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About this Course

This course has been designed specifically for delegates who now require the more advanced topics of Microsoft Office Project 2010. The objectives of this tailored course are the following:

- Exchange Project Plan Data with Other Applications
- Import and Export data
- Track the Project to completion
- Customise Reports, Tables, Views
- Share Resources
- Create and Work With a Master Plan

Both the Course and the Manual will give you '*Hands-On'* experience which is vital to your learning process within this course.

About this Manual

Within the Manual's contents, we have for simplicity, kept terminology to a minimum. Any terminology we have used is fully explained in easy to understand statements.

The Manual has been designed to provide you with a useful tool both in the classroom environment and as a Reference Book once the course is over.

At the beginning of each topic you will see a list of Module Objectives that detail exactly what the topic contains.

Each topic is graphically represented at the top of each page with some diagrams and/or text. Often these are condensed items for the particular topic. Within each topic are *'snapshots'* of dialog boxes you will see on your own screen as you go through the course. This will assist you when you go back over any particular topic as to what you should be viewing on your screen at any given time.

Whilst working with the Manual, you will see that when you are asked to click on something on your screen, the text will be in **bold**. For example:

'Click the **Ok** button'

In this instance, we would like you to click on the button, which says **Ok**. 

We are always interested in your comments on the Manual, Course and Tutor. We would ask, therefore, that you give your comments on your Course Evaluation Sheet at the end of the Course.

Please be aware that Patricia Gorst, holds the copyright to this manual and should not be photocopied as a whole or in part.

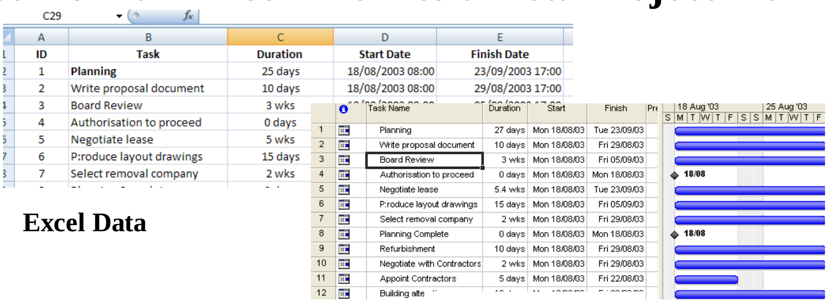
Exchanging Project Plan Data with Other Applications

Learning Module Objectives

When you have completed this learning module you will have seen how to:	• Import a Task from an Excel File Into a New Project Plan • Create a Custom Import Map • Export Project Plan Cost Data into Excel

Import a Task List from an Excel File into a New Project Plan

Data can be imported to Project Either Copy and Paste or *Map* the data across



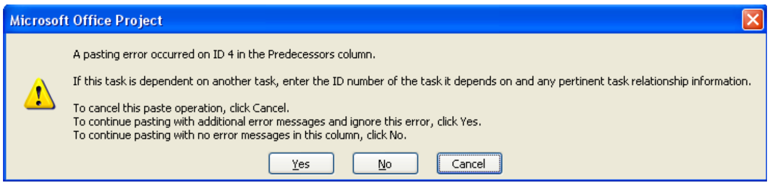
Excel Data

Project Data

Import a Task List from an Excel File into a New Project Plan

Background

Often Project information is held within Microsoft Office Excel and users wish to take that data into Microsoft Office Project itself. Using Project allows users to manipulate and display data differently. There are a couple of ways to do this. One way is to simply copy and paste the information from Excel to Project but this depends on whether there are task dependencies. If there are Project may not be able to cope with them and if it sees a problem you will see a warning like the one below.



When copying and pasting data from Excel often Project will insert constraints against tasks and these will have to be amended in Project before you start to work with the data. Also you will need to indent the Sub Tasks from the Summary Tasks.
The other way is to ***Map*** the data from Excel to Project. Using this method you must think about the fields you have in Excel and whether they ***Match*** the fields in Project. If they don't you will have to create a custom map and you may even have to put the fields into Project first so that it can receive the data from Excel in an efficient manner. There are many Maps to choose from so you can select one of the ready-made maps to determine if this will enable you to import the data properly into Project from Excel. One more thing to consider when using Maps is if you save your Excel workbook as 97-2003 (.xls) format you are saving as a Binary file. The Map seems to work better with this format than the 2007 XML option of .xlsx.

When imported Project will mark all tasks as **Manual**. This setting can be changed to **Automatic**, if required, once imported.

So you can see from the above information, you must take all of this into consideration before you select either option. To put it simply, if the data you are taking into Project is very small with no dependencies, then copy and paste would be the simplest option. If your data is complex and has dependencies between tasks, it is better to use the Map option.

When you import data from Excel you will need to help Project with the data types you are importing from. To do this we will need to adjust the **Legacy formats** in Project itself.

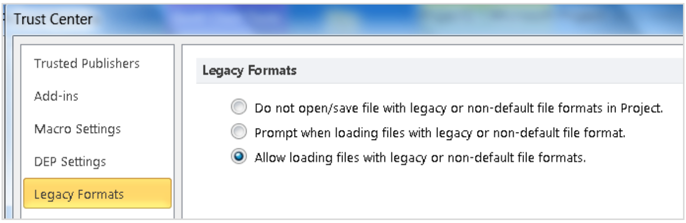
Import a Task List from Excel by Copy and Paste

- Open the Excel Worksheet you wish to copy from
- Select the data you require and from the **Home** tab and the **Clipboard** group of buttons, click the **Copy** button or **Ctrl+C** on the keyboard.
- Open Microsoft Office Project 2010
- Click in the cell where you wish to paste the data
- From the **Edit** menu select **Paste** or **Ctrl+V** on the keyboard
- Your data will now be in Project. If there are any constraints now in your plan and you don't want these, select all the tasks with constraints **by their ID numbers** and click the **Task Information** button 
- Select the **Advanced** tab and in the **Constraint Type** section, click the drop down arrow and select **As Soon As Possible**. Click **OK**

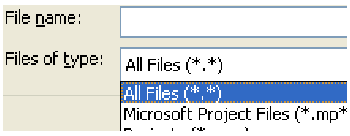
- Indent the **Sub Tasks** from the **Summary Tasks** and save the Project.

Map a Task List from Excel into Project

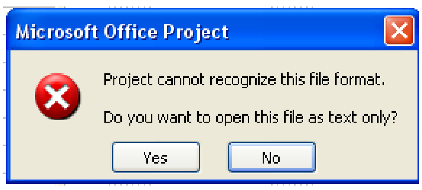
- **Open Project 2010**
- When you import data from Excel you will need to help Project with the data types you are importing from. To do this we will need to adjust the **Legacy formats** in Project itself.
- From the **File** menu, select **Options** then Trust Centre Options then the Trust Centre Settings button. Next select **Legacy Formats**.



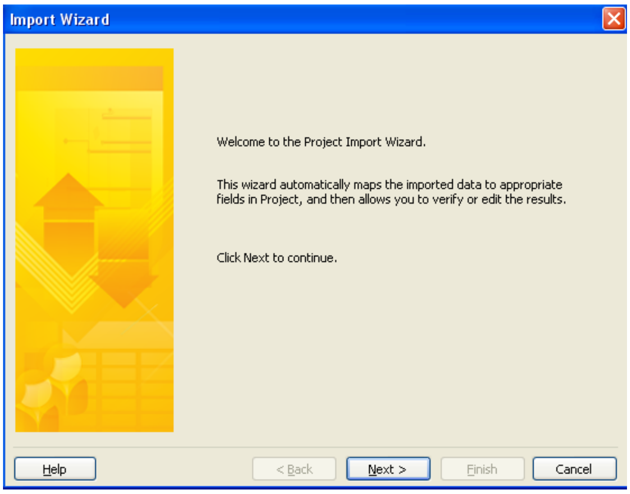
- To allow data in all formats to be imported, select the **Allow loading files with legacy or non-default file formats** and click **OK**
- Select the **File** menu and then **Open**
- In the **Files of type** section, select **All files**



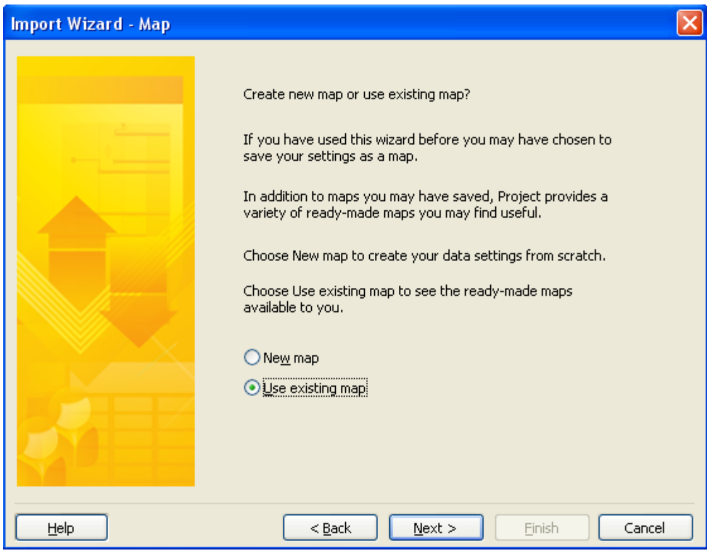
- The reason for selecting All Files is that the Excel data may be in an earlier version than 2007 and if you selected **Excel Workbooks (.xlsx)** then the file would not show on the list.
- Navigate to where the data is stored in Excel and select the file
- Click the **Open** button
- If Project has a problem with the file format a warning like the one below will be displayed. If your workbook is in .xlsx format you may see this option. Click **Yes**



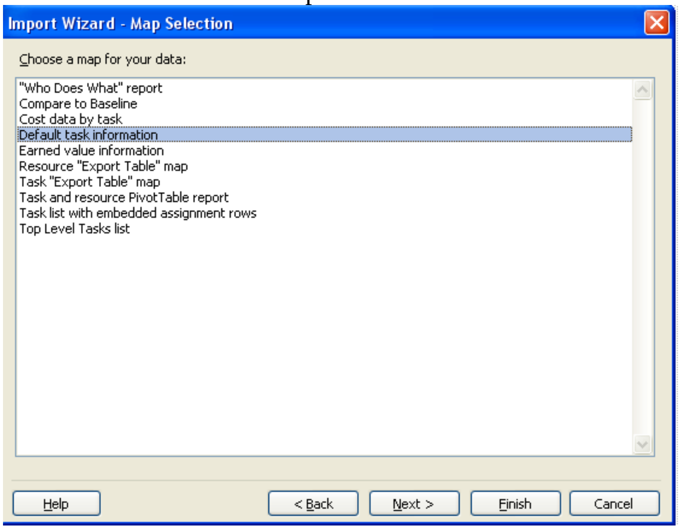
- You will then be taken through a Wizard to assist you with importing the data



- The first part of the wizard is a Welcome to the Project Import Wizard. Click **Next** to continue
- The next part of the wizard will be displayed

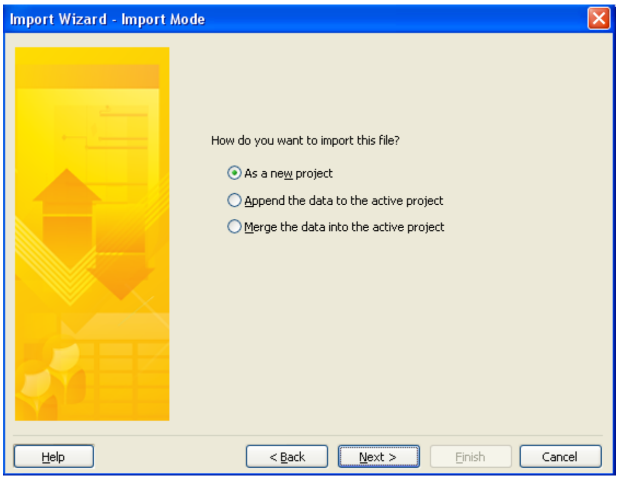


- As the data we are importing is simple, we will select **Use existing map** and click **Next** to move to the next part of the wizard

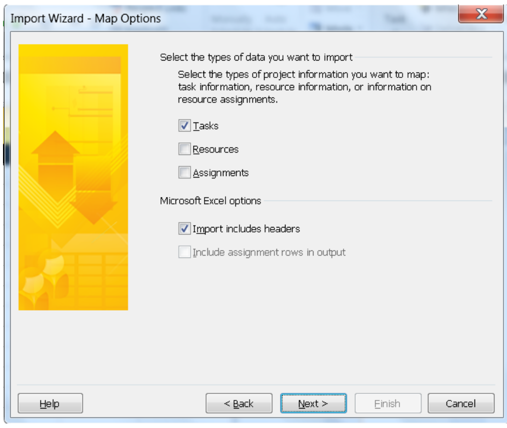


We will select Default task information and click Next

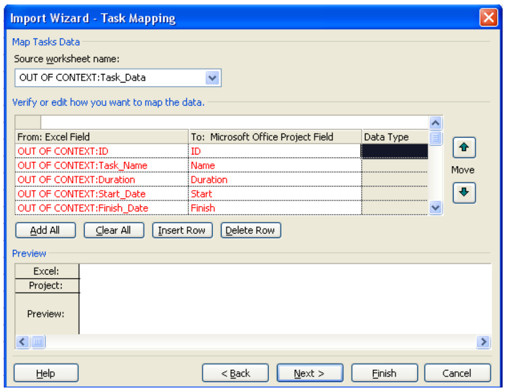
- The next part of the Wizard will be displayed



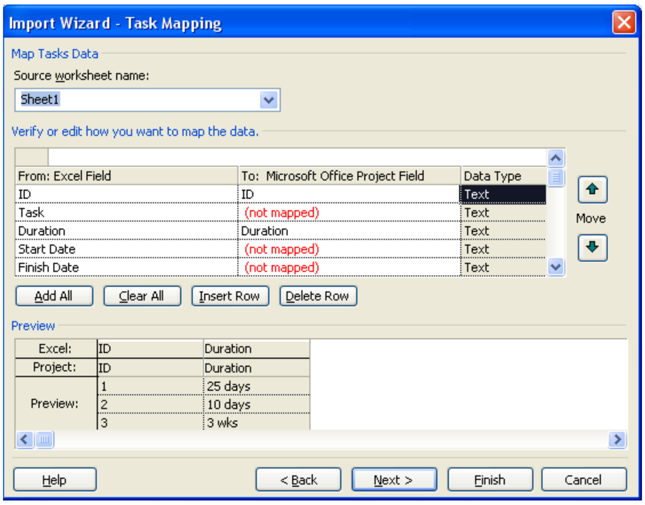
- As we are importing the data to a new Project Plan we will select **As a new project** and click **Next. T**he next part of the wizard is displayed



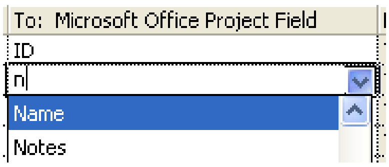
- We are now being asked about the type of data we want to map. We just have basic task information therefore we will select **Tasks**. If you had Resource or Assignment information you would select either of those options. Click **Next**
- The next stage of the wizard will be displayed



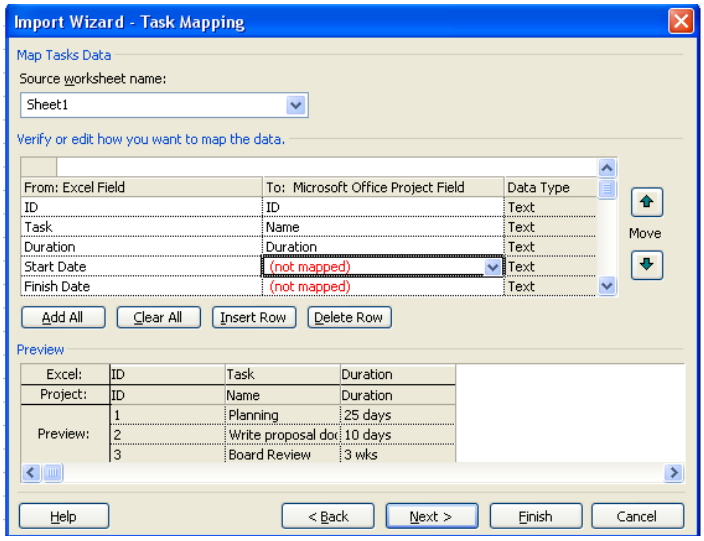
- In this step you can see that there is **OUT OF CONTEXT** data. We must now tell the wizard where the data is in Excel
- From the **Source worksheet name** section at the top left of the window, click the drop down arrow and select **Sheet1** because that's where out data is. Now you will see Project trying to figure out the data between the two applications.



- Any fields in Excel which do not match the names of the fields in Project will be displayed as **(not mapped)**. We must not tell Project which fields they are.
- Click in the first **(not mapped)** field (Task) and click the drop down arrow
- You will see a list of fields to choose from. This is the **Name** field in Project so select that one.

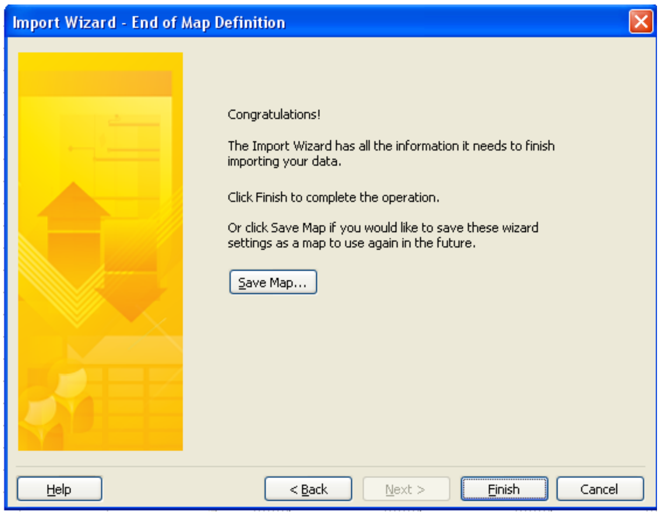


- You will now see from the preview at the bottom of the window that the data has been matched properly



- Continue mapping all the other fields and click **Next**

- The last section of the wizard will be displayed

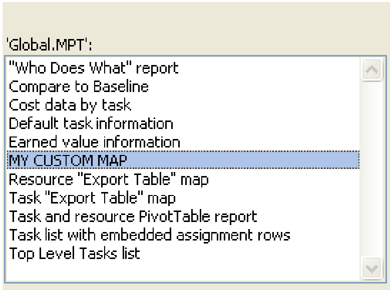


- Click the **Finish** button and your data will be displayed in your new Project plan
- Your data will now be in Project. If there are any constraints now in your plan and you don't want these, select all the tasks with constraints **by their ID numbers** and click the **Task Information** button 
- Select the **Advanced** tab and in the **Constraint Type** section, click the drop down arrow and select **As Soon As Possible**. Click **OK**

- Indent the **Sub Tasks** from the **Summary Tasks** and save the Project.

Create a Custom Import Map

- **Custom Imports allows for differences between the fields in Project and Excel**



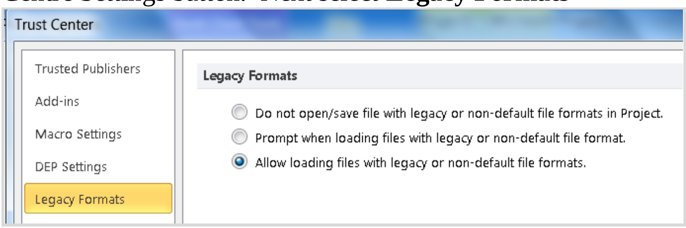
Create a Custom Import Map

Background

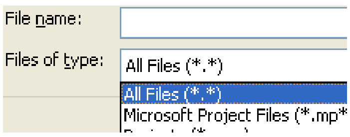
In this section we will look at creating a Custom Import Map. This is essential if you have data in Excel that does not match the fields in Project. There are a couple of choices here. If you plan to use an existing Project to import the data to you could prepare the field in Project first. This would assist in the data import. If you plan to import to a new Project Plan then you will need to create a custom map. We will create an import map and import data to a new Project plan. The date in Excel has two extra fields. A Cost field and a Profit Field. The Profit field does not exist in Project.

Create a Custom Import Map

- **Open Project 2010**
- From the **File** menu, select **Open**
- When you import data from Excel you will need to help Project with the data types you are importing from. To do this we will need to adjust the **Legacy formats** in Project itself.
- From the **File** menu, select **Options** then Trust Centre Options then the Trust Centre Settings button. Next select **Legacy Formats**

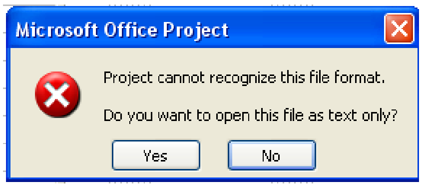


- To allow data in all formats to be imported, select the **Allow loading files with legacy or non-default file formats** and click **OK**
- Select the **File** menu and then **Open**
- In the **Files of type** section, select **All files**

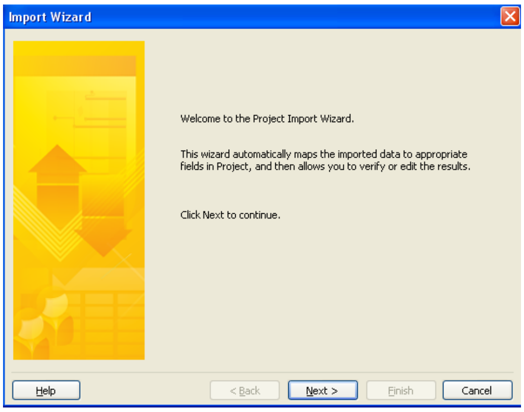


- The reason for selecting All Files is that the Excel data may be in an earlier version than 2007 and if you selected **Excel Workbooks (.xlsx)** then the file would not show on the list.
- Navigate to where the data is stored in Excel and select the file
- Click the **Open** button

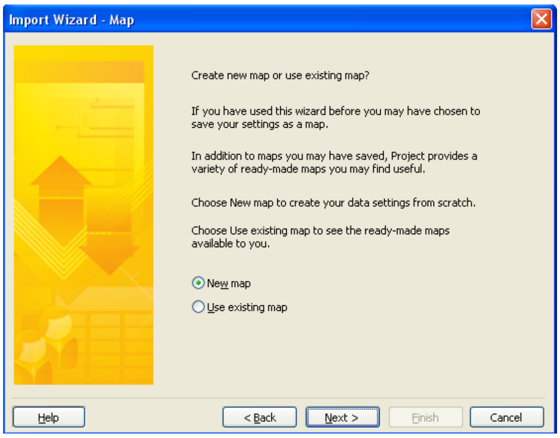
- If Project has a problem with the file format a warning like the one below will be displayed. If your workbook is in .xlsx format you may see this option. Click **Yes**



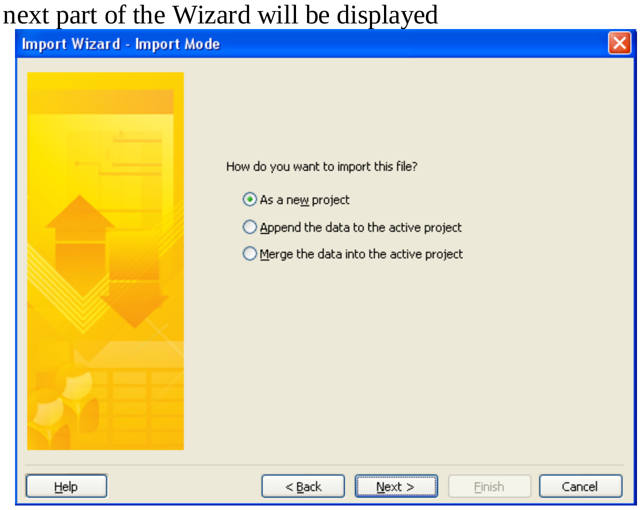
- You will then be taken through a Wizard to assist you with importing the data



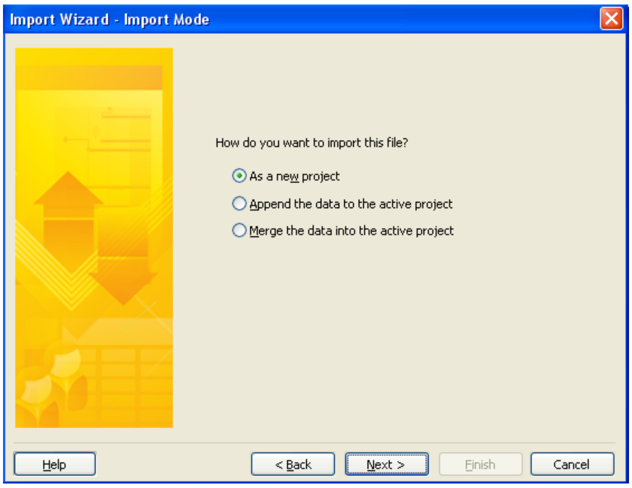
- The first part of the wizard is a Welcome to the Project Import Wizard. Click **Next** to continue
- The next part of the wizard will be displayed



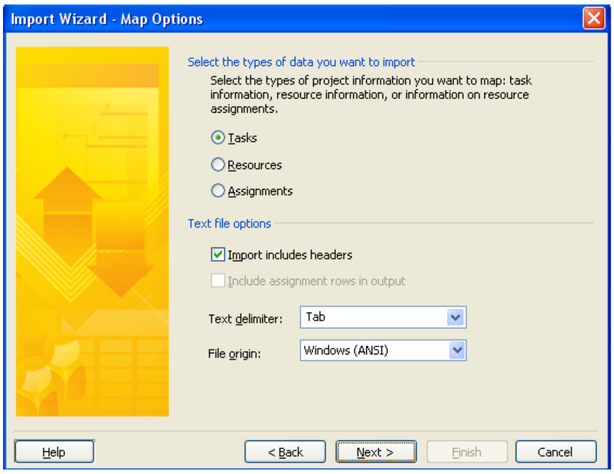
- The next part of the Wizard will be displayed



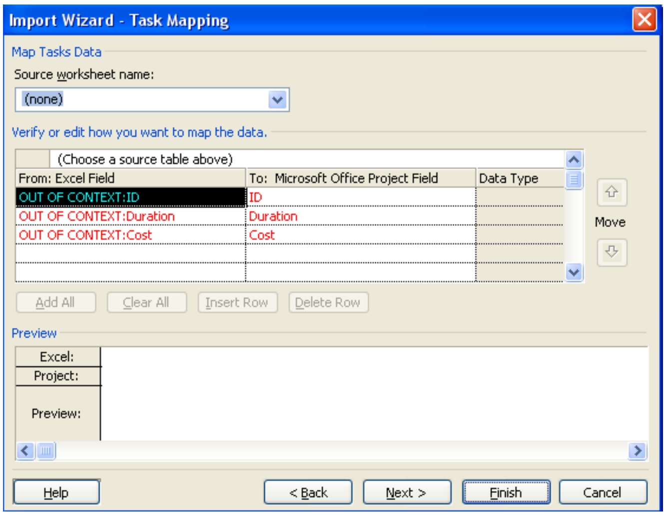
- As we are importing the data to a new Project Plan we will select **As a new project** and click **Next.** The next part of the wizard is displayed
- The next part of the Wizard will be displayed



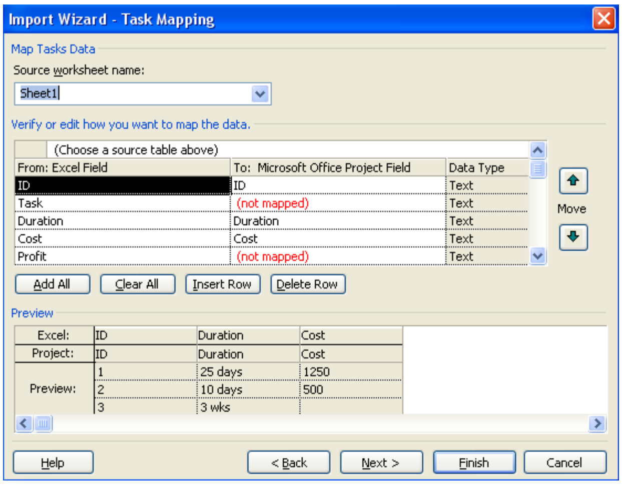
- As we are importing the data to a new Project Plan we will select **As a new project** and click **Next.** The next part of the wizard is displayed



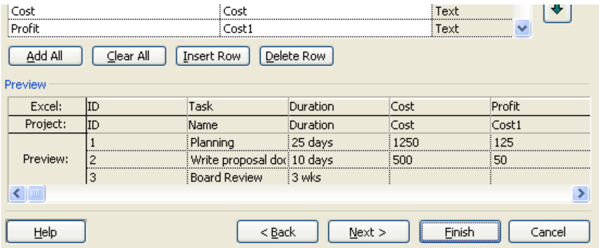
- Select **Tasks** and click **Next**. The next part of the wizard will be displayed.



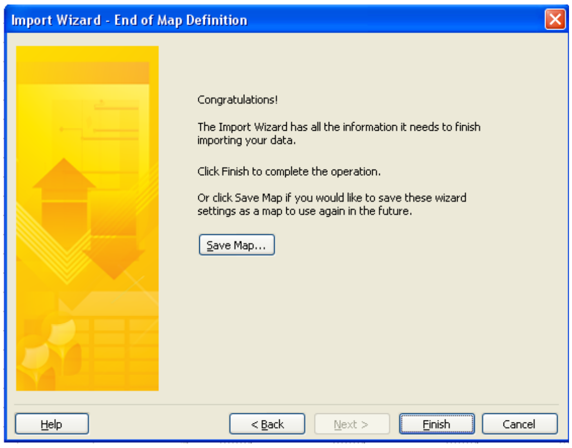
- From the **Source worksheet name** section, click the drop down arrow and select **Sheet1**. Click **Next**
- The next part of the wizard will be displayed.



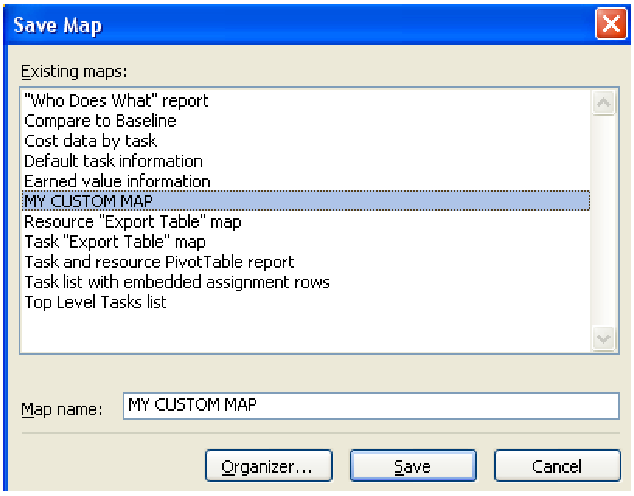
- Here we can see the calculated field from Excel.
- Just as we did before, we need to map the fields from Excel to project. The Task field should be mapped to Project using the **Name** field
- The **Cost** field should be mapped to Project using the **Cost** field
- The **Profit** field should be mapped to Project using the **Cost1** field as we have done below



- Click the **Next** button
- The last part of the wizard will be displayed



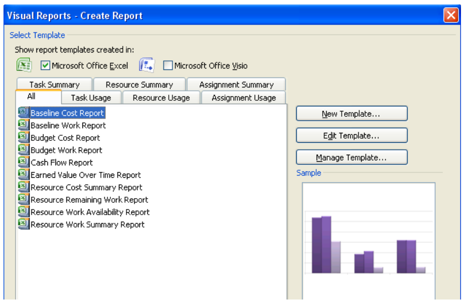
- Click Save Map
- You will see the **Save Map** dialog box



- Give your map a meaningful name, preferably in Capital Letters. That way you can find the map again in the Organizer easily and determine this map from the default ones originally in Project.

Export Project Plan Cost Data into Excel

- **Analyze Timescale Data in Excel option is gone from Project in 2007**
- **Options are to copy and paste or use Visual Reports**



Export Project Plan Cost Data into Excel

Background

In previous versions of Project there was an option called **Analyze Timescale Data in Excel.** This option has been taken out of Project now so the options are to copy and paste the Cost table information into Excel or use Visual Reports which will display your data in a PivotTable. With this option you can view the data before you decide that is what you want to do. We will do a bit of both.

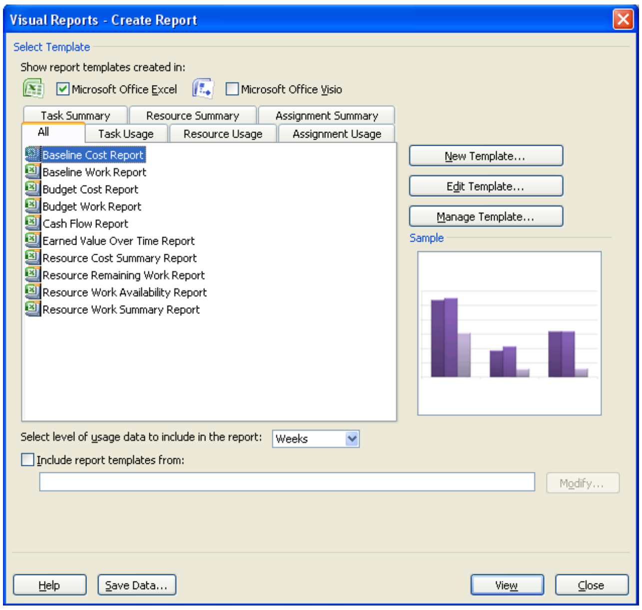
Export Cost Data to Excel with Copy and Paste

- Open the Project you wish to use
- From the **View** menu, select **Table, Cost**
- Select the tasks with their cost fields and copy
- Open Excel and select the cell you want to paste into
- From the **Home** tab and the **Clipboard** group of buttons, click **Paste**
- You data will now be in Excel.
- You will have to reformat the columns and add the headings but the basic data should be there

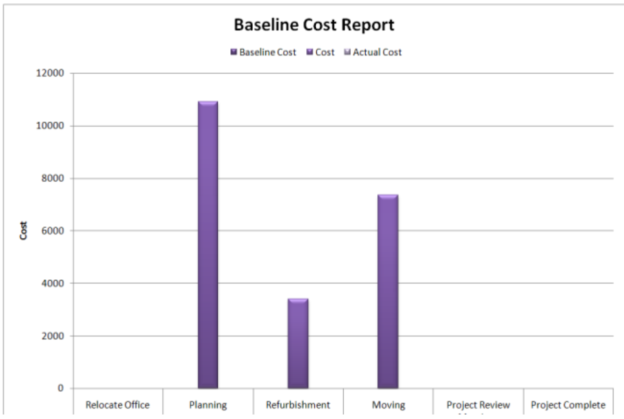
	A	B	C	D	E	F	G	H
1	Relocate Office	£0.00	Prorated	£21,655.00	£0.00	£21,655.00	£0.00	£21,655.00
2	Planning	£0.00	Prorated	£10,900.00	£0.00	£10,900.00	£0.00	£10,900.00
3	Write proposal document	£0.00	Prorated	£4,000.00	£0.00	£4,000.00	£0.00	£4,000.00
4	Board Review	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00
5	Authorisation to proceed	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00
6	Negotiate lease	£0.00	Prorated	£4,000.00	£0.00	£4,000.00	£0.00	£4,000.00
7	P:roduce layout drawings	£0.00	Prorated	£500.00	£0.00	£500.00	£0.00	£500.00
8	Select removal company	£0.00	Prorated	£2,400.00	£0.00	£2,400.00	£0.00	£2,400.00
9	Planning Complete	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00

Export Cost Data into Excel using Visual Reports

- Open the Project you wish to uses
- From the Project Tab and from the **Reports** group, select **Visual Reports** 
- You will now see the Visual Reports, Create Report window



- Select the type of report you wish. We will select **Baseline Cost Report**
- If you wish to see the data before you export it, click the **View** button
- First you will see the Chart which is on its own worksheet called **Chart1**

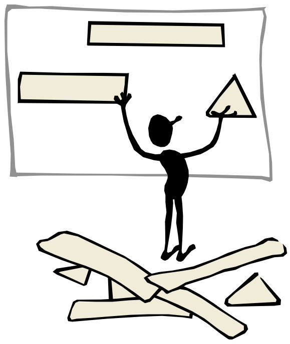


- You will also have a worksheet with the date on it. The data will be displayed in PivotTable format.

	A	B	C	D	E
1	Time Weekly Calendar	All			
2					
3			Data		
4	Tasks	Tasks 01	Baseline Cost	Cost	Actual Cost
5	⊟Relocate Office	Relocate Office	0	0	0
6		⊞Planning	0	10900	0
7		⊞Refurbishment	0	3395	0
8		⊞Moving	0	7360	0
9		⊞Project Review Meetings	0	0	0
10		Project Complete	0	0	0
11	Relocate Office Total		0	21655	0
12	Grand Total		0	21655	0
13					

- If you wish to keep the data, **Save the Excel document**
- If you go back to Project and select the **Save Data** option you will be prompted to save the data to Access which is not what we want in this case.

Practice Session 1



Practice Session 1

1. Open Microsoft Office Project 2010
2. Import the Task List called **Opening Ceremony.xls** from Excel by copying and pasting into Project.
3. If there are any constraints, set them back to **As Soon As Possible**
4. Adjust the Sub Tasks so that they are indented properly under the Summary Tasks
5. Save the Project and call it My Opening Ceremony
6. Import the Task List called **Opening Ceremony with check dates.xls** using a Custom Map.
7. If there are any constraints, set them back to **As Soon As Possible**
8. Adjust the Sub Tasks so that they are indented properly under the Summary Tasks
9. Save the Project and call it **My Opening Ceremony with check dates.xls**
10. Export My Opening Ceremony with check dates.xls Cost Data into Excel.
11. Use any of the Visual Reports you wish.
12. Save the workbook and call it My Opening Ceremony Cost Info.xlsx

Working with your Schedule & Resources

Learning Module Objective

When you have completed this module you will have seen how to:

- Change to Task Entry View
- Ways to shorten the schedule
- Resource Scheduling
- Fixed Units, Fixed Work, Fixed Duration
- Effort Driven Scheduling
- Determining the Driving Resource
- Resolving Resource Conflicts
- Level Overallocations automatically

Shortening the Schedule

- Fix Work
- Fix Duration
- Fix Units

Effort Driven can be on or off

Shortening the Schedule

Background

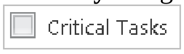
Once you create your project, arrange the tasks and assign resources to the tasks, you may find that the project does not meet your original goals. You may have a deadline or budget that you must meet now. Listed below are several ways to shorten your project. The method you choose depends on your individual project and resources.

The best way to shorten your project is to shorten the critical path. The critical path includes those tasks that affect the duration of the project. If a critical task finishes late, it delays the entire project. If a critical task finishes early, it shortens the duration of the project. If you shorten the length of the critical path, you shorten the duration of your project, and your project will finish earlier.

Methods to consider shortening the project are:

1. Assign additional resource units to a critical task. If you assign additional resource units to a task, Project automatically decreases the duration. If you add an additional type of resource to a task and you want to reduce the duration, you have to change the duration manually.
2. Assign resources to work overtime on critical tasks.
3. Add Lead Time to a task.
4. Increase the working time of your resources. If you change your resource calendars to reflect longer working days, you can complete tasks sooner, thus shortening your project. This differs from overtime in that the number of resource hours are increased without actually scheduling the resources to work any overtime. This is especially helpful if you have resources who are salaried instead of paid on an hourly rate, and are not eligible for overtime pay.
5. Change the duration of a critical task based on some knowledge of how the task can be completed in less time. You can also try to combine or delete critical tasks whenever possible, leaving only the tasks that are absolutely required to complete the project.
6. Break up critical tasks into several smaller subtasks that you might not have to complete in sequence. You may find that several of the subtasks become non-critical if you can change the sequence. If work can progress without completing all of the subtasks or if you can work on the subtasks concurrently, you can shorten the critical path.

View Critical Tasks

- Choose from either **Network Diagram** view
- **OR** Turn the **Critical Tasks** red in colour from the **Format tab** and the **Bar Styles** group then click on the **Critical Tasks** tick box 

- **OR** from the **Filter**, filter out **Critical Tasks**

Resource Scheduling

- Fix Work
- Fix Duration
- Fix Units

Effort Driven can be on or off

Resource Scheduling

Background

Project recalculates the duration for a task if you assign additional resource units to the task by default. If you assign additional resource units to a task using resource-driven scheduling, the task duration decreases. If the task is critical, Project decreases the duration of the Critical Path and possibly shortens the duration of the project. You also have the option of manually changing the duration if you determine the task can be completed in less time.

Resource scheduling involves not only assigning resources to tasks, but is also involves keeping track of and changing resources once a project has begun.

We could use the **Resource Usage** view to determine exactly what days/hours our resources are working on particular task.

Normally when Project calculates the hours or days of work for a task it calculates like this:

WORK = DURATION * UNITS

We can also **Fix Units, Fix Duration** or **Fix Work** to *'freeze'* any of these options when we add or remove resources to our schedule.

Remember if you do not like the way Project re-calculates, just overtype the result.

Effort Driven Scheduling

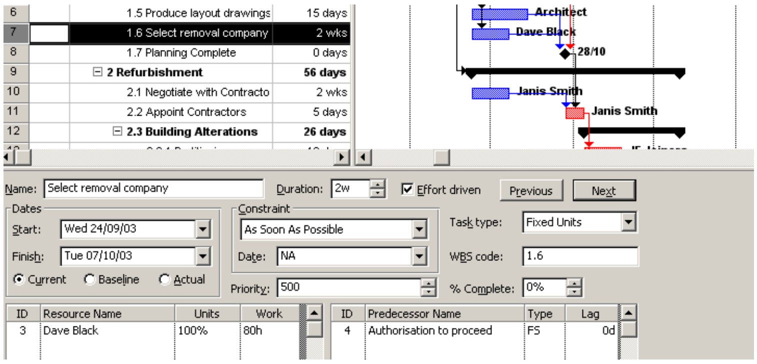
Effort-driven scheduling, Project does not change the total work for a task, if you add or remove resources units. Project recalculates the duration of the task. Adding resources shortens the duration by default, and removing resources extends the duration.

Project applies effort-driven calculation rules only for the first resource that you assign to a task, but not if you change the work, duration or units for the existing resource assignments.

If you apply multiple resources at the beginning of a task, Project does not apply effort-driven calculations. If you add or remove resources after the initial assignment, Project does not change the work value.

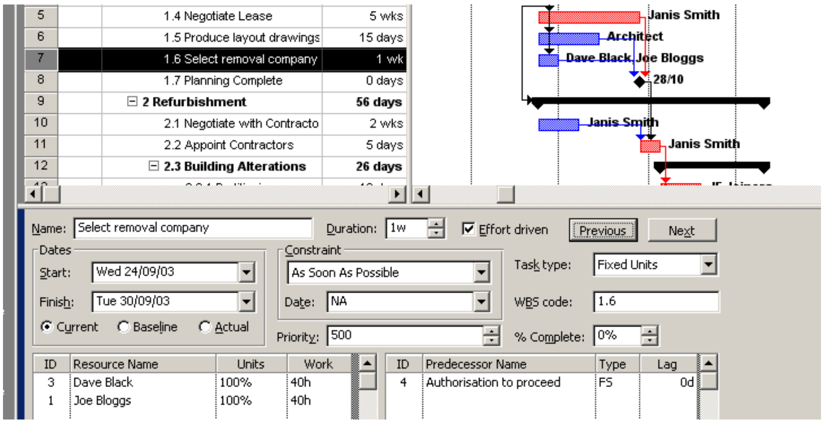
NOTE: You cannot make summary tasks or inserted projects effort-driven.

Fixed Units –Effort Driven on



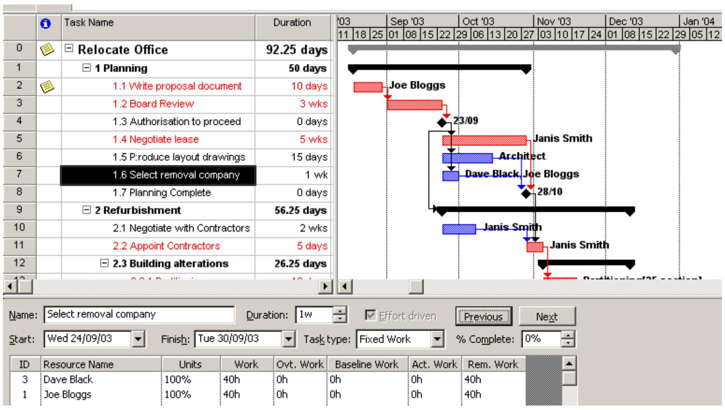
This is the way we have been working up until now. If you add another resource to a task, the Duration is less but the Units are the same. The illustration is with one resource assigned to the task. Here we have Dave Black with 80 hours of work on Select Removal Company.

After, when another resource is assigned to the task the **Units** are **Fixed, Effort Driven** is **on,** Project recalculates the **Work**. The hours are split in half and the duration changes to 1 week as Effort Driven is on. Each Resource is allocated 40 hours.



Fixed Work – Effort Driven off

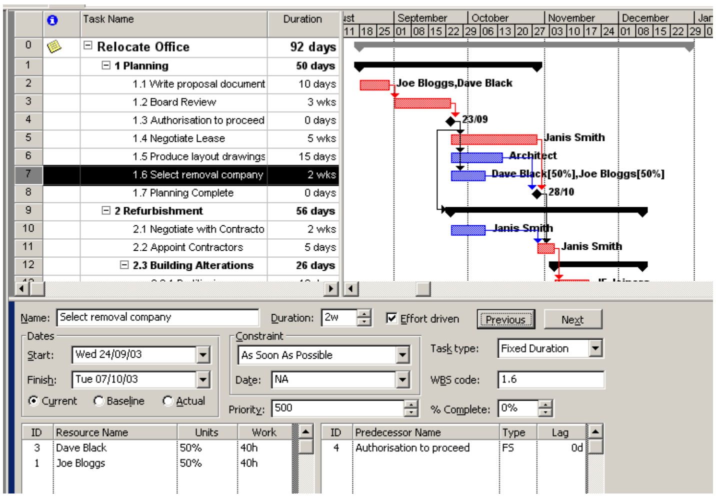
If we wanted to **Fix** the **Work** and have **Effort Driven Off** then Project would recalculate like this:



The Duration reduces to 1 week and each resource is allocated 40 hours of work and 100% units. If the task is slipping, you would add more resources to get it back on schedule.

Fixed Duration – Effort Driven on

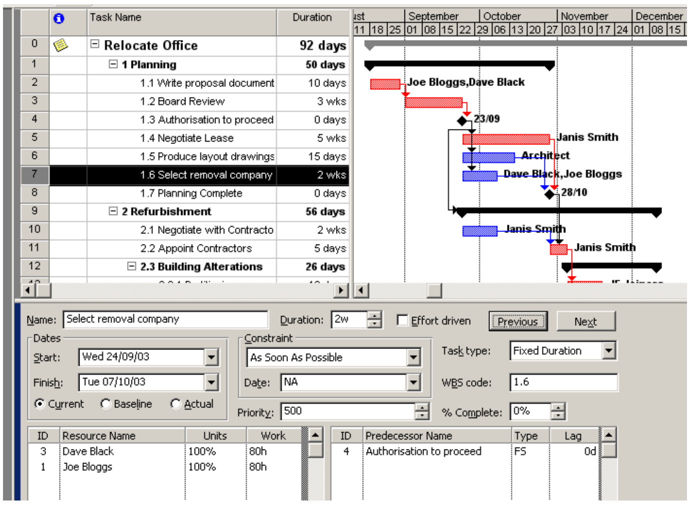
If you want to keep the duration the same and turn Effort Driven off but fix the Duration, Project again recalculates:



This time Project has assigned each Resource 50% of Units and 40h of work but the duration of 2 weeks is still the same

Fixed Duration – Effort Driven off

This gives the same result as **Fixed Duration – Effort Driven Off**.



This option gives both Resources 100% Units and 80 hours of work each. The duration stays at 2 weeks.

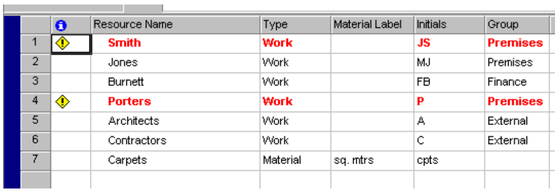
Remember if you do not like the way Project re-calculates, just overtype the result.

Determining the Driving Resource

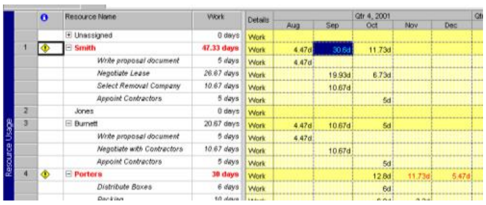
When you assign several different resources or resource groups to a task, the resource or resource group with the most work per unit determines the duration for the task. Project assumes that if you work more hours in a day, then you can get through more work.

For example, let’s say Person A, Person B and Person C are assigned to the same task. Person A works 8 hours per day, Person B works 10 per day and Person C works 8 hours a day. Person C will be the driving resource because they work more hours in a day and will *drive* the duration of the task.

Resolving Resource Conflicts - Manually



		Resource Name	Type	Material Label	Initials	Group
1	◆	Smith	Work		JS	Premises
2		Jones	Work		MJ	Premises
3		Burnett	Work		FB	Finance
4	◆	Porters	Work		P	Premises
5		Architects	Work		A	External
6		Contractors	Work		C	External
7		Carpets	Material	sq. mtrs	cpts	



Resource Sheet View – Overallocations in Red - Resource Usage View

Resolving Resource Conflicts

Background

If you have a large Project with lots of resources it is very easy to assign someone to two or more different tasks at the same time. This is what is known as **Overallocation**. In this version of Project you will see a small red person in the Indicatrs column when a resource is overallocarted on a task. You might also consider the new **Team Planner** view to assist with viewing overallocations!

When you wish to resolve Overallocations or Resource Conflicts you can do this manually or you can use Project's **Resource Levelling** feature.

Is your project **time-constrained** or **resource constrained**? If your project is tine-constrained, achieving deadlines would be number one priority. If your project is resource-constrained, this means you cannot make more resources available.

If you must adhere to deadlines, and also work within a resource budget, then you can only resolve resource shortfalls by reducing the amount of work to be carried out. In the worst case, a competent project plan is the best possible means of proving to management that you cannot possibly do what they ask with the means at your disposal!

Alternatively, if the project is resource-constrained, tasks are delayed so as to remain within the resource availability, while minimising the resultant delay to the overall deadline. This is called **Levelling**

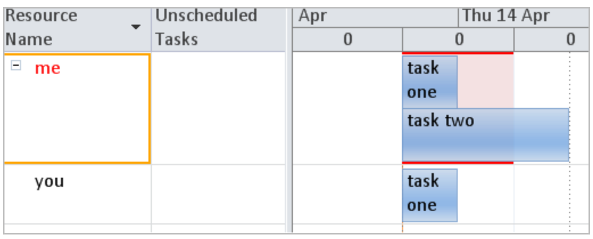
First of all we have to see who and where the **Resource** is **Overallocated.** To do this we could use the **Resource Sheet** and the **Resource Usage** View.

See who is Overallocated

- Remove the split from the window
- From the **Task** tab and the **View** group click the drop down arrow on the **Gantt Chart** button and select **Resource Sheet**
- Any Overallocated Resources appear in red text.
- *(See illustration above)*
- OR Run a **filter** by **Resource Name** and you will be able to see where the Gantt Bars overlap for that resource.

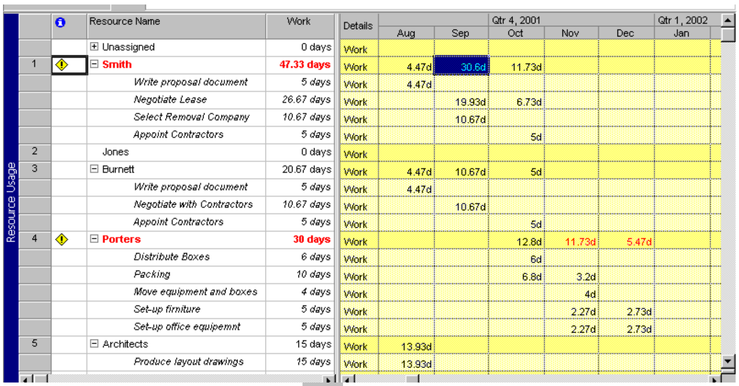
Team Planner View

- Alternatively you could use the new **Team Planner** view
- **View** tab, **Resource Views** group and **Team Planner** button



Find Overallocations

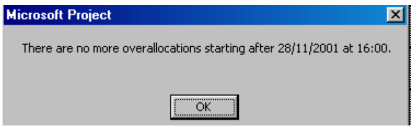
- Remove the split from the window
- **View** tab, **Resource Views** group
- Choose **Resource Usage** button
- From the **Resource** tab and the **Level** group, click the **Go to next**



	Resource Name	Work	Details	Aug	Sep	Oct	Nov	Dec	Jan
	Unassigned	0 days	Work						
1	Smith	47.33 days	Work	4.47d	30.6d	11.73d			
	Write proposal document	5 days	Work	4.47d					
	Negotiate Lease	26.67 days	Work		19.93d	6.73d			
	Select Removal Company	10.67 days	Work		10.67d				
	Appoint Contractors	5 days	Work			5d			
2	Jones	0 days	Work						
3	Burnett	20.67 days	Work	4.47d	10.67d	5d			
	Write proposal document	5 days	Work	4.47d					
	Negotiate with Contractors	10.67 days	Work		10.67d				
	Appoint Contractors	5 days	Work			5d			
4	Porters	30 days	Work			12.8d	11.73d	5.47d	
	Distribute Boxes	6 days	Work			6d			
	Packing	10 days	Work			6.8d	3.2d		
	Move equipment and boxes	4 days	Work				4d		
	Set-up firniture	5 days	Work				2.27d	2.73d	
	Set-up office equipemnt	5 days	Work				2.27d	2.73d	
5	Architects	15 days	Work	13.93d					
	Produce layout drawings	15 days	Work	13.93d					

overallocation button or **Alt + F5**

- Each time you do this, the overallocation will be highlight exactly where the resource is overallocated.



- When you reach the end of the overallocations, you will see this window:
- If you want to use this feature again, you can re-set the timescale by clicking in the yellow part of the screen and press **Alt + Home** on the keyboard

What can you do about resource overallocations? Review task durations

It is a common fallacy to believe that you automatically shorten the duration of a task by simply applying more resource to it. In the majority of cases this is not so.

If a task has float, then extend the duration of the task by assigning the resource work part-time (50% allocation). This releases the resource to work on another task at the same time. Alternatively you may need to add an assistant to work on a task to complete the task more quickly.

Re-allocate existing resources

Compare the histograms of people with similar skills. It may be evident that tasks can be re-allocated to other people who are not busy at the time the conflicts are shown.

Increase resources available

The most common method of increasing resources is to work overtime, although this may be unpopular and expensive. Alternatively, if the demand is there it may be opportune to directly employ more staff or contract out some of the work.

Review network logic

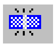
You may wish to commence some tasks earlier than scheduled. Review the logic that controls the tasks – it may be that the ideal constraints could be overcome and a different logic adopted.

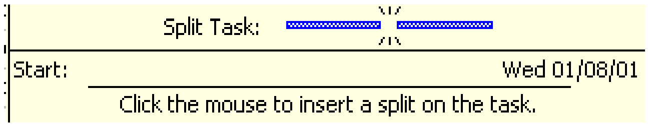
Reschedule tasks when resources are available

- Select the task required
- From the **Task** tab and the **Tasks** group, click the drop down arrow on the **Move** button. Move
- Select **Reschedule Task** and **When resources are available**
- Project will move the task to the next available time on the timeline

Split activities

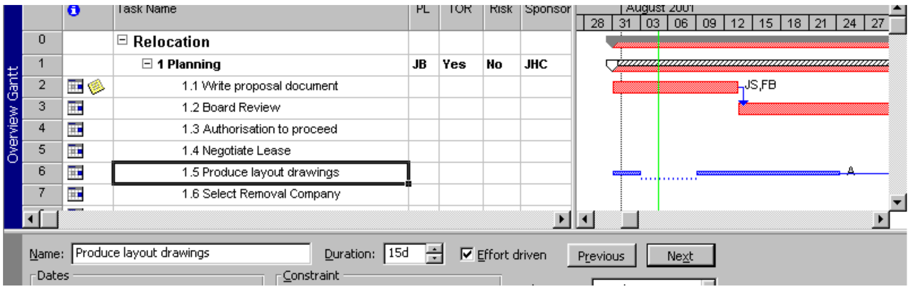
Consider interrupting non-critical tasks to make the resource available for critical tasks. Beware it is not practical to split all activities.

- Switch to **Task Entry**
- Use the **Previous** and **Next** buttons to select the task to be split
- On the **Task** tab and the **Schedule** group, click on the **Split Task** button 
- Take your mouse pointer over the task to be split and you will see a window like the one below giving information of the task you area about to split



- Click the left mouse button over the section of the task to be split and drag with the mouse.
- Release the mouse when you have dragged to split to the correct date.

In the illustration below we selected the task **Produce layout drawings** and split the task for one week. The task duration is still 15 days but the task will finish at a later



date.

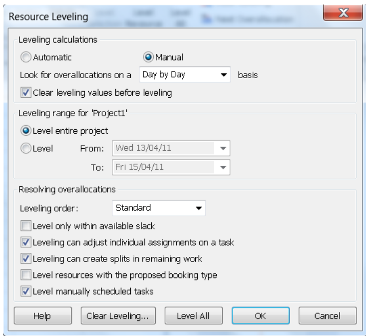
Re-assess the task

Firstly it may be necessary to review if a task has to be completed at all, that is, review project objectives. Secondly look at other ways of performing the task, using faster machinery, software development tools and so on.

NOTE: Whatever techniques you employ, do not expect the computer to solve your resource problems for you. The best it can do is display the problems more clearly, **you** have to overcome them.

Levelling Resources Automatically

- **Overallocations can be *levelled* automatically by Project**
- **Good idea if your project is large**
- **But this option is not full proof. Project cannot always solve the problems**



Levelling Resources Automatically

Background

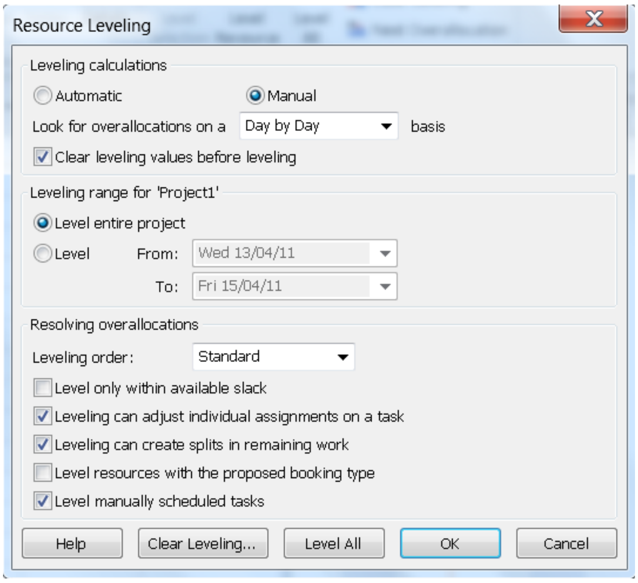
Now that you have assigned and scheduled your resources, and you know that some of them are overallocated, in a large Project this can be time consuming to go through them one by one. Project 2003 can automatically *level* your overallocations for you to optimise resources.

Project takes a number of factors into consideration when doing this. Project levels resources by delaying or splitting tasks. It does not add resources as you may do when levelling manually. The problem with delaying tasks is that is has an impact on the project schedule by extending it.

Automatic Resource Levelling

- From the **Resource** tab and the **Level** group, select **Levelling Options** button 

- This will invoke the **Resource Levelling** dialog box



- Under the **Levelling calculations** section, you will see that the options are **Automatic** or **Manual**. If you select **Automatic**, Project will adjust overallocations as they arise. This is not a good ideal, as Project will seem to take on a life of its own. We will select **Manual**

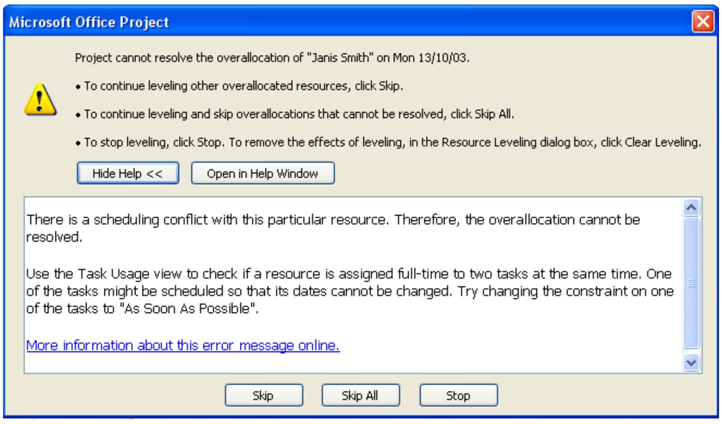
- In the **Clear levelling values before levelling** check box, leave the tick to clear any previous levelling values before you level again

- In the **Leveling range for** section, select **Level entire project** or if you know where you problems are, select **Level from** and enter the dates required
- In the **Resolving overallocations** section, under **Levelling Order** you can stipulate the order in which Project levels:

  1. **ID Only:** Microsoft Project delays tasks as needed with the higher ID numbers before considering other criteria.

  2. **Standard:** Microsoft Project looks at predecessor relationships, slack (a task with more total slack time is delayed first), dates (a task with a later start date is delayed first), priorities, and constraints to determine whether and how tasks should be levelled. This is the default.

  3. **Priority, Standard:** Microsoft Project looks first at priorities and then at predecessor relationships, slack, dates, and constraints to determine whether and how tasks should be levelled.
- In the Level **only within available slack** section, select this to level tasks within available slack time so the project finish date is not delayed
- In the **Levelling can adjust individual assignments on a task** section, select this for Project do determine the best way to alter the workloads when levelling
- In the **Leveling can create splits in remaining work** section, select this to allow Project to split tasks as necessary to level the resources or tasks you have selected
- In the **Level resource with the proposed booking type,** if you have used the **Booking Type** field in either Resource Sheet or Task Usage resources are either marked ***confirmed or proposed***. By default this box is empty.
- In the **Level manually scheduled tasks**, click the box if you have manual tasks as these are not normally used when Project uses it levelling feature.
- Click **Level All.**
- If Project cannot solve your overallocations, you will see a dialog box like the one below to give you assistance.

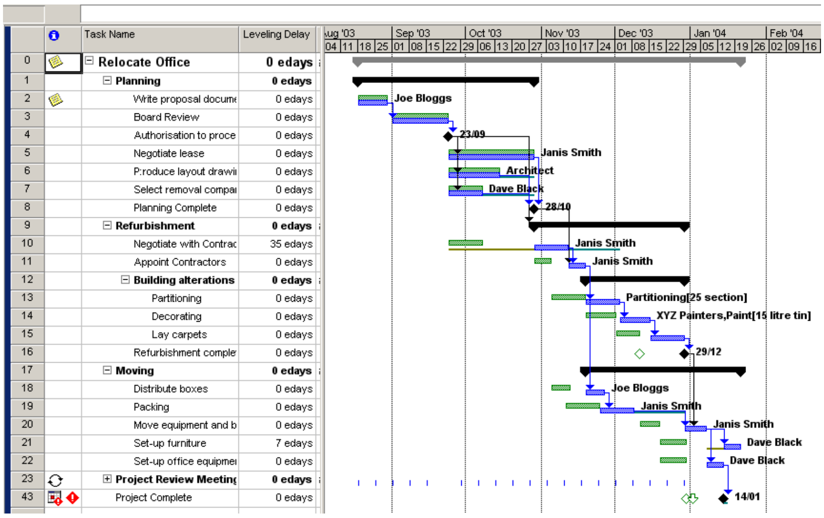


- You will be notified which resource is causing the problem and when. Make a note of this as you will have to resolve this manually.
- Click the **Skip** button to skip to the next problem
- **OR** click the **Stop Button** to stop project finding any more overallocations.

NOTE: The last 3 options above, make it more difficult for Project to solve your problems. If you find that Project cannot resolve your overallocations, untick one or more of the options to make it easier for Project.

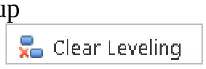
See Leveling Changes

- From the **View** tab, **Resource Views** group, select **More Views**
- Then select **Leveling Gantt**



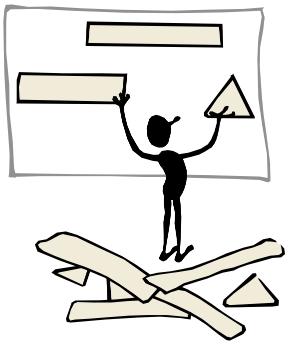
- From the illustration above, you can see how this project has been levelled
- The Green bars indicated pre-leveled tasks. You can see that the final milestone has been pushed out also.

To clear leveling

- From the **Resource** tab, **Level** group
- Then select **Clear Leveling** button 

- Your project should now be back where you started.

Practice Session 2



Practice Session 2

In this session we will manually resolve some resource conflicts and then try the automatic option.

1. Switch to **Resource Sheet** view and write down who is overallocated. (Names are in red. *(Pg 26)*
2. Switch to **Resource Usage View** and use the **Go to next overallocation** button to view the overallocations.
3. You should find that Janis Smith is overallocated on 24th September 2003 with Negotiate Lease and Negotiate with Contractors. Dave Black is also overallocated on Friday 19th December 2003 with Set up Furniture and Set-up office equipment.
4. Go back to the Gantt Chart and double click on Negotiate Lease. Select the **Resource** tab and enter 50% units for Janis Smith. Double click on Negotiate with Contractors and give 50% units for Janis Smith also. This should resolve the overallocation. *(Pg 27)*
5. Double click Set-up Office equipment and change the resource from Dave Black to **Joe Bloggs**.
6. View the **Resource Usage** sheet and ensure there are no more overallocations.
7. Switch back to **Gantt Chart** view
8. Save the file as **Relocation Project Levelled**

Updating a Project Plan

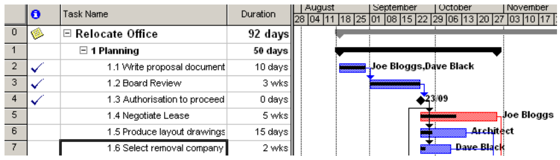
Learning Module Objectives

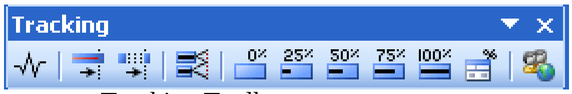
When you have completed this learning module you will have seen how to:

- Save a Baseline
- Enter Task Progress Information
- View Task Progress
- Split a Task
- Reschedule a Task
- Filter Tasks in a Project
- Save an Interim Project Plan
- Create a Custom Table
- Add Custom Columns to a Table

Enter Task Progress Information

- **What really happened**
- **Set a Baseline**
- **Actual Start and Finish dates**
- **Start uncompleted work specific date**





Tracking Toolbar

Recording Progress

Background

Update you project often! As your project progresses, you should track the completion of tasks to determine if the tasks followed the schedule. You will often have changes that occur once the project begins. You may, for example, have tasks that must be postponed, tasks that start early or late, or tasks that took longer than anticipated.

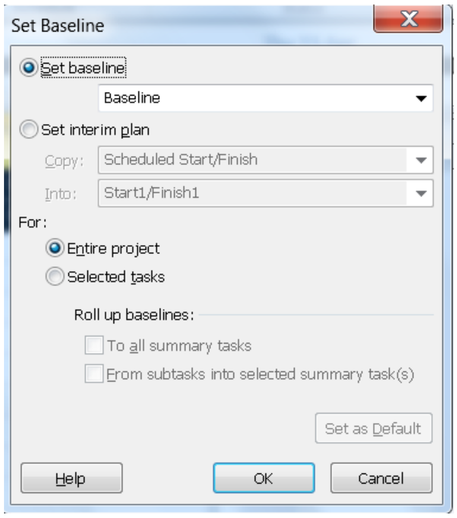
Updating your project tells what really happened. This could be when tasks really did start and finish, and how long tasks did take to complete.

The first thing to do is to set a Baseline. A Baseline will record all the information you entered before you start to change things. By changing view you can compare the information you had previously with the data you now have. This should be set when you have put your project together to include all task, resource and cost information and are ready to proceed with the project. In this version of Project, you can set up to 11 baselines on one project and even see all 11 baselines in one window, if required.

To set a project baseline

Let's say we save the **Relocation Practice** file with a baseline and see what would happen.

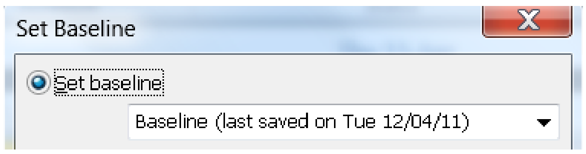
- From the **Project tab**, select **Schedule** then click the **Set Baseline** button 
- The **Set Baseline** dialog box will be displayed
- Select, **Set baseline** and **For: Entire project**



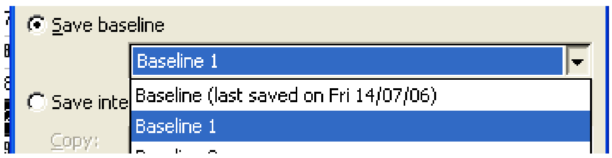
- If you had added new tasks, you should click the option **Selected tasks**
- Click **OK**
- Make your changes to the project

Set Baseline again

- Each time you make changes and set a baseline, Project will indicate this in the **Save baseline** dialog box.



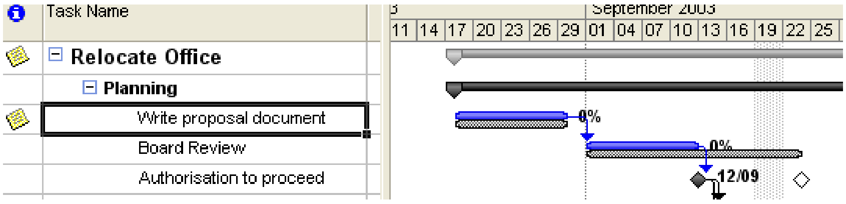
- Make your changes
- From the **Project tab**, select **Schedule** then click the **Set Baseline** button 
- The **Save Baseline** dialog box will be displayed
- Select, Save with a baseline and For: Entire project
- Click the drop down arrow within the **Save baseline** section and select **Baseline 1**



- Use the same procedure for each additional baseline required.

Viewing the baseline changes

- From the **View** tab and the **Task Views** group, select **Tracking Gantt**
- The **Grey** Gantt Bars represent the original data before the baseline was set and the **Blue** or **Red** Gantt Bars represent the new data.
- In the illustration below, we have changed the Board Review task from 3 weeks to 2 weeks.

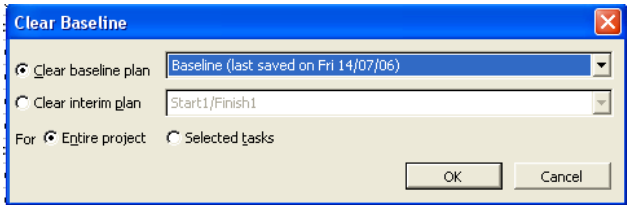


NOTE: If you have set multiple baselines, to view them all in one window select the **View** tab and the **Task Views** group, then **Multiple Baseline Gantt**.

Clear the Baseline

If you decide to set the baseline more than once in your project you may wish to Clear the existing baseline. In previous versions of Project, once you saved a Baseline you were stuck with it but in this version, you can now clear the baseline as many times as you wish.

- From the **Project tab**, select **Schedule** then click the **Clear Baseline** button

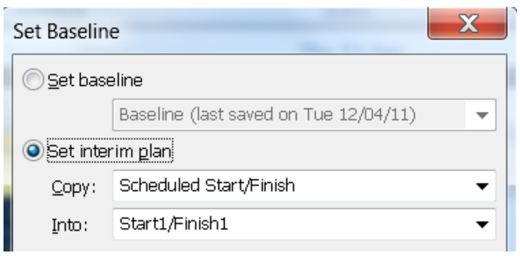


- This will invoke the **Clear Baseline** dialog box
- If you wish to clear the whole project, select **Entire project**
- If you have chosen tasks, choose **Selected tasks**
- Click **OK**

Saving an Interim Plan

You can now save more than one baseline in this version of Project. This sounds good, but the only fields which are tracked are the Start and Finish fields. Once you save a baseline, the Start and Finish fields are saved to Satart1 and Finish1. Saving again will save the Start1 and Finish1 to Start2 and Finish2 and so on up to 10 times.

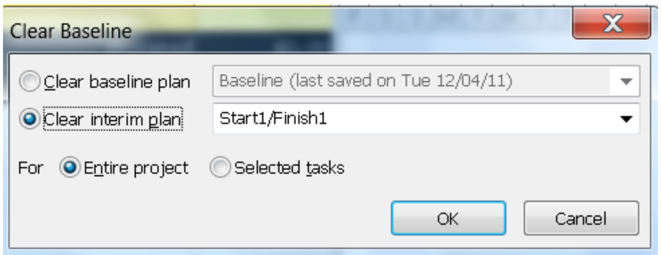
- From the **Project tab**, select **Schedule** then click the **Set Baseline** button
- This will invoke the **Set Baseline** dialog box



- Select the **Set interim plan** and in the **Copy** box you will see the fields which will be copied
- In the **Into** box, you will see where the Start and Finish fields will be save into
- If you wish to change any of these fields, click the drop down arrows
- Click **OK**
- To see the changes you will have to customise the Gantt Chart view to include the Start1 and Finish1 fields.

Clear an Interim Plan

- From the **Project tab**, select **Schedule** then click the **Clear Baseline** button
- This will invoke the **Clear Baseline** dialog box

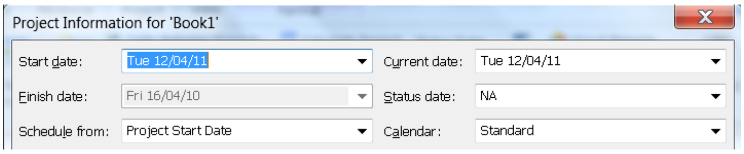


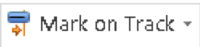
- Select the **Clear interim plan** and select the fields to clear by clicking the drop down arrow
- If you wish to clear the whole project, select **Entire project**
- If you wish to clear tasks you have selected, choose **Selected Tasks**
- Click **OK**

Changing the Current Date and use Mark on Track

If you wish to use the Mark on Track button, you may need to change the Current Date.

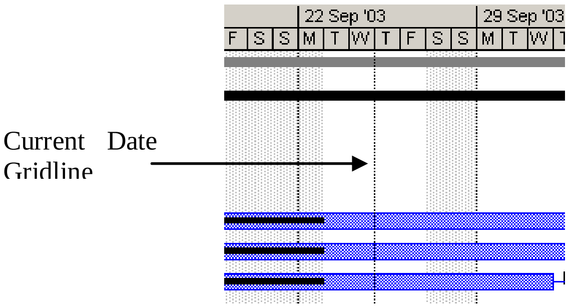
- From the **Project** tab and the drop down men the **Properties** group, select **Project Information**



- In the **Current Date** section, enter the date required
- From the **Task** tab and the **Schedule** group, select **Mark on track** button 

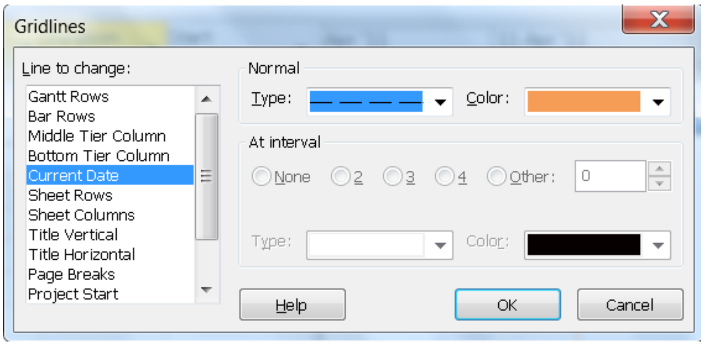
Current Date Gridline

The current date is shown by a grey line running from the top of the window to the bottom.



To distinguish this gridline from the others, we will customise it to a really gaudy colour.

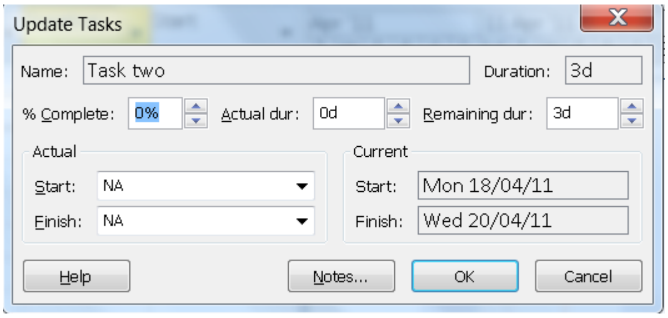
- From the **Format** tab and the **Format** group, select **Gridlines**
- This will invoke the **Gridlines** dialog box



- From the **Line to change** section, select **Current Date**
- From the **Normal** section and **Type**, click the drop down arrow and select a line style
- From the **Colour** section, select a bright colour and click **OK**

Update Actual Start and Finish dates for tasks

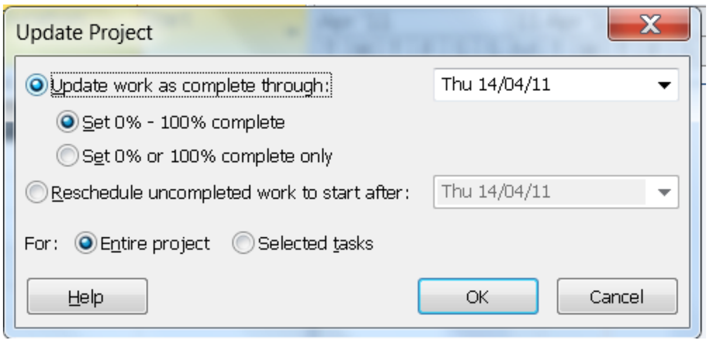
- In the **Gantt Chart** view
- Select the task to be updated
- From the **Task** tab and the **Schedule** group, select **Mark on track** drop down arrow and select **Update Tasks**
- The **Update Tasks** dialog box will be displayed



- Enter a date in the **Actual**, **Start** box
- If the task has finished, enter a date in the **Finish** box
- **OR**
- If the duration of the task was less than you planned, insert a date in the **Finish** box (Project will re-adjust the duration of the task)
- Click the **Notes** button and enter any information regarding the task
- Click **OK**

Entering a date to update the whole project

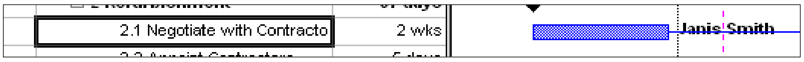
- From the **Project** tab, select **Status** group and **Update Project** button 
- The **Update Project** dialog box is displayed.

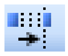


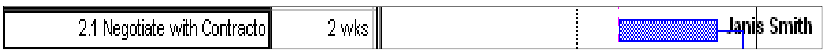
- In the **Update work as complete through** box, enter a date that Project will use to compate the scheduled start and finish dates
- Select the option **Set 0% - 100% complete**
- Choose from **Entire Project** or **Selected Tasks**
- Click **OK**

Reschedule Selected Task Work to start at the current date

Use this option when you want to re-schedule selected tasks to continue from the date you entered into the Current Date box. ***In this version of Project the button has gone from the main menu and you will have to put it on your Quick Access Toolbar or on one of the tabs.*** Let's say Janis Smith has not started her task Negotiate with Contractors and the current date is 6th October 2003. Her task should have started on 15th September 2003. (see below).



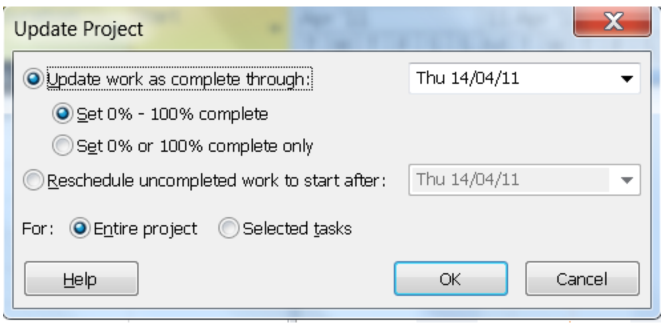
- We will update her task to the current date of 6th October 2003.
- Select the task(s) to be rescheduled
- Click the **Reschedule Work** button 
- The tasks are moved to the correct timescale along the schedule



Reschedule uncompleted work to start after a specific date

Useful if you have tasks that should have started but have not. You can tell Project when to start these tasks. You can use this with either selected tasks of the whole project.

- From the **Project** tab, select **Sttus** group then **Update Project** button
- In the section **Reschedule uncompleted work to start after** and enter a date



- Click **OK**

Tracking Actual Work against Actual Cost

If you wish to view Actual Start, Finish, Work, Cost and Duration in your project, the **Tracking Table** is ideal.

	Task Name	Act. Start	Act. Finish	% Comp.	Act. Dur.	Rem. Dur.	Act. Cost	Act. Work
0	Relocate Office	Mon 18/08/03	NA	21%	18.89 days	72.36 days	£10,352.00	248 hrs
1	1 Planning	Mon 18/08/03	NA	44%	19.93 days	25.07 days	£10,352.00	248 hrs
2	1.1 Write proposal doc	Mon 18/08/03	Fri 29/08/03	100%	10 days	0 days	£6,400.00	160 hrs
3	1.2 Board Review	Mon 01/09/03	Fri 12/09/03	100%	2 wks	0 wks	£0.00	0 hrs
4	1.3 Authorisation to pr	Fri 12/09/03	Fri 12/09/03	100%	0 days	0 days	£0.00	0 hrs
5	1.4 Negotiate Lease	Mon 15/09/03	NA	16%	0.8 wks	4.2 wks	£832.00	32 hrs
6	1.5 Produce layout dra	Mon 15/09/03	NA	27%	4 days	11 days	£2,400.00	32 hrs
7	1.6 Select removal cor	Tue 16/09/03	NA	30%	0.6 wks	1.4 wks	£720.00	24 hrs
8	1.7 Planning Complete	NA	NA	0%	0 days	0 days	£0.00	0 hrs

- From the **View** tab, select **Table** and then **Tracking**

Entering an additional cost on a completed task

When a task is finished, you can enter an additional cost in the Actual Cost field. You can only alter this data after you mark the task complete.

- Select either the **Tracking** Table or the **Cost** table
- In the **Actual Cost** field, enter the amount you require
- Press **Enter**

Viewing Costs over Budget

When you save your plan with a baseline, any costs which have been calculated will be remembered by Project. This is the equivalent to setting a budget.

Once you change any costs or add additional time to a duration which has a paid resource against it, Project will display any overbudget costs when you use the Cost Overbudget Filter.

- From the **View** tab and the **Data** group
- From the **Filter** [No Filter] drop down arrow, select **More Filters** then **Cost Overbudget**

View Actual/Baseline costs

- From the **View** tab and the **Data** group, select **Tables** then select **More tables**
- Select **Earned Value** to view baseline costs and actual costs when the project has been changed

	Task Name	BCWS	BCWP	ACWP	SV	CV	EAC	BAC	VAC
0	Relocate Office	£25,410.00	£0.00	£0.00	-£25,410.00	£0.00	£31,612.50	£25,410.00	-£6,202.50
1	1 Planning	£14,400.00	£0.00	£0.00	-£14,400.00	£0.00	£20,600.00	£14,400.00	-£6,200.00
2	1.1 Write proposal	£2,000.00	£0.00	£0.00	-£2,000.00	£0.00	£3,200.00	£2,000.00	-£1,200.00

Updating Actual Work when the time sheets come back

If your company works with timesheets, when these timesheets come back to you the resource may have worked less or more hours on the task you gave them. Updating this can be done in the **Task Usage** view.

- From the **View** tab then the **Tasks** group, select **Task Usage**
- Right-click in the yellow pane and select **Actual Work** detail
- In the **Actual Work** cell, enter the data
- Press **Enter**

	Task Name	Work	Baseline	Variance	Actual	Remaining	% W. Comp.	Details	F	S	S	22 Sep '03 M
6	Set-up office equipmer	12 hrs	16 hrs	-4 hrs	12 hrs	0 hrs	100%	Work	6h			6h
								Act. W	6h			6h
	Joe Bloggs	*12 hrs*	*16 hrs*	*-4 hrs*	*12 hrs*	*0 hrs*	*100%*	Work	6h			6h
								Act. W	6h			6h

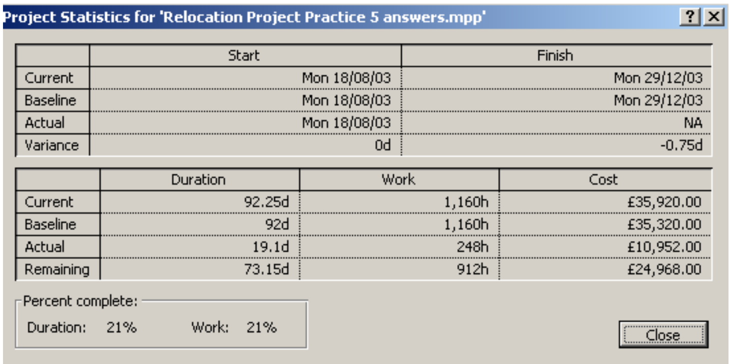
You will notice that Variance, Baseline and other fields will update themselves.

NOTE: If you do not mark the task complete before you alter the Actual Work, you may find that Project moves the extra hours to the next day. If this is the case, delete these extra hours.

Viewing Actual and Baseline data in the Statistics window

As your project proceeds, it may be useful to see Current, Baseline and Actual data. We could use the Statistics dialog box for this purpose.

- If not, from the **Project** tab and the **Properties** group, select **Project Information** and then click the **Statistics** button



Project Statistics for 'Relocation Project Practice 5 answers.mpp'

	Start	Finish
Current	Mon 18/08/03	Mon 29/12/03
Baseline	Mon 18/08/03	Mon 29/12/03
Actual	Mon 18/08/03	NA
Variance	0d	-0.75d

	Duration	Work	Cost
Current	92.25d	1,160h	£35,920.00
Baseline	92d	1,160h	£35,320.00
Actual	19.1d	248h	£10,952.00
Remaining	73.15d	912h	£24,968.00

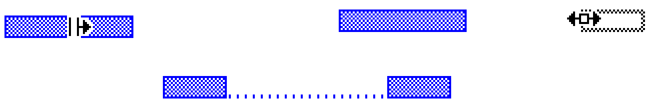
Percent complete:
Duration: 21% Work: 21%

Close

To split a task

If you wish to schedule a task more than once and perhaps for different durations on each occasion, then the split task method is very convenient where the detail is stored as one task. This option also helps when you have a resource with 2 tasks to omplete at the same time frame. **In this version of Project the button is not displayed by default. You must add it to the Quick Access Toolbar or to one of tabs.**

- Click the **Split Task** button
- Move the pointer over the task you wish to split
- Drag the split to start on the required date.



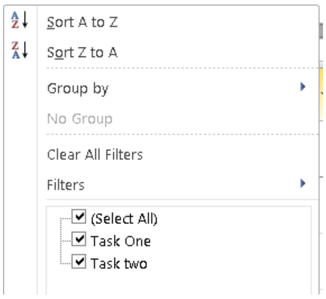
- A dotted line indicates where a task has been split, and that it can be split more than once.

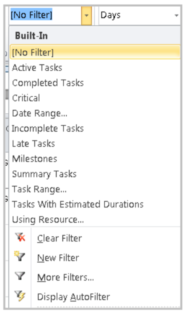
- The duration of the task will be the same. In the illustration above 2 weeks but the task will finish later than you originally planned.

NOTE: If you split the task as the wrong position you can rejoin the task by pointing at the second part of the task and drag it back to join the first part.

Filtering Your Data

- **There are 34 Task filters to choose from under All Tasks**
- **Or you could use the AutoFilter feature**





Filtering Your Data

Background

There will be times when you or others will want to ask questions of your Project. For example, *What tasks are happening next week*, or exactly what one of your Resources is responsible for. This information can be easily displayed using either the **Filter** or **AutoFilter** features.

To use the All Tasks Filter

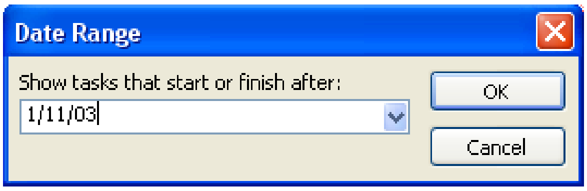
- From the **View** tab and the **Data** group next to the **Filter** section (*see above).*

To stop the Filter

- Click the drop down arrow on the **Filter** and select **No Filter**

To Filter a Date Range

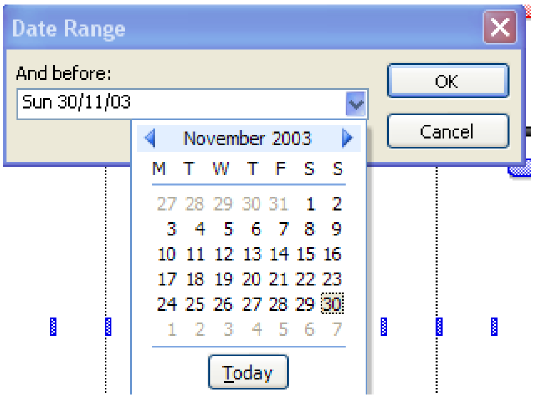
- Click the drop down arrow next to the **Filter** section
- From the list, select **Date Range**. The **Date Range** dialog box will be displayed



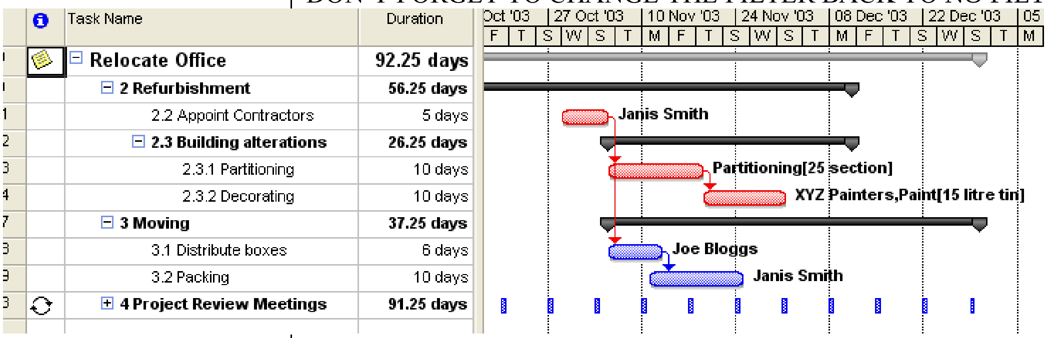
- Enter the start of the range and click **OK**
- The second **Date Range** dialog box will appear

- Enter the end of the range and click OK
- Your data will be filtered to show only the tasks to be done in that time period.

Alternatively, you can click the drop down arrow and select a date from the calendar.

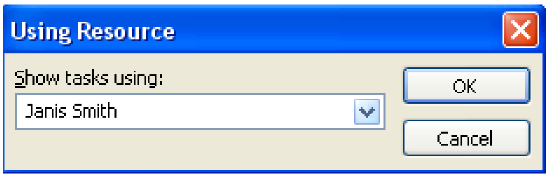


DON'T FORGET TO CHANGE THE FILTER BACK TO NO FILTER!

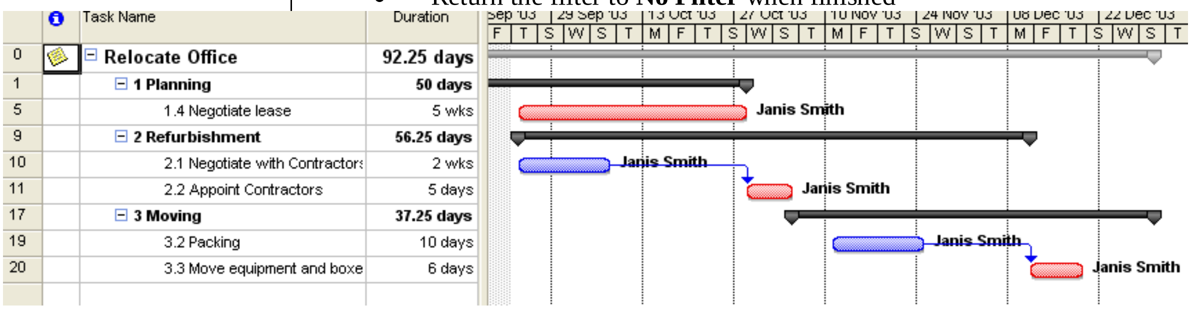


Filter Resource Data

- From the **View** tab and the **Data** group next to the **Filter** section
- From the list, select **Using Resource**.
- The **Using Resource** dialog box will be displayed

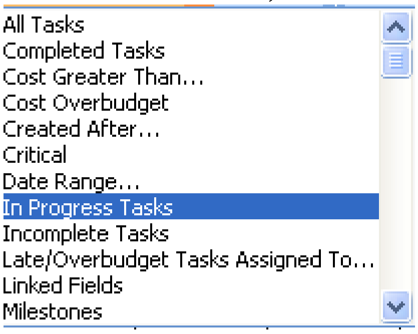


- Click the drop down arrow and select a resource name
- Click **OK**
- Only the tasks for the selected resource will be displayed.
- Return the filter to **No Filter** when finished



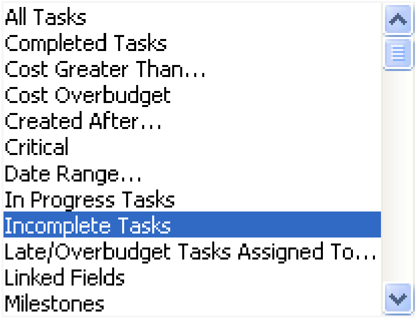
Filter Tasks in Progress

- From the **Filter**, select **More Filters** then **In Progress Tasks**



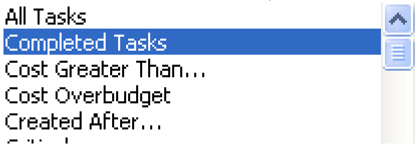
Filter Tasks not yet completed

- From the **Filter**, select **More Filters** then **Incomplete Tasks**



Filter Completed Tasks

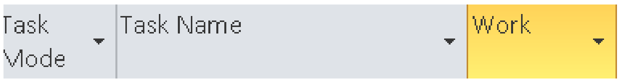
- From the **Filter**, select **More Filters**, select C**ompleted Tasks**



Use the AutoFilter Feature

The AutoFilter feature is similar to the one in Excel. Once activated, a small block is positioned to the right of the field names. By clicking the downward arrow and selecting from the list, you can filter exactly the data required. You may run more than one AutoFilter at any given time. The AutoFilter should be on by default but if it's not, just follow the instructions below.

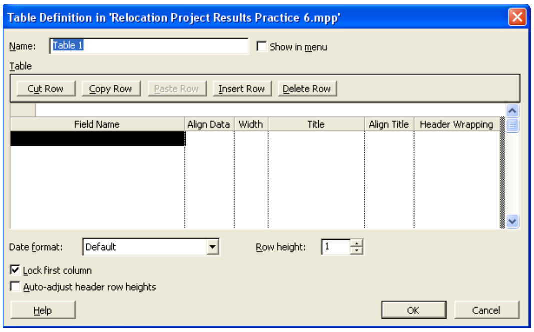
- From the **View** tab and the **Data** group next to the **Filter** section
- From the list, select **Display AutoFilter**.
- You will see a small down arrow to the right of each field



- Click the downward arrow on the field you wish to filter and select from the list
- To run further AutoFilters, click the appropriate drop down arrow for the field you are interested in until the desired data is shown.

Create a Custom Table

- **Give your Table a meaningful Name**
- **Type the name in CAPITALS to determine it is customised**
- **Enter the fields names and their alignments**



Defining a New Table

Background

There are 17 pre-defined Tables in this version of Project. Tables which are applied to sheet views control which fields Project includes in the view. To change the information that Project displays, you apply a different table. If the pre-defined Tables are not suitable for your information, then you can customise them by either copying and editing an existing Table or creating a new one of your own.

When you define a new Table you can control the following:

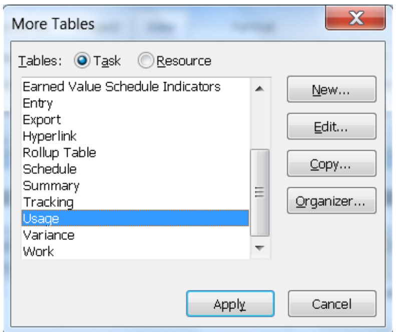
- Columns (fields)
- Column width
- Row height
- Alignment
- Date format
- Column titles

When you create a table, you can indicate whether you want Project to display the table in the table submenu. It is a good idea to add tables that you plan to use frequently in the submenu. When you name the table it is also a good idea to enter the name in CAPITALS to enable you to determine which tables you have produced and which were originally pre-defined by Project.

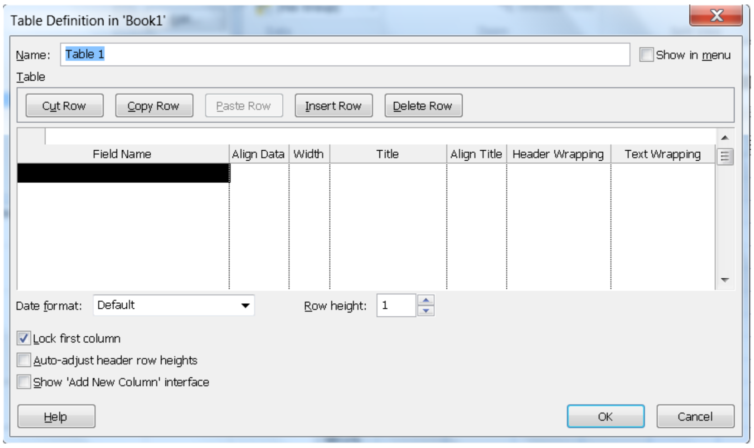
You can create either Task Table or Resource Tables. We will look at creating Task Tables, but the principle for creating Resource Tables is exactly the same

Create a New Task Table

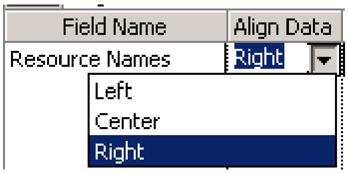
- From within a Task View, select the **View** tab and the **Data group**, select **Tables** and then **More Tables**
- This will invoke the **More Table** dialog box
- Notice that the **Task** options at the top of the window is already selected
- Click the **New** button



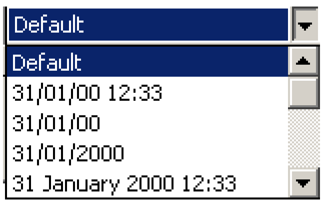
- This will invoke the **Table Definition in** 'name of project'



- In the **Name** section, enter a name in CAPITALS
- In the **Show in menu** section, click in the box. (This means that when you click the **View** drop down menu, your table will be listed)
- Click in the first **Field Name** and use the drop down arrow to select the required field
- Press **Enter**
- The rest of the fields (**Align Data, Width** etc.) will be populated with their default options. To change this click the drop down arrow on each one and select one of the options



- In the **Title** section, you can enter another title for your field and this will override the **Field Name** when you view your field in a table.
- Continue until you have the required fields
- If your fields have dates, click the drop down arrow in the **Date format** section and select one of the date formats
- In the **Row height** enter a row height up to a maximum of 20



Lock first column will hold the first column locked (grey in background) so that it cannot be changed
Click **OK**

Auto-adjust header row heights

Adjusts the height of header rows to accommodate word wrapping to multiple lines in the field header. When this check box is cleared, and the text in a header is too wide or too long to fit in the available space of its current setting, the additional text is not visible. By default, this check box is selected

To Apply your new Table

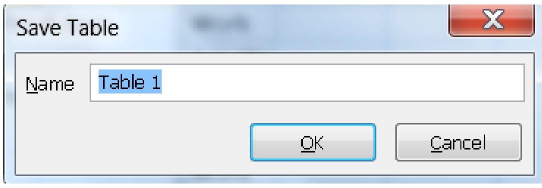
- Click the **View** tab
- Your new table should be listed. As it is in CAPITALS you should be able to see it very clearly.

Edit/Copy an existing Table

- From within a Task View, select the **View** tab, select **Tables** and then **More Tables**
- This will invoke the **More Table** dialog box
- Notice that the **Task** options at the top of the window is already selected
- Click the **Copy or Edit** button
- Make the necessary changes and click **OK**

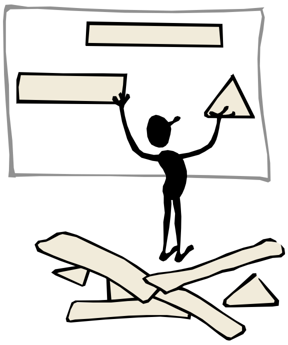
Save Fields as Table

- If you have already created new fields in your table you can save these as a view.
- From within a Task View, select the **View** tab and the **Data group**, select **Tables** and then choose **Save field as a new table**



- Give your new table a name and click **OK**

Practice Session 3



Practice Session 3

In this practice session we will save a baseline and track the progress of our tasks.

1. With your open **Relocation Project Levelled**, use the **Tracking** feature to save it with a baseline for the entire project.
2. Change the table to **Entry**.
3. Change the **Current Date** to 3rd November 2003.
4. Format the Current Date Gridline to a bright colour.
5. Select tasks 2 through to 8 and use the **Update as Scheduled** button. How many tasks were marked with a tick?
6. Task 10 did not start until 3rd November 2003 because Janis Smith was off sick for 2 days. Inform Project of this.
7. Mark Task 10 25% complete using the buttons on the **Task Tab**.
8. Display the **Cost** table. The Write proposal document task is complete but Joe Bloggs and Dave Black incurred an additional cost of £300. Enter this amount in the **Actual** field. Ensure that you can see the Baseline figure and the Variance figure.
9. Display the **Task Usage** view with the **Work** table applied. Joe Bloggs' time sheet has come back and he has only worked 6 hours on Friday 29th August 2003 on the Write proposal document. Display the **Actual Work** detail and update project of this.
10. View the **Statistics** window and assess the changes we have made.
11. Save the project and keep it open.
12. Is the project in line with the constraint? How would you amend this?
13. Save the project.
14. Use the **Task Filter** to filter out all **Incomplete Tasks**. How many do you have?
15. Filter out **Completed Tasks**. How many do you have?
16. Create a **Custom Table** of your own choice.
17. Save and close the project

Creating Custom Reports

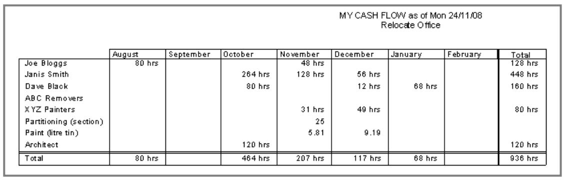
Learning Module Objectives

When you have completed this learning module you will have seen how to:

- Create a Custom Report
- Modify a Custom Report's Header and Footer
- Add a Picture to a Report
- Modify a Custom Report's Margins
- Print a Custom Report

Create a Custom Report

- **There are 29 Custom Reports**
- **All can be edited or copied**
- **Or you can create your own report**



MY CASH FLOW as of Mon 24/11/08
Relocate Office

	August	September	October	November	December	January	February	Total
Joe Bloggs	80 hrs			48 hrs				128 hrs
Janis Smith			264 hrs	128 hrs	56 hrs			448 hrs
Dave Black			80 hrs		12 hrs	68 hrs		160 hrs
ABC Removers								
XYZ Painters				31 hrs	49 hrs			80 hrs
Partitioning (section)				25				
Paint (litre tin)				5.81	9.19			
Architect			120 hrs					120 hrs
Total	80 hrs		464 hrs	207 hrs	117 hrs	68 hrs		936 hrs

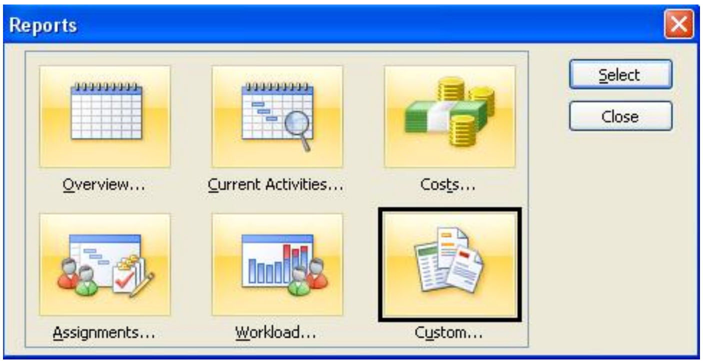
Create a Custom Report

Background

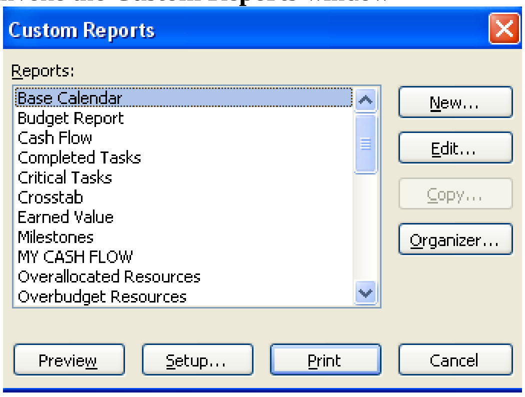
In this version of Project there are 29 reports all of which can be copied or edited. You can even create your own custom report. If you added fields to Project, these fields will be picked up when you create a custom report.

Create a Custom Report

- From the **Project** tab and the **Reports** section, select **Reports**
- This will invoke the **Reports** dialog box

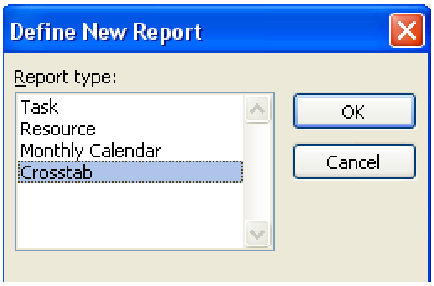


- Click on **Custom** and click **Select**
- This will invoke the **Custom Reports** window

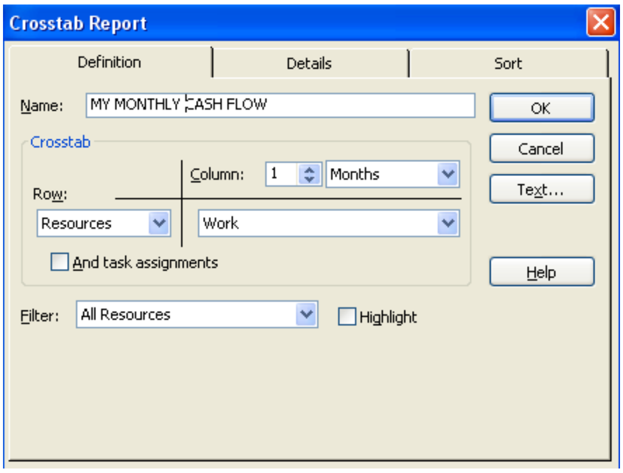


- Click the **New** button to create a new report

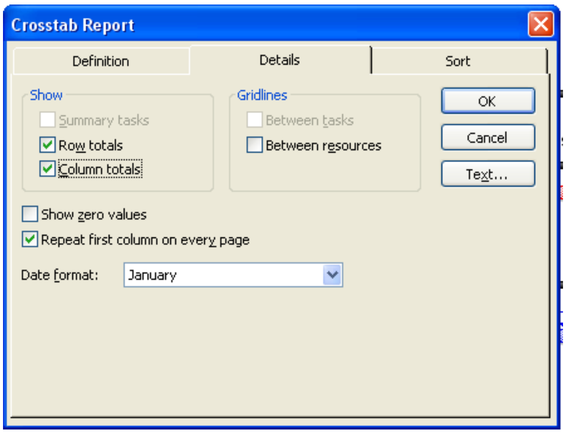
- You will now see the **Define New Report** window



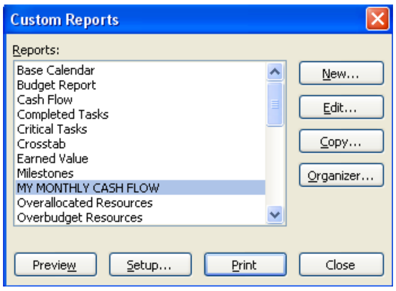
- You can create a **Task, Resource, Monthly Calendar** or **Crosstab** report. We will select **Crosstab** and click **OK**
- From the **Crosstab Report** dialog box, enter a name for the report



- In the **Column** section we have changed the default days to **Months** to produce a monthly cash flow
- Change any of the other details as necessary for example do you want to run a filter when the report is displayed?



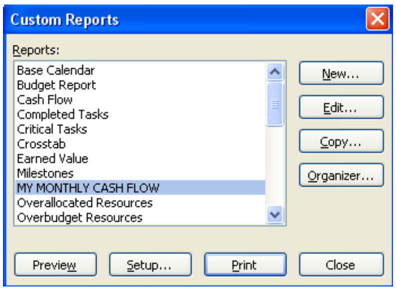
- From the **Details** tab and **Sort** tab select the options required.
- If you wish to change the text in your report, click the **Text** button and select font and size you require.
- Click **OK**
- Your report will then be added to the Custom Reports



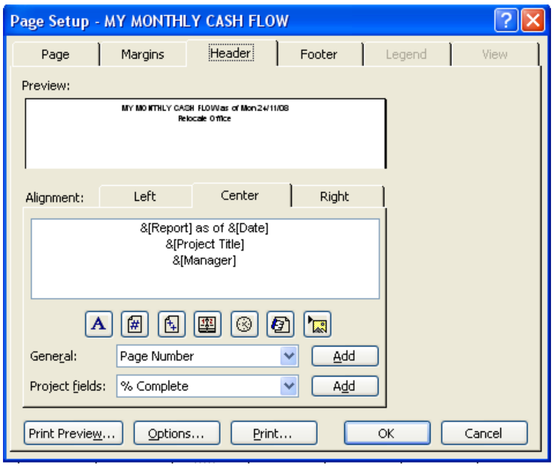
Format a Custom Report Header and Footer

- From the **Project** tab and the **Reports** section, select **Reports**
- This will invoke the **Reports** dialog box

- Click on **Custom** and click **Select**
- This will invoke the **Custom Reports** window



- Click your report then click the **Setup** button



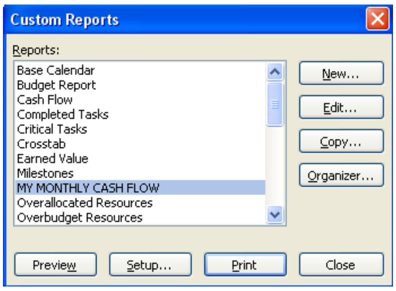
- Click the **Header** tab and select either the **Left, Center or Right** tabs
- Click on one of the preformatted buttons or select from the **General** or **Project Fields** options and click the **Add** button
- Do the same for the **Footer** section but using the **Footer** tab
- To preview your report, click the **Print Preview** button

To add a Picture to a Report

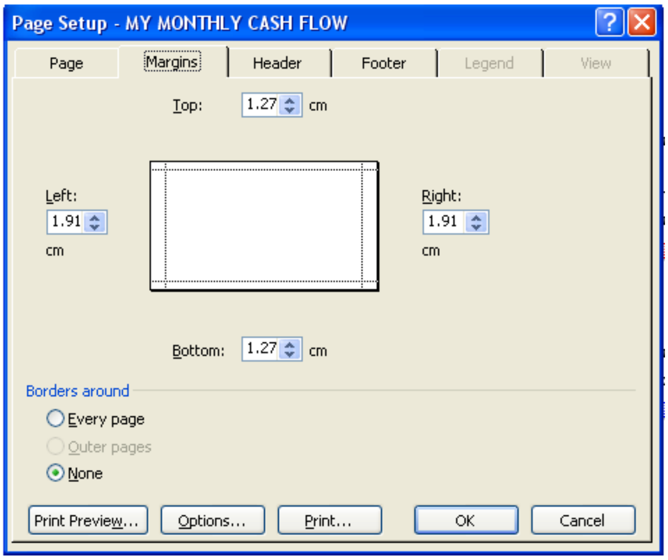
- Whilst in either the **Header** or **Footer** section, click the **Insert Picture** button 
- Browse to where the picture is stored
- Click **Insert** then click **OK**
- Be sure to use a small picture like a logo or it will not look right in your project.

Modify a Custom Reports Margins

- From the **Project** tab and the **Reports** section, select **Reports**
- This will invoke the **Reports** dialog box
- Click on **Custom** and click **Select**
- This will invoke the **Custom Reports** window



- Click your report then click the **Setup** button
- Select the **Margins** tab

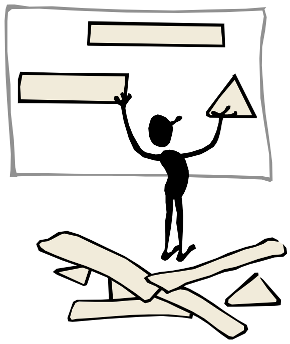


- Adjust the **Top, Bottom, Left** or **Right** margins as necessary
- To preview your report, click the **Print Preview** button
- Click **OK**

Print a Custom Report

- From the **Custom Reports** window click the **Print** button
- Adjust the print window to suit and click **OK**

Practice Session 4



Practice Session 4

1. Open the practice file Relocation Project Custom Reports.mpp
2. Create a Custom Report to report on **Tasks in Progress per week**.
3. Give the report any Head and Footer of your choice
4. Ensure the report prints to one A4 sheet of paper

Re-using Project Plan Information

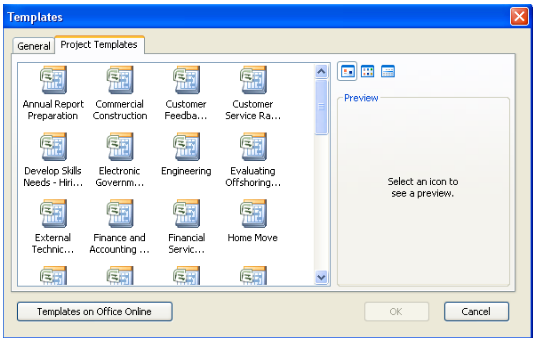
Learning Module Objectives

When you have completed this learning module you will have seen how to:

- Create a Project Plan Template
- Create a Custom Combination View
- Make Custom Views available to Other Project Plans
- Share Resources
- Create a Master Project Plan

Create a Project Plan Template

- **There are various Project Templates that can be used which the Programmers have created**
- **You can create your own Template for use when you need it**



Create a Project Plan Template

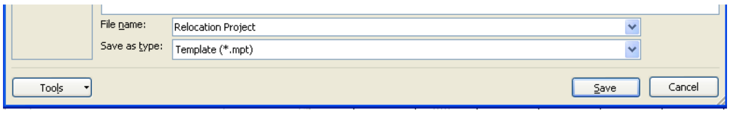
Background

Users can create their own Project Templates from projects they have already used. You just need to decide on at what stage you wish to save the project and create a template from it. Do you still want all the link lines and the Resources or do you just want the tasks?

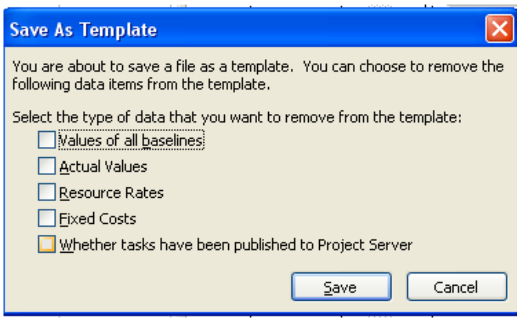
You must set any constraints you have in your project back to **As Soon As Possible** and take out any recurring meetings as these features will hamper the use of the template.

Create Project Plan Template

- Open the Project you wish to use
- From the **File** menu, select **Save as**
- You will see the **Save As** window



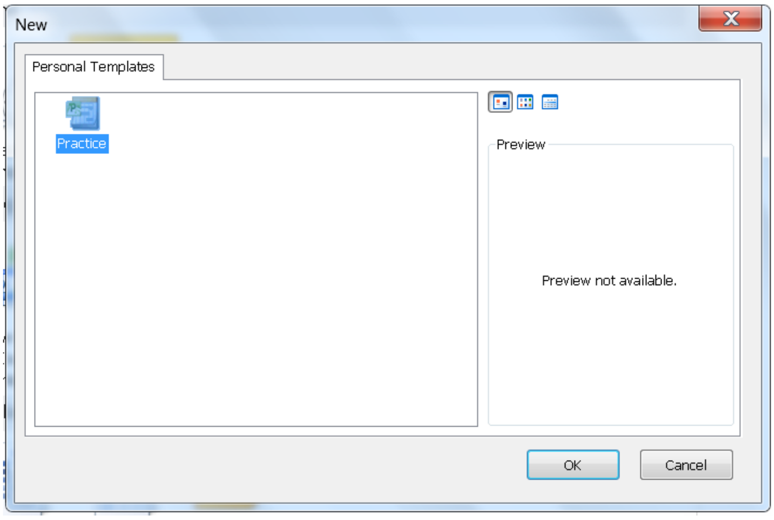
- Give the file a meaningful name
- From the **Save as type** section select **Project Template** and click the **Save** button
- The **Save As Template** window will be displayed



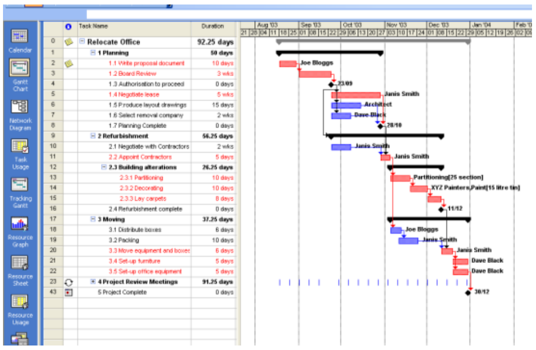
- Select the type of date you want to remove from the template and click the **Save** button. Close the file

Use a Project Template

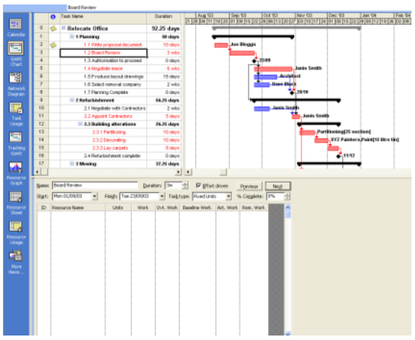
- From the **File** menu select, **New**
- Then **My Templates** on my computer
- Click on your template and click **OK**



Create a Custom Combination View



Single View



Combination View

Customising Views

Background

Project gives you flexibility to create your own customised views for your project. While Project provides you with many pre-defined views, you may want to make modifications to an existing view or create a new view from scratch. There are two types of view: **Single** or **Combination**

When you create a customised view, you can specify a default table or filter that Project will automatically apply each time you select the view. You can also create views that use customised tables or filters that you have cretaed. If you want to use a customised table or filter, you must create the table or filter before you create the view.

You can even have your customised view showing when Project loads!

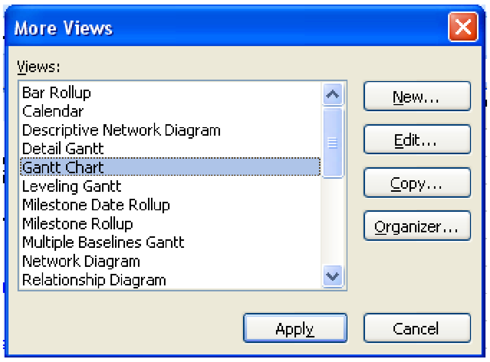
Defining a New Combination View

You can combine two single views to create a combination view. The window is divided into top and bottom sections. The Task Entry view is an examle of a combination view, combining the Gantt Chart and the Task Form.

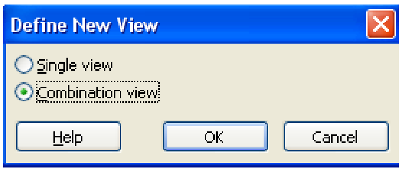
While you can create a temporary combination view by manually adjusting certain views, you may find it helpful to save the combination as a view that you can later select from the **View** menu. Combination views allow you to select a task or resource intheone pane and simultaneously scroll to related information in the other pane. For example, you may want to combine a view that is more comprehensive, such as the Task Usage view, with a view that is more detailed, such as the Resource Form.

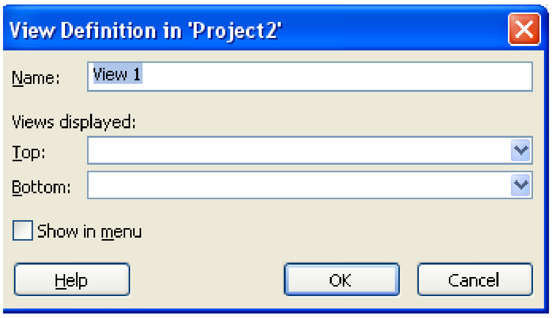
You can also use customised views that you have created in either the top or bottom pane of a combination view. When you create a combination view, you can only specify the views to use for the top and bottom panes. You cannot specify a table or filter. If you want to use special tables or filters, you must create a customised single view first and then use those views to create the combination view

- From the **Views** tab and the **Resource Views** group, select **More Views** button
- This will invoke the **More Views** dialog box



- Click the **New** button and this will invoke the **Define New View** dialog box
- Select **Combination view** and click **OK**
- This will invoke the **View Definition in** 'project name'



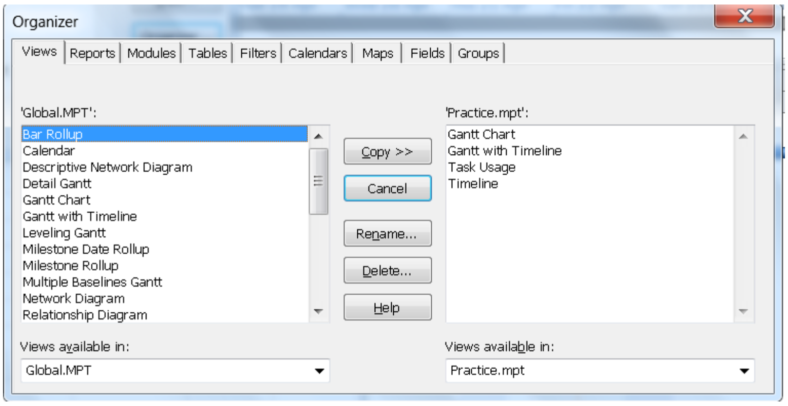


- In the **Name** box, enter a name for your view in CAPITALS
- In the **Views displayed** section and under the **Top** section, click the drop down arrow to select the name of the top view
- In the **Bottom** box, click the drop down arrow to select the name of the bottom view
- In the **Show in menu** section, click a tick in the box if you want the name of the view to be displayed in the View pull down menu.
- Click **OK**

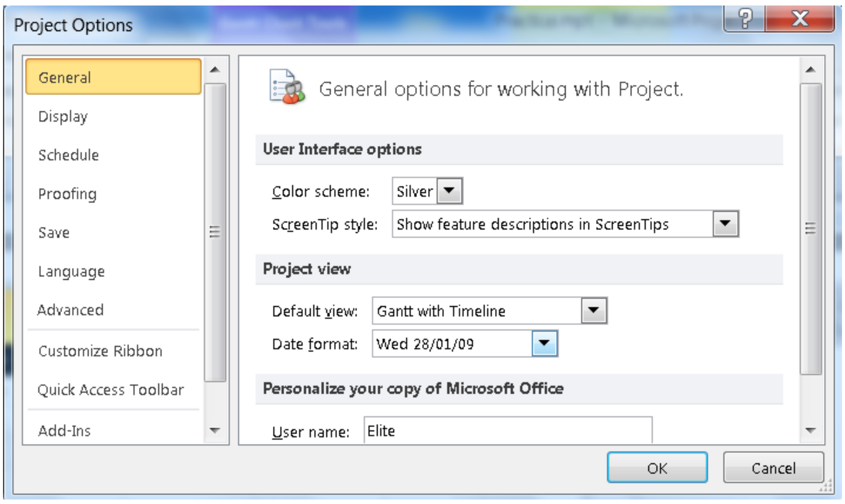
Change the view at StartUp

Before you can tell Project to load your new view at Startup, you must first copy the view in the Organizer over to the Global template.

- From the **Views** tab and the **Resource Views** group, select **Organisers** button
- This will invoke the **Organizer** dialog box

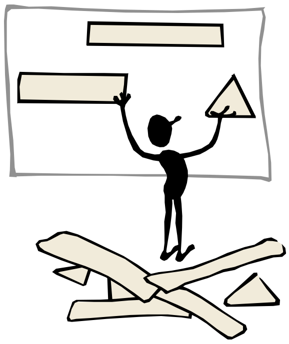


- Select the **Views** tab
- Select the view to copy
- Click the **Copy** button
- Close the Organizer
- From the **File** tab, select **Options**
- Select the **General** option



- In the **Default view** section, click the drop down and select your custom view
- Click **OK**
- Save your project and the next time you open Project, your custom view will be displayed

Practice Session 5



Practice Session 5

1. With Relocation Project Practice open, view the Task Usage Sheet
2. Insert an **ID field** between **Task Name** and **Work** field. Move the central pane so that you can see all the fields on the left up to the **Work** field.
3. Define a new custom **Flag** field and rename it **Overtime?** Add the new field to the **Resource Sheet** after the **Type** field. Change **Joe Bloggs** and the **Architect** to overtime **Yes** and leave the rest with overtime **No**.
4. Create a new Task Table, and call it **My New Table**.
5. Add the following fields: **ID**, **Name**, **Cost, Resource Name, Overtime?** Choose your own formatting for each field. Ensure you can see your new table in the **View** pull down menu.
6. View your new table and ensure it is formatted correctly
7. Design a new filter called **Overtime** which filters out from the **Overtime** field all the '**yes'** options. Test the filter to ensure it works.
8. Define a new single view called **My New View**.
9. Set the screen to **Gantt Chart**, set the table to **My New Table**, No grouping and filter for **All Tasks**.
10. Apply the view to ensure it works.
11. Define a new Combination View and call it **My New Combo View**. Select any top and bottom view.
12. Go back displaying your original Gantt View and save the project.

Project Consolidation

Learning Module Objectives

When you have completed this learning module you will have seen how to:

- Using a Resource Pool
- Verify Pool Links
- Create a Master Plan
- Sharing a Resource Pool

Resource Pool

- **The Resource Sheet is classed as a Resource Pool**
- **This can be a blank project or an existing project containing tasks**

		Resource Name	Type	Material Label	Initials	Group	Max. Units	Std. Rate
1		Joe Bloggs	Work		JB	Admin	100%	£50.00/hr
2		**Janis Smith**	**Work**		**JS**	**Admin**	**100%**	**£20.00/hr**
3		**Dave Black**	**Work**		**DB**	**Admin**	**100%**	**£30.00/hr**
4		ABC Removers	Work		A	External	500%	£0.00/hr
5		XYZ Painters	Work		X	External	100%	£0.00/hr
6		Partitioning	Material	section	P			£25.00
7		Paint	Material	litre tin	P			£8.00
8		Architect	Work		A		100%	£0.00/hr

Resource Pool

Background

When you are working with many different projects, you may find that you are using some or all of the same resources time and again. If you inserted two different projects into a Master Plan and the resources in each project were the same, then the Resource Sheet would duplicate these names in the Master Plan.

There can also be cross-project overallocations that are not identified until the overlapping tasks are underway.

You can set up a Resource Pool in two ways. Either create a new project file which only stores Resource information on the Resource Sheet and no tasks information or use an existing project file with its resource information.

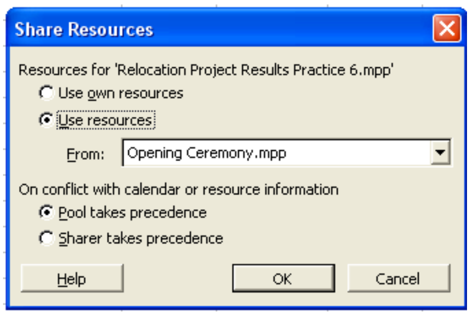
Once the Resource Pool has been set up you can share this pool with any project you desire and have no duplications in the Resource Sheet.

If you decide upon a blank project file with only Resource information in it, you may wish to assign someone to keeping this file updated.

Share a Resource Pool

When one project uses resources from another project, the file that is borrowing the resources is the sharing file. The file contributing its resources is the Resource Pool.
We will use the resources in our existing project Relocation and share them with another project called **Opening Ceremony**. Please note that the other Project must be open first before you try to share resources.

- Open the project from which the resources will be shared
- Open the initial project
- From the **Resource** tab and the **Assignments** group, select **ResourcePool** then **Share Resources**
- The **Share Resources** dialog box will be opened

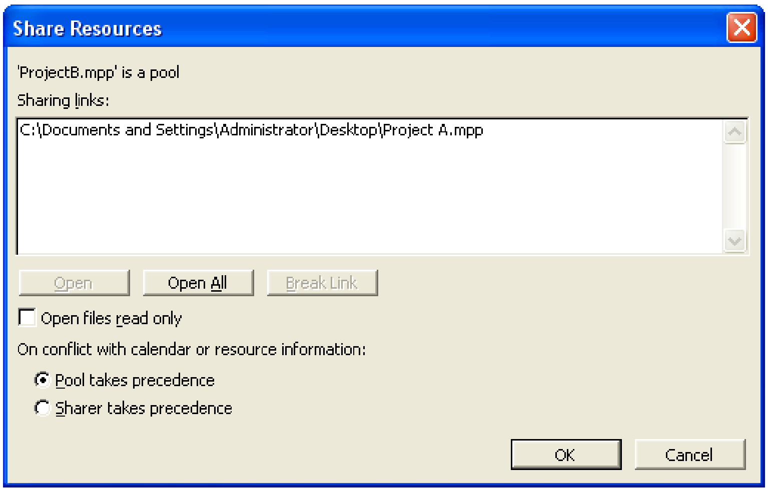


- Click **Use Resources** and in the **From** section click the drop down arrow and select the other project you wish to share with (this needs to be open)In the **Resources for '*name of Project*'** section, select **Use resources from** which specifies that you want the other project to use its resources.
- In the **On conflict with calendar or resource information** section, be sure that the **Pool takes precedence.** By selecting this option you are specifying that if there is conflicting information regarding a resource between the active (sharer) project and the resource pool project, the information in the resource pool project should be respected.
- Click **OK**
- The Resource list from the Pool is displayed on the Resource Sheet in the Opening Ceremony project.

Verify Pool Links

When a Resource Pool is shared among multiple projects, it can be useful to know what files are currently using the Pool. (This is seen from the shared project).

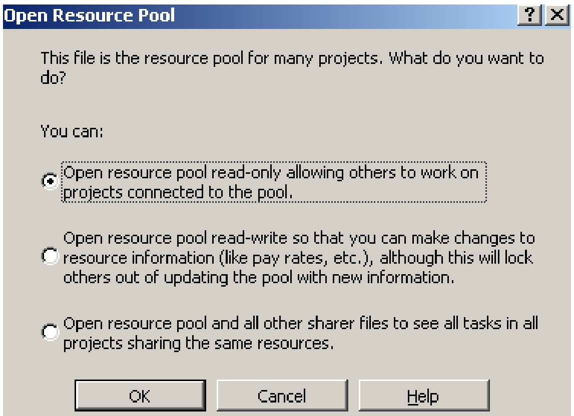
- From the **View** tab and the **Window** group select **Switch Windows** to switch to the **Relocation** Project
- From the **Resource** tab and the **Assignments** group, select **Resource Pool** then **Share Resources**
- The **Share Resources** dialog box will be displayed with the file Opening Ceremony as sharing the pool.



- Click **OK**

Opening a project which shares the Resource Pool

When the Resource Pool or project files sharing the Resource Pool are opened, a dialog box with several open options appears. (this is seen in the shared project). For example, when the Resource Pool is opened and at least one other project file is sharing the pool, the Open Resource Pool dialog box appears.



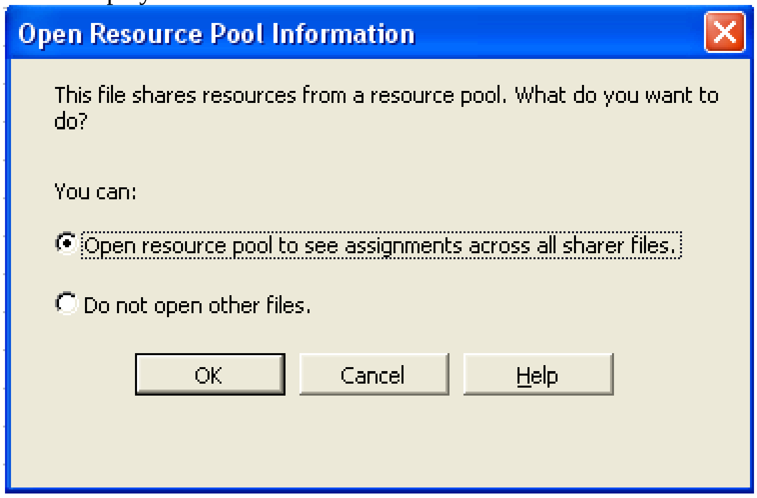
The options are to open the pool:

Open Read-Only	Allows other to work with the Pool file
Open the Pool Read-Write	Locks out others from using the Pool
Open the Pool and all other project file sharing the Pool	Allows all other project files to use the Pool

Once a Pool is established, it should be opened only read-write to update resource names, cost and calendar information. Similar options are displayed in the Open Resource Pool Information dialog box when a project file sharing a Pool is opened.

Open shared project

When you open the project from where the share started, the following dialog box is displayed.



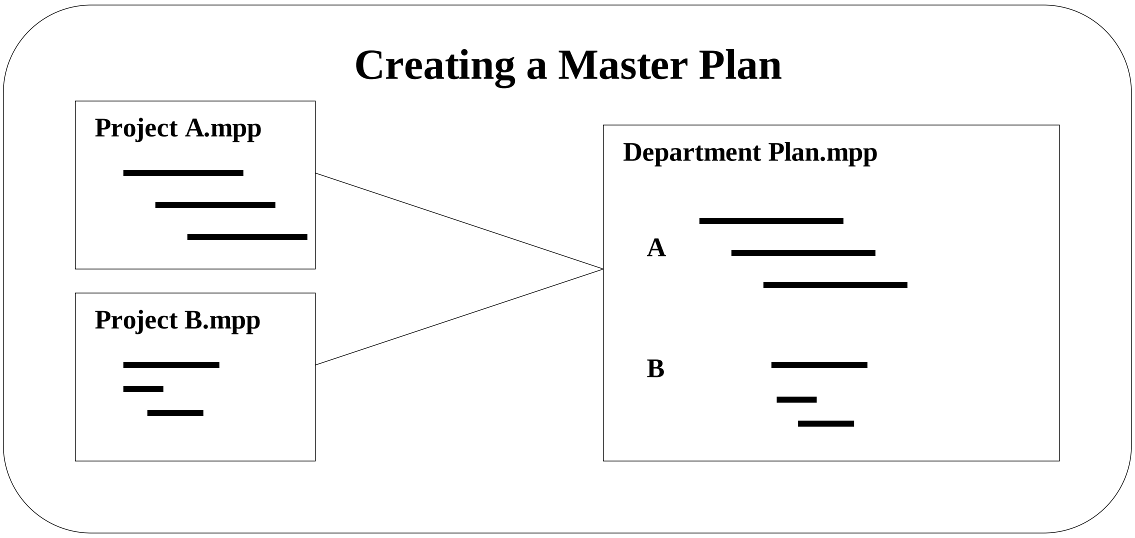
Making changes to the project file sharing a Resource Pool

When any changes are made to a project file sharing a Resource Pool, the pool should be updated with those changes.

- From the **Resource** tab and the **Assignments** group, select **Resource Pool** then **Update Resource Pool**
- If you save the file without updating it, you will be prompted to do so when you select **File, Save**

Resolving Overallocations in a Resource Pool

Resolving overallocations with resources shared in a pool is similar to resolving overallocations when the resources are used on only a single project. When opening the Resource Pool or a project file sharing the pool to resolve overallocations, the **Open Resource Pool and All Other Shared Files To See All Tasks In All Project Sharing the Same Pool** option should be selected. This option makes all tasks and assignments active when using the Resource Allocation view.



Creating a Master Plan

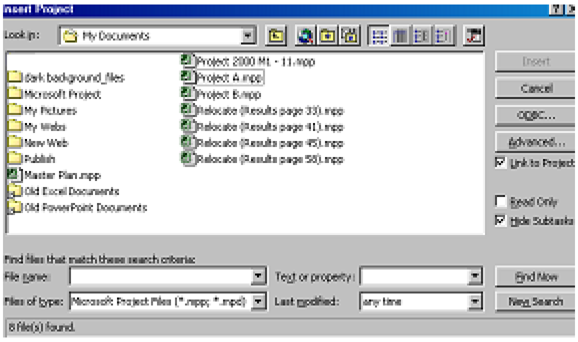
Background

The main advantage of the **Insert Project** function is that is allows up to 1000 projects to be consolidated into one plan, which can display all task and assignment information for the inserted projects. Once constructed the consolidated Master Project File can be used to produce selective management reports for detailed analysis of resource assignments and also task-based reports.

Creating a Master Plan

We shall experiment by creating a new Master plan called **Department Plan** and then inserting the two plans Project A and Project B.

- From the **File** menu, select **New**
- Set the project start date
- From the **File** menu, select **Save** and call the Master file **Department Plan**
- From the **Project** tab, select **SubProject**
- The **Insert Project** dialog box is displayed.

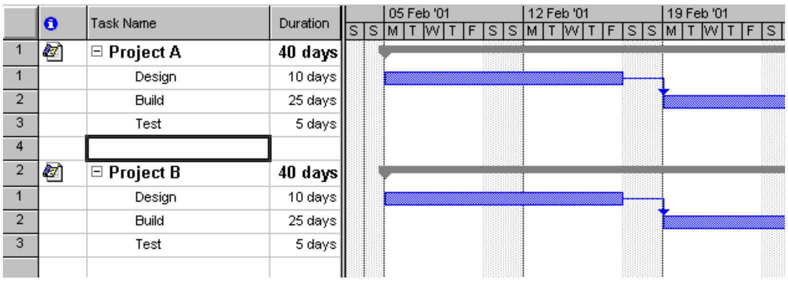


- Select Project A
- Click **Insert**
- Click on the next empty task name cell
- Insert **Project B** in the same way
- Save the Project

NOTE: With the **Link to Project** option on (Default setting), the Master plan is always refreshed with the latest information available in the source project. The task data is not stored in the Master plan, unless you switch off **Link to Project**, which will then copy the currently scheduled tasks into the Master Plan.

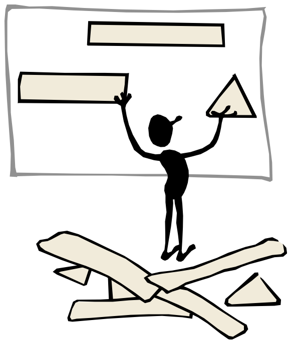
With the **Read Only** option off, any changes you make in the Master plan will update the source plan, however you are also given the choice of saving these changes, or not, when you exit or close Project.

The **Hide Subtasks** option controls whether the inserted project tasks will initially be shown or hidden. Hidden is the preferred choice as this creates each new plan at the same level I the outline (level 1).



The inserted projects can be edited and viewed in the Master project in the same way as the individual source projects and you can choose to save changes back in the source projects if required.

Final Practice Session



Final Practice Session

In this session we will practice with a Master Plan and add a subordinate project to it.

1. Open the practice file **Opening Ceremony1.mpp** and make a template out of it. Give it a meaningful name.
2. Close the template and open a new project based on this template
3. With **Opening Ceremony1.mpp** open, create a Custom Combination View of your choice. Save the document as **Opening Ceremony1 with new Views**
4. Open the **Organizer** and add any Views, Tables or Reports you have added in other project files to the Global template.
5. With **My Relocation Project with Costs** open, display the **Gantt Chart** with the table **Entry** applied.
6. We will now insert another project into this one. Select the next empty task name cell and from the **Insert** pull down menu, select **Project**.
7. Navigate to the Practice Folder and select the project called **Opening Ceremony2**
8. This project does not have any resources on the Resource Sheet. Set up project to share the resources with the **Relocation Project Levelled**. *(Pg 63)*
9. Assign Janis Smith to Prepare proposal document in the Opening Ceremony project. Assign Joe Bloggs to Prepare draft guest list.
10. Save the file as **Master Plan** and close the file. If asked to save anything else, click **Yes.**
11. Answers can be found in **Master Plan Answers.**