag In The Predecessors Column  
**keyboard**
- i. Access the predecessors column in your table



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- ii. Entering a start to start relationship with a two day lag should be entered like so (the first number being the predecessor)

### 2SS+2 days

- iii. When entering a finish to start link with lead or lag we MUST enter the fs otherwise it would be like adding two digits together project will not automatically add FS as before when applying lead or lag time  
 iv. A finish to start link with two days lead would look like

### 2FS-2 days

	i	Task Name	Duration	Start	Finish	Predecessors
0		House Build 2010 new	93 days	Mon 17/05/10	Wed 22/09/10	
1		Preparation	40 days	Mon 17/05/10	Fri 09/07/10	
2	✓	Buy Land	10 days	Mon 17/05/10	Fri 28/05/10	
3		See architect	15 days	Mon 24/05/10	Fri 11/06/10	2FS-5 days
4		Survey Land	5 days	Mon 31/05/10	Fri 04/06/10	2
5		Obtain Planning Permission	20 days	Mon 14/06/10	Fri 09/07/10	3,4
6		Planning perm obtained	0 days	Fri 09/07/10	Fri 09/07/10	5
7		Build Foundations	11 days	Mon 12/07/10	Mon 26/07/10	
8		Dig	5 days	Mon 12/07/10	Fri 16/07/10	6
9		Lay Pipework	5 days	Thu 15/07/10	Wed 21/07/10	8FS-2 days
10		Lay Concrete	5 days	Tue 20/07/10	Mon 26/07/10	9FS-2 days
11		Build	31 days	Tue 03/08/10	Tue 14/09/10	
12		Build Walls	15 days	Tue 03/08/10	Mon 23/08/10	10FS+5 days
13	!	Build Roof	5 days	Tue 24/08/10	Mon 30/08/10	12
14	!	Windows and Doors	6 days	Tue 24/08/10	Tue 31/08/10	12
15		Plaster	4 days	Thu 02/09/10	Tue 07/09/10	19SS+1 day
16		Floor Boards	5 days	Wed 08/09/10	Tue 14/09/10	15
17		Install Services	11 days	Tue 24/08/10	Tue 07/09/10	
18		Install Plumbing	10 days	Tue 24/08/10	Mon 06/09/10	12
19		Electrics	5 days	Wed 01/09/10	Tue 07/09/10	13,14
20		Finalise	11 days	Wed 08/09/10	Wed 22/09/10	
21	!	Kitchen	4 days	Wed 08/09/10	Mon 13/09/10	18,19
22	!	Bathroom	3 days	Wed 08/09/10	Fri 10/09/10	18,19
23		Decorate	5 days	Tue 14/09/10	Mon 20/09/10	21,22
24		Carpets	2 days	Tue 21/09/10	Wed 22/09/10	23

Figure 2-9: Example Of Lead And Lag In Predecessors Column

## Using a Task view

### The Task Form

Where the screen is displaying any view in which a task is shown that can be selected with the mouse, the Task Form can be shown by clicking the View button, More Views... command.

Changing the view to the Task form View allows a very easy to use user interface for editing tasks

E.G. It is possible to change the value of the % Complete box part of the screen in the Task Form and this is the same box that would be seen in the Task Information Form.

The screenshot shows the Microsoft Project Task Form View. At the top, there are filter and search fields: Name (Build Roof), Duration (5 days), Effort driven (unchecked), Manually Scheduled (unchecked), Previous, and Next. Below these are dropdowns for Start (Tue 24/08/10) and Finish (Mon 30/08/10), Task type (Fixed Units), and % Complete (0%). The main area is a table with columns: ID, Resource Name, Work, R/D, Leveling Delay, Delay, Scheduled Start, and Scheduled Finish. The table contains three rows:

ID	Resource Name	Work	R/D	Leveling Delay	Delay	Scheduled Start	Scheduled Finish
5	Builders	80h		0d	0d	Tue 24/08/10	Mon 30/08/10
7	Chris Chippie(carpenter)	40h		0d	0d	Tue 24/08/10	Mon 30/08/10
9	Timber	100		0d	0d	Tue 24/08/10	Mon 30/08/10

**Figure 2-10:** The Task Form View

Using the next, previous buttons in the top right allows you to move through the tasks within your project and edit them task by task.

You may return to the standard Gantt view at any time by using the view button and selecting a different view.

### The Task Details Form

Where the screen is displaying any view in which a task is shown that can be selected with the mouse, the Task details Form can be Projected from the View button, More Views... command.

From this form the data relating to the specific task can be changed which includes progress information.

In addition to the fields in the Task Form the Task Edit Form has the following:-

**Dates:**

Current	These selections identify which dates are shown in the Start and
Baseline or Actual	Finish boxes. Where progress data is being entered, Actual should be selected.
Start:	Actual Start Date and time for the Task.
Finish:	Actual Completion date and time for the Task, if completed.
Constraint:	This box can set up a specific constraint on the start or end date for the task. There are a fixed number of choices which are shown in a list for selection.

The list may contain the following:-

Constraint Type	As Soon as Possible	As Late as Possible
	Finish no earlier than	Finish no later than
	Must finish on	Must start on
	Start no earlier than	Start no later than
Constraint Date:	This data is specified if any of the last six above are used.	

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The screenshot shows the 'Task Details' dialog box in Microsoft Project 2010. At the top, the task name is 'Lay Concrete' with a duration of '5 days'. The 'Effort driven' and 'Manually Scheduled' options are selected. A constraint 'As Soon As Possible' is applied. The task type is 'Fixed Units' and the WBS code is '2.3'. The priority is set to 500 and the % Complete is 0%. The resource assigned is 'Builders' with 120h work. The scheduled start is 'Tue 20/07/10' and the finish is 'Mon 26/07/10'. The 'Task Details Form' is visible on the left.

**Figure 2-11:** The Task Details Form**Priority:**

This box can be used to prioritise different tasks in terms of levelling over allocated resources. The priority relates to which tasks can be delayed. The choices are as follows:-

Do Not Level	Highest	Very High
Higher	High	Medium
Low	Lower	Very Low
Lowest		

**Wbs Code:**

WBS is Work Breakdown Structure which can be used to group tasks together as an alternative structure to the ID numbers. If nothing is entered, ID number is shown. This will be looked at in more depth later.

## More on the task information form

### Tabs

The Task Information Form is divided into six separate pages, each of which can provide very useful information to the project manager.

### General

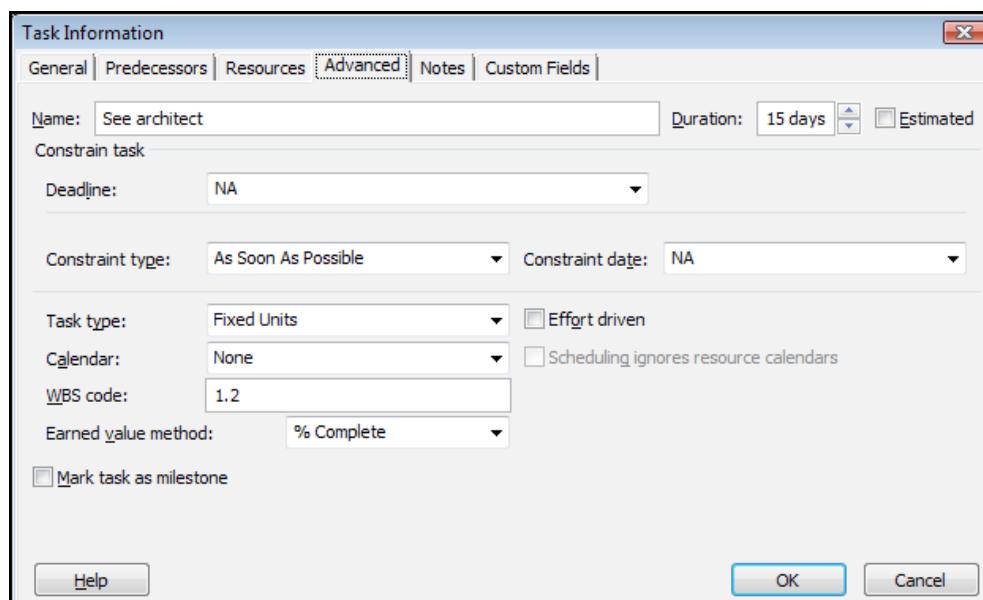
Includes Start and Finish dates, %complete and Priority. It also includes boxes for Roll-up and Hide Gantt Bar.

### Predecessors

Shows any predecessors set and allows you to add others, change the relationship and introduce Lag or Lead time.

### Resources

You can add or modify resources plus change the task from being resource driven to fixed duration.



**Figure 2-12:** Task Information Form (Advanced Tab)

### Advanced

This includes Constraints, Sub-project and WBS codes plus a check box to mark as milestone.

### Notes

This allows you to add a note. This could be a fuller description of the task, allowing you to use a cryptic title.

## Custom Fields

This allows you to add custom fields to the task.

We have already seen the use of the general and predecessors tabs in detail. In this section we will have a look at the advanced tab.

## Constraints

When you need to control the start or finish date of an automatically scheduled task, you can change the constraint on the task.

### Flexible Constraints

Are constraints that are flexible and does not tie a task to a single date. Flexible constraints are As Soon As Possible, As Late As Possible, Finish No Earlier Than, Finish No Later Than, Start No Earlier Than, and Start No Later Than. the default for most projects would be ASAP.

Work with task dependencies to make a task occur as soon or as late as the task dependency will allow. For example, a task with an As Soon As Possible (ASAP) constraint and a finish-to-start dependency will be scheduled as soon as the predecessor task finishes. By default, all tasks in a project that is scheduled from the start date have the ASAP constraint applied. Likewise, by default, all tasks in a project that is scheduled from the finish date have the As Late As Possible (ALAP) constraint applied.

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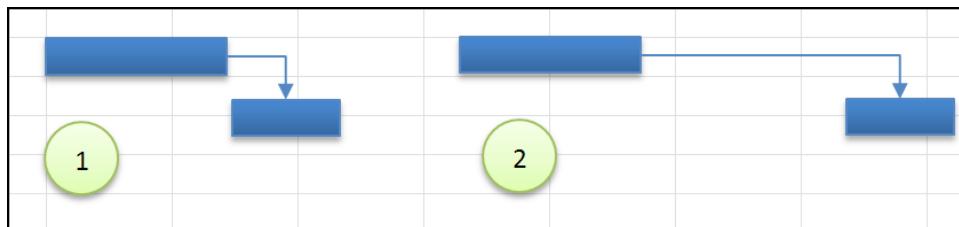
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*Manually scheduled tasks are not affected by task constraints. If you change a task scheduling mode from manually scheduled to automatically scheduled, the task constraint will be set to As Late as Possible (ALAP).*

### Semi Flexible Constraints

Constraints with moderate scheduling flexibility will restrict a task from starting or finishing before or after a date you choose. For example, a task with a Start No Earlier Than (SNET) constraint for June 15 and a finish-to-start dependency to another task can begin June 15 if its predecessor is finished by June 15 (or later if its predecessor finishes after June 15), but it can't be scheduled before June 15.



**Figure 2-13:** Constraint Applied



With the default finish-to-start task relationship and an ASAP constraint applied to these tasks, the successor task (the second one) is scheduled to begin as soon as the predecessor task (the first one) is scheduled to finish.



With a SNET constraint applied, the successor task cannot begin before the constraint date, even if (as shown here) the predecessor task is completed before the constraint date.

### Inflexible Constraints

Inflexible constraints are constraints that are inflexible because it ties a task to a date. The inflexible constraints are Must Finish On and Must Start On.) they override any task dependencies by default and restrict a task to a date you choose.

For example, a task with a Must Start On (MSO) constraint for September 30 and a finish-to-start dependency to another task will always be scheduled for September 30 no matter whether its predecessor finishes early or late.

If a task that is constrained to a date has a predecessor that finishes too late for the successor to begin on the date specified in the constraint, negative slack can occur.

- To Review Or Change The Constraint On A Task
  - mouse**
  - i. Open the task Task Information dialog
  - ii. Click the Advanced tab.
  - iii. Constraint information is in the Constraint type and Constraint date boxes edit as necessary
  - iv. Click ok to apply the changes to the constraints

## Deadline Dates

- A deadline as defined for Microsoft project is a target date indicating when you want a task to be completed. If the deadline date passes and the task is not completed, Project will display a task indicator next to the task in the table. The deadline can also be displayed on the Gantt.
- Task indicators are small icons representing information for a task or resource that are displayed in the Indicators field. The Indicators field is located to the right of the ID field and appears in a number of tables.

Deadlines don't usually affect task scheduling. They are used to indicate a target date you don't want to miss, without requiring you to set a task constraint that could affect scheduling if predecessor tasks change. A task with a deadline is scheduled just like any other task, but when a task finishes after its deadline, Project displays a task indicator notifying you that the task has missed its deadline.

Deadline dates can affect the total slack on tasks. If you enter a deadline date before the end of the task's total slack, total slack will be recalculated by using the deadline date rather than the task's late finish date. The task becomes critical if the total slack reaches zero.

You can set deadlines for summary tasks as well as individual tasks. If the summary task's deadline conflicts with any of the subtasks, the deadline indicator signifies a missed deadline among the subtasks.

But deadline dates can affect how tasks are scheduled if you set a deadline date on a task with an As Late As Possible (ALAP) constraint. The task is scheduled to finish on the deadline date, though the task could still finish after its deadline if its predecessors slipped.

- To Review Or Change A Task Deadline
  - mouse**
  - i. Open the Task Information dialog for the task you wish to apply/edit/remove a deadline date for.
  - ii. Click the Advanced tab.
  - iii. Use the Deadline box to add edit or remove the deadline date

- To Show/ Remove The Deadline In The Gantt Chart

**mouse**

- i. Ensure you are in Gantt view and open up the bar styles dialog form the format button on the format tab of the Gantt chart tools
- ii. Scroll down the rows in the bar styles dialog until locating the deadline row if it is not there for any reason (previous editing) go to a blank row and enter the values seen in the following picture.

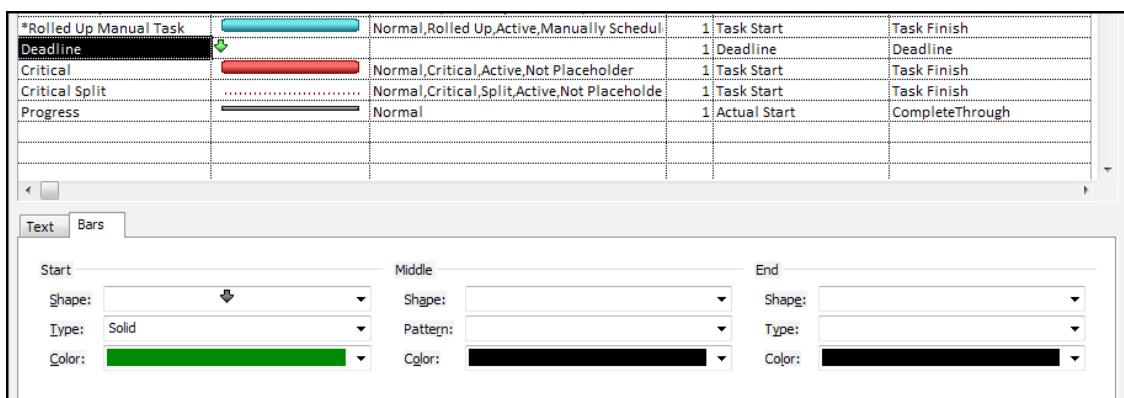


Figure 2-14: The Deadline Value In Bar Styles



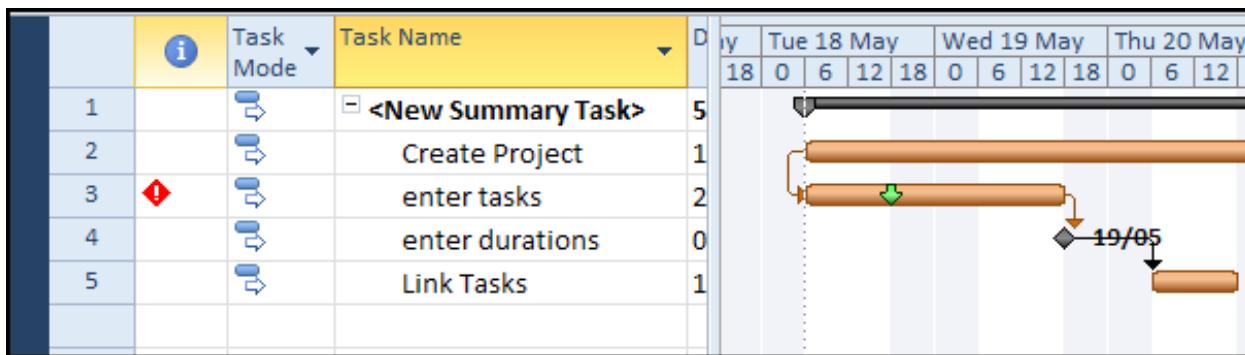
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- iii. when you have added/edited the deadline it should show as in the following picture the picture shows a missed deadline.



**Figure 2-15:** A Missed Deadline And Task Indicator

### Inactivate A Task

Microsoft Project 2010 enables you to cancel a task but keep a record of the task in the project plan. This is called inactivating the task. The task remains in the project plan, but does not affect resource availability, the project schedule, or how other tasks are scheduled.

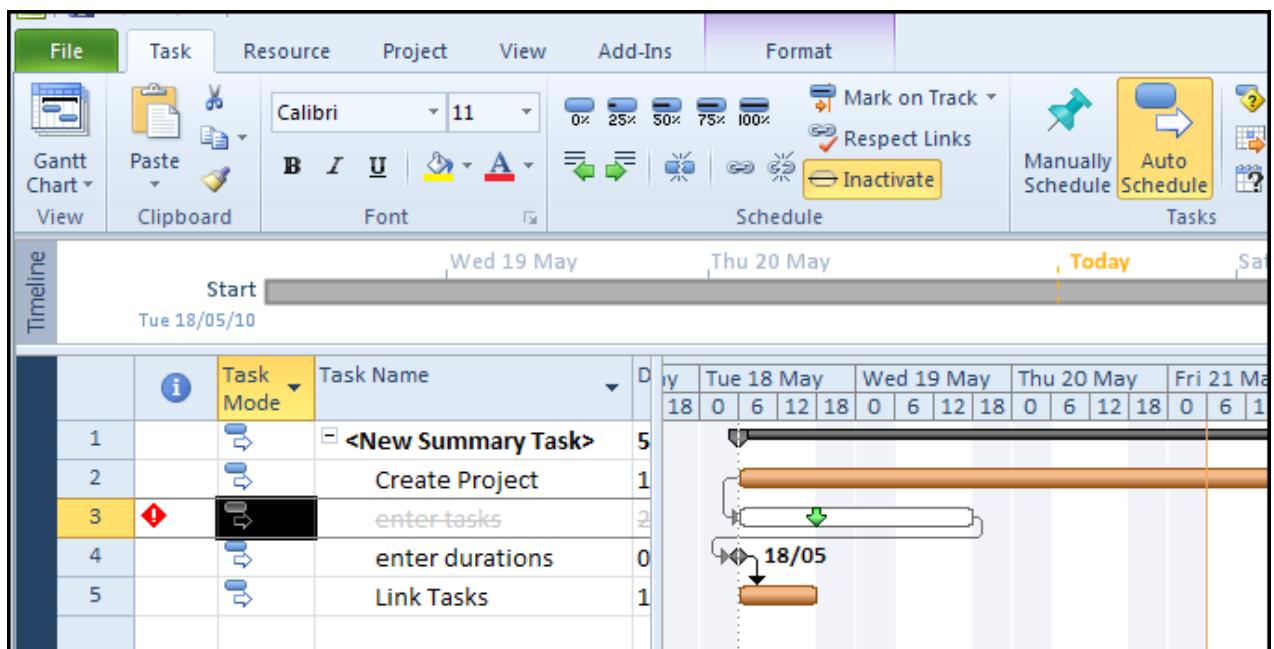
Why would you want to deactivate a task? For one thing, it can help you model the effects of schedule or resource constraints on the project without deleting tasks permanently. Also, inactive tasks remain in the project plan, providing a record of cancelled tasks and enabling you to reactivate them if circumstances change.

*Inactivation is not a good way to archive completed tasks, because it could have unanticipated effects on the remaining schedule. Instead, mark the tasks as completed.*

➤ To Inactivate A Task

mouse

- iv. On the View tab, in the Task Views group, click Gantt Chart.
- v. In the table portion of the view, select the task or tasks you want to deactivate.
- vi. On the Task tab, in the schedule group, click the Inactivate button.
- vii. The inactive task stays in the task list, but the text is dimmed and has a line through it.
- viii. To reactivate a task, select the inactive task and then click the Inactivate button again.



**Figure 2-16:** An Inactive Task

## Changing layout on the Gantt

### Adding New Tasks Directly To The Gantt Chart

Some people may like to add tasks to the Gantt chart in visual relation to the tasks they see. This method will work for any view containing a Gantt chart and a task list.

- To Create A New Task On The Gantt Chart

**mouse**

- i. If the task you want to add is going to be amongst other tasks in the task list then click the new task button on the task bar to add a new empty row at the point you wish a new task.
- ii. Click and drag the mouse on the Gantt chart to the right of the empty row a box will appear showing you the duration of the task

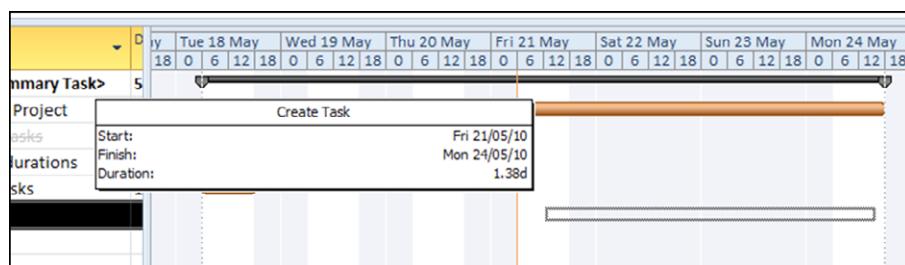


Figure 2-17: Creating Task On Gantt

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- iii. Let go of your mouse to create the task
- iv. When you add the task directly after another the planning wizard may appear (dependant on what tasks have been created and deleted previously) and ask if you want to link it to the previous task say no if you wish to manually link the task.
- v. Tick the checkbox if you prefer not to see this warning in the future.
- vi. Name , link and edit the task in the normal way.



**Figure 2-18:** Planning Wizard Link Suggestion

### Splitting Tasks

A split task is a task whose schedule is interrupted due to closure or holidays for instance. For example, a two-day task that cannot have contiguous work might be split so that the first day of work is scheduled for Monday, and the second day is scheduled for Thursday.



**Figure 2-19:** Split Task Button

➤ To Split A Task

**mouse**

- i. Click the split task button in the schedule group on the task ribbon.
- ii. As you move the mouse cursor over the task on the Gantt the mouse cursor will have changed click on the task where you wish to split it and drag the cursor to the right to move the second part of the split task into the future.
- iii. A yellow box will appear indicating the date of the split part use this to judge how long the split will be when you start dragging

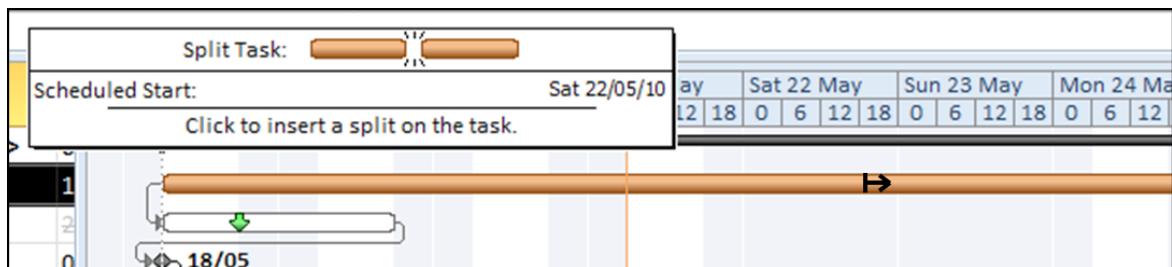


Figure 2-20: Click To Drag And Split

- iv. Upon letting go the task will be split.

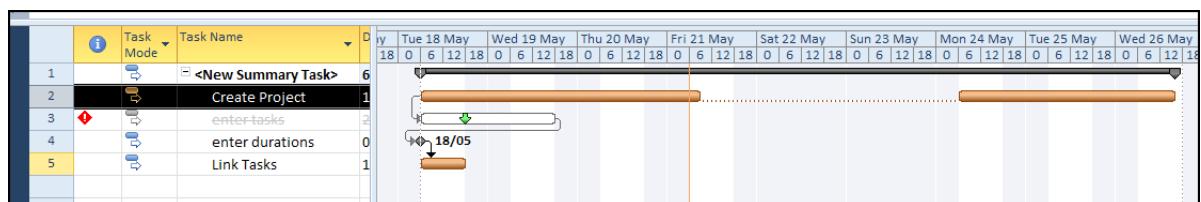


Figure 2-21: A Split Task

➤ To Remove A Split

**mouse**

- v. Move your mouse cursor to the end of the first part of the task before the split the mouse cursor will change.
- vi. Drag the mouse cursor to the right until you connect to the second part of the task and let go of the mouse
- vii. The task will join and have the same duration as the original task.

# 3 More views & resources

AT THE END OF THIS SECTION YOU WILL HAVE:

- Change a view
- Edit a view
- Create a view
- Split views
- Views to organiser

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## More on Views

Views are an extremely important aspect of project because they display your project data in the way that best suits you and although there are many inbuilt views to work from nearly every view has to be changed in some form or another to suit the user. What most project workers do not realise that could save themselves a lot of problems is the fact that these views can be treated as any other object and saved you could have several views of the Gantt chart for instance each showing your project with different aspects ready to be used and printed at the touch of a button.

The views, like tables can also be transferred to other projects and used in those to save time recreating them.

### Split Views

The first thing to look at with views is the split view which allows you to see related information in the bottom half of the main window while the normal project data is shown at the top the easiest way to use this is from the view ribbon.

- To Split A View
    - mouse**
- i. Open your project and go to Gantt chart view
  - ii. Click on the view ribbon.
  - iii. In the split view group tick the details checkbox
  - iv. The task form will appear in the bottom part of the screen showing the details for any task selected.

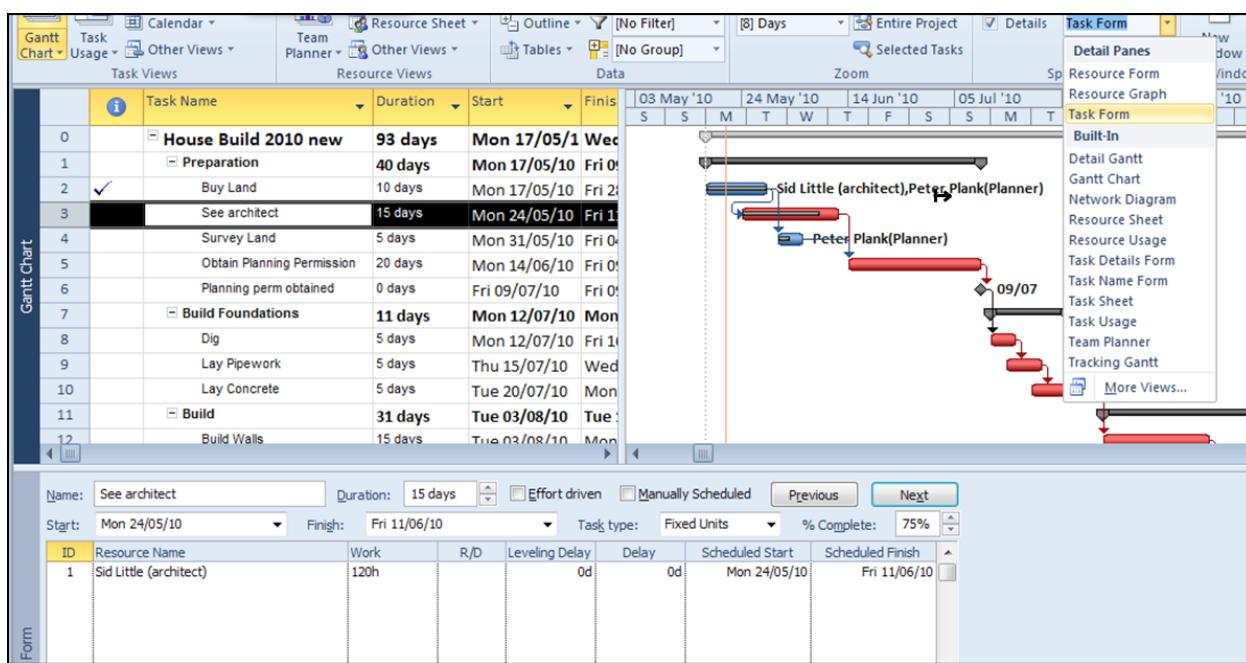


Figure 3-1: The Split Screen

- v. Using the drop down arrow to the right of the details checkbox where it (by default) currently shows the task form a menu will appear showing other information that might appear in the bottom half of your screen.
- vi. Some of the details will relate to resource, tasks or a combination such as the tracking Gantt.

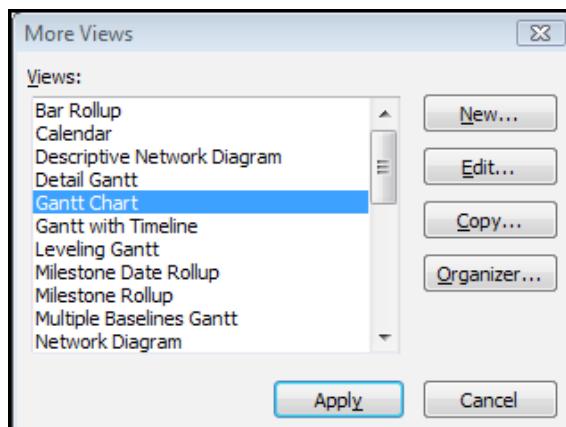
### Create A New View

Creating views is a useful part of project because as was said earlier you may want various views of the data in your project. Views consist of more than just formatting and table columns they contain filters, sorting, groupings and split views (if applied). In this section you will be shown how to create your own new view while subsequent sections show you how to further manipulate that view.

➤ To Create A New View

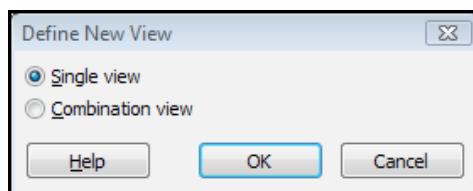
**mouse**

- i. Click on the view button from the task ribbon and select more views from the menu, the more views dialog will appear

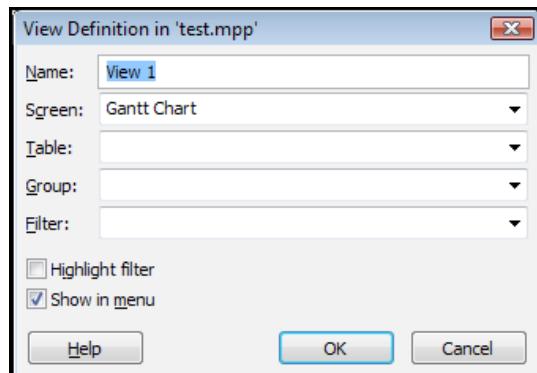


**Figure 3-2:** More Views Dialog

- ii. Click on new... to open the define new view dialog.
- iii. This allows the choice of a combination view (split view) or a single view Make a choice and click ok the view definition dialog will appear.



**Figure 3-3:** Define New View

**Figure 3-4:** View Definition

- iv. If you want your new view to appear in the view menu tick the show in menu checkbox
- v. Enter a name for your view so it is easily recognised and choose for the following your component parts of the view
  - Screen
  - Table
  - Group (Choose No Groups at the Minimum)
  - Filter (Choose all tasks at the minimum)
- vi. Click ok to save your new view
- vii. Format your new view with bar styles and text styles as desired.

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Inés Aréizaga Esteva (Spain), 25 years old  
Education: Chemical Engineer

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*You are advised that to save time you would be best to copy an existing view as a new view and edit that, especially if the differences are only fomatting differences.*

### Save An Edited View

Rarely are the views perfect for what you want and many times we need to edit the component parts of a view to get exactly what we want. You are advised that any time you wish to edit a view say the Gantt chart view you may at some time wish to revert to its default appearance so although this section is about editing an existing view create a new view first and edit that and the original views will be left untouched for future use.

All of the formatting choices shown so far are considered editing a view, bar styles, filters, groups, tables, text styles, resizing etc. none of these things affect the data in any way only changing the way it appears on the screen.

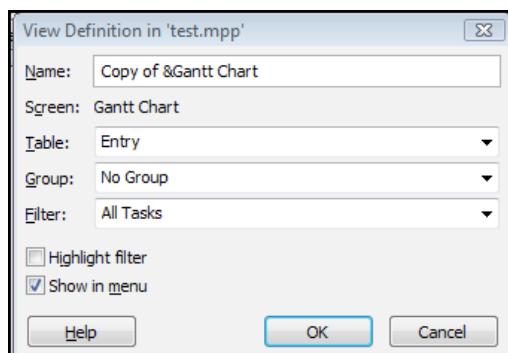
When you have applied all these things to a Gantt for instance you may wish to keep that just as it is and revert at times to the original Gantt chart.

*You are best following the next procedure before making any editions to the priginal views so that if you have any problems you will be able to repeat the procedure and remove the problem view.*

➤ To Edit And Save An Existing View

**mouse**

- i. Click on the view button from the task ribbon and select more views from the menu, the more views dialog will appear
- ii. Select the view you would like to edit and save as a new view.
- iii. Click on Copy... to open the view definition dialog.



**Figure 3-5: View Definition (From Copy)**

- iv. Enter a name for the new view.
- v. Choose a table you would like to work with in the new view.
- vi. Apply a group or filter you would like applying to your view.
- vii. Tick the show in menu box if you will use this view often.
- viii. Click ok to create the new view.
- ix. Now edit the view formatting in the ways you want.
- x. Save the changes to the project.

*The original view is still untouched copy it and edit the new views as often as you wish.*

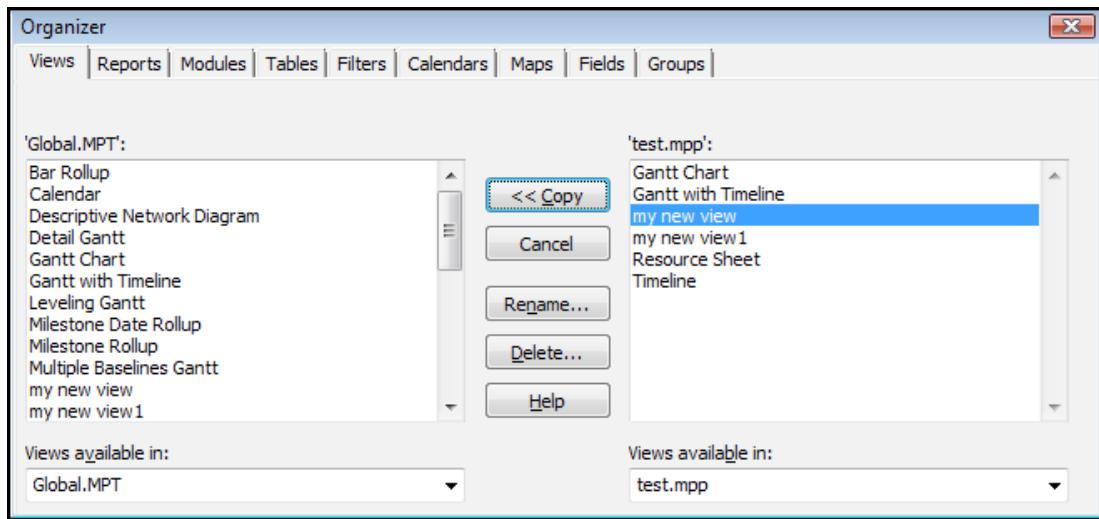
### Transfer A View

Transferring a view is much the same as transferring a table, filter, group, macro etc we would use the organiser to transfer it between the global.mpt and the files you wish to use the view in. but first we must transfer any views you use often to the global template.

➤ To Transfer A View

**mouse**

- i. Save the file to ensure any editions to the project view and tables etc are saved
- ii. Click on the view button from the task ribbon and select more views from the menu, the more views dialog will appear.
- iii. Click on the organiser button to open the organiser dialog
- iv. Select the view(s) you wish to transfer to the global template from the side displaying the current file.
- v. Click the copy button to transfer them to the side displaying the global.mpt.



**Figure 3-6:** Organiser (View Tab)

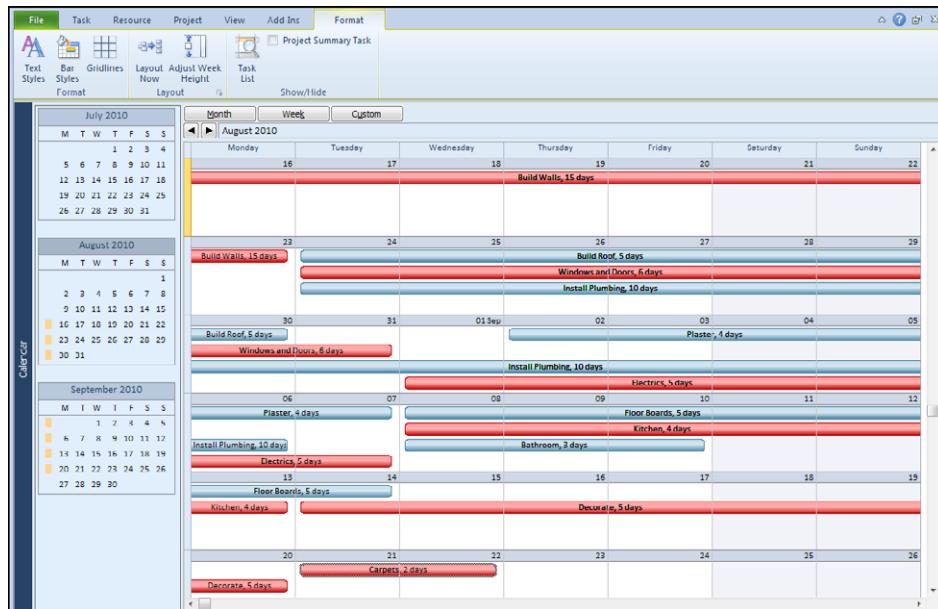
*Any future editions to the view in the file will have the editions only in the view in the file. To have those editions reflect in the view within the global.mpt you will have to copy the view again and overwrite the one there with the updated version of the view.*

- vi. Click the cross in the top right corner to close the dialog.



## Calendar view

The Calendar view is another way of looking at or printing off the project tasks within your project. It has a similar look to the calendar within outlook and makes it easier for project workers (and Managers) to see what is happening on any given day.



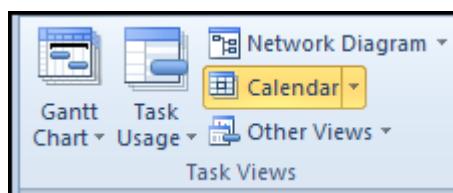
**Figure 3-7:** Calendar View (Formatted)

The Calendar view may not look as it does above when you use it the first time but the tools on the Calendar tools, format ribbon will soon make it look as you want it to.

➤ To Switch To Calendar View

**Mouse**

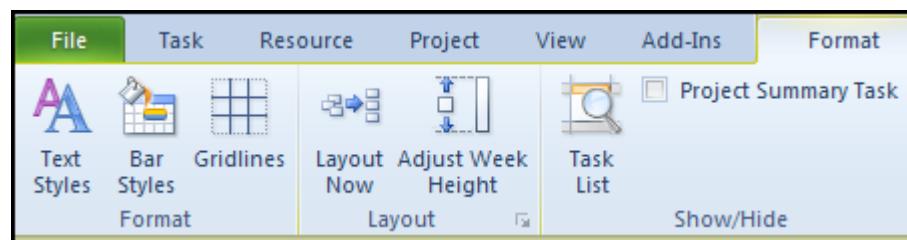
- i. Click on the view button from the task ribbon and select more views from the menu, the more views dialog will appear.
- ii. Select calendar view from the list  
**or**
- i. Go to the view tab and click on calendar in the task views group
- ii. The calendar will appear.



**Figure 3-8:** Task Views Dialog

## Edit Calendar View

To change the default appearance of the calendar we have the format tab in the Calendar tools contextual ribbon.

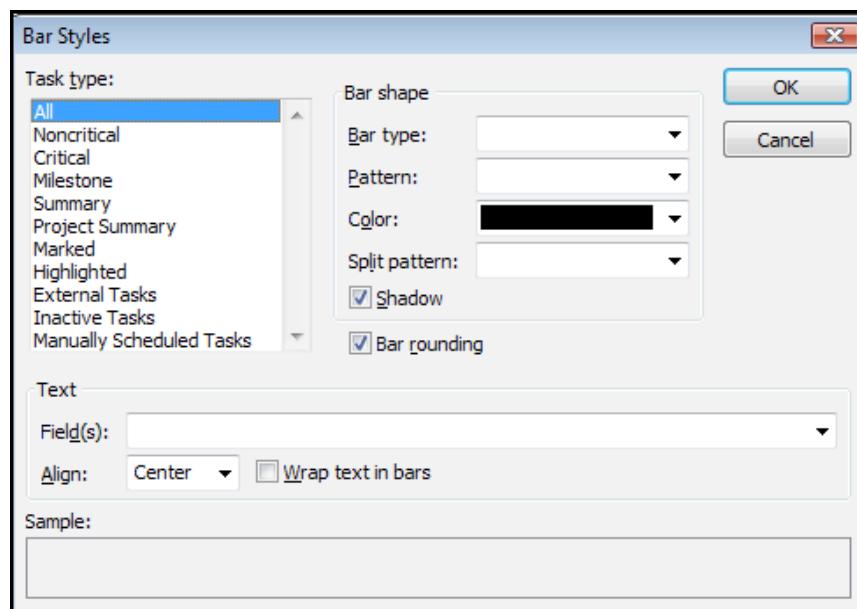


**Figure 3-9:** The Format Tools For Calendar

➤ To Edit The Calendar View

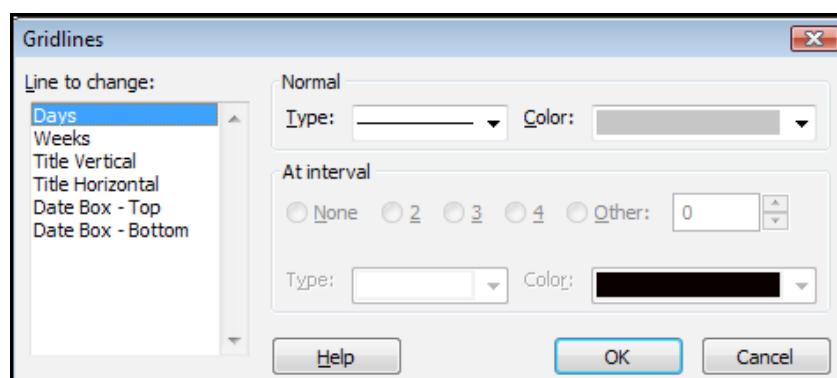
**mouse**

- i. In the layout group click the layout now and/or the adjust week height buttons to adjust the tasks to fit the calendar boxes.
- ii. In the show/hide group untick the project summary task checkbox to remove the summary task from the calendar and allow more room for the individual tasks
- iii. Select the bar styles button to edit the appearance and colour of the task types in the calendar. Clicking the button will open the bar styles dialog



**Figure 3-10:** Bar Styles Dialog (Calendar)

- iv. Select a task type on the left and on the right change the various formatting options to allow the bar to appear differently.
- v. In the text section select from the available fields what text if any you wish to appear with the task. (separate with comma for more than one field)
- vi. Choose the alignment of any text if desired.
- vii. If there is more text than will fit in a bar it may be useful to tick the wrap text in bars checkbox.
- viii. When all options have been set click ok to save the formatting and for it to appear in your calendar.
- ix. Click on the gridlines button to open the Gridlines dialog to change the appearance of the Gridlines in your calendar view.



**Figure 3-11:** The Gridlines Dialog (Calendar)



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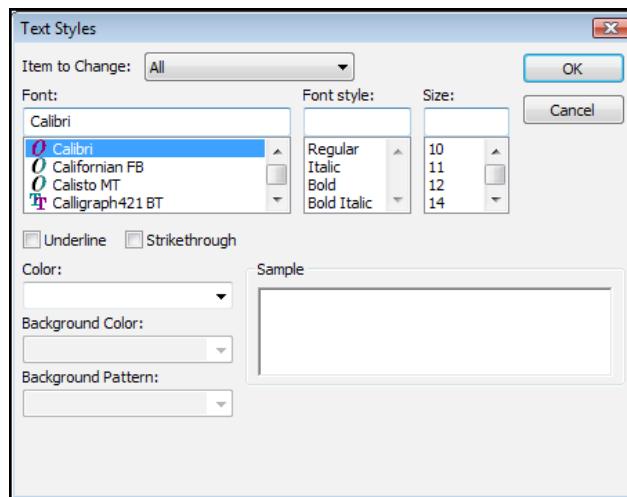
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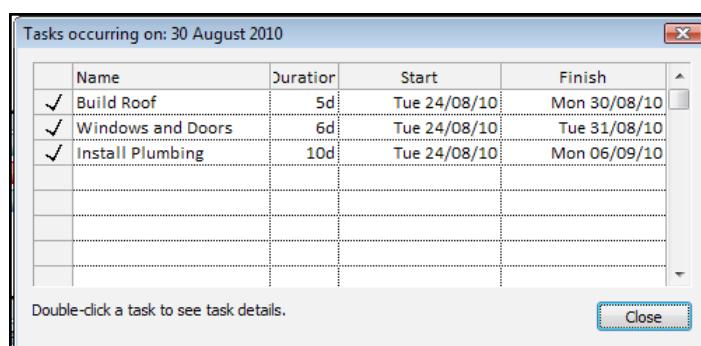


- x. Select a line to change from the left hand side.
  - xi. On the right in the normal section choose a line type and colour for that line.
  - xii. The interval section (this is for working with Gantt charts) will not be available in calendar view.
  - xiii. When the lines are set to what you wish click ok to apply to the Calendar.
  - xiv. Click the Text styles button to change the text styles for the calendar a dialog will open.



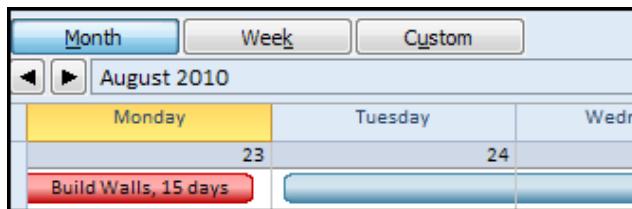
**Figure 3-12:** Text Styles (Calendar)

- xv. From the Items to change drop down box at the top of the dialog select the text type you would like to change.
  - xvi. The rest of the dialog allows the formatting of the various aspects of the font style for that text component selected.
  - xvii. When all text items that you wish changed have been completed click ok to apply the text styles to your calendar.
  - xviii. Clicking on any day of the project (in your calendar) and clicking the task list button in the show/hide group will open a dialog giving you information about which tasks are in progress on that day.



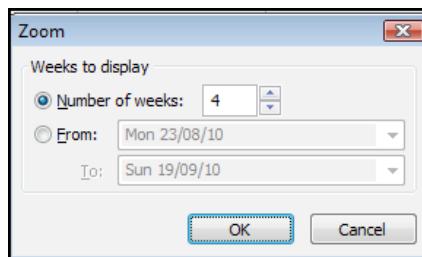
**Figure 3-13:** Tasks Occurring On Dialog

- xix. As it says in the dialog double clicking on any of these tasks will open the task information dialog for that task to allow you to edit any aspect of the task you wish. Click on close to close this dialog.
- xx. Clicking on the buttons at the top of your calendar allows you to see different date ranges for your calendar. (the default is a month) the arrow buttons allows you to move through the project a period at a time e.g. A month, a week etc



**Figure 3-14:** Calendar Navigation Buttons

- xxi. Clicking the Custom Button opens the zoom dialog to allow you to set none default date ranges to display in your calendar.



**Figure 3-15:** Zoom Dialog (Calendar)

- xxii. Choose a number of weeks to see in your calendar or a date range, click ok to apply.

### Adding, Editing And Removing Tasks

You can add tasks, edit them and delete them in Calendar view.

Be aware tasks created will have a constraint on them which may need to be edited.

- To Add A Task  
**mouse**
- i. Click and drag on a particular day to create a box (bar) a yellow box will appear with task information.

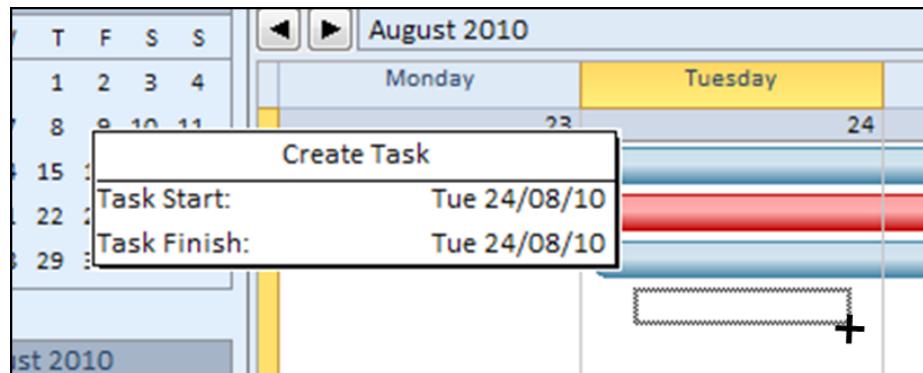


Figure 3-16: Creating A New Task

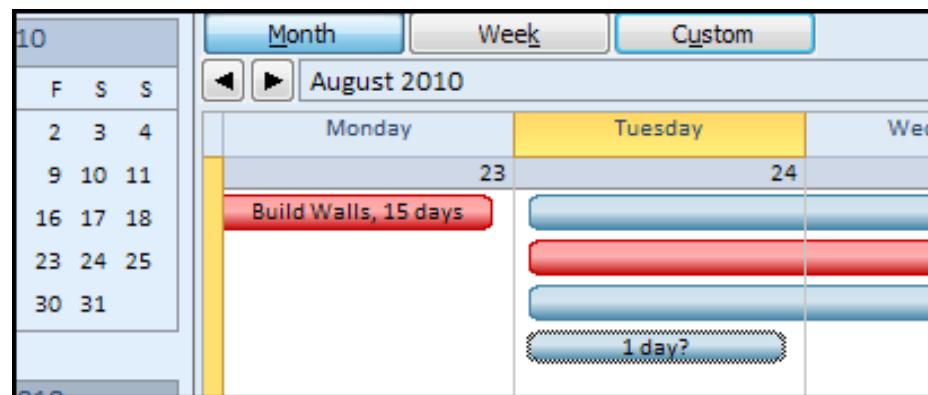
- ii. When you release the mouse the task will appear on the calendar.
- iii. Double click the task to open the task information dialog
- iv. Give the task a name, set duration, remove/edit the constraint, link within the task information dialog before closing the window and applying the changes to the task.

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...I finally learned to speak it in just six lessons"**

Jane, Chinese architect

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**Figure 3-17:** New Task In Calendar (Unedited)

- v. To remove a task simply click once on the task to select it and press the delete key on your keyboard to remove it.

## Network Diagram Charts

### Network Diagram Chart Principles

The term Network Diagram is derived from Programme Evaluation and Review Technique which was invented for the management of Projects by paper based systems. This chart is a diagrammatic view of the tasks where the position of the task and the lines linking them together represent the detailed steps that comprise the project. It is possible to modify the project in the Network Diagram by adding extra tasks or nodes and creating the links. Each task on the chart is known as a node and within the node is a selection of the data that is relevant to the task. The Nodes can have different borders which represent the task type.

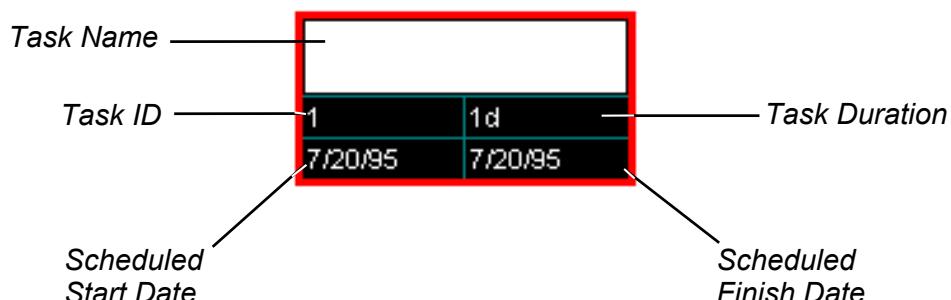
### ELEMENTS OF THE NETWORK DIAGRAM CHART

Network Diagram Charts map out the tasks that are required to complete a project. The critical path consists of the sequence of tasks in the dark Network Diagram boxes. You can't delay the tasks in the critical path because they have no slack. You can, however, delay any of the light boxes because they are not critical.

Like the Gantt Chart, the Network Diagram Chart includes a status bar, an entry bar, and the toolbars. In addition, the Network Diagram Chart displays page guidelines so that you can control the placement of the Network Diagram boxes on a page-by-page basis. The perforated line on the right of the screen represents a page break.

### The Network Diagram Box

A Network Diagram box consists of five fields, as illustrated below. The Task Name, Task ID, Scheduled Start Date, Scheduled Finished Date, and Task Duration are the default fields in the Network Diagram box. The Task Name field is white because it is currently ready for user input.

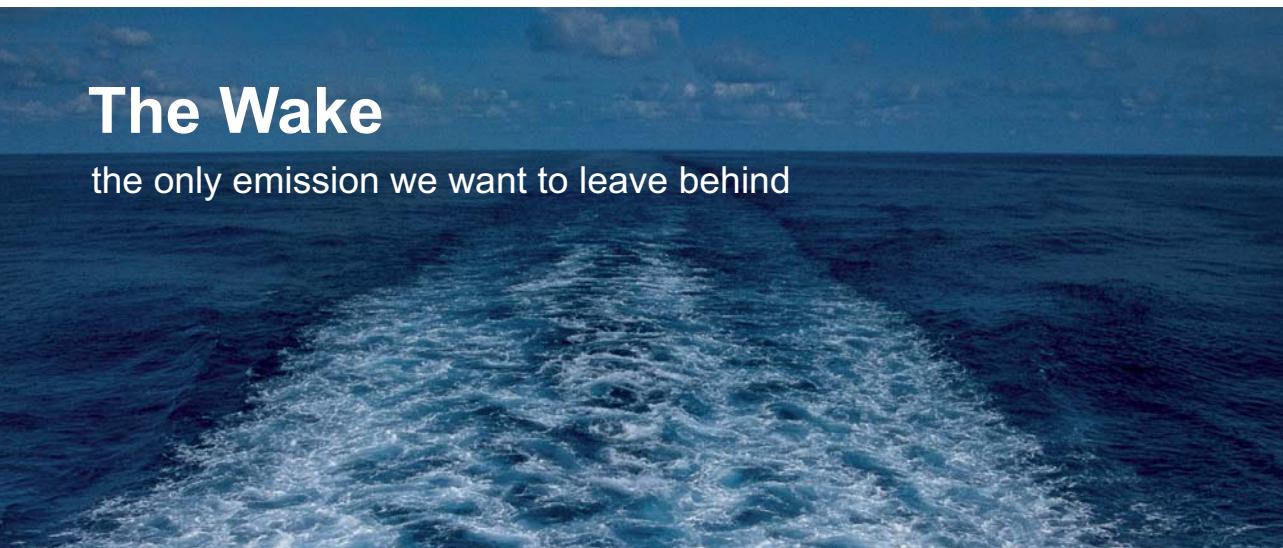


**Figure 3-18:** The Network Diagram Box And Its Default Fields

## Navigating The Network Diagram Chart

The table below summarizes how to move around the Network Diagram Chart with your keyboard and with your mouse.

Movement	Keys	Mouse
To a different Network Diagram box	Arrow keys	Click the Network Diagram box
Next field in Network Diagram box	Tab or Enter	Click the field
Previous field in Network Diagram box	Shift+Tab or Shift+Enter	Click the field
Page up or page down	Page Up or Page Down	On the vertical scroll bar, click the gray area above or below the scroll box
Page to the left or right	Ctrl+Page Up or Ctrl+Page Down	On the horizontal scroll bar, click the grey area on the left or right of the scroll box to scroll left or right in increments
To upper-left Network Diagram box in project	Home	
To lower-right Network Diagram box in project	End	
To upper-left Network Diagram box on screen	Ctrl+Home	
To lower-right Network Diagram box on screen	Ctrl+End	



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- To Navigate A Network Diagram Chart:

**keyboard**

- vi. Use the appropriate keystroke or mouse movement.

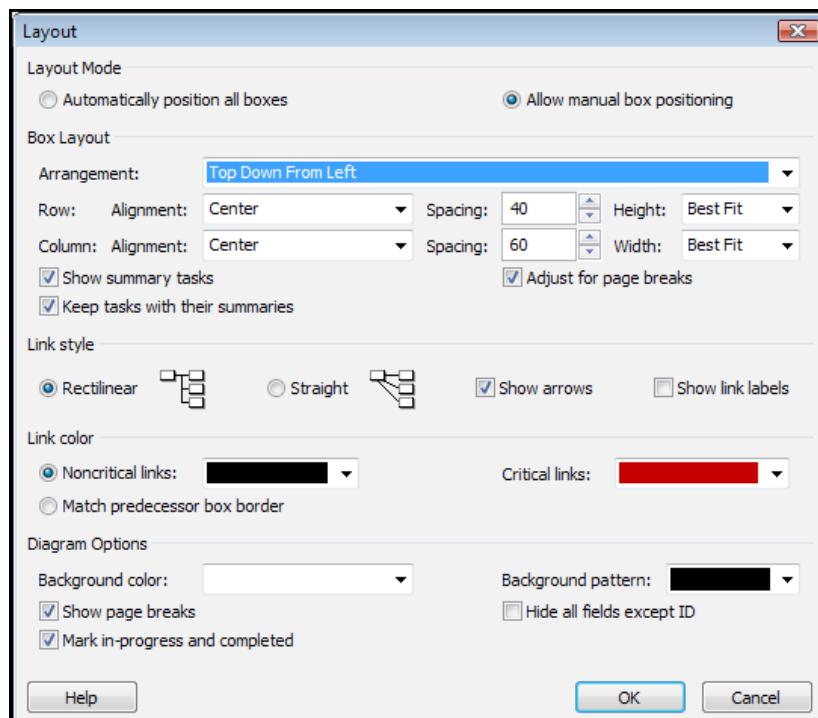
### Using The Network Diagram Chart

When viewing the Network Diagram it is also possible to add a new task by manipulating the chart with the mouse. Some options need to be set before some of the facilities here mentioned can be applied the way things work in 2010 is a little different to previous versions.

- To Change Automatic And Manual Positioning Of Nodes

**mouse**

- i. Switch to network diagram view, from the Task views group on the view tab.
- ii. On the format tab of the contextual network diagram tools in the format group click on the layout button.
- iii. At the top of the screen select whether you prefer automatic or manual positioning of the task nodes (see the next picture)
- iv. From this dialog you can choose the default way tasks will be displayed within your network diagram in the box layout section.
- v. You may change the default link style and link colour in the appropriate sections of the dialog.
- vi. Near the bottom change the default colour of the network diagrams background. Click ok to apply all options selected.

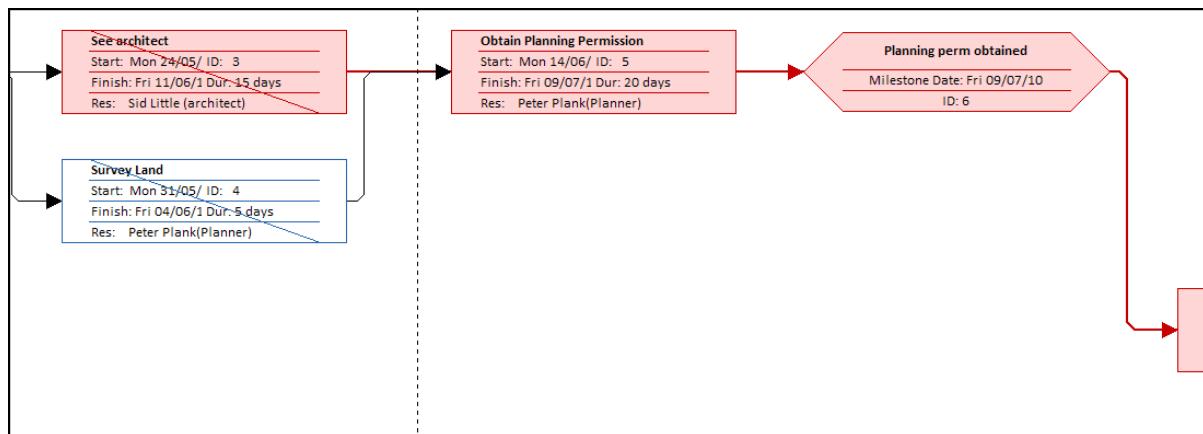


**Figure 3-19:** Layout Dialog For The Network Diagram

➤ To Move Nodes

**mouse**

- i. Now if you have manual positioning set in the layout dialog it will be possible to move nodes on the chart and this is done by placing the pointer on the border of the node where it will change to a cursor with four arrows. If the left button is held down it will be possible to drag the node to a new position.
- ii. When the button is released the data will move to the new position and the linking arrows re drawn automatically to the new positions.

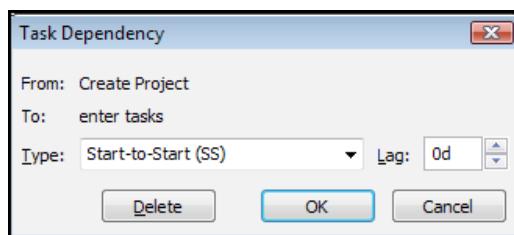


**Figure 3-20:** Typical Network Diagram

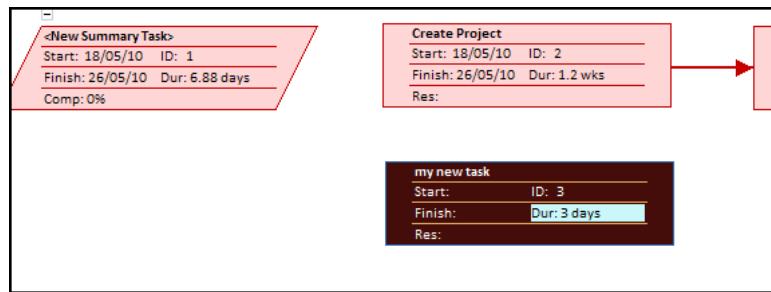
➤ To Create And Link A New Node

**mouse**

- i. Place the pointer near the new position, hold down the left button and drag out a rectangle. When the button is released the rectangle will be set to the standard node size and can then moved into position as covered previously.
- ii. The links to the new node can be created by placing the pointer in the middle of the previous node and dragging a line to the new node. When the button is released a new arrow showing the link will appear.
- iii. A link can be deleted by placing the pointer on it and double clicking the left button. (where it will change to a plus sign), the task dependency dialog box will appear with a number of options, one of which is to delete the link.



**Figure 3-21:** Task Dependency Dialog

**Figure 3-22:** New Task Created

### Editing Task Details

You can enter task names and durations from within the Network Diagram box. In addition, you can use the Task Information dialog box to enter task names and durations.

You can edit task fields on the Network Diagram Chart in two ways. You can edit the fields from the nodes, as shown below. Press the Enter button to accept changes press esc to restore to previous entry (you may need to click another node to see the original text has not been changed..



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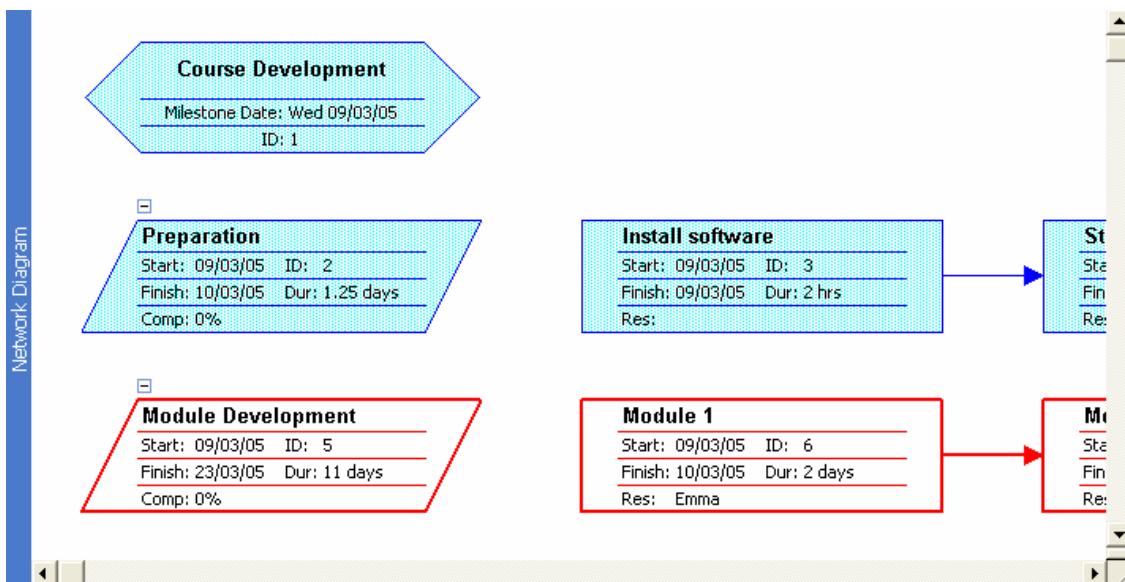
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- Using Within The Network Diagram Box:
  - i. Select the Network Diagram Node for which you want to enter information.
  - ii. If it is not already highlighted, select the Task Name field.
  - iii. Type the task name.
  - iv. Press Tab twice.
  - v. Enter the task duration.
- Using The Task Information Dialog Box:
  - i. Double-click the Network Diagram box for which you want to enter information.

**OR**

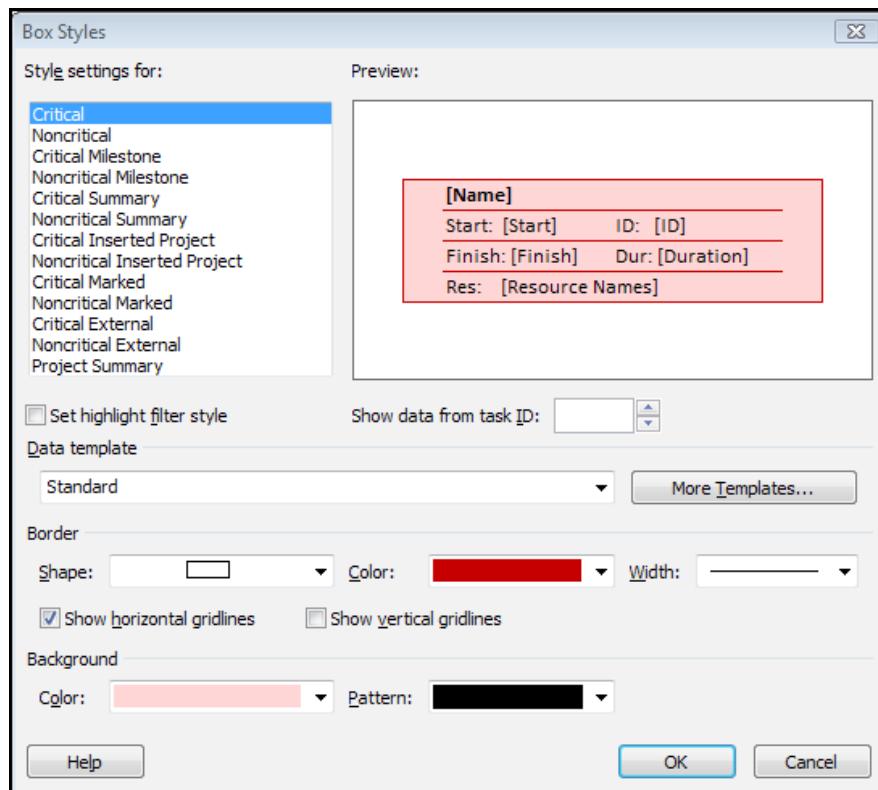
  - ii. Select the Network Diagram box for which you want to enter information, and on the task tab, properties group, click the Information button.
  - iii. If it is not already selected, select the General tab.
  - iv. Enter the task name and duration. Click OK to enter the edited information.



**Figure 3-23: Tasks In Network Diagram**

If the Network Diagram box doesn't display the field you need to edit, you'll have to make your changes in the Task Information dialog box as covered previously.

## Formatting The Box Styles



**Figure 3-24:** Network Diagram Box Styles Dialog

Within this command box (shown above) there are many different types of Task, each of which can be given a combination of line style and colour to provide visual identification, for example the critical tasks can have thick red borders.

- To Use Box Styles
- mouse**
- i. Ensure you are in network Diagram view.
  - ii. On the format tab of the network diagram tools section of the ribbon in the format group click on the box styles button to open the dialog.
  - iii. In the Data template section of the diagram choose which template you wish to edit. (You can track using the network diagram, view cost information etc.) the standard template is only the default manner of viewing tasks.
  - iv. In the style settings for: section make a selection of which type of box(node) you wish to change the styles for a preview will appear in the preview section.
  - v. In the bottom section of the dialog are the settings to change.

Set the following:-

- Grid Lines between the five areas - on or off Horizontal or vertical.
- The shape and the border colour of the Node -.
- The colour and pattern style for the Nodes

➤ To Format An Individual Node

We can use the box command from the format ribbon to format individual boxes or a selection.

**mouse**

- vi. Make a selection of nodes you wish to change
- vii. On the format tab of the network diagram tools section of the ribbon in the format group click on the box button to open the dialog.

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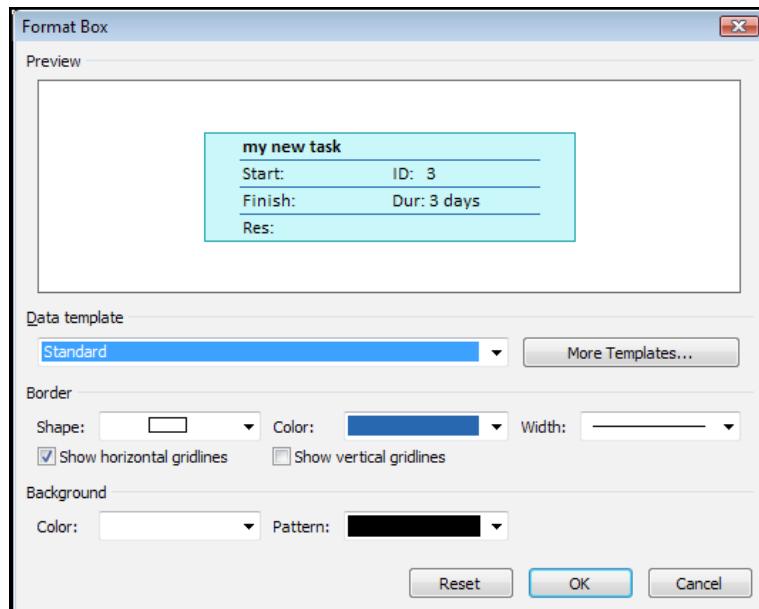


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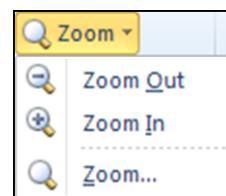
**Figure 3-25:** Format Box (Network Diagram)

- viii. There are much the same options as the box styles dialog make a choice of style as previous clicking ok to apply the box style.
- ix. Click reset to revert to original pre-set style

### Zooming In And Out

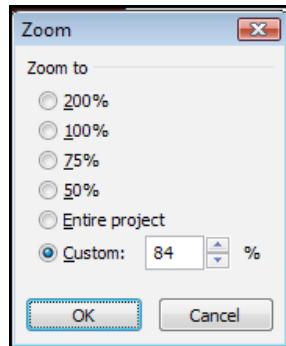
Zooming in can be useful when you want to focus on a particular Network Diagram box or group of Network Diagram boxes. Alternatively, zooming out can be helpful when you want to see as much of the project as possible on one screen. The more you zoom out, the more clear the paths become and the more unclear the text becomes.

- To Zoom In:
  - i. On the view ribbon, click the Zoom button and zoom in.



**Figure 3-26:** Zoom Options View Ribbon

- ii. Repeat until you reach the desired size.
- or**
- iii. On the view ribbon, click the Zoom button and zoom.. to open the zoom dialog



**Figure 3-27:** Zoom Dialog

- iv. Make a zoom selection and click ok to apply.
- or**
- v. On the right of the status bar use the zoom slider to zoom in



**Figure 3-28:** Zoom Slider

- To Zoom Out
  - i. On the view ribbon, click the Zoom button and zoom out.
  - or**
  - ii. Use the zoom slider to zoom out.
  - Or**
  - iii. Use the zoom dialog to zoom out to a size.

### Collapsing The View

When the boxes get too many and you wish to view the project in an overall way you can use the collapse box feature to minimise the boxes and get view of the network of links between tasks.

- To Collapse The Boxes
  - mouse**
  - i. On The format tab of the ribbon, display group click on the collapse boxes button.
  - ii. All boxes will collapse just showing the task ID number and the Link Lines in between.
  - iii. All other features are available just the fields have been hidden.
  - iv. Click the collapse boxes button again to restore the view.

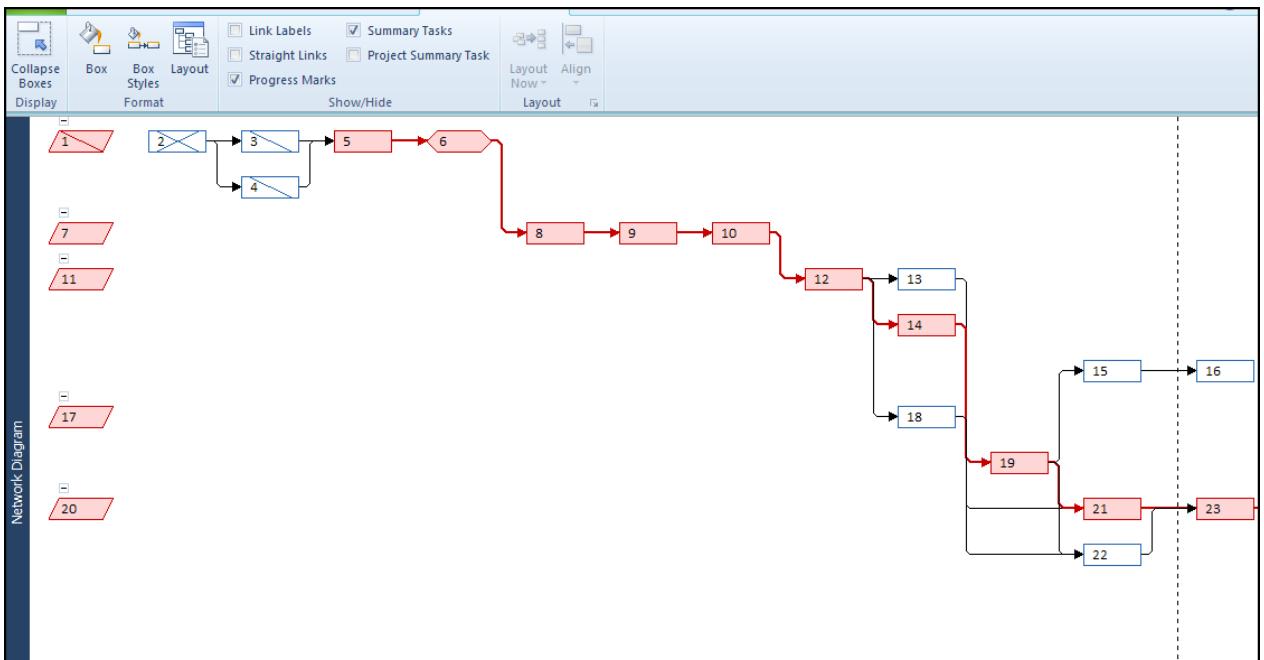


Figure 3-29: Collapsed Boxes: (Network Diagram)



## More on resources

### Set Resource Calendars

Where a resource may not be available for all the working hours in the Project calendar, or to set specific holidays for a resource it can be allocated to a special calendar, which will define the specific working hours for that resource only.

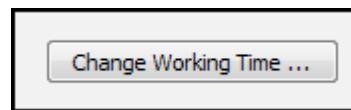
There are two methods for doing this

*Setting the resource calendar is the same process as setting the project calendar.*

➤ To Set A Calendar For A Resource (Method 1)

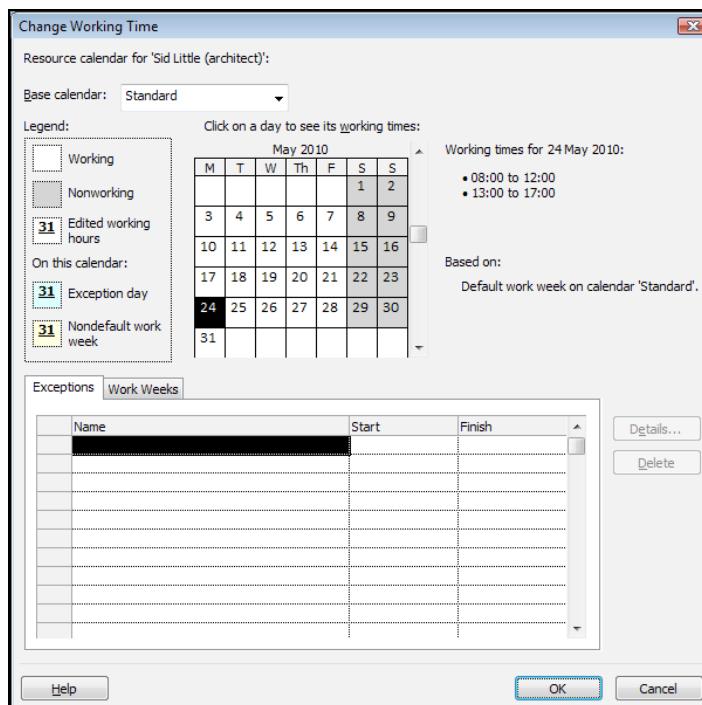
**mouse**

- v. Open the resource sheet and Double click a resource you wish to change the calendar for the resource information dialog will open.



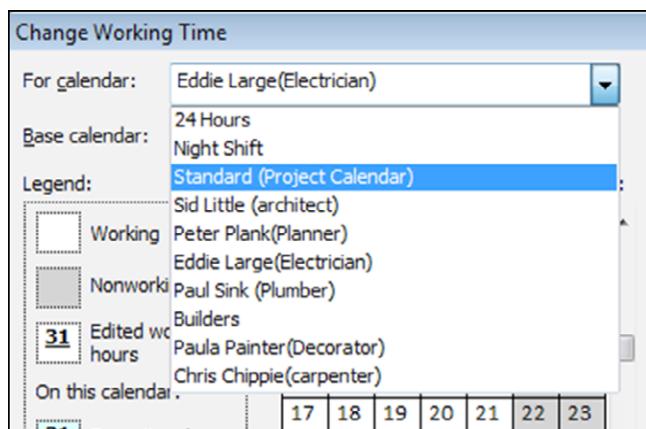
**Figure 3-30:** Change Working Time Button

- vi. Click the change working time button open the change working time dialog.



**Figure 3-31:** Change Working Time Dialog

- vii. Set the work weeks and exceptions as explained previously but remember this is for this specific resource not for the project.
- or**
- viii. From any view go to the project tab change working time button.
- ix. When the dialog appears use the drop down button at the top to select the calendar you wish to edit a list of resources you have will appear (as they all have a calendar applied to them).
- x. Make a selection from the drop down list.



**Figure 3-32:** Change Working Time Resource Calendars

- xi. Edit their calendar and click ok to close the dialog

*Be aware editing a resource calendar after they are assigned to tasks may have dramatic effects on your project if tasks are automatically scheduled, because certain task's, resources were assigned to, may no longer be able to be performed by them as they may now be in non-working time periods*

*Also changing the length of a resource's working hours does not mean the task is any shorter. If the task day was eight hours and the resource's day was eight hours 1 days work is necessary. But changing the resources working hours to 4 hours a day means the same task will now take that resource 2 days.*

## More on overallocations

### Viewing Resource Usage

It is vital that after entering all the tasks and allocating resources the utilisation of each resource is checked for over allocation. Where this occurs it will mean that the project timetable will not be met and the completion date will be delayed.

The two views listed below can be used to examine where over allocation has happened. It is also possible to check these using the search button from the tool bar.

An over allocation can be cleared by increasing the capacity of the resource i.e. extra units, or by moving the tasks. The latter option is known as resource levelling and the system can calculate automatically if required.

### Resource Usage

This view will show a table of all the resources and the respective usage in hours per day. Where the resource is over allocated the entry will be in an alternative colour.

Where this view is selected in a single pane or the top pane it will display a list of the resources and the amount of work each is allocated on a daily basis. As with the Resource Sheet those resources that are over allocated are shown in a different colour and can easily be identified.

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If this view is selected in the lower pane of a two-pane screen it will only display the work for the task that is highlighted in the upper pane.

### Resource Graph

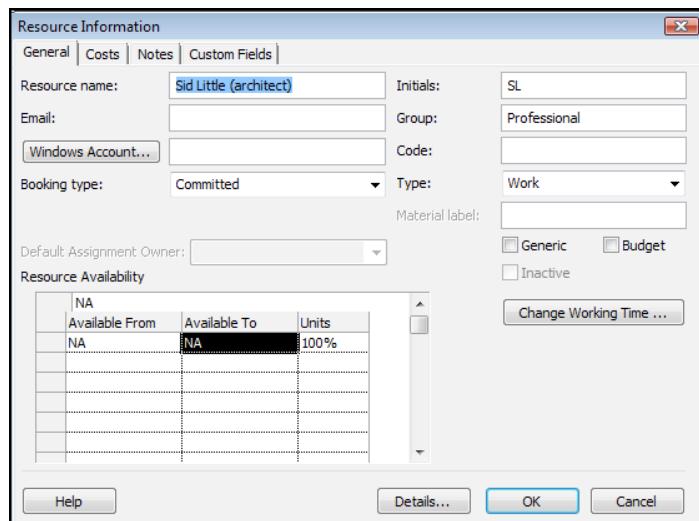
The Resource Graph is used to display the usage of a single resource and will highlight the times the resource is over allocated. (covered in The Intro Mnaual)

In any of the above views it is possible to examine the full details of a single resource.

- To View The Details Of A Single Resource

**mouse**

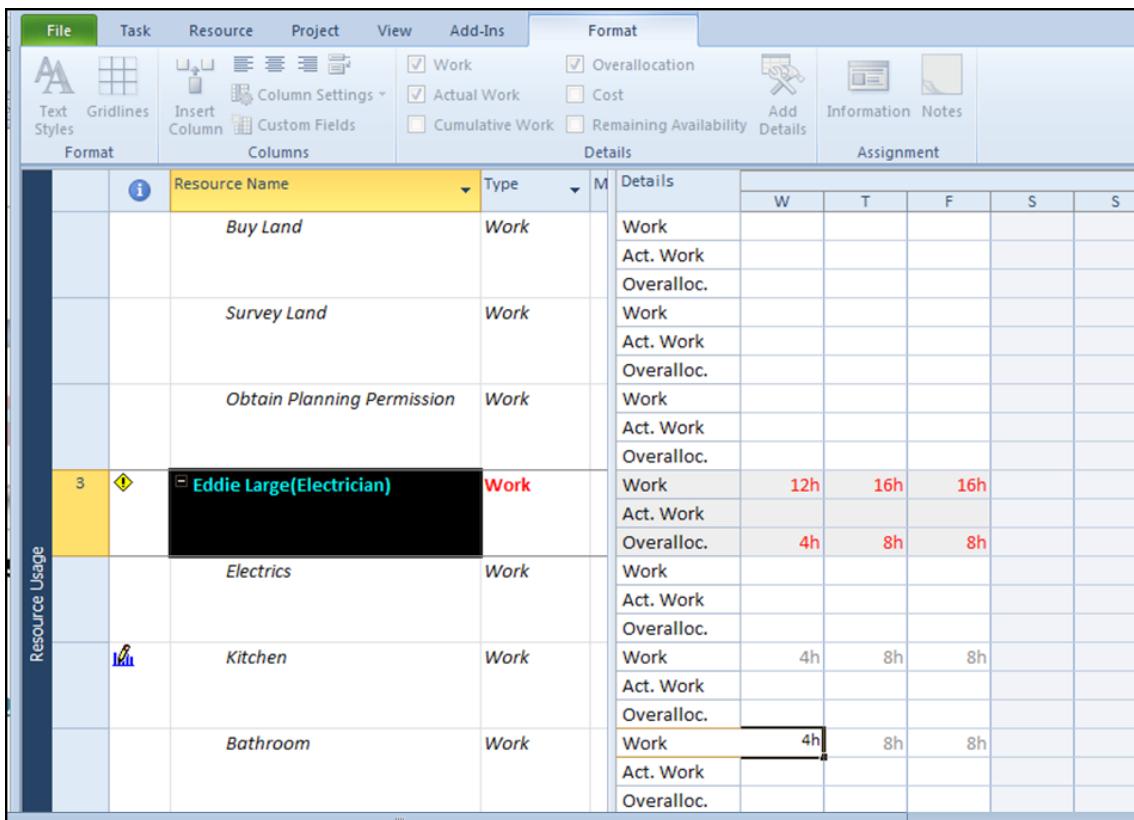
- i. You place the pointer on the resource and call up the Resource Information Form by pressing the Information button on the tool bar.
- ii. Or, simply double-click a resource.



**Figure 3-33:** The Resource Information Dialog

## Using Resource Usage For Overallocations

This can be viewed as a single view or a split view with the resource usage at the bottom.



**Figure 3-34:** Resource Usage Overallocations

- To Use Resource Usage

### Mouse/Keyboard

- i. From the view button (more views if necessary) switch to the resource usage view
- ii. This will list the resources on the left with their assigned tasks as sub components of the resource.
- iii. On the right will show the hours per day each resource has been allocated for a task.
- iv. On the format contextual ribbon tick the overallocation checkbox in the details group a row will appear in the right hand window called Overalloc. To specify how many hours the resources have been overallocated to a task
- v. Scroll until the overallocations appear in the right hand window, (they will appear in red)
- vi. Knowing how many hours the resource has available in a day enter new values into the grid so the overallocations disappear. (see above picture) This is a very precise way of dealing with overallocations and will not affect the schedule but WILL affect the costings.

## Entering Overtime

To enter overtime we need to add a column into the resource usage table (left side) it is entered in hours

	Resource Name	Overtime Work	Type	Details	13 Sep '10							20 Sep '10		
					S	M	T	W	T	F	S	S	M	T
	Survey Land	0 hrs	Work	Work										
				Act. Work										
				Overalloc.										
				Ovt. Work										
	Obtain Planning Permission	0 hrs	Work	Work										
				Act. Work										
				Overalloc.										
				Ovt. Work										
3	Eddie Large(Electrician)	0 hrs	Work	Work		8h	8h	8h	8h	8h				4h
				Act. Work										
				Overalloc.										
				Ovt. Work										
	Electrics	0 hrs	Work	Work		8h	8h							
				Act. Work										
				Overalloc.										
				Ovt. Work										
	Kitchen	0 hrs	Work	Work			4h	4h	4h					4h
				Act. Work										
				Overalloc.										
				Ovt. Work										
	Bathroom	0 hrs	Work	Work			4h	4h	4h					
				Act. Work										
				Overalloc.										
				Ovt. Work										

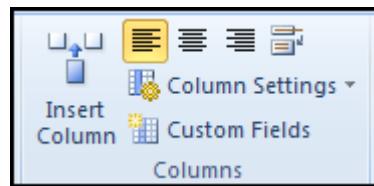
Figure 3-35: Resource Usage Sheet With Overtime Work Column

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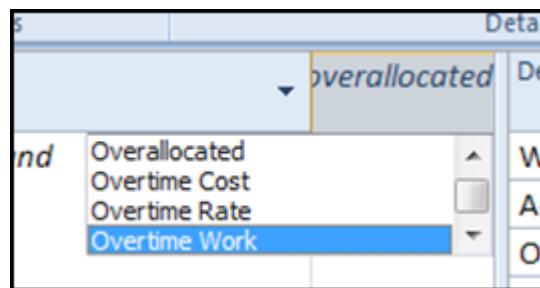
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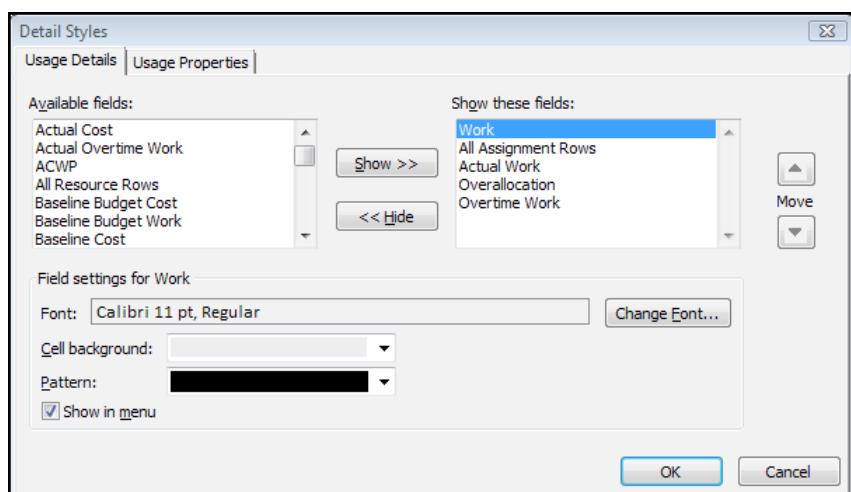
**Figure 3-36:** Insert Column Command (Resource Usage)

- To Add Overtime Work Column
- mouse
- i. Ensure you are in the resource usage sheet
- ii. In the format tab of the resource usage tools contextual ribbon click on the insert column command from the columns group.
- iii. A new column will appear, as you enter text for the name of the column the list will refine until there are just a few choices. Make a selection by clicking on the column name you wish the column will appear. We want to see the overtime work column.



**Figure 3-37:** Inserting The Overtime Work Column

- iv. We can also add the calculated field row for overtime work in the time phased section on the right by clicking on the Add details button in the details section of the ribbon a dialog will appear.



**Figure 3-38:** Detail Styles Dialog (Resource Usage)

- v. Select the overtime work field from the available fields on the left and click on the show button in the middle to make it appear on the right.
- vi. Format the field if you wish from the format options below click ok to close the dialog and show the field
- vii. Entering overtime hours for a particular resource in the sheet on the left will be for a specific task the hours entered will be distributed on the right and shown in the overtime work row across the whole task.
- viii. All hrs will be totalled and displayed in the row the resource name is on this is a calculated row.

**4hrs a day overtime for 4 day task is 16 hrs overtime.**

*The distribution may not be equal dependant on hrs already worked, other task obligations other resources applied to task, calendar restrictions, etc.*

*You may use the same process but use the task usage view this applies the overtime across the task rather than the resource!*

*All overtime work will be charged at overtime rates entered into the resource sheet.*

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## Accessing existing resources

### Import Resources

We can import resources from a number of locations:

- An existing project (by Copy and Paste)
- Active directory.
- Outlook

These are useful tools as they offer quick ways of replicating resources in your new project there are other advantages as we will see

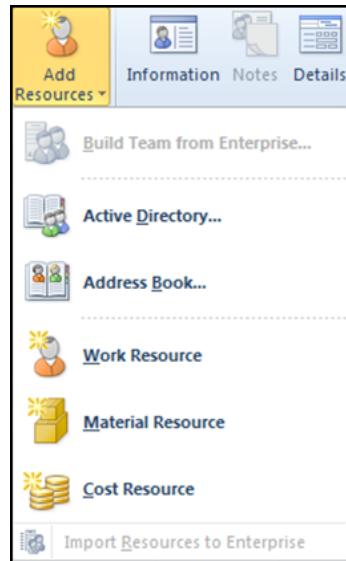
➤ To Copy And Paste Resources

**mouse**

- i. Open an existing project whose resources you wish to import
- ii. In the resource sheet select all rows of resources
- iii. Using copy from the ribbon or right click menu, or using the shortcut key **ctrl +c** copy all selected rows
- iv. Move to the resource sheet in your new project you wish the resources to be in
- v. Use paste from the ribbon or right click menu, or **ctrl+v** to paste the rows

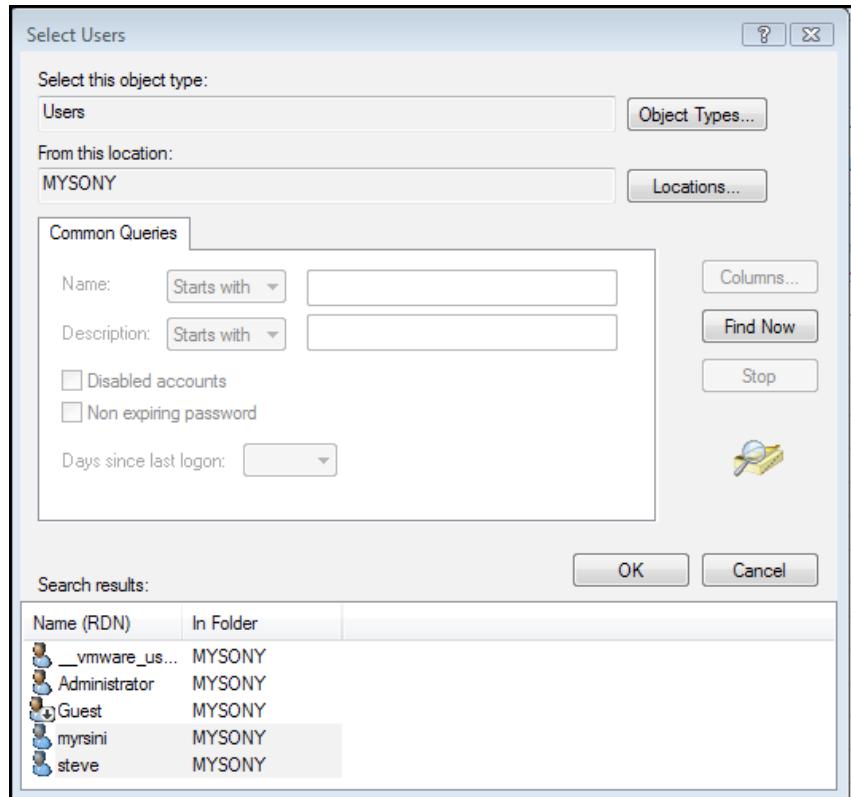
*There may be a problem if columns have been removed or added from either table as the data will be entered in the wrong fields*

- To Import From Active Directory  
mouse

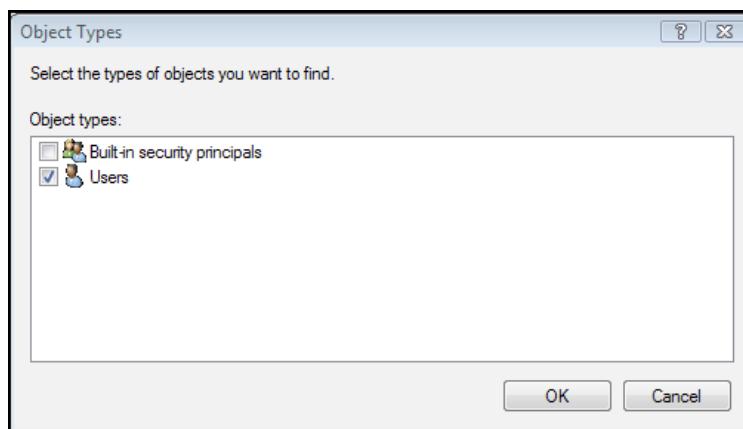


**Figure 3-39:** Import Options

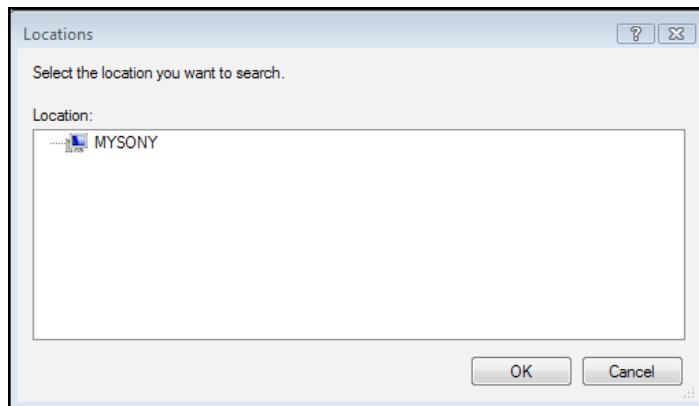
- i. Click the add resources button on the resource tab, insert group the above menu will appear select active directory.
- ii. A dialog will appear to allow you to select users (Logons from your organisation)

**Figure 3-40:** Select Users Dialog

- iii. Click the object types button and from the small dialog that appears ensure only the users are ticked.

**Figure 3-41:** Object Types

- iv. Click ok to close this and apply your choice
- v. Click the locations button to open the locations dialog.
- vi. From the dialog ensure the main server is selected ask your administrator if you are not sure.
- vii. Click ok to accept your selection the location should appear to the left of the location button in the main select users dialog.



**Figure 3-42:** Locations Dialog

- viii. Click on the find now button for the dialog to search for all users from that location they will appear in the bottom part of the window in the search results.
- ix. Select the users from the search results and click ok to import them.
- x. Obviously any users entered this way will all have to edited as hourly rates calendars etc but it is a quick and efficient method of adding all work resources from your organisation

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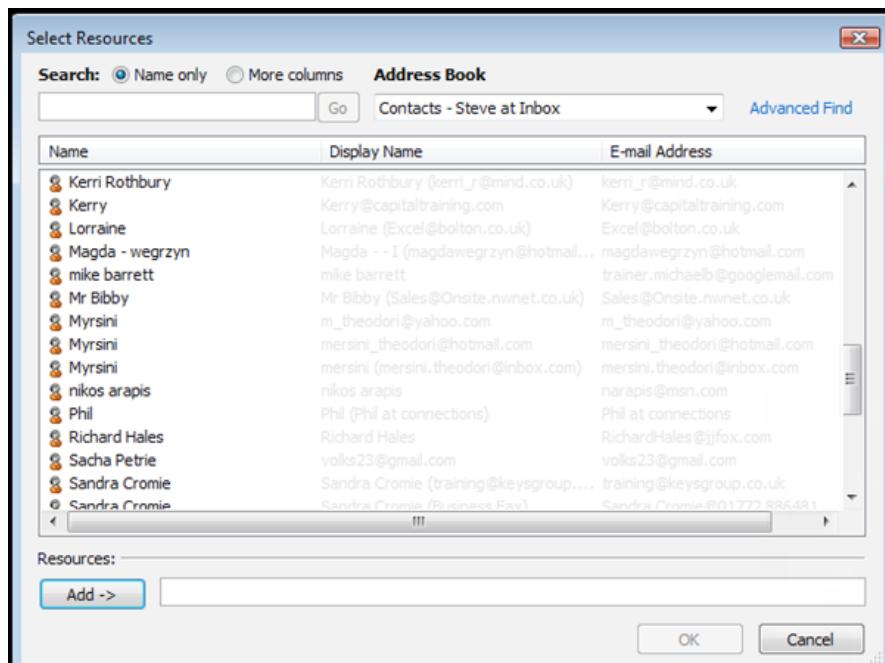
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➤ To Import From Outlook

Importing from outlook has other advantages as well as outlook containing all workers in your organisation it may well have external individuals in another address book. Another big advantage is that your resources will be imported with their email addresses enabling them to be quickly informed of new tasks

**mouse**

- i. Click the add resources button on the resource tab, insert group the above menu will appear select Address book



**Figure 3-43:** Address Book

- ii. The address book will appear select a different address book from the address book drop down box at the top of the dialog if you wish.
- iii. Select all the individuals you wish to import and click on the add button at the bottom use the ctrl key to select non adjacent entries.
- iv. Click ok to import.

### Resource Pools

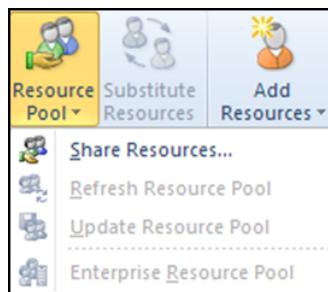
A resource pool is a central collection of resources in a project that are shared with other projects. The big advantage to this is that a resource shared among a number of projects is tracked workwise centrally showing where he has been overallocated in other projects, also the resources only need to be maintained in one location.

When you have several projects running using a common pool of staff, it is essential that you are aware of any conflicts arising due to a staff member being assigned to conflicting tasks or unavailable due to other commitments.

➤ To Create Resource Pool

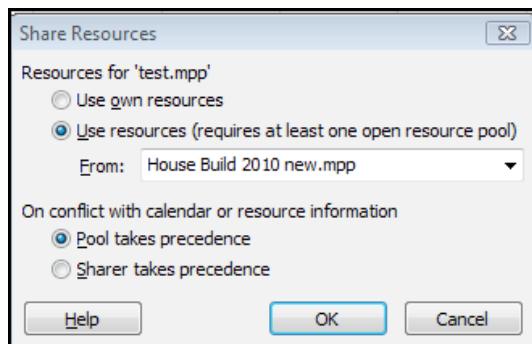
**mouse**

- i. Create a blank project and enter all resources you will user into it build the resource Calendars, enter holidays and work times enter all cost information etc save the project.
- ii. This file must remain open to share resources.
- iii. Open the project you have built but which contains no resources.
- iv. Go to the resource sheet and click on the resource Tab of the ribbon.



**Figure 3-44:** Sharing Resources

- v. Click on resource pool in the assignments group and click on share resources a dialog will open.



**Figure 3-45:** Share Resources Dialog

- vi. Choose Use resources from radio button and select the project that contains all the resources.
- vii. Make a choice of which file will get the preference for allocations (best left that the pool takes precedence)
- viii. Click ok all the resources will appear in your resource sheet.

➤ To Use Resource Pool

If the project containing resources is closed all resources will disappear from the resource sheet. However this will not affect any tasks that resources have been assigned to.

- i. Upon opening the resource project again you will be presented with a dialog make a selection from the three choices offered and click OK to open the project containing the resources

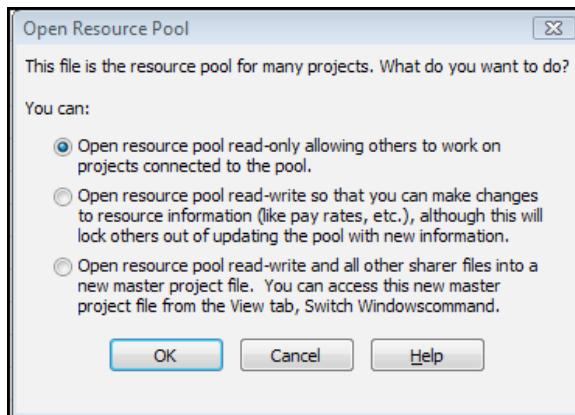


Figure 3-46: Open Resource Pool Dialog

- ii. The resources that appear in your project that is using the resource pool will display any overallocations in the resource list. Remember these resources are contained in another file not in this project. Understand they are controlled centrally and may have other commitments that may conflict with your needs.

The image is a composite of two parts. On the left, a man in a dark suit stands in a field of tall grass, holding up a large, detailed map of a region. He is facing away from the camera. On the right, there is a full-page advertisement for TomTom. The top half features the TomTom logo with a red hand icon. Below the logo, the text "WHERE DO YOU WANT TO BE?" is written in bold capital letters. The main body of text describes TomTom's mission: "TomTom is a place for people who see solutions when faced with problems, who have the energy to drive our technology, innovation, growth along with goal achievement. We make it easy for people to make smarter decisions to keep moving towards their goals. If you share our passion - this could be the place for you." At the bottom of the ad, it says "Founded in 1991 and headquartered in Amsterdam, we have 3,600 employees worldwide and sell our products in over 35 countries." and "For further information, please visit [tomtom.jobs](http://tomtom.jobs)".

The screenshot shows the Microsoft Project 2010 interface. The ribbon is visible at the top with tabs like File, Task, Resource, Project, View, Add-Ins, and Format. The 'View' tab is selected, showing various views like Gantt Chart, Task Usage, and Resource Sheet. The 'Format' tab is also visible.

The main area is the 'Resource Sheet' view, which lists resources with their details:

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue At	Base Calendar
1	Sid Little (architect)	Work		SL	Profession:	100%	£50.00/hr	£75.00/hr	£0.00	Prorated	Standard
2	Peter Plank(Planner	Work		PP	Profession:	100%	£28.00/hr	£40.00/hr	£0.00	Prorated	Standard
3	Eddie Large(Electrici	Work		EL	Trade	100%	£45.00/hr	£60.00/hr	£0.00	Prorated	Standard
4	<b>Paul Sink (Plumber)</b>	<b>Work</b>		<b>PS</b>	<b>Trade</b>	<b>100%</b>	<b>£50.00/hr</b>	<b>£90.00/hr</b>	<b>£70.00</b>	<b>Prorated</b>	<b>Standard</b>
5	Builders	Work		B	Trade	600%	£25.00/hr	£35.00/hr	£0.00	Prorated	Standard
6	Paula Painter(Decor	Work		PP	Trade	100%	£30.00/hr	£45.00/hr	£0.00	Prorated	Standard
7	<b>Chris Chippie(carper</b>	<b>Work</b>		<b>cc</b>	<b>trade</b>	<b>100%</b>	<b>£40.00/hr</b>	<b>£60.00/hr</b>	<b>£0.00</b>	<b>Prorated</b>	<b>Standard</b>
8	Bricks	Material		B			£80.00				
9	Timber	Material		T			£5.00				
10	Pipes	Material		P			£6.00				
11	Paint	Material		P			£10.00				

At the bottom, the 'Resource Form' is displayed for the selected resource 'Paul Sink (Plumber)'. It shows costs, base rate, overtime rate, and a table of work assignments:

Project	ID	Task Name	Units	Work	Ovt. Work	Baseline Work	Act. Work	Rem. Work
House Build 20	18	Install Plumbing	100%	80 hrs	0 hrs	80 hrs	0 hrs	80 hrs
House Build 20	21	Kitchen	100%	32 hrs	0 hrs	32 hrs	0 hrs	32 hrs
House Build 20	22	Bathroom	100%	16 hrs	0 hrs	24 hrs	0 hrs	16 hrs

Figure 3-47: Shared Resources And Resource Form

- iii. If you wish to see their other commitments go to the resource sheet in your project with your tasks (have the resource project open)
- iv. Go to the view tab on the ribbon and in the split view group, tick details and select the resource form.
- v. The resource form will appear at the bottom and give information for all tasks currently assigned to that resource (even though those tasks are assigned in other projects)
- vi. All assignments applied in this project will update the pool.

# 4 More groups & filters

AT THE END OF THIS SECTION YOU WILL

- Use more advanced filtering
- Create filters
- Create groups
- Save as a view
- Use organiser to manage filters and groups

## Filters

### Applying Filters

A filter is used to screen out unwanted tasks for a particular view to identify a particular aspect of the current state of the project, for example the filter can be set to show the tasks that make up the Critical Path.

As we have seen in the Introductory Manual on how to use autofilter and use the standard in built filters, we need to look further at how to edit and create our own

As with tables there are different filters for tasks and resources and depending on the current view the appropriate list of filters will be shown for the selection. However the process of editing these filters is precisely the same.

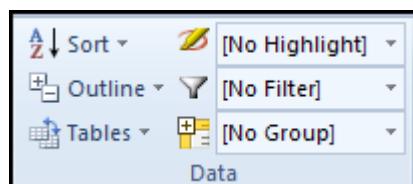


Figure 4-1: Data Group View Ribbon

An advertisement for Alcatel-Lucent. The top half features a purple header with the company logo and website 'www.alcatel-lucent.com/careers'. The background is a blurred image of a modern city skyline at night. On the left, a yellow semi-transparent box contains the text: 'What if you could build your future and create the future?'. In the bottom right corner, there is a dark text block: 'One generation's transformation is the next's status quo. In the near future, people may soon think it's strange that devices ever had to be "plugged in." To obtain that status, there needs to be "The Shift".'. At the bottom right, a green button with a white hand cursor icon and the text 'Click on the ad to read more' is overlaid on the image.

To remind you, a filter is selected by choosing from the Filter drop down box in the data group of the view ribbon and making the appropriate selection.

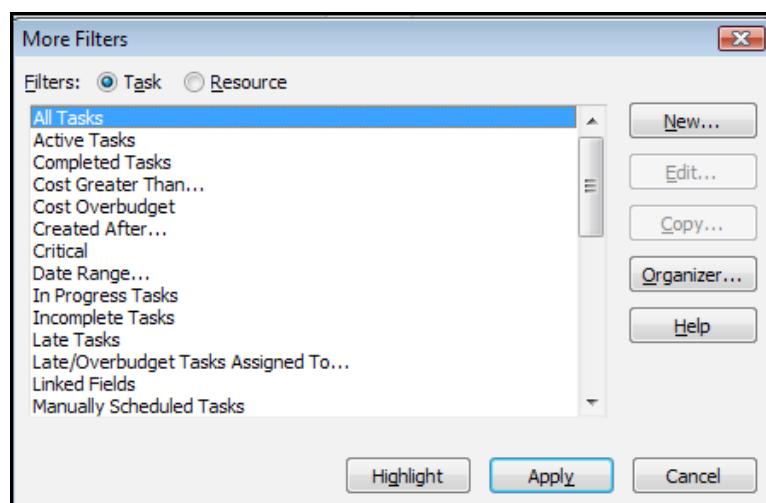
*When a filter is no longer required the All Tasks filter should be reselected.*

### Creating Custom Filters

- To Customise A Filter

**mouse**

- i. Creating a new filter is managed from the, More Filters command this is located in the Filter drop down box in the data group of the view ribbon. This will display a dialog box very similar to that for define tables (Figure 4-1).



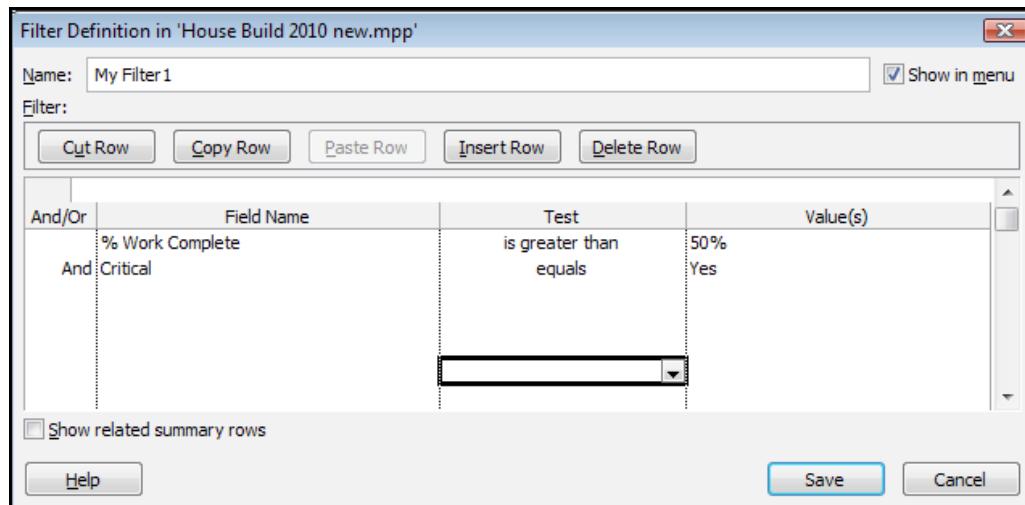
**Figure 4-2:** More Filters

- ii. Select New this will display the filter definition dialog box will appear and then the following entries will be required.

Name:	Enter the name of the new filter
Field Name:	Select a field from the entry bar list.
Test:	Select a test from the entry bar list.
Values:	Enter the value that the filter is to check for
And/Or:	If there are to be more than one condition then this is the operator that will link them together. A selection may be made from the entry bar list.

The following check boxes can also be set:-

Show Related Summary Tasks	This sets the filter to include the Summary tasks where appropriate.
Show In Menu	The filter will be shown in the menu.

**Figure 4-3:** Filter Definition Box

- iii. Enter a field name in the field name column (choose from the list in the drop down)
- iv. Choose a test in the test column bearing in mind what kind of data the column holds
- v. Enter a value to test against in the Values column.
- vi. You may add more filter tests in subsequent rows just remember to use the correct And/Or condition in the first column
- vii. The above filter will show all tasks that have completed more than 50% of their assigned work and are critical tasks.
- viii. Click on save to save the filter

➤ To Edit Or Copy An Existing Filter

Any filter inbuilt or created by yourself can be edited or copied (sometimes this is quicker) You may have as many filters as you wish as long as you name them appropriately.

#### **mouse**

- i. Editing or copying a filter is managed from the, More Filters command this is located in the Filter drop down box in the data group of the view ribbon.
- ii. Select the filter from the more filters dialog you wish to copy/Edit click the copy button.
- iii. In the field definition box enter a new name for the Filter and edit the criteria in the bottom section.
- iv. Click save to save and close the filter.
- v. This method creates a new filter and leaves the original one alone if the edits you have performed are not satisfactory you may always come back to it and just edit the criteria. You may also delete redundant filters using the organiser.

## Filters And Organiser

Like The Tables, Views, Groups, Reports etc: Filters are system objects that can be stored transferred and deleted using the Organiser.

- To Use The Organiser
  - i. Click on the More Filters command this is located in the Filter drop down box in the data group of the view ribbon.
  - ii. Click on the organiser button to open the organiser dialog
  - iii. Click on the Filters Tab
  - iv. Transfer (using Copy) or delete unwanted filters from the current file or the Global.mpt file.
  - v. Click on the cross in the top right hand corner of the window to close the dialog.

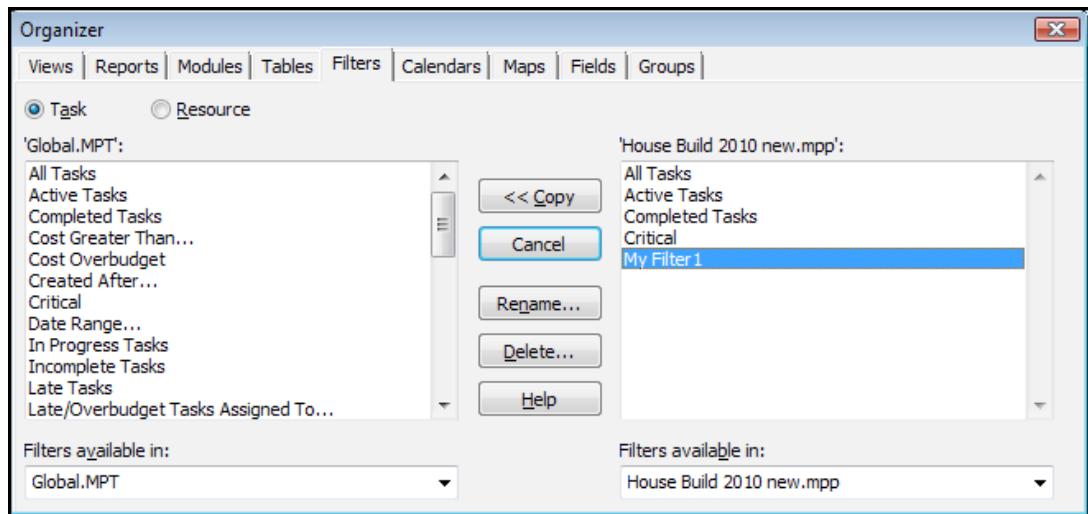
A professional headshot of a woman with long, wavy red hair, smiling slightly. She is wearing a dark, collared shirt. The background is a blurred outdoor setting with a blue and white color scheme. A red diagonal stripe runs from the top left towards the center of the image. The overall composition is a clean, modern advertisement.

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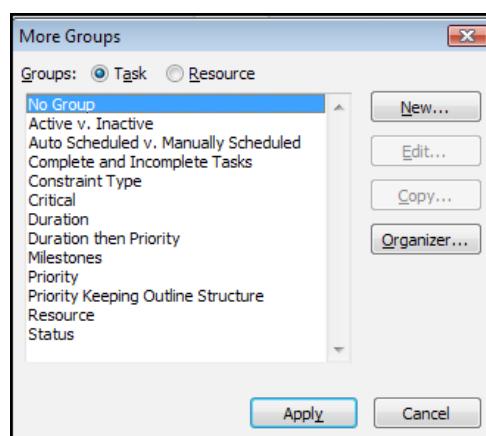
AXA

**Figure 4-4:** Organiser (Filters)

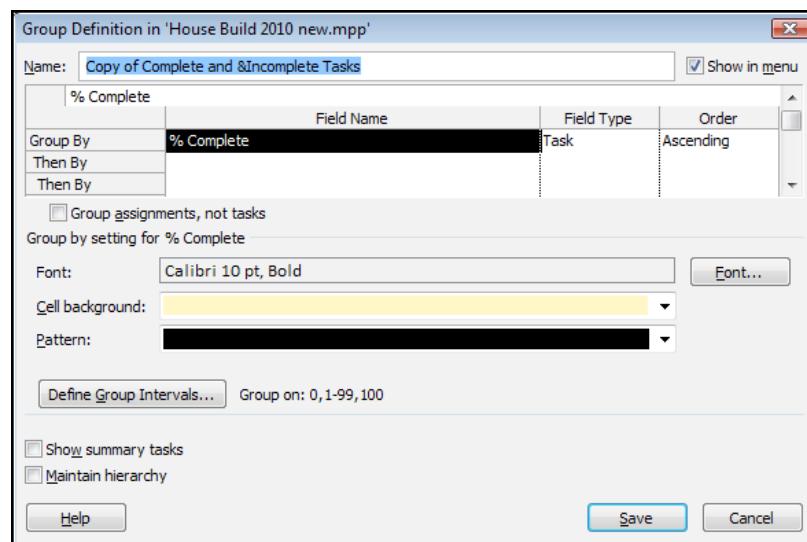
### Group Definitions

What can be done with table, views and filters can certainly be done with groups.

- To Create A New Group
- i. Click on the More groups command this is located in the groups drop down box in the data group of the view ribbon The more groups dialog will be displayed.
- ii. You may either:
  - Create a new group
  - Copy an existing one and edit it
  - Edit an existing group(Not recommended to edit an existing inbuilt group use copy)

**Figure 4-5:** More Groups Dialog

- iii. Whichever you choose from the more groups dialog the group definition dialog will appear.

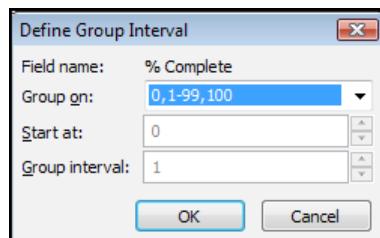


**Figure 4-6:** Group Definition Dialog

- iv. Enter a name in the Name box for your group if creating a new group or copying an existing one.  
v. Choose a field to group by in the group by box and choose a sort order in the order field  
vi. Format the group style in the middle section of the dialog. (Colour, font and pattern)  
vii. Click on the define group intervals button to set up how you want the grouping defined a dialog will open.  
viii. From the group on box choose from the drop down box the interval that you wish the grouping to take place.

*Different data types will have different group interval options be sure to check.*

- ix. Click ok to close the define group interval dialog  
x. You may added more than one grouping level, go to the then by box and add another field you may wish to group by, repeat previous steps for formatting and group interval settings.



**Figure 4-7:** Define Group Interval Dialog

- xi. Click ok to save your group (remember you may edit this at any time).

## Grouping Tips

*Groups are useful methods and alternatives to filters as ALL tasks are still shown just arranged in groups for easy viewing and printing*

*Groups And Filters are very useful when creating custom reports and can be used on more than just tables*

*You May transfer groups using the same method explained for tables, views and filters just go the group tab in the Organiser.*

*To remove any grouping just set the group on box in the data group back to no group.*

*If a view includes a specific filter and group be sure to transfer them at the same time as you transfer items in the organiser.*

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# 5 More reports

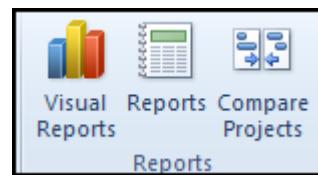
**At the end of this section you will be able to**

- Edit existing reports
- Create custom reports using custom table, filters and groups
- Use organiser to share reports

## Create A Custom Report

We have already seen in the introductory manual on how to run the inbuilt reports within project now we need to be able to create our own from scratch.

To be able to work with this section it is advisable to have covered the previous sections on views, tables and groups to be able to understand how these are constructed as you may need to utilise them in the new reports you will create.

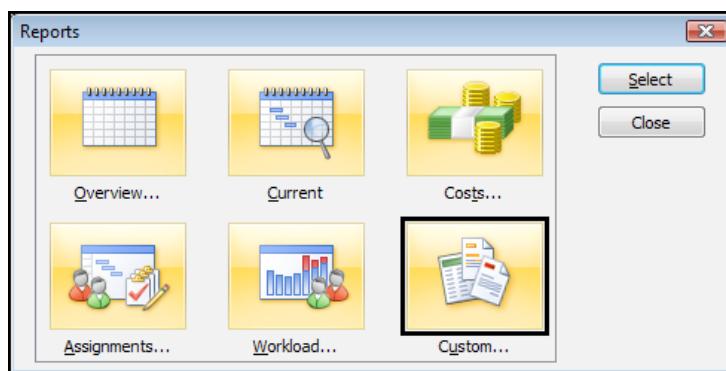


**Figure 5-1:** Report Buttons

- To Create A Custom Report

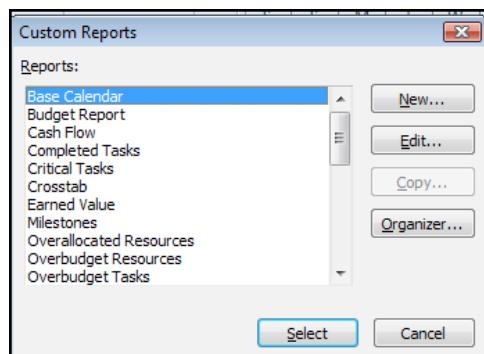
**mouse**

- i. Go to the project tab In the Reports group and click on the reports button to open the reports dialog.



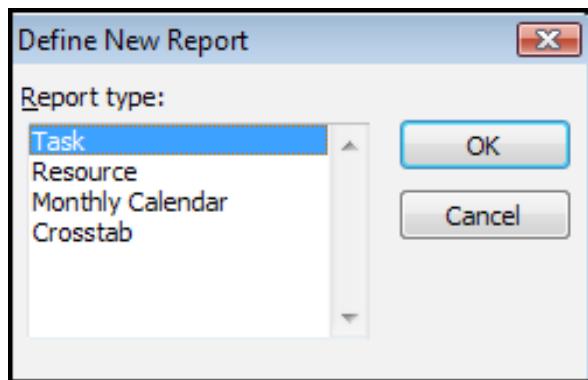
**Figure 5-2:** Reports Dialog

- ii. Select the custom report option and click the select button the custom reports dialog will appear.



**Figure 5-3:** Custom Reports Dialog

- iii. Click on the new button to create a new custom report the define new report dialog will appear.



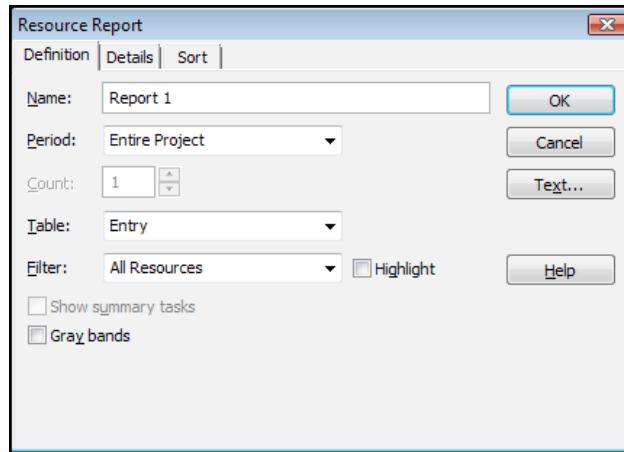
**Figure 5-4:** Define New Report Dialog

- iv. From the options decide what type of report you wish to create we will choose resource and click on OK The resource report dialog will appear.

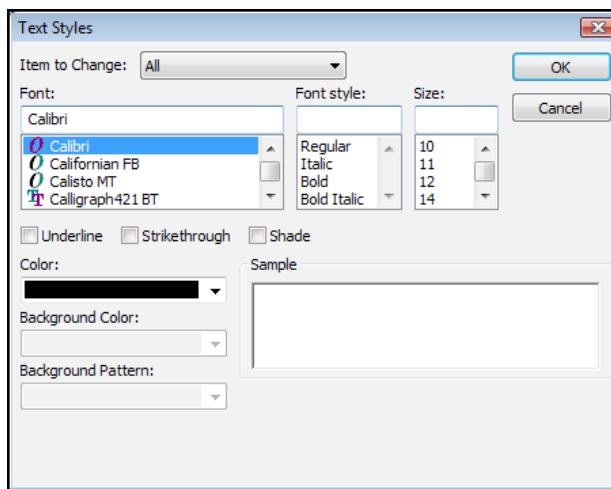
An advertisement for ŠKODA. At the top left is the text 'SIMPLY CLEVER'. At the top right is the ŠKODA logo. In the center, a man is shown looking at a table covered with various car parts and a large drawing of a building. The text 'WE WILL TURN YOUR CV INTO AN OPPORTUNITY OF A LIFETIME' is displayed prominently. At the bottom left, there is a paragraph about working at ŠKODA. On the bottom right, there is a green button with the text 'Send us your CV on www.employerforlife.com' and a hand cursor icon pointing towards it.

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As a constructor at ŠKODA AUTO you will put great things in motion. Things that will  
ease everyday lives of people all around. Send us your CV. We will give it an entirely  
new new dimension.

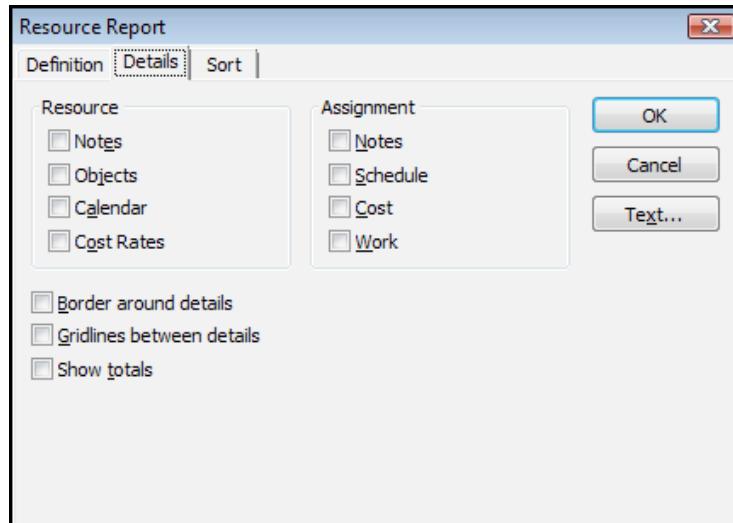
Send us your CV on  
[www.employerforlife.com](http://www.employerforlife.com)

**Figure 5-5:** Resource Report Dialog

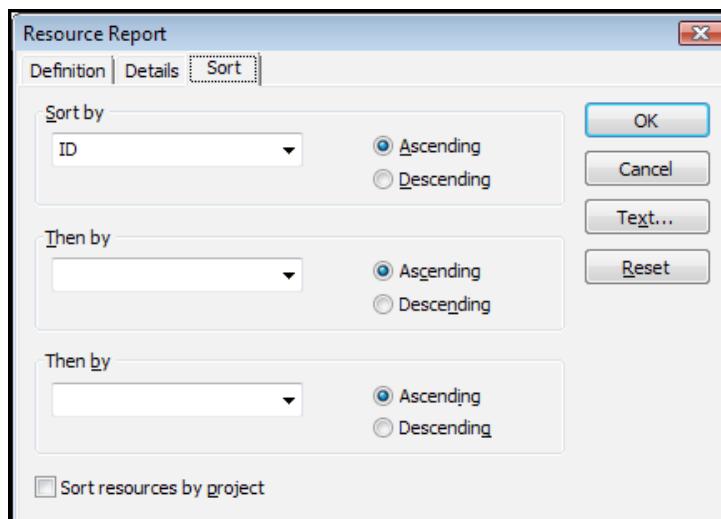
- v. In the name box give the report a name
- vi. In the period box select a time period for the report (default is the entire project).
- vii. Select the table you wish to use from the Table box. (If you have a custom Table select it here).
- viii. Choose a filter in the Filter box. (If you have a custom Filter select it here).

**Figure 5-6:** Text Styles

- ix. Click on the text... button to format the text styles for your report the text styles dialog will open.
- x. Select the text type from the Item to change box at the top of the dialog and then format it. Click Ok to accept the formatting selection.
- xi. Click on the details Tab to allow the selection of other items of data to include within your report tick the boxes of those items you wish to see.

**Figure 5-7:** resource Report (Details)

- xii. Click on the sort tab to set up sorting options for your report. You may sort by up to three levels.

**Figure 5-8:** Resource Report (Sort)

- xiii. Click ok to create your report you will be returned to the custom reports dialog. Your new report should be in the list.  
 xiv. Select the report and click on the select button to run the report you will be taken to backstage view to the print section with a preview of the report on your right.  
 xv. Set Print options as previously discussed, zoom to preview the report up close to check the report is as you want it if all is well click print to print it or click on the project tab again if you decide it is not what you want.

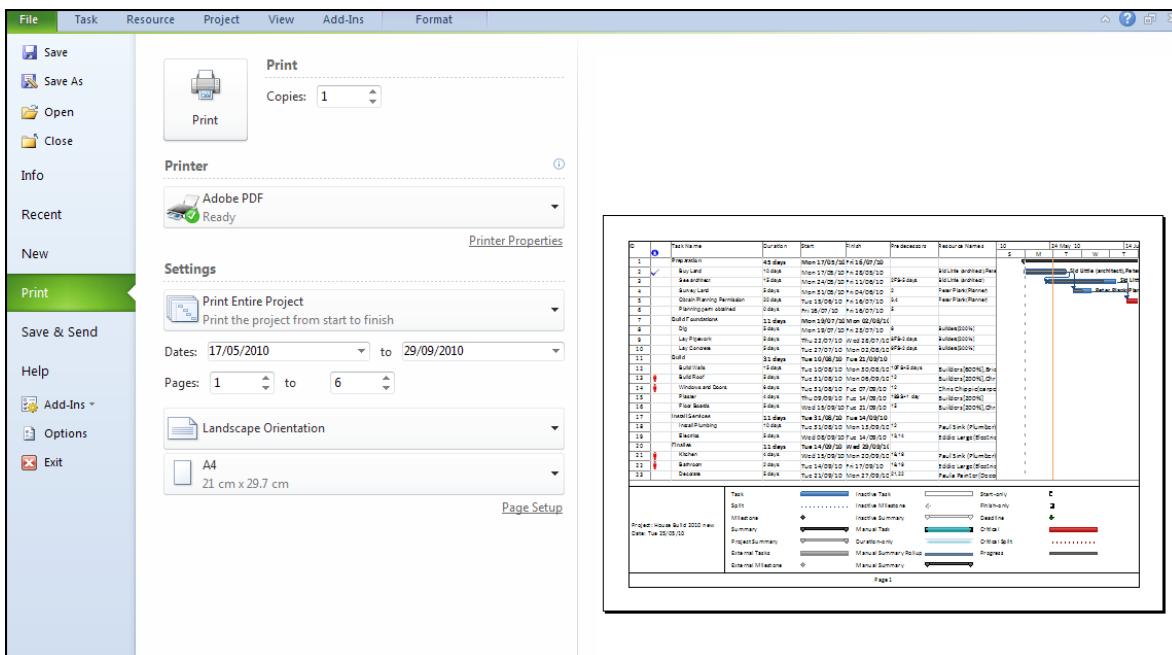


Figure 5-9: Print Preview

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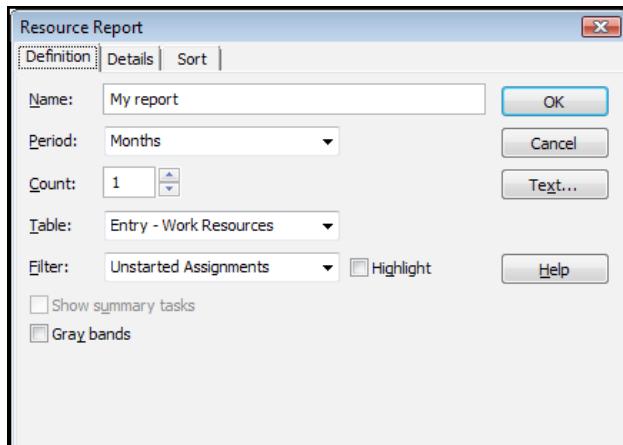
## Editing An Existing Report

If your report is not exactly what you wish you may need to edit it (or an Existing one for this you are advised to copy and edit leave the originals alone)

- To Edit An Existing Report

**mouse**

- i. Go to the project tab In the Reports group and click on the reports button to open the reports dialog.
- ii. Select the custom report option and click the select button the custom reports dialog will appear.
- iii. Select the report you wish to edit click on the edit button.



**Figure 5-10:** Resource Report Edited

- iv. In the Resource report dialog make any editions you feel you need to in any of the tabs click ok to accept the edition.
- v. Run the report again to see if this is more acceptable. You may repeat this process until the report is exactly what you want.

## Report Tips

*Please remember that some of the changes you may need to make will be to the print options for the report check those as well if you are having layout problems.*

*You may transfer reports to the global.mpt for use elsewhere using organiser but ensure you transfer the underlying tables and filters as well.*

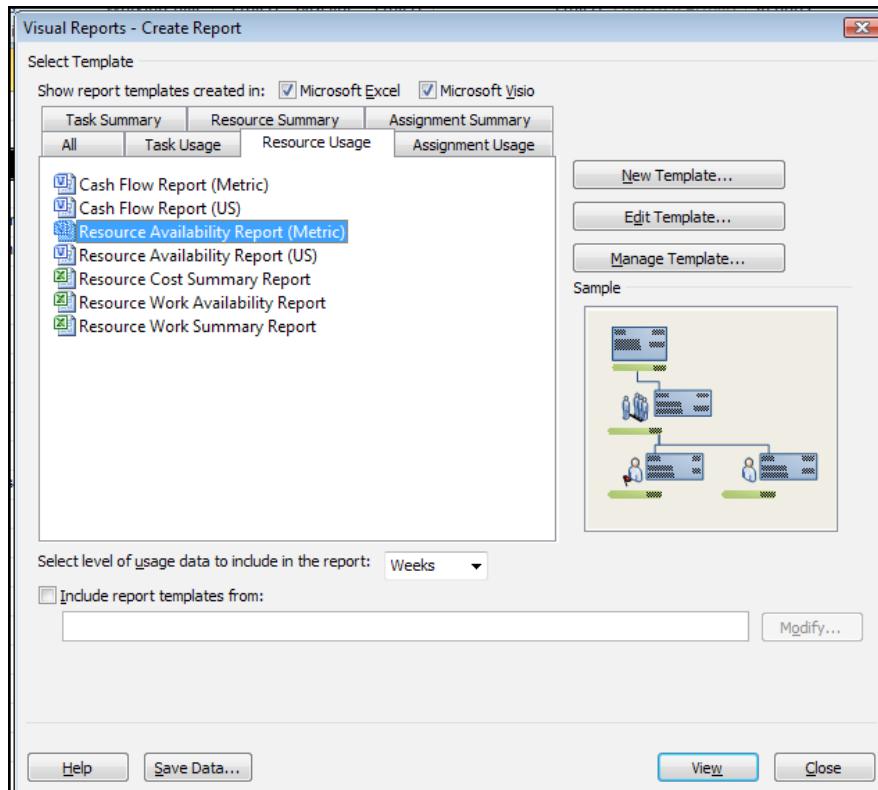
## Visual Reports

Visual reports are graphical reports created using components of visio or Microsoft excel they feature charts, grpihics as well as the data you need and add a professional flourish to the reporting process.

➤ To Create A Visual Report

**mouse**

- vi. Click on the visual reports button in the reports group on the project Tab a dialog will open



**Figure 5-11:** Visual Reports Dialog

- vii. Ensure that the show report Templates from Microsoft excel and Microsoft visio checkboxes are ticked near the top of the dialog to ensure you are seeing the full range of reports available.
- viii. Select a Category Tab to show reports of that kind select a tab the icon to the left of a report name shows which application the report will be generated in.
- ix. In the list of available reports select a report to see a preview on the right hand sample pane.
- x. Click view to open the report in its respective application Further editing or printing may be done in that application.

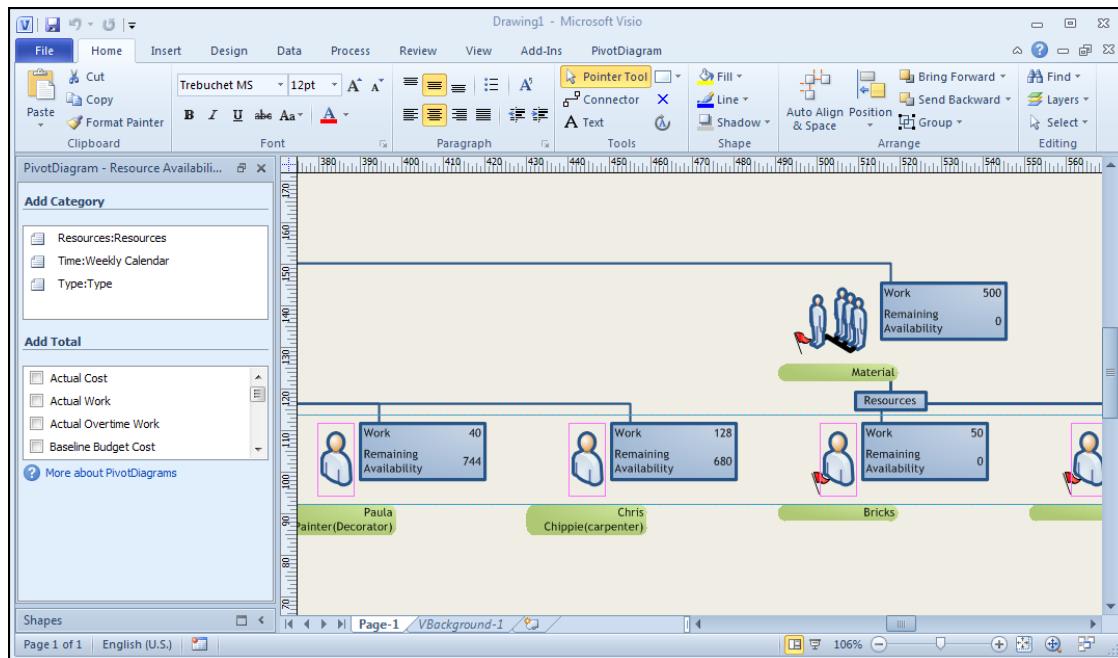


Figure 5-12: Visual Report In Visio

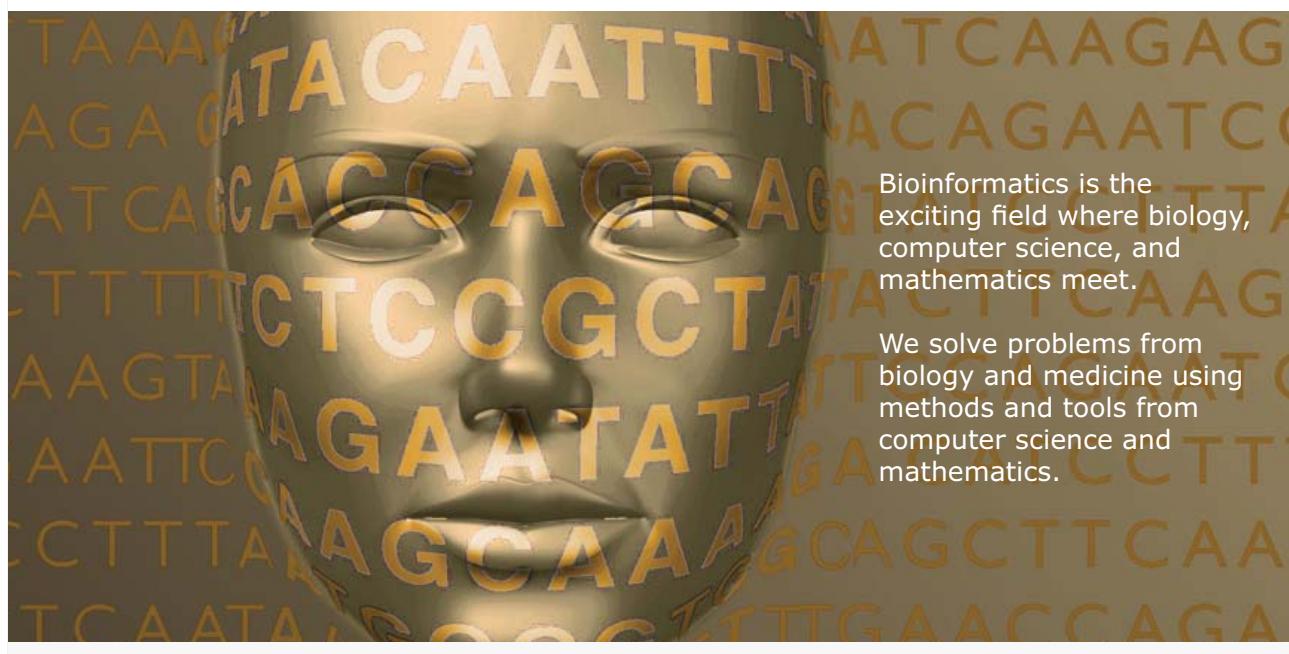
- xi. Click the edit template button to open a dialog allowing the choice of fields in your report.



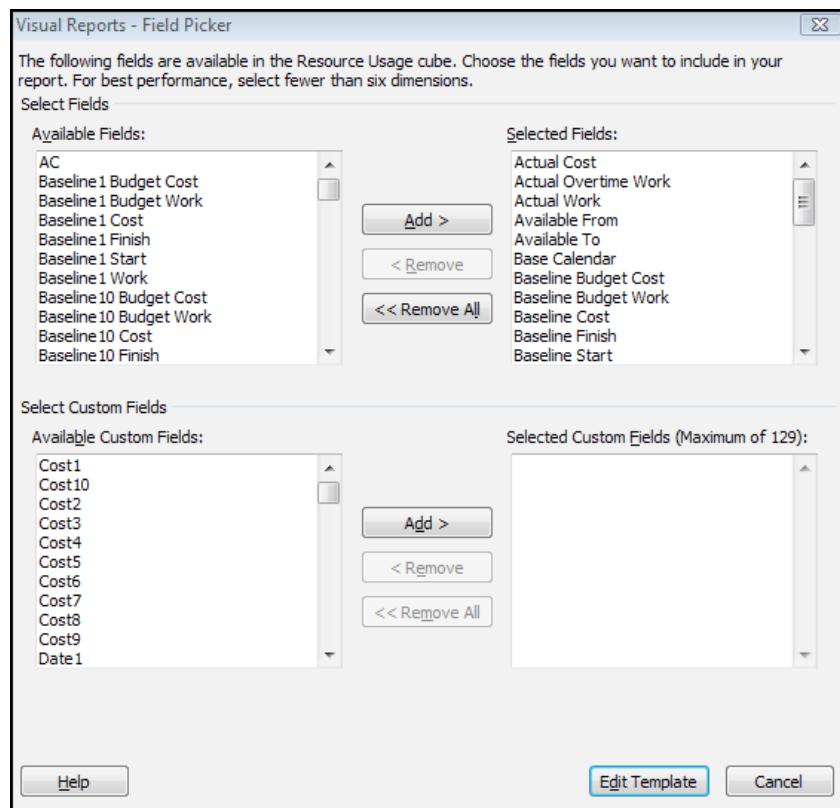
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**Figure 5-13:** Field Picker

- xii. Using the buttons in the middle add or remove fields to the right hand column
- xiii. The bottom section of the dialog deals with any custom fields you may have created in your project.
- xiv. Clicking the edit template button in this dialog allows you to open the template (Not the report itself) in its respective application so you can edit it and add, remove, position and format the various fields you may have added. Saving in that application saves the changes to the template.

# 6 Advanced usage

**At the end of this section you will have:**

- Created sub projects.
- Consolidated projects.
- Created and managed task relationships
- Inserted a recurring task.
- Create a macro.

## Multiple projects

### Adding Sub Projects

When you have very a large project to manage it may be useful to have some parts split into one or more sub projects. These can be inserted into the main project at the appropriate point.

This can also be used where some steps in the project are repeated. When using sub projects it would be useful to use the resource pool as we discovered in the resources section.

### Inserting Projects Into Projects

By inserting individual project files into a existing project, you can view, print, or change information for the projects you're working with as though they were a single project.

- i. Open a new or existing project file.
- ii. From the View Button, select Gantt Chart.
- iii. In the Task Name field, click the row above which you want to insert the project.

*You can insert a project at any level of the outline.*

- iv. On the Project Tab in the ribbon in the insert group click the subproject button.

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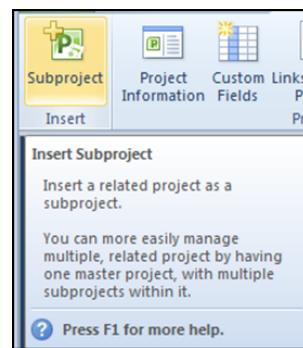
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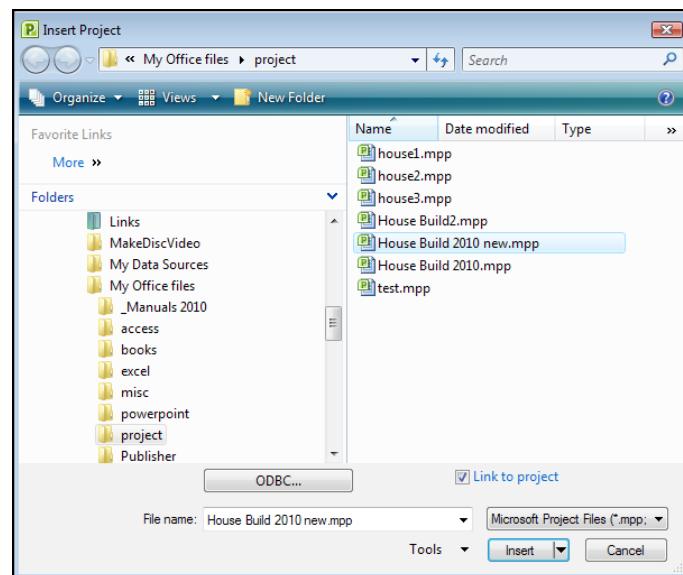
cultural studies

religious studies

science



**Figure 6-1:** Insert Subproject



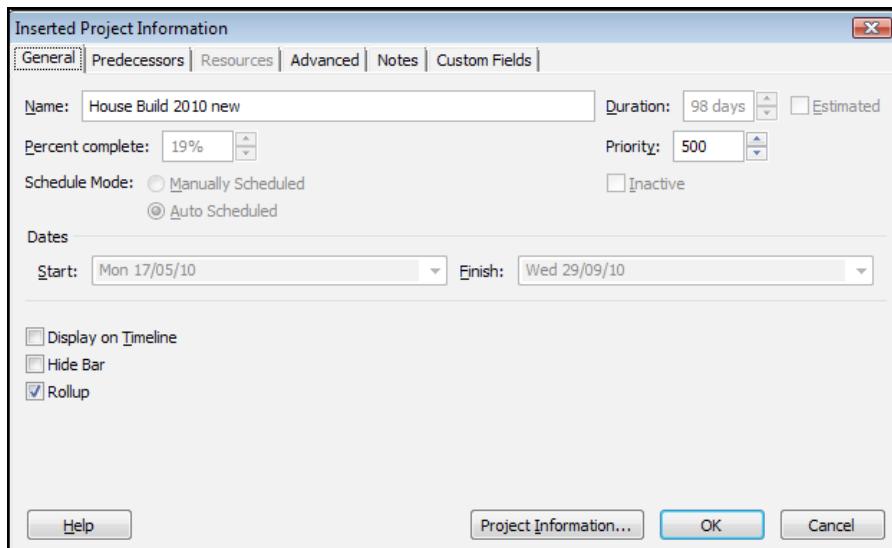
**Figure 6-2:** Insert Project Dialog

- v. In the Look in box, click the drive or folder that contains the project file.
- vi. In the folder list, open the folder that contains the project file you want.
- vii. If you cannot find the project in the folder list, you can search for it in the search box.
- viii. Select the file and Click Insert.

Create Project				
3		?	my new task	3 days
4	!		enter tasks	2 days
5			enter durations	0 days
6			Link Tasks	1 day
7			+ House Build 2010 new	98 days
			This inserted project is embedded from 'E:\Documents\My Office files\project\House Build 2010 new.mpp'.	

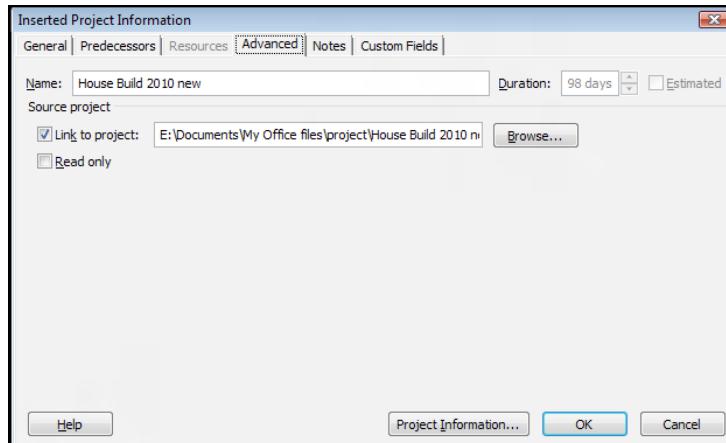
**Figure 6-3:** Inserted Project

- ix. Double-click the inserted project as if were a task. Now change the inserted project options you want Such as predecessors constraints etc.
- x. To insert two or more projects at the same time, hold down CTRL as you click each project.

**Figure 6-4:** Inserted Project Information

- xi. If you don't want the inserted project to be linked to its source project, go to the advanced tab and clear the Link to Project check box. By default, this option is selected.
- xii. If you don't want changes to the inserted project to be made in the source project, select the Read Only check box. By default, this option is cleared.

*After you've inserted a project, you can quickly show an inserted project's hidden subtasks by clicking the summary task's outline symbol. Outline symbols indicate whether a summary task has subtasks displayed or does not have subtasks displayed*



**Figure 6-5:** Subproject Options

### Consolidating Projects Tips

Another way of organising your work, especially if you are monitoring several projects at once, is to consolidate them into a single multi-project file.

You can create a consolidated project by inserting copies of individual projects at any outline level into a single project file. With a consolidated project, you can view, print, and change information for all the projects you're working with (and even those projects "owned" by other project managers) as though they were a single project.

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## Create Hierarchies

You can also organize your inserted projects into a hierarchy to better see how the different parts fit together. Each project in the hierarchy contains links to the inserted projects below it and is connected as an inserted project to the one above it. This way, you can isolate and manage smaller chunks of your project with greater efficiency.

## Keep Information Up-To-Date

When the copies of individual projects within a consolidated project are linked to their original projects, any changes to the information in the consolidated project file are also made automatically in the corresponding original files. Likewise, if you change information in an original file, the corresponding information is changed in the consolidated file automatically.

## Make A Consolidated Project Quickly For Printing

If you don't want changes to the consolidated project file to affect the source files, you can create and save a consolidated project file in which the copies of each project are not linked to their source files. You might want to do this, for example, if you're simply combining projects to generate a quick report. You can also unlink the source files after you create the consolidated project file or consolidate copies of the source files from the start.

## Consolidating With Earlier Versions Of Microsoft Project

When you open a Microsoft Project 4.0 or 4.1 consolidated project, the consolidated project file is automatically converted to a Microsoft Project 2010 consolidated project file using inserted projects. For each individual project included in the consolidated project file, Microsoft Project creates an inserted project at the top outline level. The read-only settings for each inserted project are set according to the settings for the consolidated project.

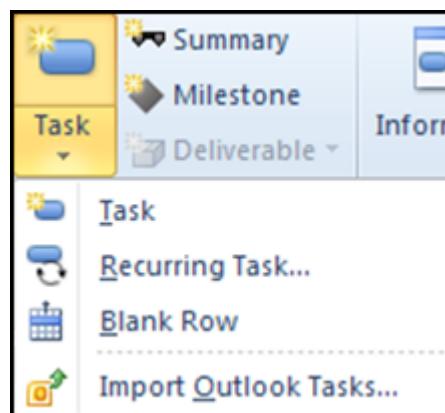
## Recurring Tasks

Where a task occurs on a regular basis Microsoft Project allows you to insert it as a Recurring Task.

- To Add A Recurring Task

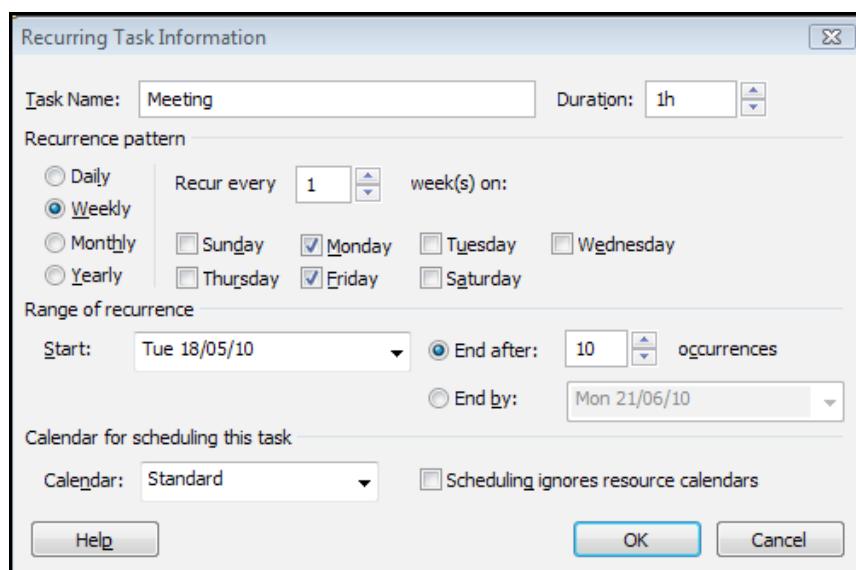
### Mouse

- i. Select a blank task row below where you wish the recurring task to appear.



**Figure 6-6:** Inserting A Recurring Task

- ii. Select from the Insert group, on the task ribbon the bottom part of the task button to open a menu and select Recurring task.



**Figure 6-7:** Recurring Task Information

- iii. Give the task a name “Meeting” for example.
- iv. Set the recurrence pattern, daily weekly etc. If weekly select which days of the week you wish it to appear.
- v. Set the duration and the range of recurrence (the above example is set for 10 occurrences and set for 1hr duration).
- vi. Click ok to insert the recurring task.

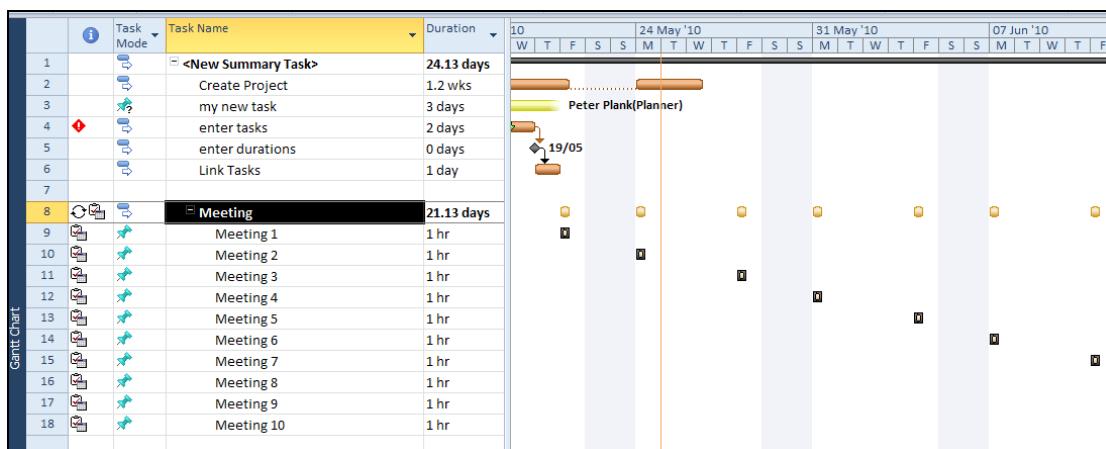


Figure 6-8: Recurring Task In Gantt Chart

- vii. As you can see from the inserted tasks the recurrences are set with a start with no earlier than constraint and are manually scheduled. They appear as subtasks of the meeting Recurrance (summary) task.

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Inés Aréizaga Esteva (Spain), 25 years old  
Education: Chemical Engineer

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- To Edit A Recurring Task
  - mouse**
    - i. Double-click the recurring task to open the task information dialog
    - ii. Edit the particulars you desire.
    - iii. Click ok to close the information dialog to save the changes

- To Delete A Recurring Task
  - mouse**
    - i. Right-click the task and choose Delete Task.
    - Or
    - ii. Select the row and press the delete key on your keyboard

## Customisation

### Customising The Quick Access Toolbar

In the previous manual, we introduced the new layout changes to Project 2010. In this section, we will learn a little bit more about each part of the new interface and how it works. This lesson will focus on features and customization options available with the Quick Access toolbar, located in the upper left-hand corner of the screen:



**Figure 6-9:** Quick Access Toolbar

### About The Default Buttons

Access features three default commands in the Quick Access toolbar:

Save Save

Saves the most recent changes to the current database file.

Undo Undo

The Undo command will revert most changes made in Project. For example, if you made a formatting change to a table that you were not happy with, click the Undo button to go back one command. There is a small pull-down arrow beside the Undo button; click this to see a listing of the last few tasks that were performed. Click any task in the list to undo all commands to that point.

Redo Redo

This allows you to redo a change if you use the undo button too many times

### Adding Buttons

As you become more familiar with Project you might find it handy to have another command quickly available for use. Though the command tabs and ribbon significantly reduce the number of clicks it takes to do something, you might want to have a particular command always available. Project allows you to add the command to the Quick Access toolbar.

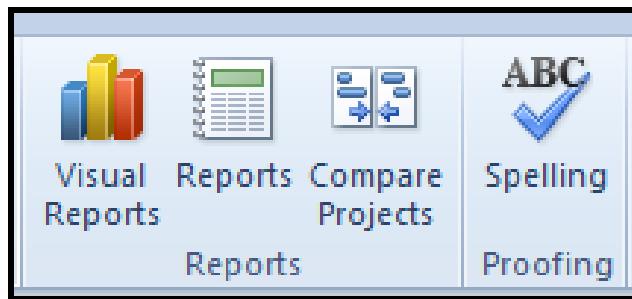
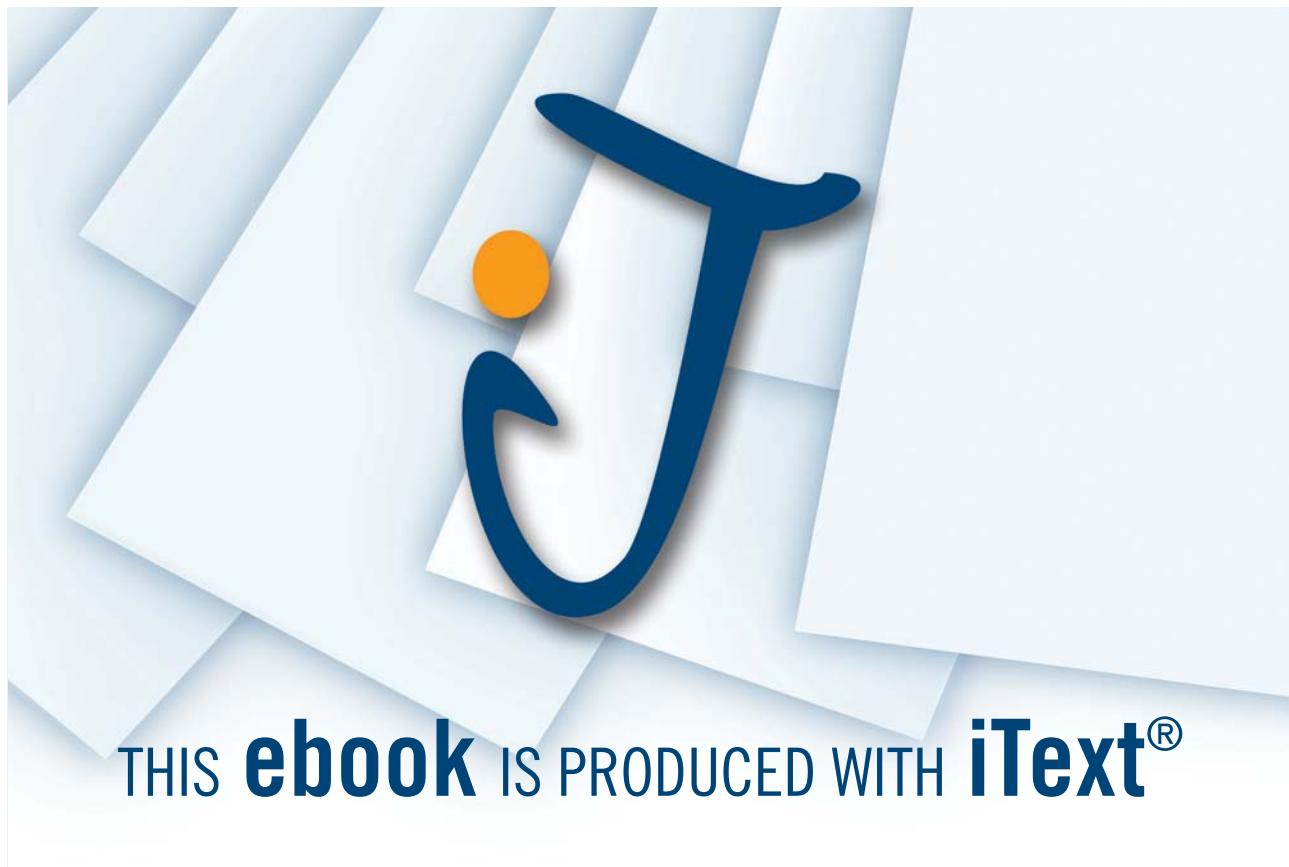
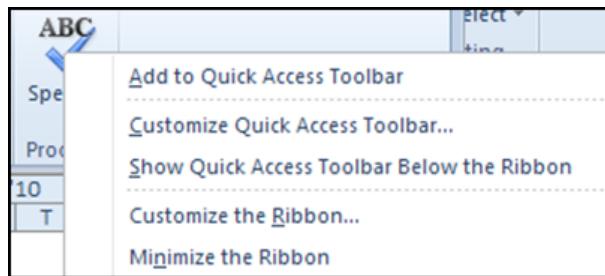


Figure 6-10: Adding The Spelling Button

For example, some of us have difficulty with spelling. Fortunately, many programs (including Project) feature a spell checking feature. In Project 2010, the spell checking feature is located in the Records section of the Home command tab:

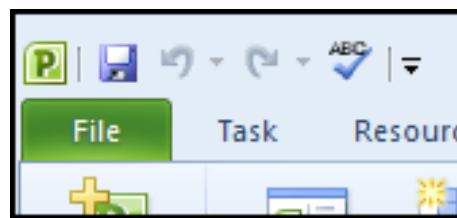
- To Add This Command To The Quick Access Toolbar,  
**mouse**
  - i. Right-click the Spelling command from the project tab and click 'Add to Quick Access Toolbar.'





**Figure 6-11:** Right Click Menu

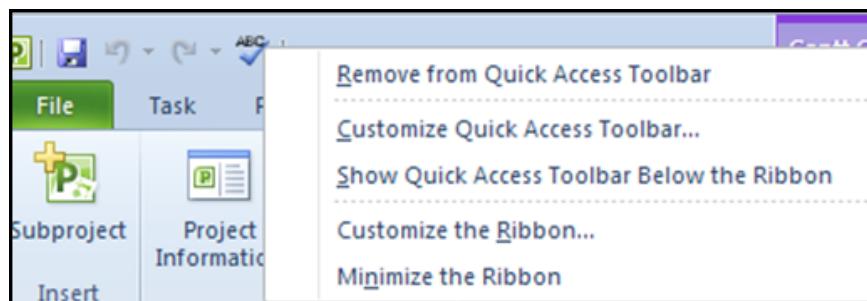
- ii. The command (denoted by the small 'ABC' icon) will be placed in the Quick Access toolbar:



**Figure 6-12:** Command Added

### Removing Buttons

If you no longer use a certain command or your Quick Access toolbar is getting a bit too filled with icons, you can remove them easily at any time.



**Figure 6-13:** Right Click Menu On Command

- To Remove A Button

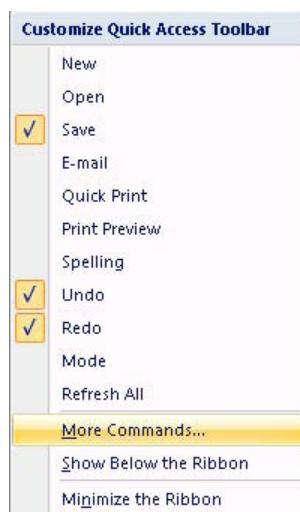
**mouse**

- iii. Right-click on any icon you no longer use and click Remove from Quick Access Toolbar:

## Customizing The Toolbar

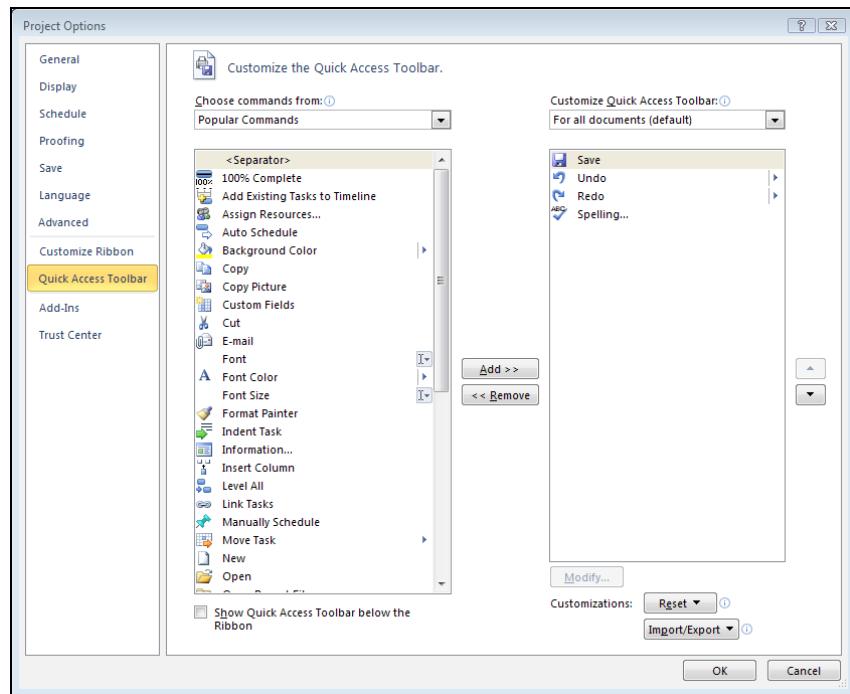
As you gain familiarity with Project (and other Office 2010 programs) you have the ability to customize how the Quick Access toolbar looks all at once versus having to add icons one by one. To do this, click the small pull-down arrow (▼) located on the far right of the Quick Access toolbar and click More Commands:

*Note that you can click any command listed here to add that command to the toolbar. The commands that are already checked are those on the toolbar; simply untick them by clicking to remove them.*



**Figure 6-14:** More Commands

- To Customise The Toolbar  
**mouse**
  - i. When you click More Commands, the Customize dialogue box (found in the Project Options) appears:



**Figure 6-15:** Customise Quick Access Toolbar

This window gives you the ability to add any of the functionality from any command tab or contextual tab you like to the Quick Access toolbar.



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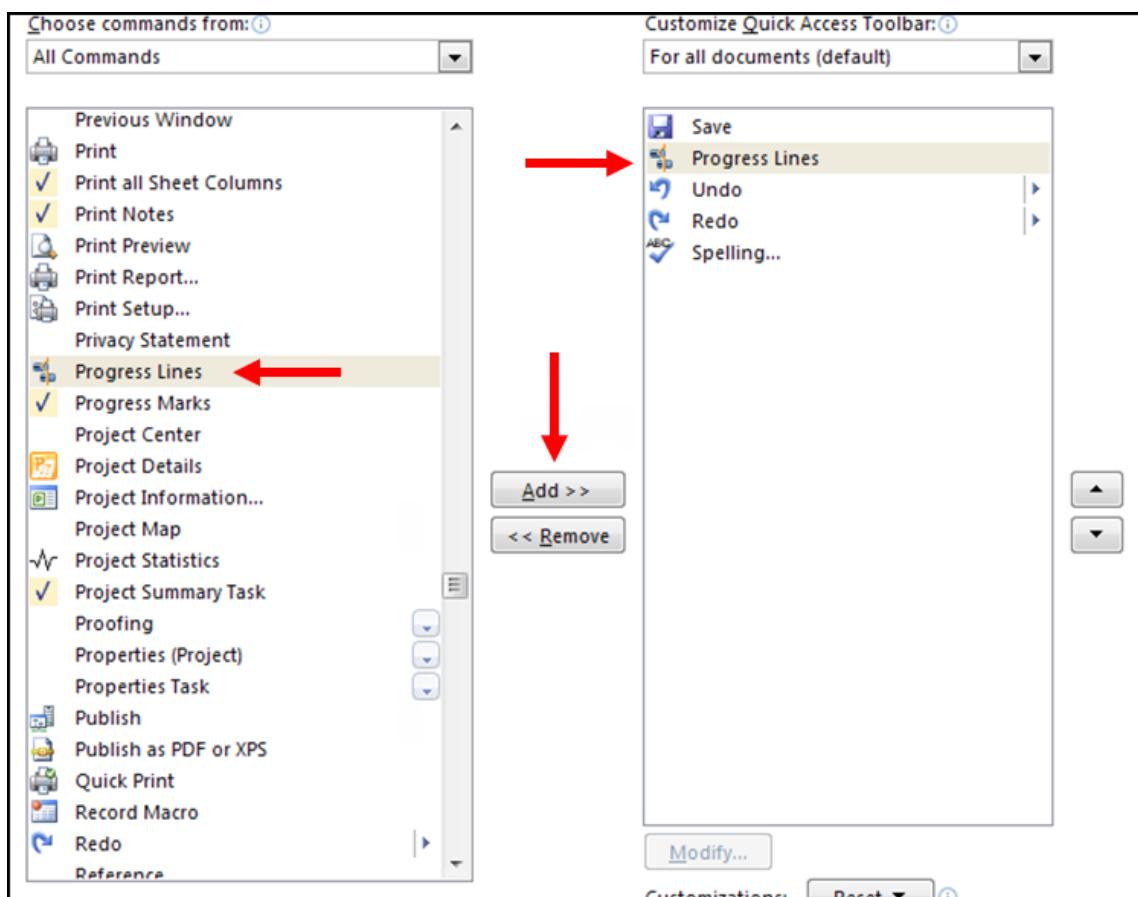

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- ii. Click the pull-down arrow beside the Choose commands from combo box:



**Figure 6-16:** Choose Commands

- iii. The first category (File Tab) are all commands accessible via the File Tab. The next six tabs are the main command tabs, the majority of which are visible when working in Project. (Some command tabs might not be visible at the time, depending on what you are doing with your database.) The third section of options are all of the contextual tabs that appear only when you are working with a specific Project objects
- iv. Pick a listing from a particular category in order to see the commands it contains. For example, imagine you need to use progress lines often enough to have Quick Access to the Progress lines command
- v. Select the All commands option and then scroll down the list of options until you find Progress lines:
- vi. Click the Progress lines icon to highlight it and then click the Add >> button located in the middle of the window:
- vii. This will add the Progress lines to the Quick Access toolbar list on the right-hand side of the window. By default, the command is inserted at the bottom of the list (under the redo command).
- viii. You can change the order of any icons in the list by selecting an item in the Quick Access toolbar list and then clicking the up and down buttons on the right side of the list. Simply click an item in the list you would like to move up or down and then click the corresponding directional button:



**Figure 6-17:** Adding A Command

- ix. Items listed top to bottom will be displayed from left to right in the Quick Access Toolbar. To remove an icon from the list, select the icon and click the Remove button in the middle of the window.
- x. If at any point you want to return the Quick Access toolbar back to its original configuration, click the Reset button:  
xi. This will remove all icons except for the original three (Save, Undo, and Redo).

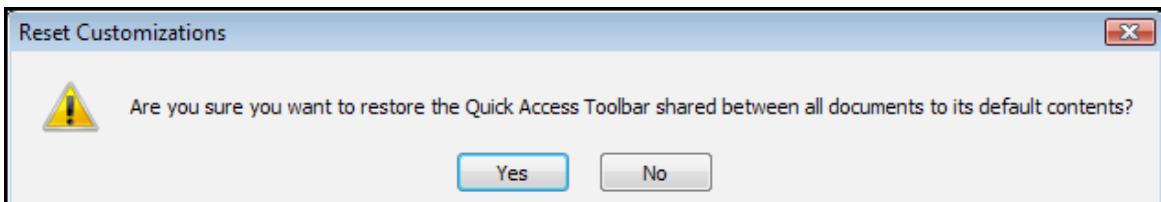


Figure 6-18: Reset Warning

### Customise Project Ribbons

New to 2010 is the ability to customise existing ribbons and create new ribbons with all the most useful tools for the way you work with Project. These customisations can be exported and imported into other computers using Project 2010 or simply store the exports in case your machine has to reinstalled. Then simply import your customisations into the new installation.

An advertisement featuring a woman in a white tank top. To her left, text reads: "I studied English for 16 years but... ...I finally learned to speak it in just six lessons" and "Jane, Chinese architect". A green speech bubble to her right says "ENGLISH OUT THERE". At the bottom right, text says "Click to hear me talking before and after my unique course download".

"I studied English for 16 years but...  
...I finally learned to speak it in just six lessons"  
Jane, Chinese architect

ENGLISH OUT THERE

Click to hear me talking  
before and after my unique course download

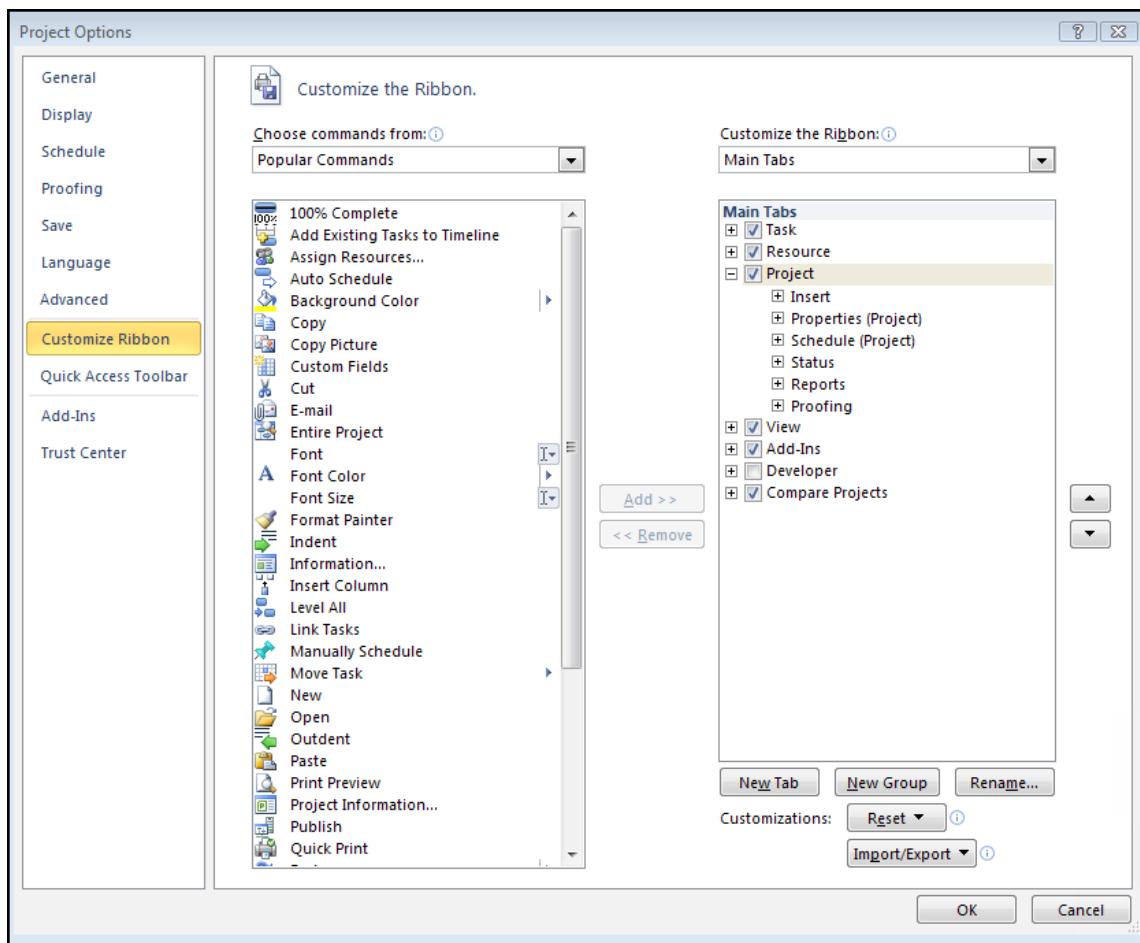


Figure 6-19: Options Customise Ribbon

- To Create A New Ribbon

#### Mouse

- i. Go to the file tab and open the options from the button on the below left.
- ii. Go to the customise ribbon button the dialog box above will be seen.
- iii. Click on the new tab button a new tab will appear in the right hand frame

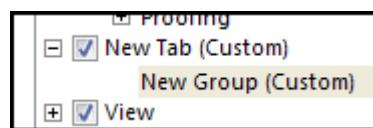
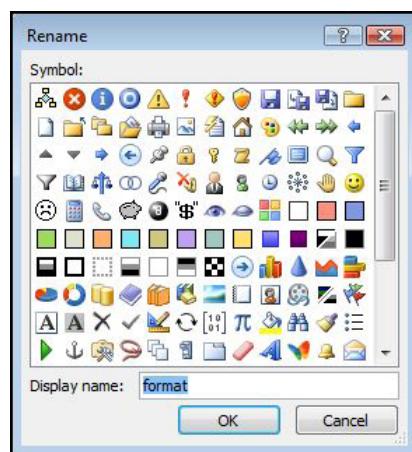


Figure 6-20: New Tab

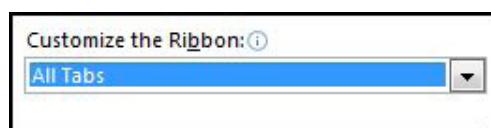
- iv. Use the arrow buttons on the far right to position the tab where you wish it to appear.
- v. Click on rename. Give your tab a name and press ok.

**Figure 6-21:** Tab Rename

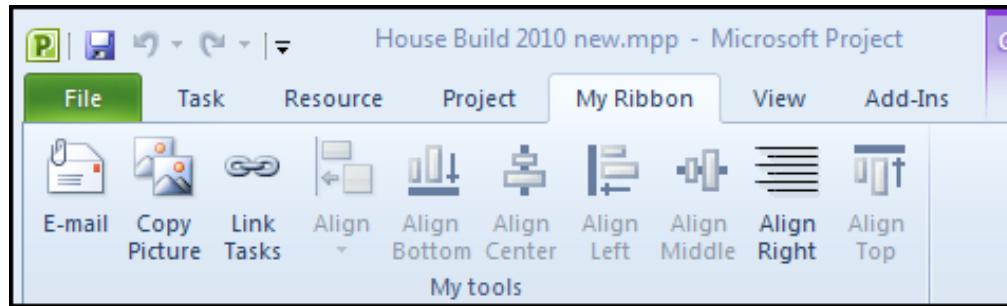
- vi. Select the custom group on your created tab
- vii. Click rename Select an icon and name the group then click on OK

**Figure 6-22:** Group Rename

- viii. You may add several groups onto your tab if you wish, just rename each of them with appropriate labels.
- ix. Now you may drag the buttons you wish from the box on the left onto your group on the right.
- x. If you cannot find a button you wish, go to the drop down box at the top of the commands and select the all Tabs option for example or commands not in the ribbons. You will now have other buttons you may wish to use

**Figure 6-23:** All Tabs Selection

- xi. When all the buttons have been added that you wish You will end up with your own ribbon on the right with the commands you would most like to access easily.
- xii. When you click ok you will find your ribbon amongst the others selecting it you will be able to use the commands you have added.



**Figure 6-24:** My Ribbon

- xiii. You may use the same method to edit existing ribbons
  - To Show Or Hide A Ribbon
- Mouse**
- xiv. Access the options from the file ribbon
- xv. Go to the customise ribbon button
- xvi. Tick or untick the tabs in the right hand box to show or hide ribbons from use.

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