



Project 2003 Introduction

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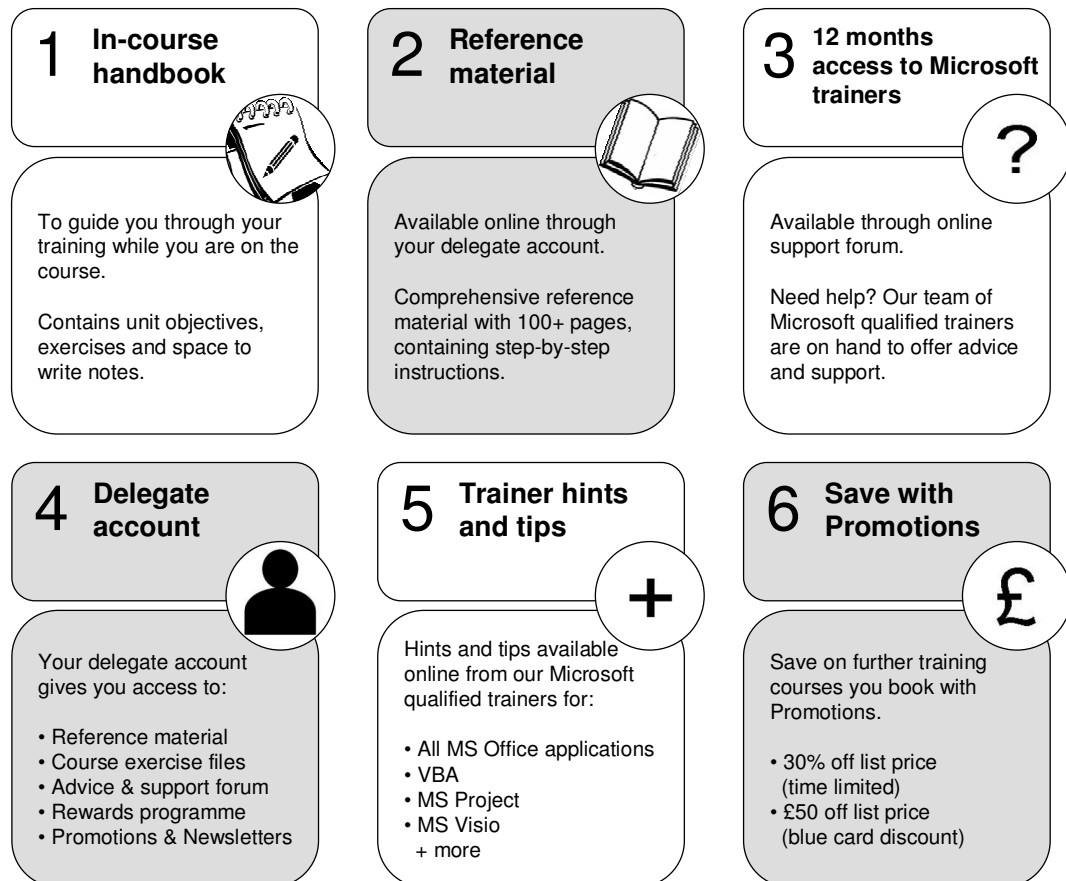
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Introduction to MS Project

Basic Project Management Concepts

What is Project Management?

PMI: The application of knowledge, skills, tools and techniques to a broad range of activities in order to meet the requirements of a particular project - see <http://www.pmi.org/WhoWeAre/Pages/About-PM.aspx>

PRINCE2 projects have the following characteristics – see http://www.ogc.gov.uk/guidance_managing_successful_projects.asp:

A finite and defined life cycle

Defined and measurable business products

A corresponding set of activities to achieve the business products

A defined amount of resources

An organisation structure, with defined responsibilities, to manage the project

The Microsoft Project Map

The Microsoft Project Map outlines the three phases of the project life cycle:

Build a plan

Track and manage a project

Close a project

More details online:

Project 2000/2002/2003 - <http://office.microsoft.com/en-gb/project/HA010745311033.aspx?pid=CH011745691033>

Project 2007 - <http://office.microsoft.com/en-gb/project/HA102143771033.aspx>

Project Triangle

All projects involve time, money, and scope. Change one and the others are impacted. At the centre of the triangle is Quality - affected by any change in the other three.

See article by Microsoft - <http://office.microsoft.com/en-us/project/HA010211801033.aspx>

PRINCE2

PRINCE2 stand for (**P**rojects **I**N **C**ontrolled **E**nvironments) and is a process-based method for effective project management.

PRINCE2 offers best practice guidance on project management and has the following features:

Its focus on business justification

A defined organisation structure for the project management team

Its product-based planning approach

Its emphasis on dividing the project into manageable and controllable stages

Its flexibility to be applied at a level appropriate to the project.

<http://www.microsofttraining.net/prince2-foundation-course-london.php>

First released as Microsoft Project V1 in early 1990 the software has grown into a rich application designed to help Project Managers:

Organise

- List and group the tasks that together will lead to the desired Project outcome
- Identify and assign the resources required to their respective tasks

Schedule

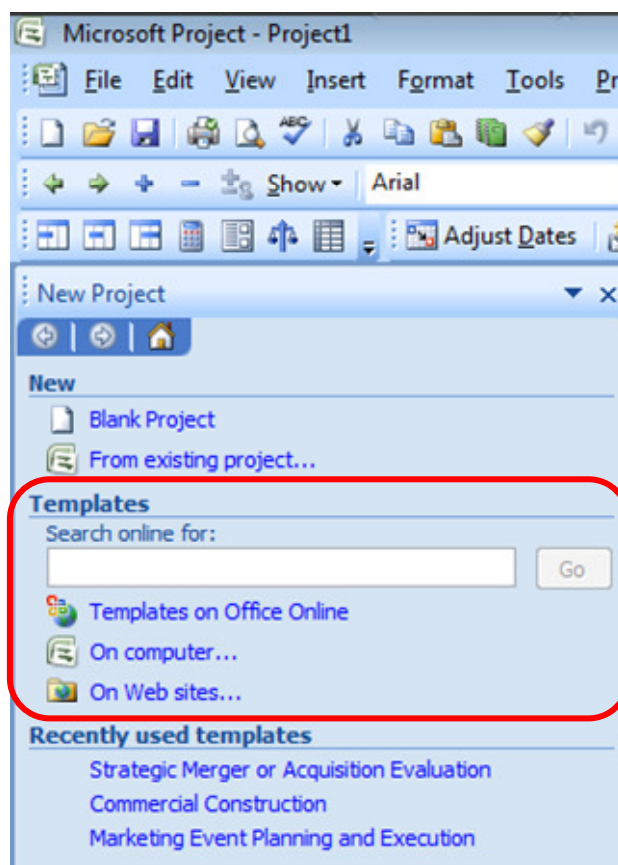
- Use dependencies between tasks plus constraints to position tasks on the Gantt chart

Manage

- Forecast costs and spending (Cashflow)
- Allow the plan to be modified to account for actual progress
- Monitor and report on progress including spend and workload

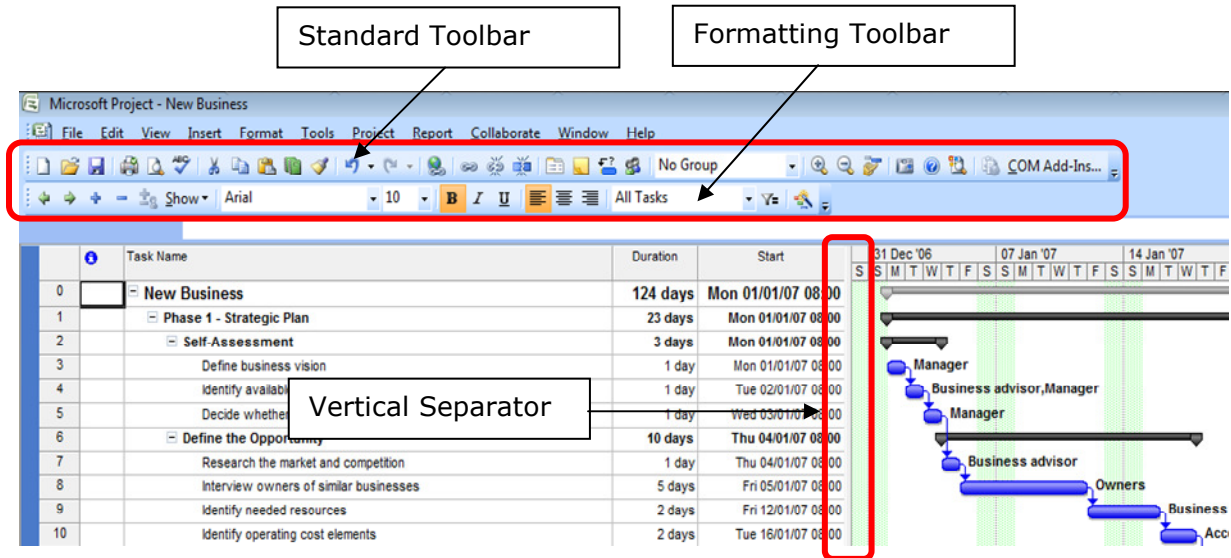
Project environment overview




- Templates
 - File > New > Templates (Templates on Office Online... On Computer... or On Web Sites...)



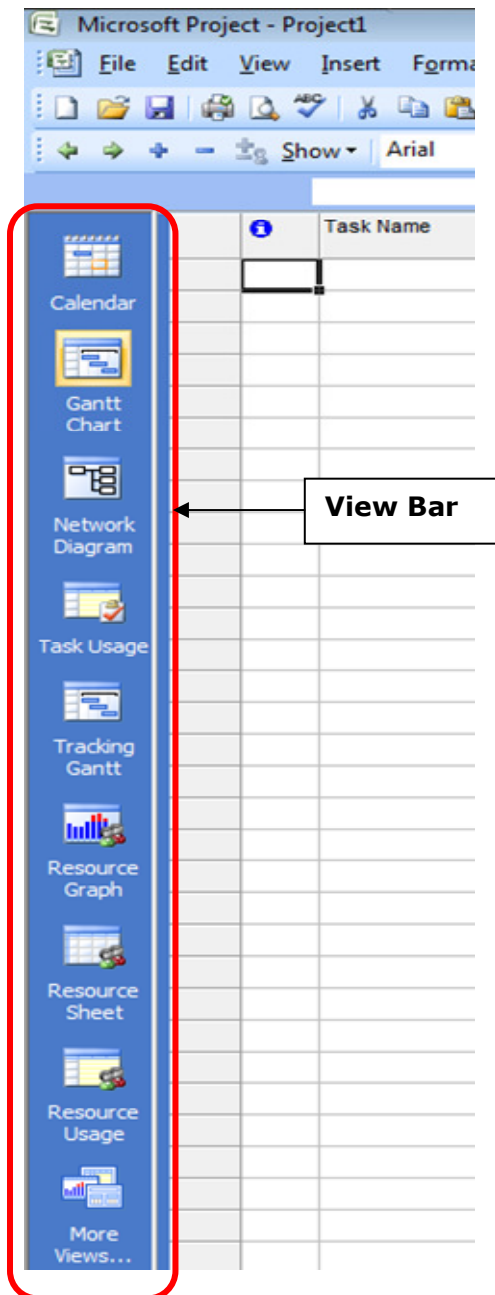
Screen layout

- Use two toolbars: Go to View > Toolbars > Customize > Options > Show standard and formatting toolbars as two rows
- Click and drag the vertical separator to reveal more columns
- Double the click vertical separator to snap to the nearest column

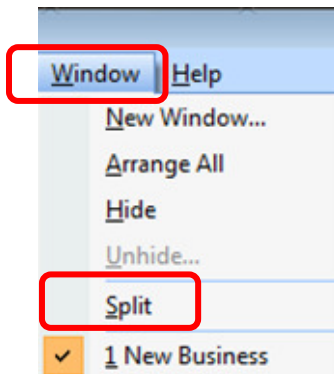


- Zoom out / Zoom in
 - Use  icons on Standard toolbar
- Go to a particular task bar on the chart:
 - Ctrl + Shift + F5
 - Scroll to selected task icon  on Standard toolbar
- Undo
 - Ctrl + Z
 - Edit > Undo (multiple undo available from Project 2007)
- Create new blank project
 - Ctrl + N or File > New and choose Blank Project
 - Use the New icon  on Standard toolbar
- Use Window menu to switch between open projects
 - Window menu

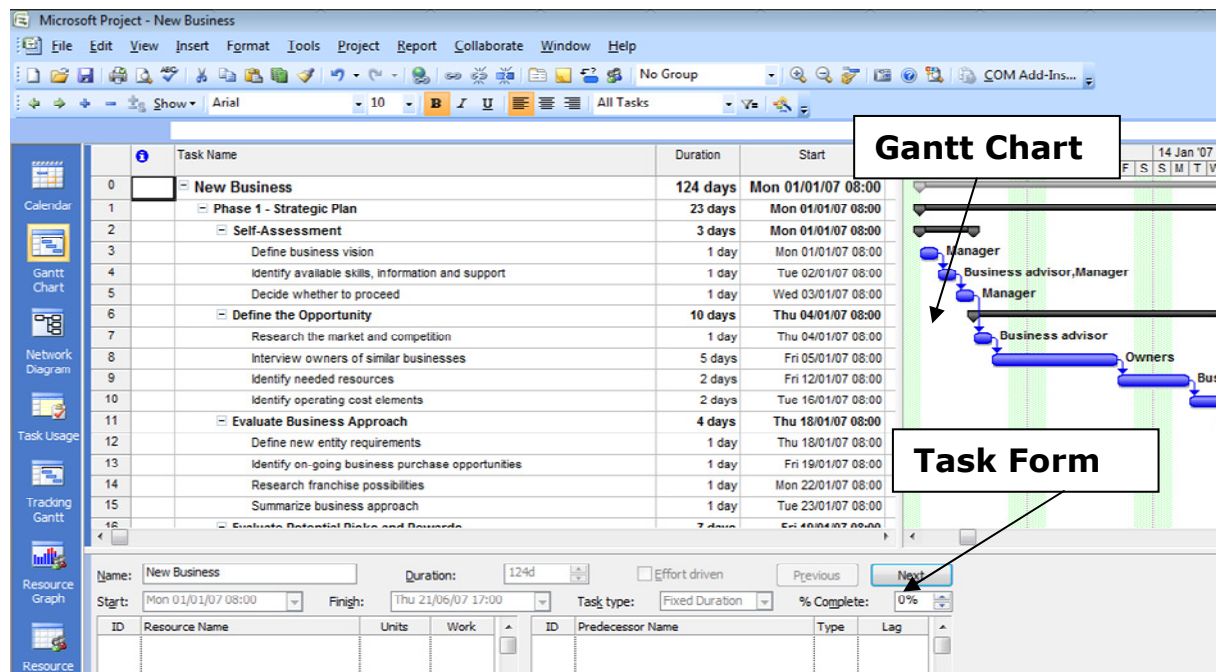
- Use Help for searching for topics
 - Type directly into help input box on toolbar area
 - Select Microsoft Office Project Help from the Help menu
 - Press the F1 key
- Switch views from the View menu or by turning on the View bar
 - View > View bar
 - Right-click vertical blue bar on the left side and choose View Bar



- Split the screen
 - Window > Split (or Remove split)



Resulting Window Split which shows the Gantt Chart above and the Task Form below:

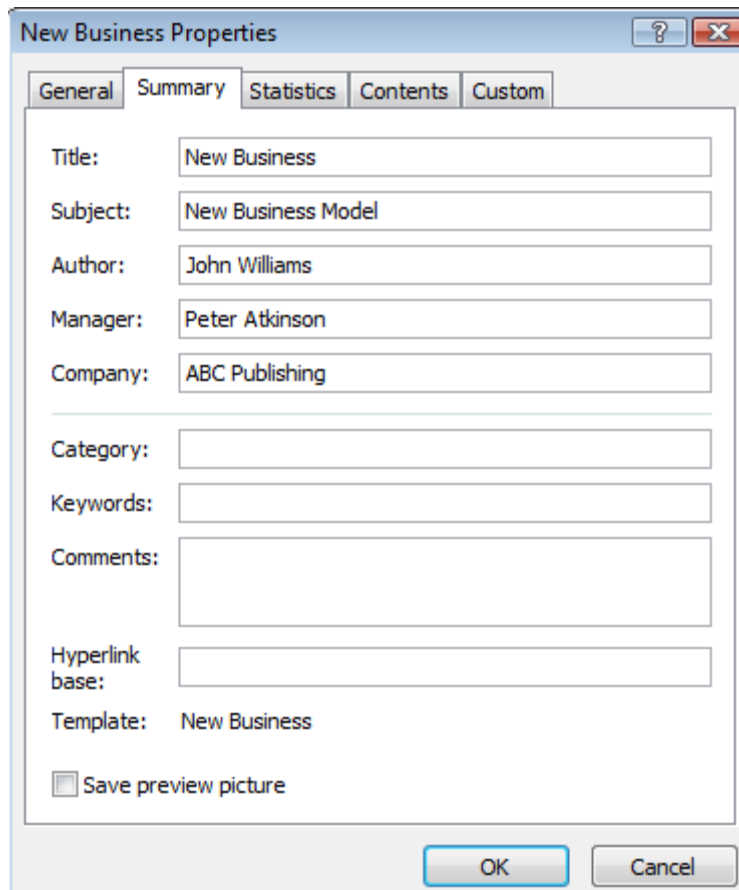


Basics of the MS Project Environment

Follow a checklist when setting up new projects. Your checklist will evolve to match the requirements of your organisation:

Simple check-list

1. File > Properties > Summary - enter the Project Title and other relevant information (can re-use this later in reports.)



The screenshot shows the 'New Business Properties' dialog box with the 'Summary' tab selected. The dialog has five tabs: 'General', 'Summary', 'Statistics', 'Contents', and 'Custom'. The 'Summary' tab contains the following fields and values:

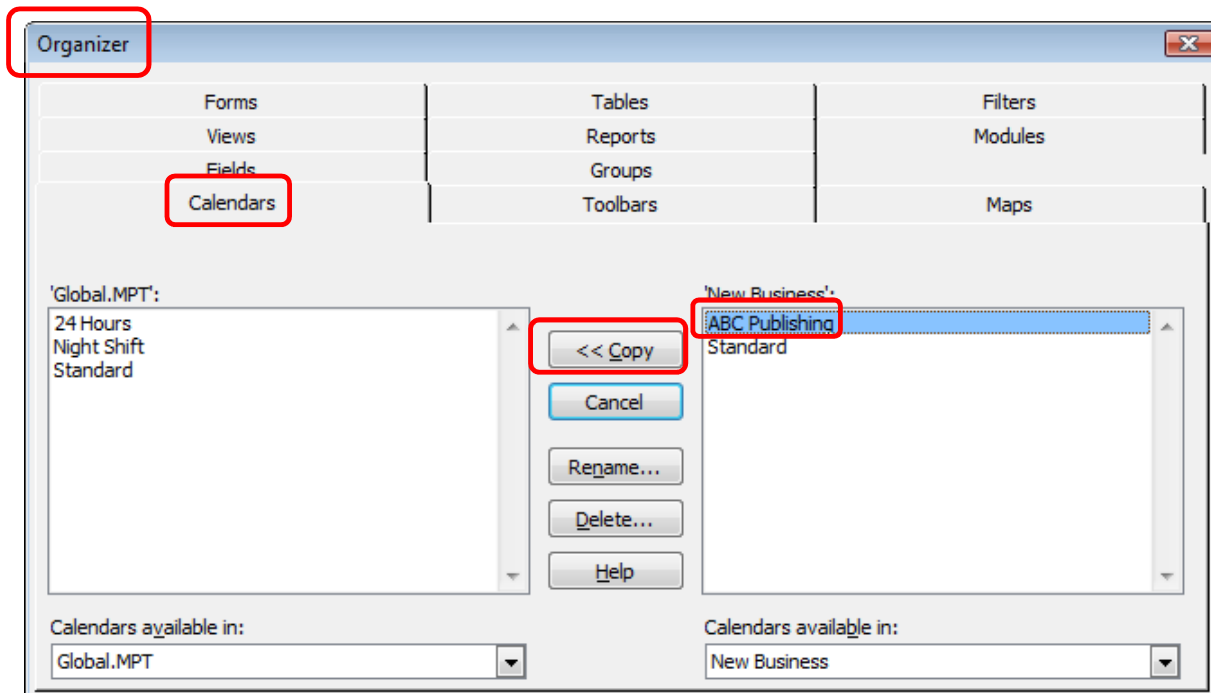
- Title: New Business
- Subject: New Business Model
- Author: John Williams
- Manager: Peter Atkinson
- Company: ABC Publishing
- Category: (empty)
- Keywords: (empty)
- Comments: (empty)
- Hyperlink base: (empty)
- Template: New Business
- ☐ Save preview picture

At the bottom right are 'OK' and 'Cancel' buttons.

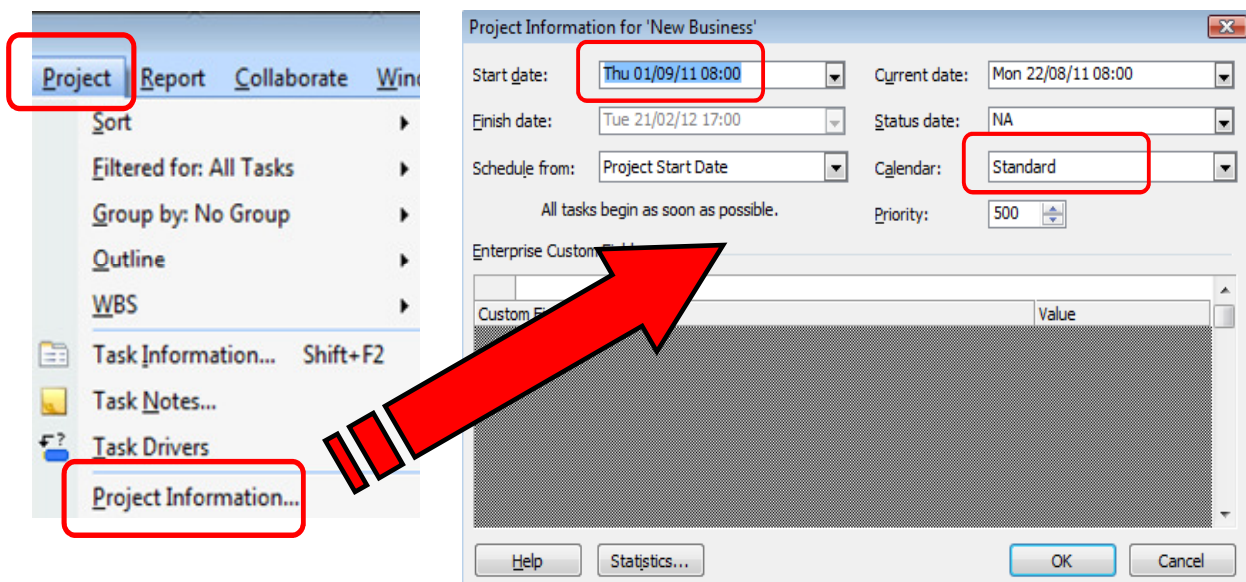
-
- Change Working Time
- For: Standard (Project Calendar)
- Set working time for selected date(s)
- Legend:
- ☐ Working
 - ☒ Nonworking
 - ☐ Edited working hours
- On this calendar:
- ☐ Edits to a day of the week
 - ☒ Edits to an individual day
- Select Date(s):
- | August 2011 | | | | | | |
|-------------|----|----|----|----|----|----|
| M | T | W | Th | F | S | S |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |
- Set selected date(s) to:
- ☒ Use default
 - ☐ Nonworking time
 - ☐ Nondefault working time
- From: 08:00 To: 12:00
- 13:00 17:00
- Help New... Options... OK Cancel

Page 9

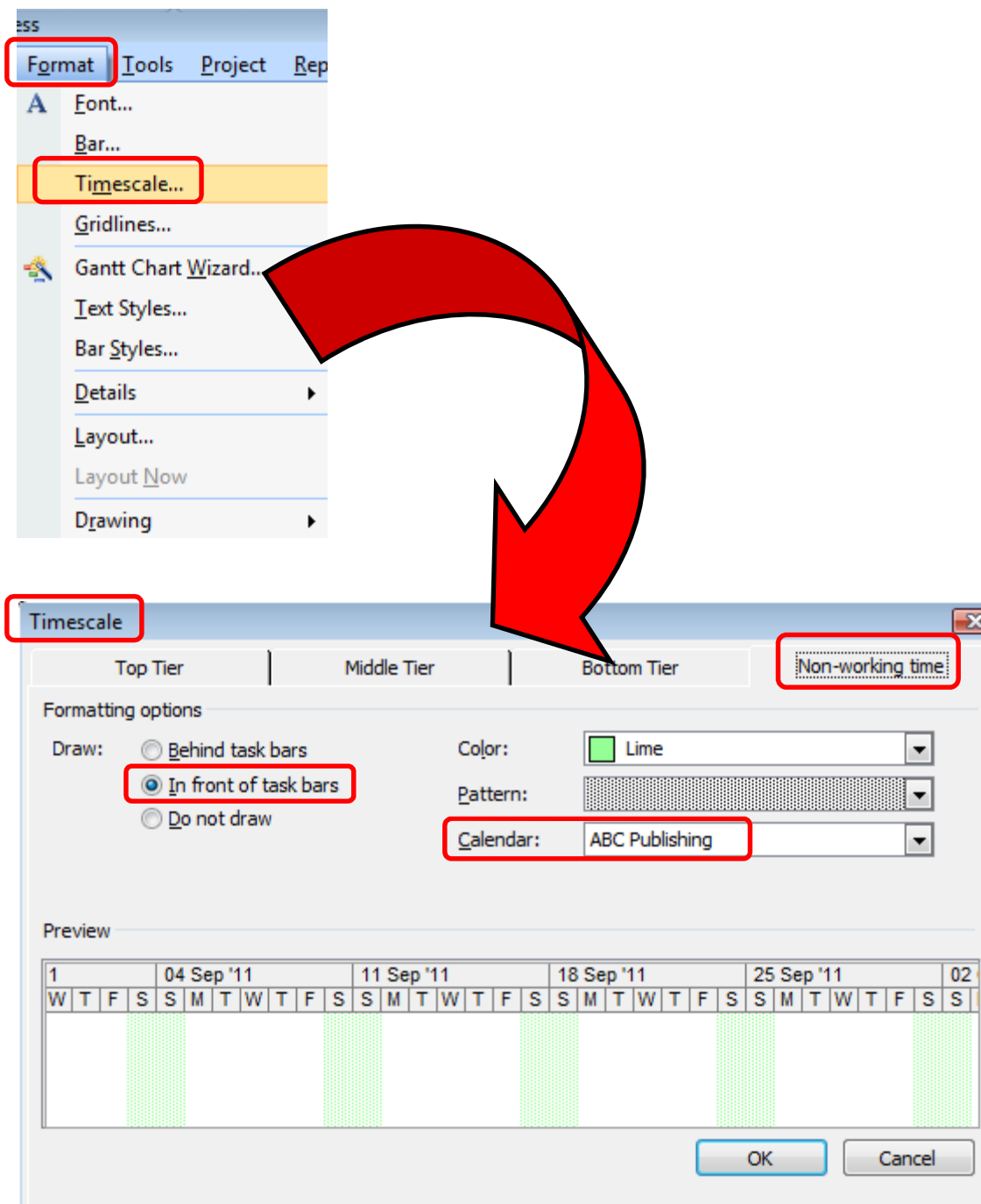
- Tools > Organiser > Calendar tab > select new calendar from the right side and click Copy. This will make your new company calendar available for all new projects.



- Project > Project Information > Start Date - enter the estimated start date of your Project and from the Calendar drop-down arrow select your new calendar as the project calendar.



5. Format > Timescale > Non Working Time > draw non-working time in front of task bars to make the Gantt Chart easier to read and then select the Project Calendar from the Calendar drop-down.



Task Creation

This is the initial activity in setting up a new project. The system will hold task information in a Task database, used by the system whenever we view task data. This is one of three databases the system uses, the others being the Resource database and the Assignment database.

The order of entry of tasks does not need to follow any set pattern: to keep the Gantt Chart as simple as possible, enter your tasks in approximately chronological order, but this is by no means essential. You do not need to enter tasks in order of resource or resource group in order to readily see tasks being performed by a given resource or resource group because you can use filters or reports to see this information.

There is no need to enter all the tasks at this stage: additional tasks can be inserted, tasks can be moved, copied or deleted. A practical approach is to initially enter only the main tasks (Summary Tasks) and afterwards fill in the detailed tasks (Subtasks): this is a 'brainstorming' stage where you and the project team are recognising all the tasks necessary to meet the project's objectives.

Do not at this stage be concerned regarding the resources for each task or the duration: concentrate on thinking of all the requirements which need to be covered by creating the necessary tasks.

Creating a task list

Type the name of the activity into Task Name column

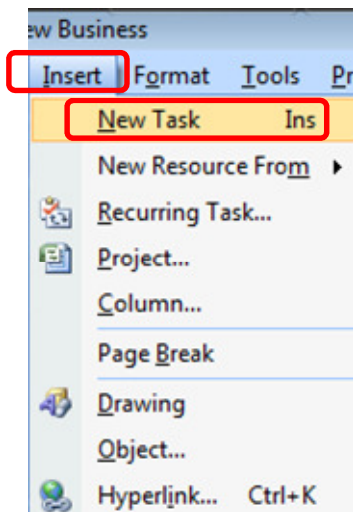
Task names can be edited by: over-typing or clicking in the entry bar and editing

Use drag and drop rather than cut and paste to change the order of activities

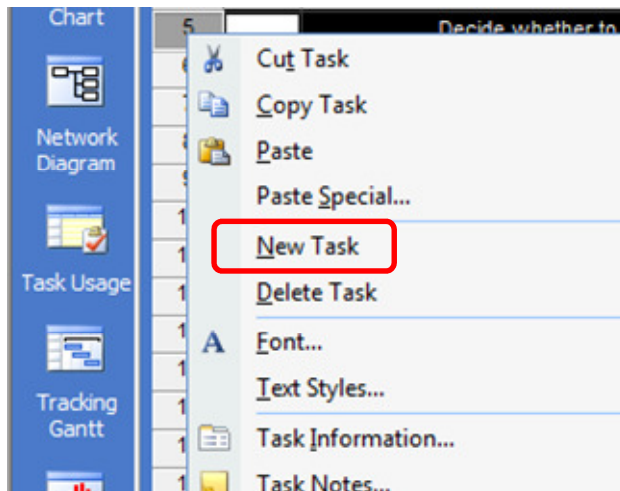
(Copy and paste IS OK to repeat processes)

Create a **new task** (inserted rows appear above the current task)

Insert menu choose "New task" or



right clicking on the row ID number and choosing New task or



by pressing the Insert Key or

clicking in the chart area and dragging to draw bar

Modifying a Task List

Inserting an additional task

1. Select the Task that is to appear immediately below the inserted Task
2. Click the relevant command button to insert a Summary or Task.

Tip: You can also press the Insert key (Ins) on the keyboard

Note: The Task ID numbers will automatically change

Deleting a task

1. Select the whole Task record by clicking on the Task ID number
2. Press the Delete key (DEL) on the keyboard.

Note: The Task ID numbers will automatically change

Moving a task

Drag and drop

1. Select the **whole Task** on the ID number
2. **Release** the mouse button
3. Hold down the mouse button while you drag and drop the Task to the new position already visible on the screen – the task is inserted between existing tasks

Cut and paste

1. Select the **whole Task** on the ID number
2. Click the **Cut** command
3. Click on the Task Name of the task which is to be **below** the moved Task
4. Click the **Paste** command

Copying a task

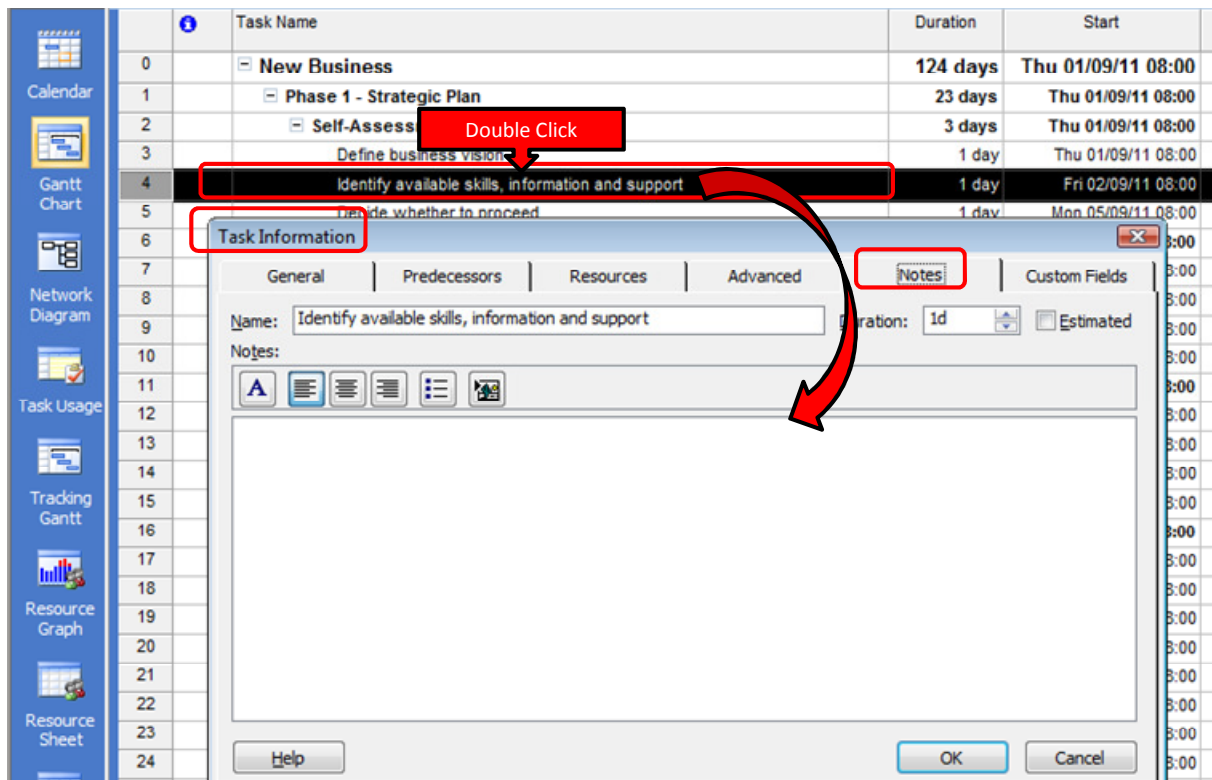
Drag and drop

1. Select the whole Task on the ID number
2. Release the mouse button
3. Hold down the Ctrl key while you drag and drop the Task copy to the new position already visible on the screen – the copied Task is inserted between existing Tasks

Copy and Paste

1. Select the **whole Task** on the ID number
2. Click the **Copy** button
3. Click on the Task Name of the task which is to be **below** the moved Task
4. Click the **Paste** button – the copied Task is inserted between existing Tasks

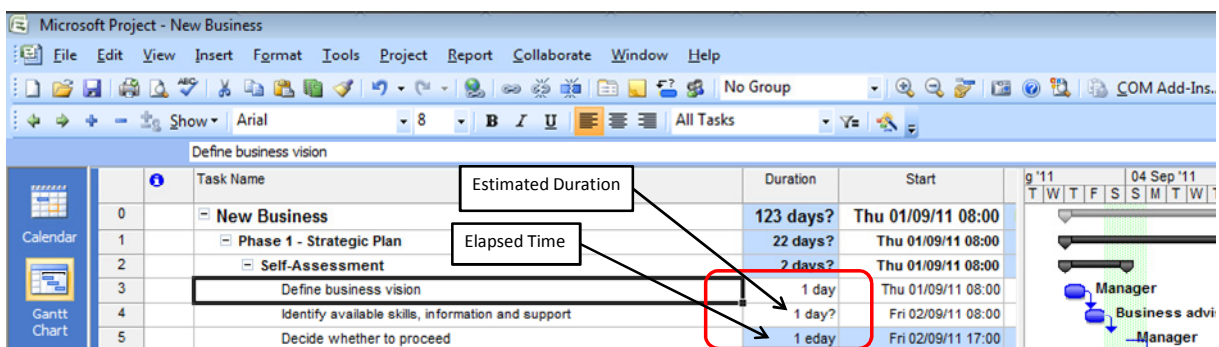
Add Notes to tasks to provide details - double click the task name and go to Notes tab



Duration units m=minutes, d=days, h=hours, w=weeks, mon=month (by default weeks are made up of 5 working days and months are 20 working days in duration)

Estimated duration - put a ? between duration and units e.g. type in 5?d to give 5d?

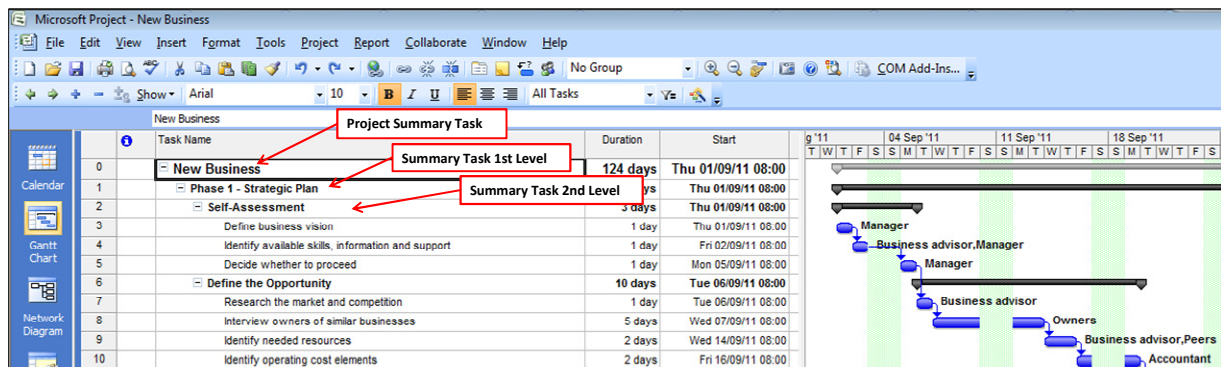
Elapsed time ignores non-working time - use letter e between duration and units e.g. type in 5ed to force elapsed time (great to model time for paint drying)



Create a Work Breakdown Structure (WBS)

Subtasks are defined by being **indented** - the Task above **automatically** becomes a Summary Task formatted in **bold**.

- An indented hierarchy in the Project is known as a Work Breakdown Structure (WBS).
- It is Created by indenting task(s) which then make the row above into a summary task (bold)
- The Project summary task, which summarises the whole project is by default not turned on and can be activated by taking the following action:
 - Click on Tools > Options > View > Project Summary task



Tips for naming tasks and setting level of detail

Summary tasks: use a broad description ("selection phase", "User testing")

Tasks: verb + noun are often enough ("Brief consultant", "Install transformer")

Milestones: describe a point in time, a start/end ("start of review", "testing completed")

To find the right level of detail for your tasks aim for tasks that:

- have durations that can be reasonably estimated
- are hard to divide into smaller tasks
- will be easy to measure progress / completion
- are self-contained
- are likely to be carried out by parties outside your project

If you still need to add further detail you can avoid having to create more tasks by adding the additional information into the task notes tab (double click on the task name)

Scheduling Tasks

Working with base calendars

By default Project assumes that there are 5 working days per week and that each day is made up of 8 working hours. If you estimate your durations in hours you may need to realign these hours to match those worked on your project. To do this:

For Project versions up to Project 2003:

To modify the hours available for work in the calendar (e.g. change from 8 hours per day, 40 hours per week to 7.5 hours per day and 37.5 hours per week):

Go to Tools > Change working time:

Change Working Time

For: Standard (Project Calendar)

Set working time for selected date(s)

Legend:

- ☐ Working
- ☐ Nonworking
- ☐ Edited working hours

On this calendar:

- ☒ Edits to a day of the week
- ☐ Edits to an individual day

Select Date(s):

August 2011						
M	T	W	Th	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Set selected date(s) to:

☒ Use default
☐ Nonworking time
☐ Nondefault working time

From: 08:00 **To:** 12:00
13:00 17:00

Buttons: Help New... Options... OK Cancel

1. Select M to F column headers (selecting the header selects all occurrences in the calendar)
2. Using the form on the right of the dialog box enter the pattern work will follow on those days(e.g. 9:00 to 12:00 and 13:00 to 17:30)

3. Click on the options button and a new dialog box appears

Options

Save	Interface	Security	
Schedule	Calculation	Spelling	Collaborate
View	General	Edit	Calendar

Calendar options for 'Project1'

Week starts on: Monday

Fiscal year starts in: January

☐ Use starting year for FY numbering

Default start time: 09:00

Default end time: 17:30

Hours per day: 7.5

Hours per week: 37.5

Days per month: 20

These times are assigned to tasks when you enter a start or finish date without specifying a time. If you change this setting, consider matching the project calendar using the Change Working Time command on the Tools menu.

Set as Default

Help OK Cancel

4. Set the default start and end times to 9:00 and 17:30 respectively
5. Set the Hours per day to 7.5 and Hours per week to 37.5

Note: If your revised hours apply only to this project click OK, alternatively if all your projects will follow these new hours click set as default

6. Finally confirm your project start time is correct. To help you do this set Project to show task times as well as hours. From the Tools menu choose options then click the View tab. Choose a date format that also includes time and click OK
7. From the Project menu choose Project Information. Check the start date and time of your project and if necessary bring it into line with the new start time for your tasks. Click OK. Go back to tools > options > view and set the date format back to date only.
8. If your project already contains tasks you will need to correct their durations.
9. New tasks will align with the new hours you have applied.

For Project 2007: Recurring exceptions and work weeks

To modify the hours available for work in the calendar (e.g. change from 8 hours per day, 40 hours per week to 7.5 hours per day and 37.5 hours per week):

Go to Tools > Change working time

Change Working Time

For calendar: **Standard (Project Calendar)** Create New Calendar ...

Calendar 'Standard' is a base calendar.

Legend:

- ☐ Working
- ☐ Nonworking
- 31** Edited working hours

On this calendar:

- 31** Exception day
- 31** Nondefault work week

Click on a day to see its working times:

August 2011

S	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Working times for 23 August 2011:

- 08:00 to 12:00
- 13:00 to 17:00

Based on:
Default work week on calendar 'Standard'.

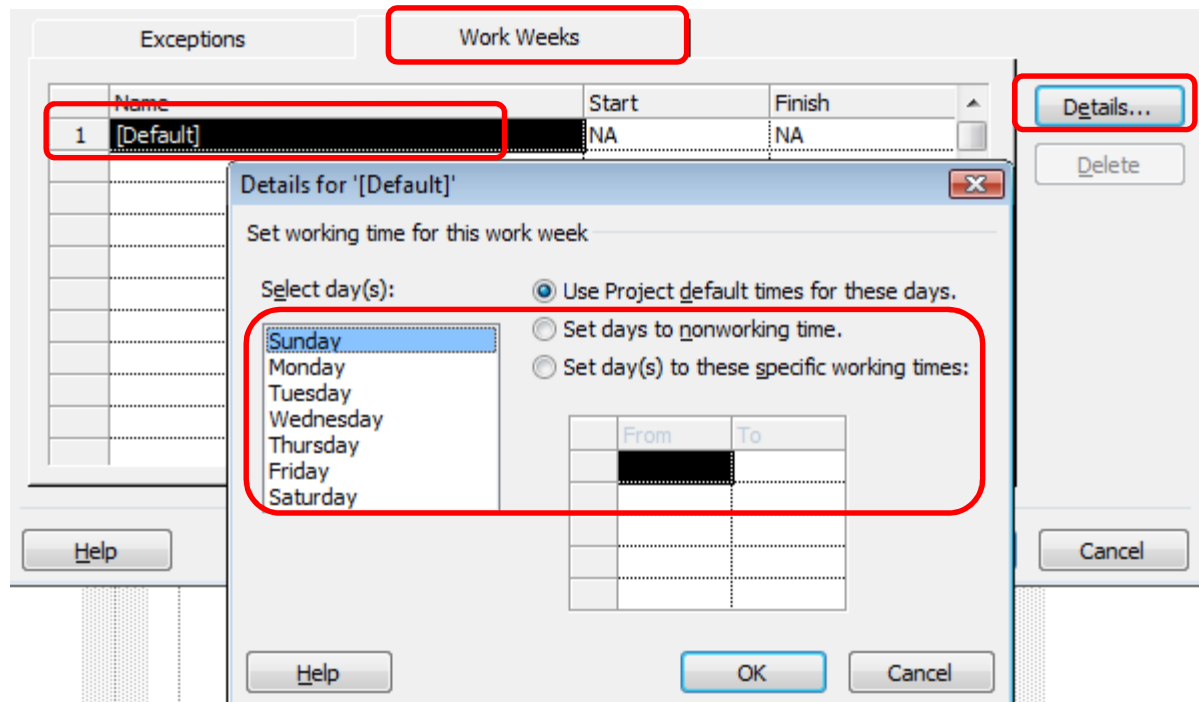
Exceptions | **Work Weeks**

Name	Start	Finish

Details...
Delete

Help Options... OK Cancel

1. Below the calendar choose the Work Weeks tab. Make sure Default is highlighted then click on Details



2. Select Monday to Friday from the Select Day(s) list
3. Using the form on the right of the dialog box enter the pattern of work that will follow on those days(e.g. 9:00 to 12:00 and 13:00 to 17:30) then click OK
4. Click on the Options button and a new dialog box appears

Options

Save	Interface	Security	
Schedule	Calculation	Spelling	Collaborate
View	General	Edit	Calendar

Calendar options for 'Project1'

Week starts on:

Fiscal year starts in:

☐ Use starting year for FY numbering

Default start time: These times are assigned to tasks when you enter a start or finish date without specifying a time. If you change this setting, consider matching the project calendar using the Change Working Time command on the Tools menu.

Default end time:

Hours per day:

Hours per week:

Days per month:

5. Set the default start and end times to 9:00 and 17:30 respectively
6. Set the Hours per day to 7.5 and Hours per week to 37.5

Note: If your revised hours apply only to this project click OK, alternatively if all your projects will follow these new hours click set as default. Click OK once more to return to the Chart

7. Finally confirm your project start time is correct. To help you do this set Project to show task times as well as hours.
8. From the Tools menu choose options then click the View tab. Choose a date format that also includes time and click OK then from the Project menu choose Project Information.
9. Check the start date and time of your project and if necessary bring it into line with the new start time for your tasks. Once complete set the date format back to date only. If your project already contains tasks you will need to correct their durations.

New tasks will align with the new hours you have applied.

Creating Task dependencies

Linking tasks

Each task has a Start and a Finish. These can be used to connect one task to another using a dependency or link. Linking your tasks lets Project adjust the schedule as tasks change.

Types of task dependency

Predecessors and successors

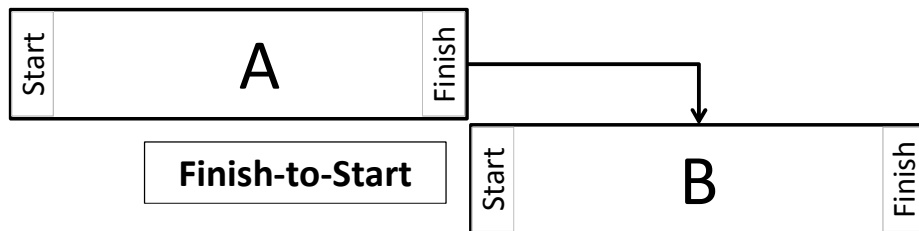
When tasks are connected they take on the following roles:

Predecessor is the task whose start or finish drives the start or finish of the successor

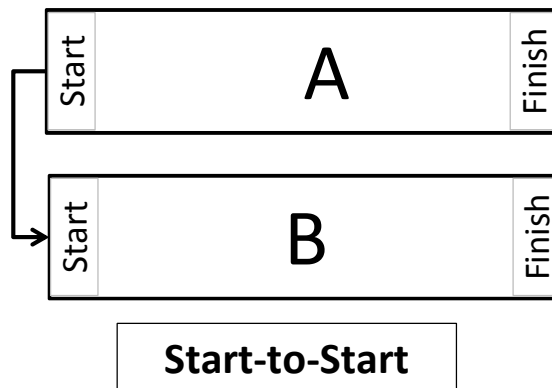
Successor is the task whose start or finish is driven by the predecessor task

There are four types of dependency that can link Predecessors and Successors. You choose the type that best describes the relationship between them:

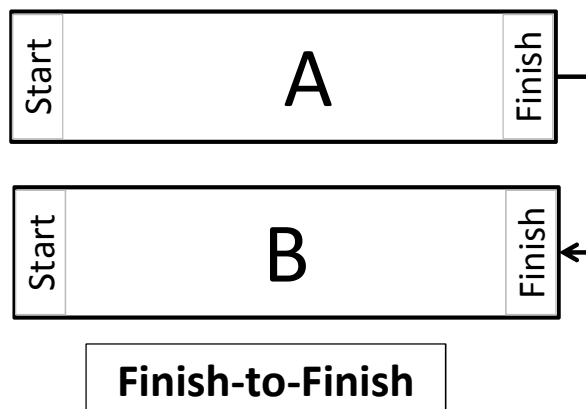
Finish to Start (FS) - Finish of Predecessor drives Start of Successor



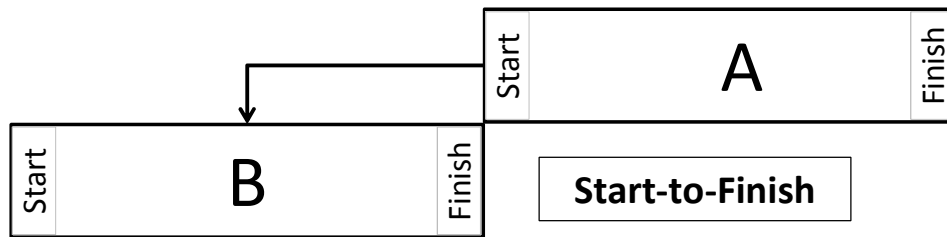
Start to Start (SS) - Start of Predecessor drives Start of Successor



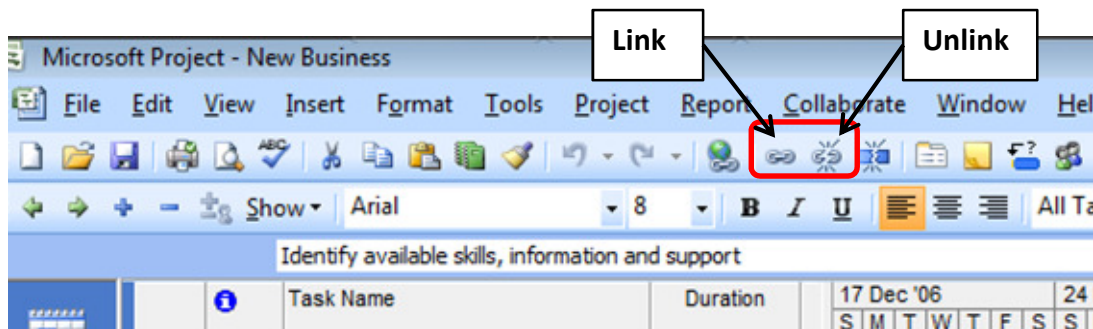
Finish to Finish (FF) - Finish of Predecessor drives Finish of Successor



Start to Finish (SF) - **S**tart of Predecessor drives **F**inish of Successor



Five ways to create task links



Block-select the tasks to be linked (use Click with the Ctrl key held down to select tasks that are not adjacent) and click the link button on the standard toolbar.

Hover the mouse over the middle of the predecessor bar on the Gantt Chart, left click and drag a link up/down to its successor

Double click on the name of a task, on the predecessors tab choose the name of the predecessor(s) and set the link type

On the successor task row, in the predecessor column enter the row number of the predecessor followed by the initials of the relationship (e.g. 11FS)

Split the screen and in the top half of the screen select a task that will be the successor and in the lower right half of the screen click below task name to choose the predecessor and type of link. Click OK to commit the change.

Breaking links

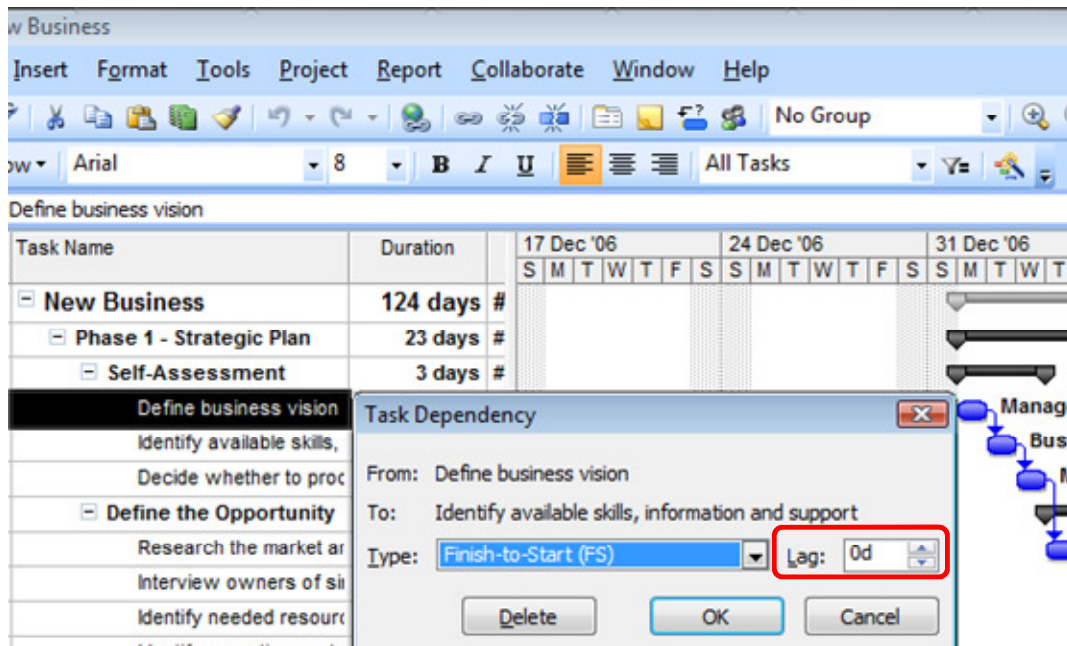
- Double click on dependency line between the tasks, from the task dependency dialog box that appears click delete
- Highlight or Ctrl click the tasks to be disconnected and click the unlink tasks button on the standard toolbar.
- Double click on the task name. On the predecessors tab click on the predecessor to remove and press the delete key
- On the successor task row, in the predecessor column delete the values in the cell
- With a split screen in the lower right half of the screen select the predecessor to remove and press delete

Using Lag (delay) & Lead time

To model delay between tasks you can either:

- Double click on the arrow linking the tasks or
- Double click on the name of the successor and choose the predecessor tab then
- In the lag field add the number of days, estimated days or % delay

A negative value produces "lead" rather than lag, and brings the successor earlier in the plan as opposed to delaying it.



Setting Constraints

Use constraints to model dates that affect the start or finish of your tasks. In addition to the constraint and date you set, Project will also take into account other factors such as calendars, resource availability and dependencies when calculating where to place the task on the chart.

All automatically scheduled tasks have a constraint. By default this is set to As Soon As Possible (ASAP). This means that unless another task or link gets in the way Project will position the task as early in the plan as it can.

Constraints can be modified by:

Double clicking on the name of the task to be constrained then from the advanced tab choose the constraint type and if appropriate add a date:

As Late As Possible (ALAP)	the task will take place as late it can
Finish No Earlier Than (FNET)	models a task that is not able to finish before a certain date, but could be delayed beyond it
Finish No Later Than (FNLTL)	is used to describe tasks that are not able to finish beyond a date, but are able to finish earlier
Must Finish On (MFO)	positions the task's finish on the specified date
Must Start On (MSO)	as MFO but positions the task's start on the specified date.
Start No Earlier Than (SNET)	the task starts on or after the specified date but no earlier
Start No Later Than (SNLTL)	for activities that must start on or before a specified date.

Setting Deadlines

Deadlines added to a task show the date when it should finish but won't prevent the task being delayed beyond that date. Instead an alert icon appears in the indicators column if the task finishes later than its deadline. To add a deadline to a task:

- Double click the task
- On the advanced tab enter a date in the Deadline box and click OK. On the Gantt Chart a green arrow indicates the deadline for the task.
- To remove a deadline double click the task and delete the date from the deadline field then click OK

The screenshot shows the 'Task Information' dialog box for the task 'Define business vision'. The 'Advanced' tab is selected, and the 'Deadline' field is set to 'Tue 23/08/11'. A calendar pop-up is visible, showing the date '23' is selected. A text box with an arrow points to the 'Manager' task in the Gantt chart, stating 'A deadline has been added to this task... indicated by the arrow'. The Gantt chart shows tasks: 'Self-Assessment' (3 days), 'Define business vision' (1 day), and 'Identify available skills' (1 day).

Using Task Views

Critical Path and Slack/Float

Project will identify the Critical Path for your plan so that you can easily see which tasks are driving your Project end date. This makes it easy to focus on these influential tasks and ensure they are correctly estimated, appropriately linked and adequately resourced.

Critical Path

The Critical Path is made up of those tasks that determine the end date of your project. In other words if a task on the critical path moves, the finish of the project will move as well (positively or negatively)

A quick way to see the critical path is to switch to the Tracking Gantt view. Critical tasks are coloured red.

From the View menu choose Tracking Gantt.

Slack (Float)

Slack (also referred to as Float) refers to the time that a task can move before it impacts another task or moves the project's end date. Slack interrupts the critical path and can be created when constraints are applied to tasks.

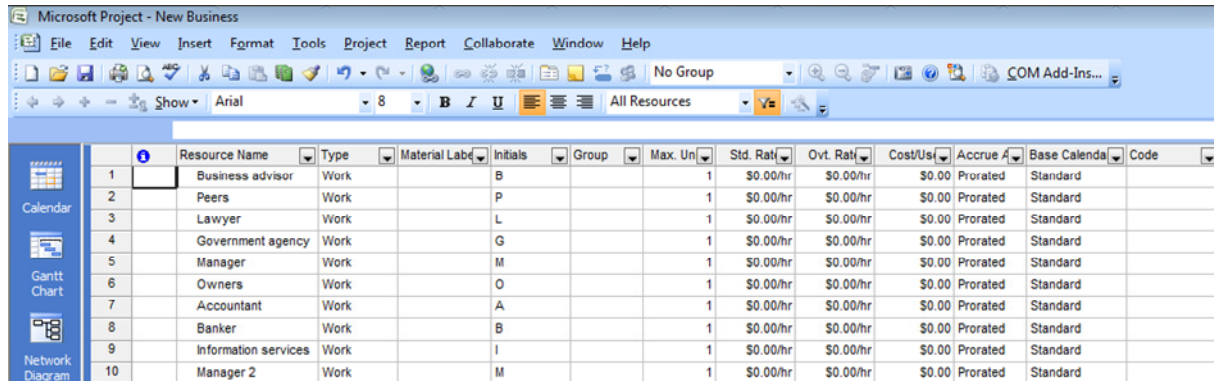
Print Screen, Excel Copy/Paste

To quickly get the plan into a format that can be easily shared:

- Take a snapshot of your current plan into the clipboard. This can be pasted straight into a document in Word or PowerPoint
 - 2003 Go to Edit > Copy Picture and click OK
 - 2007 Go to Report > Copy Picture and click OK
- Select all tasks by clicking in the square above row 1 and to the left of the first column. Use the keyboard shortcut CTRL + C to copy the rows then switch into another application such as Excel.
- Choosing Paste Special in the destination application allows you to insert a Project Object which appears to be a picture of the Gantt Chart but when double clicked will open the Project in MS Project (if installed).

Introduction to Resources

Resources are best defined using the Resource Sheet, which can be accessed via the View menu or the View bar.



	Resource Name	Type	Material Label	Initials	Group	Max. Un	Std. Rate	Ovt. Rate	Cost/Us	Accrue At	Base Calendar	Code
1	Business advisor	Work		B		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
2	Peers	Work		P		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
3	Lawyer	Work		L		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
4	Government agency	Work		G		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
5	Manager	Work		M		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
6	Owners	Work		O		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
7	Accountant	Work		A		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
8	Banker	Work		B		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
9	Information services	Work		I		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	
10	Manager 2	Work		M		1	\$0.00/hr	\$0.00/hr	\$0.00	Prorated	Standard	

Creating resources

Each resource is entered on its own line as follows:

Basic resource properties

Name Enter an appropriate name for the resource. This can either be the name of an individual, a job role or a team name for generic resources.

Type Up to Project 2003 resources can be either **work** or **material**. Use the Work resource type for people and equipment whose availability is capped (Max Units) so you can see if they become over-allocated. Use the material resource type if the resource is a consumable.

Project 2007 supports **cost** resources. Use the cost resource type to track variable items such as expenses. The rate for the resource is not stored in the resource sheet. Each time cost is assigned to a task you can enter the cost that applies just to that task.

Material Label Only applicable for material resources. This is the quantity that the resource is purchased in. For example paint might be purchased in litres.

Initials An alternative to having the full name beside bars on the GANTT chart

Group Can be used to categorise resources appropriately for reports, filters and grouping. Typical uses are team names, departments, subcontractors etc.

Max Units The maximum number of units of the resource. 100% generally means one individual; 300% 3 individuals. (Work type only)

Standard Rate Cost of standard work, can be recorded as Hourly/Daily/Weekly/Monthly e.g. £200/d for a daily rate

Overtime Rate	Cost of resource when work is specified as overtime. (work type only)
Cost/Use	A one off cost associated with the resource. Is charged every time resource is allocated to a task. Can also be used in addition to Standard Rate.
Accrue At	Determines if the resource costs are charged at the start of the task; throughout the task, or at its end.
Base Calendar	The base calendar which determines the resource's working time. (Work Type only)
Code	A general code that can be used to identify the resource or resource group. A typical example would be a cost centre code.

Assigning Work Type Resources to Tasks

There are two stages of resource allocation. The Initial allocation, where resources are first allocated to a task; and then any changes made to that allocation, for example adding extra resources, or removing resources.

Initial allocation

The initial allocation of resources involves specifying the resources necessary to complete each task in the duration specified.

Procedure

1. In the Gantt chart view
2. Split the window to show the Task Form view below the Gantt Chart
3. Select the task which is to be resourced

Then in the lower pane, under resources:

4. Select each resource required for the task
5. Then Click OK (Note all required resources must be selected before OK is clicked)

Allocating multiple resources

When multiple resources are allocated to a task Project will assume that each resource must work on the task for the specified duration. So if two resources are to work on a 2 day task, then each resource must work on it for 2 days. If both resources can work at the same time, then the total duration of the task will remain unchanged. If however, they are working at different times then the duration of the task will likely change.

Example

A two day task starts on Monday and finishes on Tuesday. Two resources are then allocated to it.

Resource 1, works both Monday and Tuesday, thus finishing its contribution within the 2 day duration. Resource 2 however is on holiday on Monday, and therefore starts its 2 day contribution on Tuesday, finishing Wednesday.

Therefore the task starts on Monday with resource 1 and finishes on Wednesday with resource 2; thus having a new duration of 3 days.

Modifying allocations

When modifying a resource allocation, it is necessary to understand that you are changing one of three variables, *units of resource*, the other two being *task duration* and *work*.

When you change the units of resource, either the duration of the task will change, or the amount of work will change, as the three variables can be represented in the formula

$$\text{Duration} \times \text{Units of Resource} = \text{Work}$$

So, increasing the units of resource would require either the duration to decrease and work to remain fixed; or for Work to increase and duration to remain fixed.

The key is to be able to specify which option applies.

Procedure

1. Open the Gantt chart
2. Split the screen to show the details pane
3. Select the task to be modified.
4. In the lower pane ensure the "Effort Driven" tick box is empty. If there is a tick in the box remove it then click OK before proceeding (see below)
5. If you want the duration to alter change the task type to "fixed work"
6. If you want work to alter change the task type to "fixed duration"
7. Add or remove resources as required
8. Click OK

The screenshot displays the Microsoft Project interface. The top section shows a Gantt chart with a task bar for 'Define business vision' spanning from Thursday, 01/09/11 08:00 to Thursday, 01/09/11 17:00. Below the Gantt chart, the 'Task Name' list shows the task hierarchy: 'New Business' (127 days), 'Phase 1 - Strategic Plan' (26 days), 'Self-Assessment' (3 days), and 'Define business vision' (1 day). The bottom pane shows the 'Task Details' for 'Define business vision'. The 'Name' field is 'Define business vision', 'Duration' is '1d', 'Start' is 'Thu 01/09/11 08:00', and 'Finish' is 'Thu 01/09/11 17:00'. The 'Task type' dropdown is set to 'Fixed Units'. The 'Effort driven' checkbox is checked. The 'Resources' list shows 'Manager' with 1 unit and 8h of work. The 'Task type' dropdown menu is open, showing options: 'Fixed Duration', 'Fixed Units', and 'Fixed Work'. The 'Fixed Units' option is highlighted.

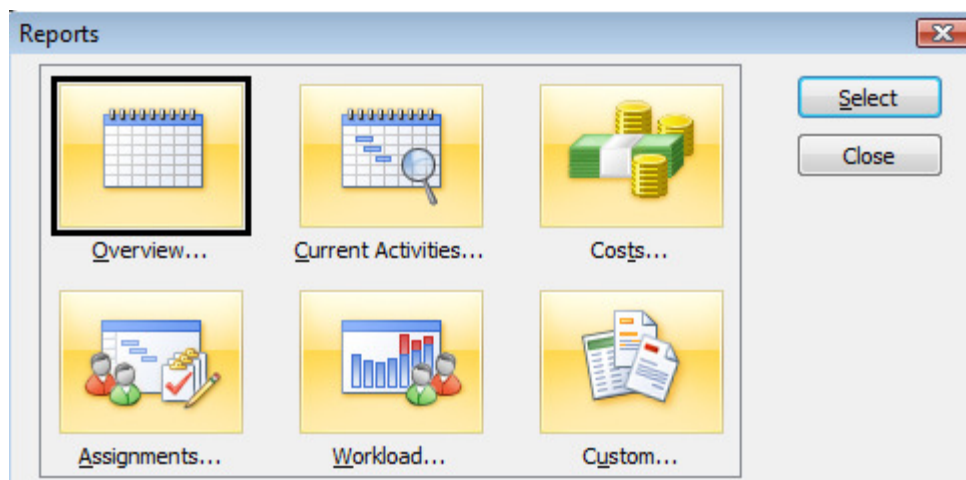
Reporting

When a project is in progress it is usually necessary to produce reports on how the project is performing in terms of schedule and cost.

To access built in reports: -

2003 click on View then choose Reports then select the category and report required.

2007 click on Reports then choose Reports then select the category and report required.



Reports available include:

Category

Overview

Report

Project Summary

Top Level Tasks

Critical Tasks

Milestones

Task Overview/Current activities

Unstarted Tasks

Tasks Starting soon

Tasks In Progress

Completed Tasks

Should Have Started Tasks

Slipping tasks

Costs

Cashflow

Budget

Over budget

Over budget Resources

Assignments

Who does what

Who does what when

Workload

To Do List
Over allocated Resources

Task Usage
Resource Usage

Formatting and sharing information

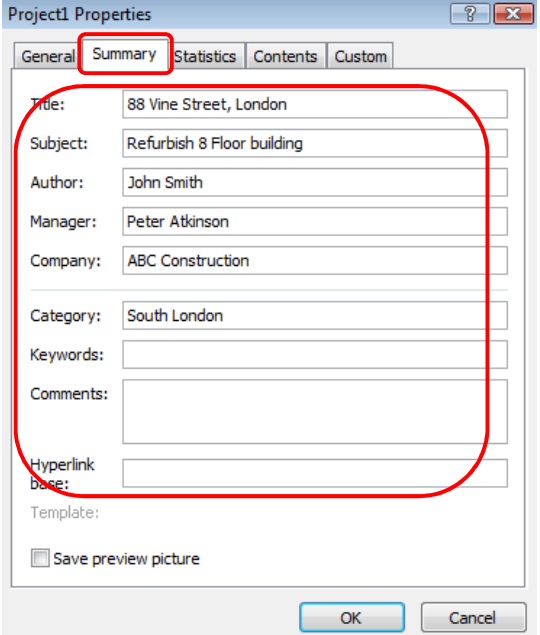
Project Properties

You can enter descriptive information about your project in the Properties dialog box. This information will help you and others identify the source and purpose of your project. The Properties dialog box consists of five tabs, described in the table below.

Tab	Function
General	Provides information about the project, including filename, file type and size, file location, size and times of file creation, most recent modification, and most recent access.
Summary	Provides fields for: Project Title, Subject, Author, Manager, Company, Category, Keywords, And Comments.
Statistics	Provides information about project file editing including date created; most recent modification, access, printing, person who last saved it, current revision number and total editing time
Contents	Contains overall schedule information, including project start and finish dates, duration, total work and cost, and percent complete.
Custom	Allows you to enter project properties by which you can search and define links to actual values in your project.

To view and change the Project Information

1. Select the **File** menu and select **Properties:**
2. On the Summary tab of the properties dialog box you can type the Project Title, Manager's name, etc.
3. Click OK when you are finished



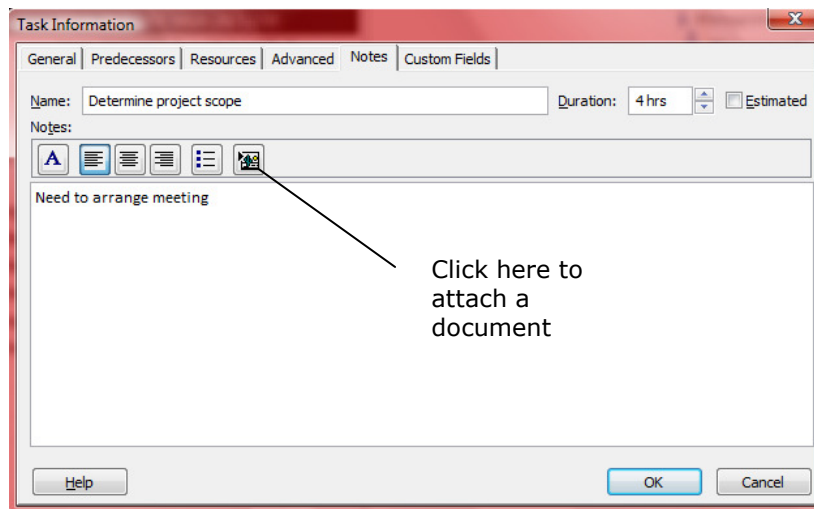
The screenshot shows the 'Project1 Properties' dialog box with the 'Summary' tab selected. The 'Summary' tab is highlighted with a red box. The dialog box contains several text input fields for project information. A large red rounded rectangle highlights the 'Title', 'Subject', 'Author', 'Manager', 'Company', 'Category', 'Keywords', and 'Comments' fields. The 'Hyperlink' and 'Template' fields are also visible but not highlighted. The 'Save preview picture' checkbox is at the bottom left. The 'OK' and 'Cancel' buttons are at the bottom right.

Field	Value
Title:	88 Vine Street, London
Subject:	Refurbish 8 Floor building
Author:	John Smith
Manager:	Peter Atkinson
Company:	ABC Construction
Category:	South London
Keywords:	
Comments:	
Hyperlink	
Template:	

Adding notes and hyperlinks

Adding Notes to a Task

1. Select the task and click the Notes command on the Standard toolbar
2. With the flashing cursor in the Note text area, type your note or click the Insert Object command to attach relevant documents such as Excel spreadsheets or the minutes of a meeting



Note: a Note indicator  will appear in the Task's Indicators field

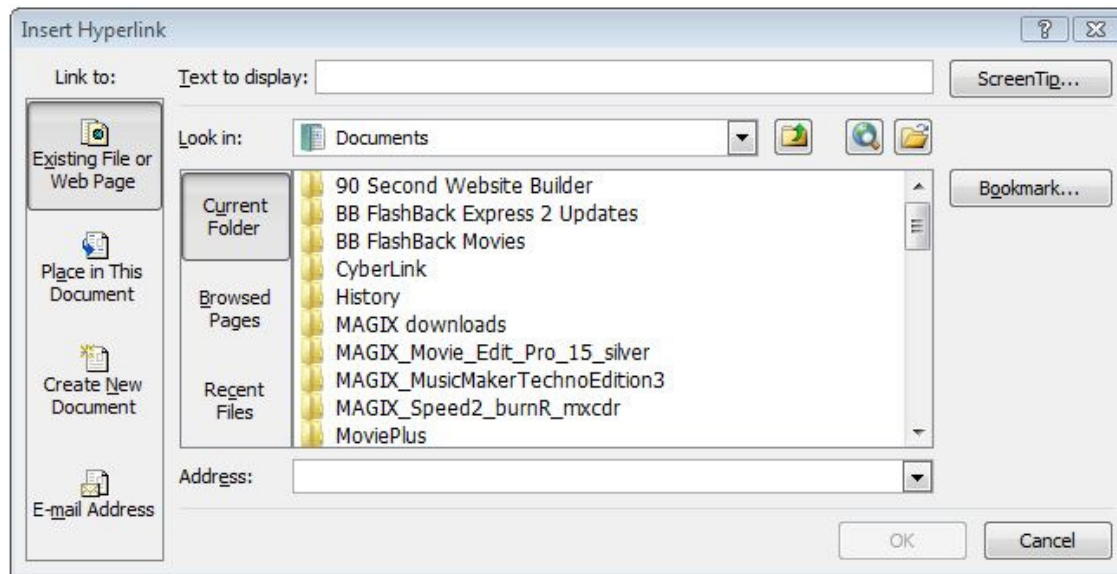
- for a quick view of the Note's first paragraph, point the mouse at the Task's Note indicator
- to **view all** of a Task Note or to **edit** a Note, click in any of the Task's fields and again click the Task Notes button on the Standard toolbar **or** double-click the Note indicator in the Indicators field
- Task Notes can be printed out with your project plan

Adding Hyperlinks to a Task

In Project, a hyperlink is an interactive icon that, when clicked, links to a location in the current project plan, a file in its corresponding application, a web page in a browser, or a new Message form in Outlook for an email address. Hyperlinks are displayed in the **Indicators** column. Only one hyperlink can be attached to any task, resource, or assignment. A default screen tip is assigned to a hyperlink. However, a screen tip of your choice can be specified.

Hyperlinks keep the project plan's file size to a minimum as they only store the location of the object they link to.

1. To insert a Hyperlink into a task first select the task and click the hyperlink button on the Standard toolbar to open the Insert Hyperlink dialogue box or right-click the task and click the hyperlink button or use the short cut key CTRL+K or choose Insert Hyperlink from the Insert menu.



2. Choose Existing File or Web Page
3. From the Look in: section, click the drop-down arrow and navigate to the file you wish to hyperlink to
4. Select the required document
5. If you require a screen tip, click the ScreenTip button in the top right corner and complete the screen tip text and click OK
6. Click OK and observe that a hyperlink icon has appeared in the Indicators column
7. To open the document from within Project, click the hyperlink icon.

Copy / Paste tasks and rows

Drag and drop

1. Select the whole Task on the ID number
2. Release the mouse button
3. Hold down the Ctrl key while you drag and drop the Task copy to the new position already visible on the screen – the copied Task is inserted between existing Tasks

Copy and Paste

1. Select the **whole Task** on the ID number
2. Click the **Copy** button
3. Click on the Task Name of the task which is to be **below** the moved Task
4. Click the **Paste** button – the copied Task is inserted between existing Tasks

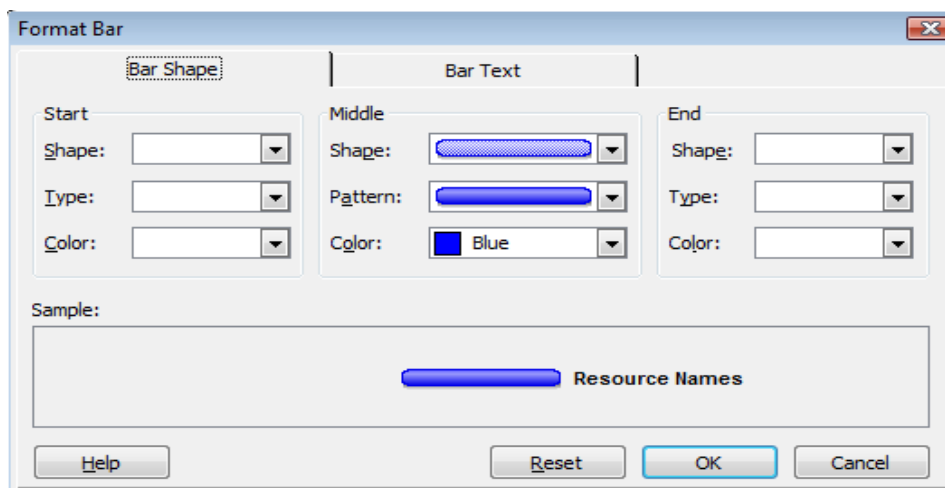
Copy / Paste Picture

To quickly get the plan into a format that can be easily shared:

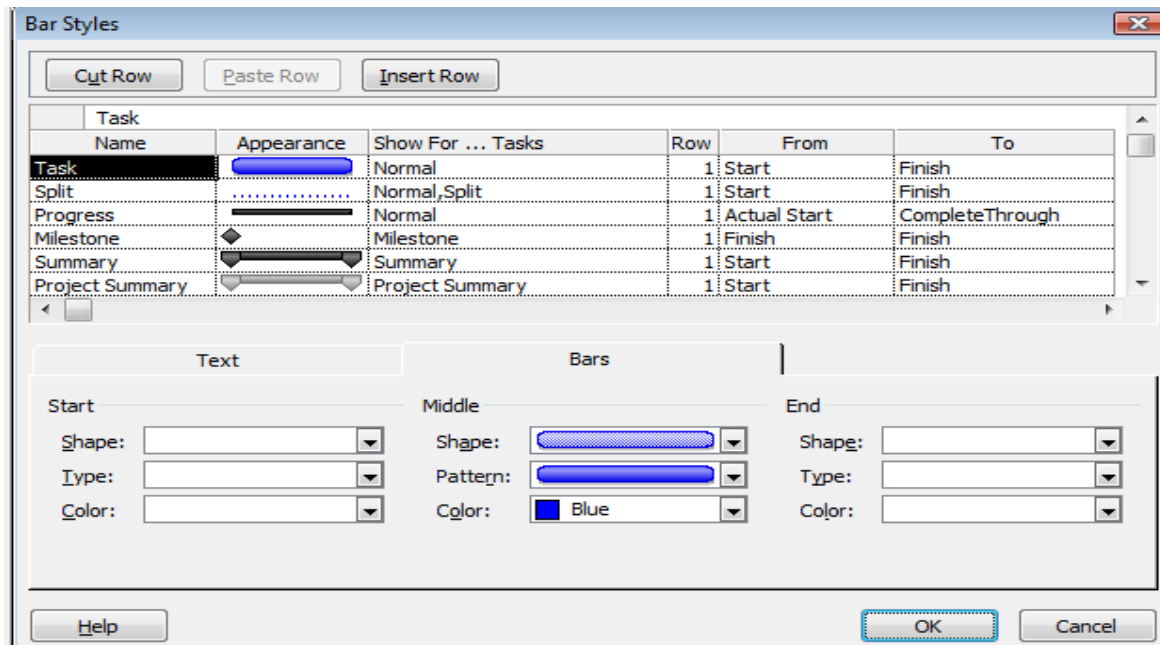
- Take a snapshot of your current plan into the clipboard. This can be pasted straight into a document in Word, Excel or PowerPoint.
 - 2003 Go to Edit > Copy Picture and click OK
 - 2007 Go to Report > Copy Picture and click OK
- Switch into another application such as Excel and paste.

Formatting Bars and the Gantt area

Bars and Bar text – For one-off formats double click individual bars and choose their respective colour, shape and position of text around the bar (using the text tab). To work with more than one bar select the relevant tasks (either click and drag on the row numbers or control+click for tasks not adjacent to each other) and choose Format > Bar.



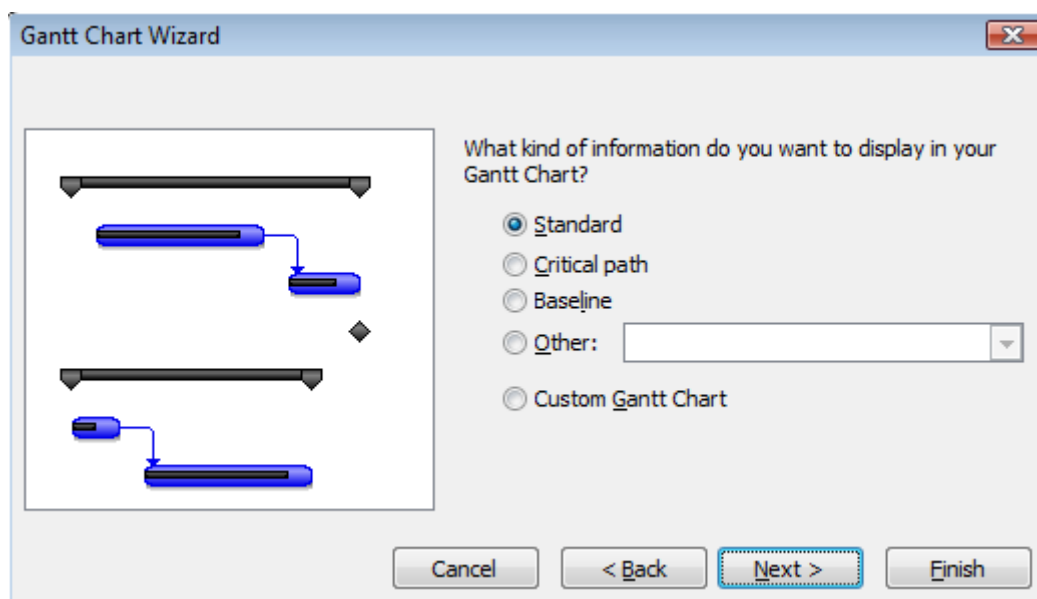
Bar styles / Text styles – To create formatting rules that apply to current and future tasks choose Format > Bar styles (or Text Styles on the same menu.)



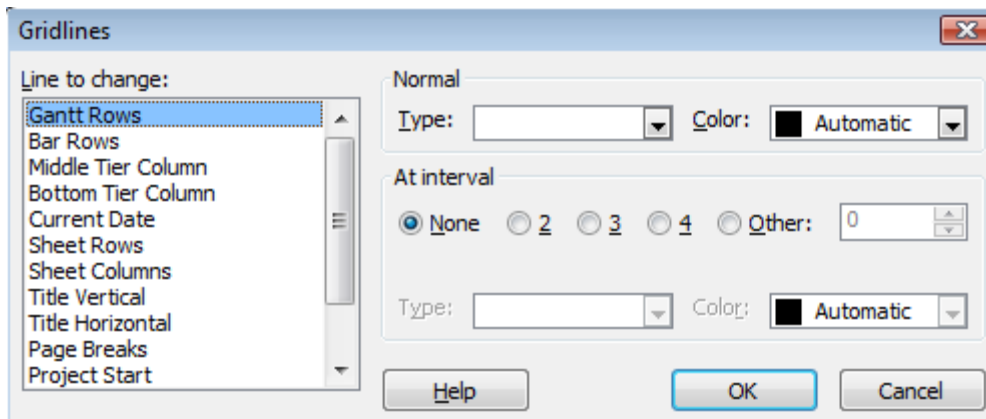
Choose the appropriate bar or text type and apply your formatting. If some shapes on the Gantt chart don't pick up the new formatting settings double click them and choose Reset (next to OK.)

Note: 2007 version only has the option to change the background colour of cells.

Reset formatting – To reset the colours and layout of text around bars back to standard formatting go to Format > Gantt chart Wizard. Click Next, then choose Standard. Using this wizard, Project can also format the Gantt chart to display Critical Path or Baseline information.

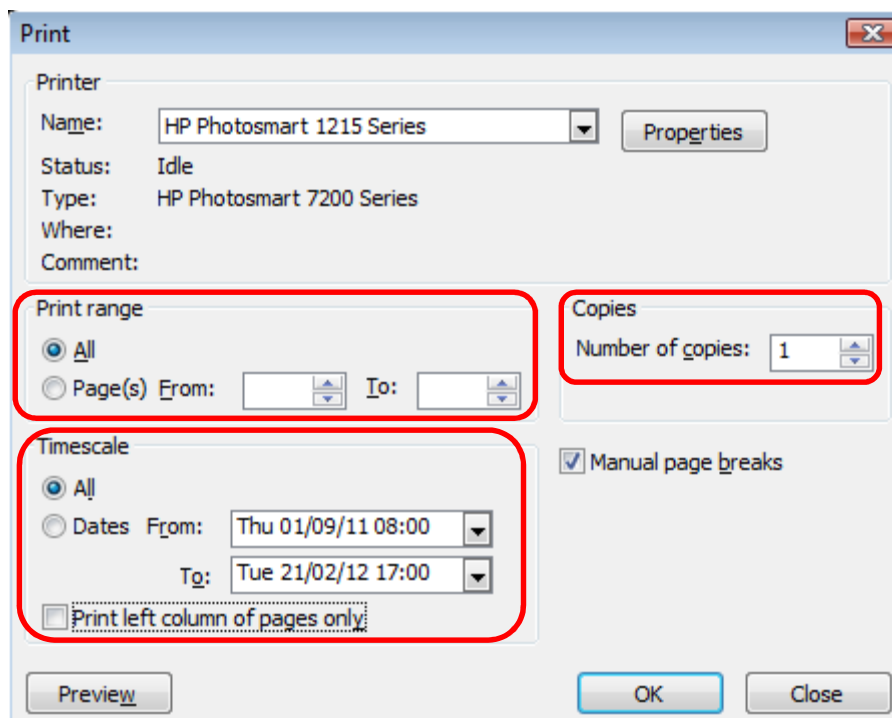


Other formats - To add other formatting lines, choose Format > Gridlines > Task rows and choose a line type. Project Start, Project Finish and Current date lines can also be set in Format > Gridlines



Formatting for Printing

To print a view; go to File > Print, select the relevant settings and click OK.



Select relevant printer

Specify which pages to print

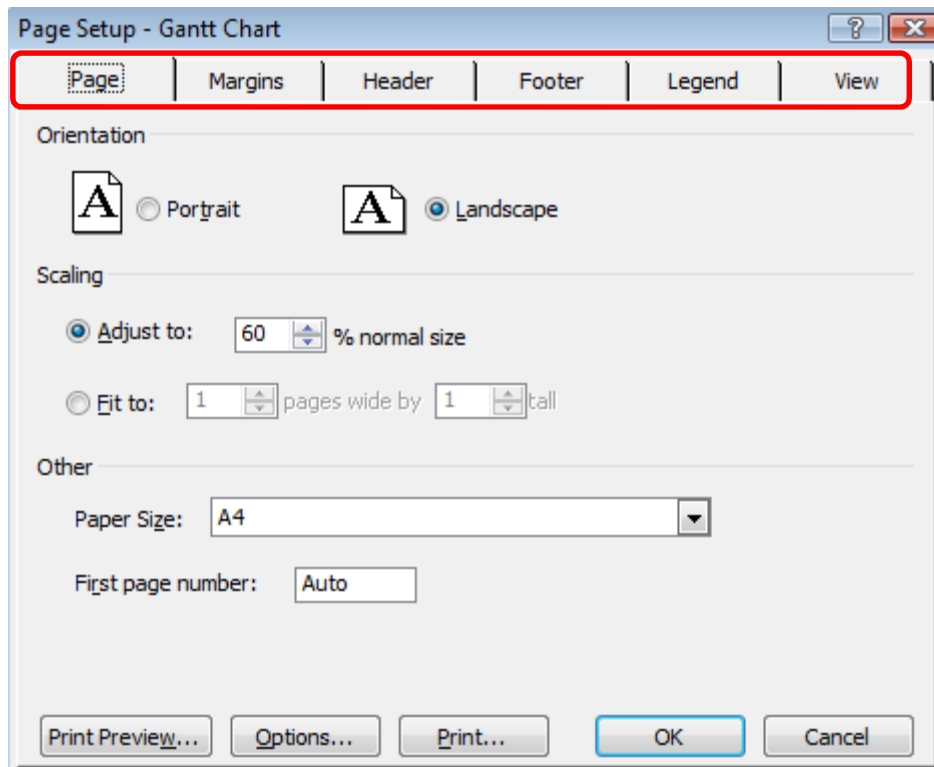
Specify the period of time to be covered by the print

How many copies are to be printed

Page Setup

To set up the page for printing

Click on File > Page Setup > select the relevant options



Page Tab

Orientation

Scaling

Paper size

Margins

Specify margins and page borders

Header / Footer

Specify data to go into the header and footer of each page

Legend

Modify the content and appearance of the legend

View

Choose to print the following:

All Columns

First X columns

Notes associated with tasks

Blank Pages

And also select here if the timescale is to run to the end of the page

Working with built-in reports

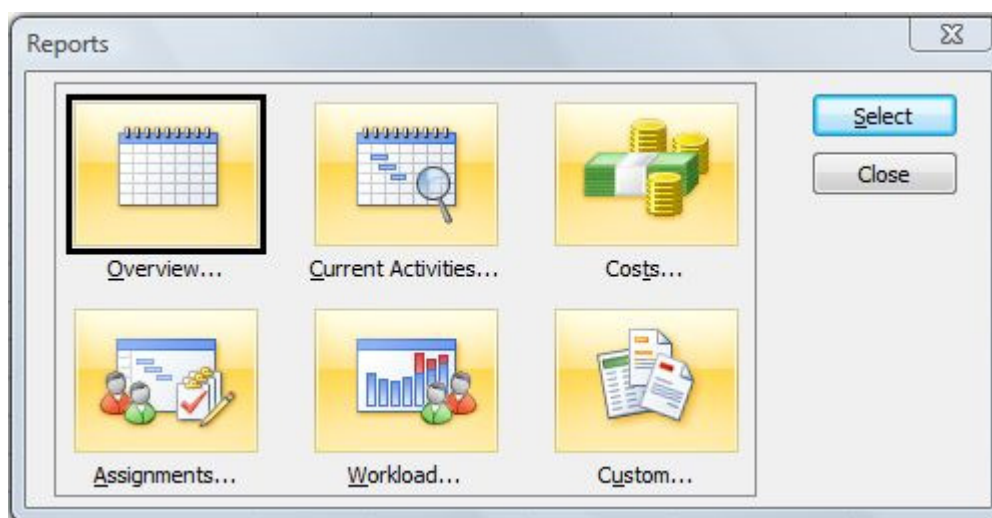
When a project is in progress it is usually necessary to produce reports on how the project is performing in terms of schedule and cost.

Project has a number of pre-defined reports based on some principal types which can be used directly or changed as required. Alternatively, completely new reports can be created.

To access built in reports

2003 click on View then choose Reports and double-click a category to access the available reports.

2007 click on Reports then choose Reports and double-click a category to access the available reports.



Overview:	Summarises the most significant project information, including numbers of tasks and resources, task and schedule status, costs, start and finish dates, and so on.
Current Activities:	Displays information about top-level tasks for the entire project. Includes summary tasks and task notes.
Costs:	Shows critical tasks for the entire project. Includes summary and successor tasks and task notes.
Assignments:	Shows project milestones. Includes summary tasks and task notes.
Workload:	Shows working and nonworking times for resources for the entire project duration.
Custom:	Create a new report.

Reports available include:

Category	Report
Overview	Project Summary Top Level Tasks Critical Tasks Milestones
Task Overview/ Current activities	Unstarted Tasks Tasks Starting soon Tasks In Progress Completed Tasks Should Have Started Tasks Slipping tasks
Costs	Cashflow Budget Overbudget Overbudget Resources
Assignments	Who does what Who does what when To Do List Overallocated Resources
Workload	Task Usage Resource Usage

Project 2007 additional features

In addition to updating the controls for Calendars the 2007 version of Project includes some additional features which you may find useful:

Feature	Description
Multiple undo	Makes "what if" testing of the plan much easier. Can be adjusted by going to Tools > Options > General and changing Undo Levels. If you find Project runs slowly reducing the number of steps you can undo may improve performance
Tasks drivers	Click the task drivers icon then select a task. The pane to the left of the task list displays the elements in the plan affecting the selected tasks
Change highlighting	Project highlights cells that change as a result of the most recent edit you make to the plan
Cell shading	Cells in the table can now have background colours. Go to Format > Font or Format > Text Styles to apply
Enhanced Views	Bars now have 3D shading (Tools > Options > View tab) Calendar view can now display in week intervals as well as by month