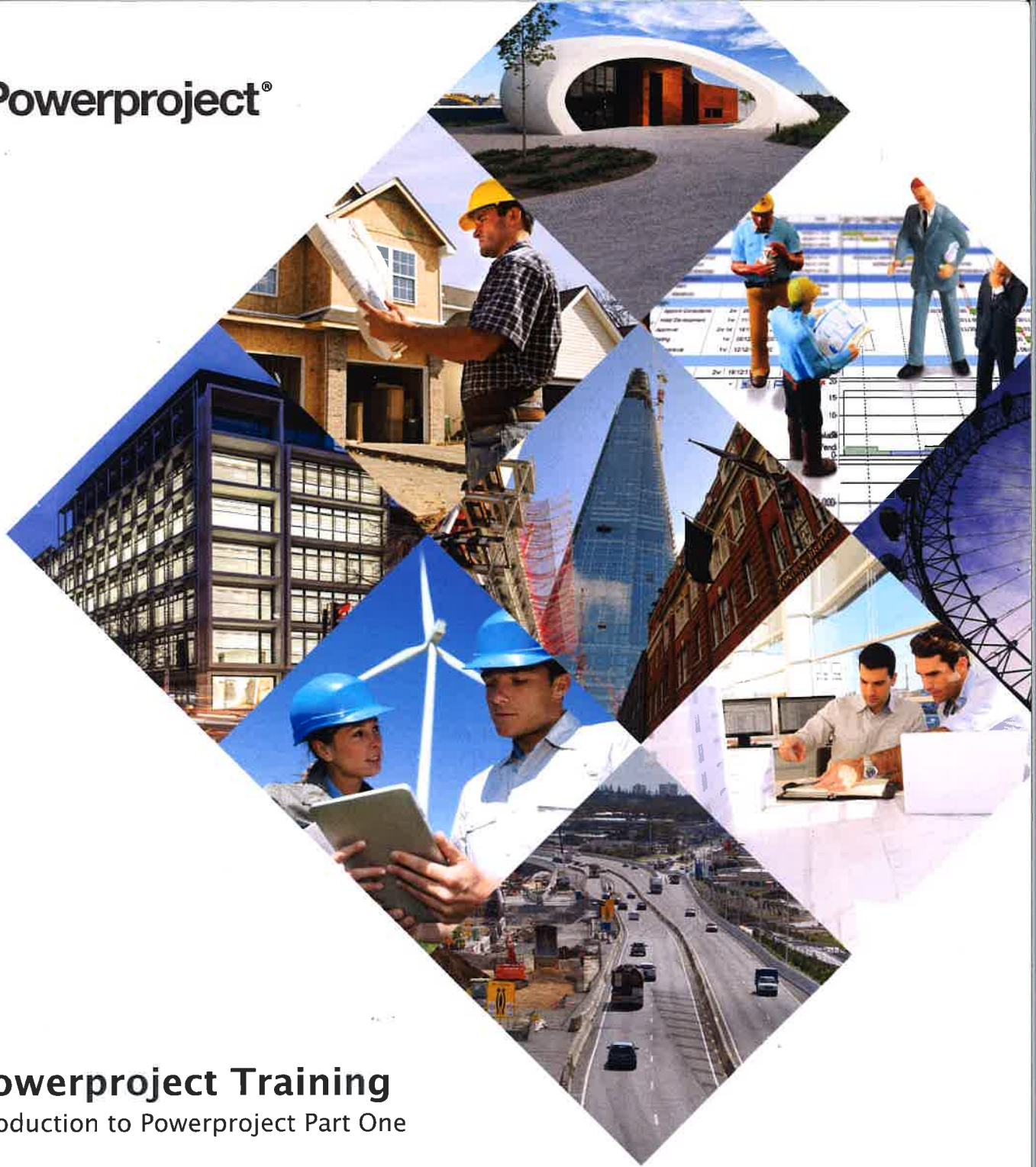




Powerproject Training

Introduction to Powerproject Part One

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Powerproject: The power behind successful projects

Powerproject Technical Support:

Tel: 01844 261 609

Email: support@elecosoft.com

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For information on further training courses:

Tel: 01844 261 700

Email: training@elecosoft.com

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Tel: 01844 261 700 Fax: 01844 261 314

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Course Objectives

During the day you will learn how to:

- ▶ Edit and apply working time using calendars
- ▶ Create a linked bar chart
- ▶ Understand and analyse the Critical Path and Float
- ▶ Manipulate the chart using constraints
- ▶ Summarise the bar chart
- ▶ Create a coded reporting system
- ▶ Edit the display
- ▶ Update progress on your project
- ▶ Print your project

Topics will be backed up by exercises

This booklet is yours to take away

Please feel free to add any notes you feel are relevant Please ask any questions

 = Note, something of interest

 = Warning, something to make you aware of.

Getting started

Powerproject follows many of the rules for Windows:

- ▶ **Left click** will usually select an item
- ▶ **Double click** will activate it
- ▶ **Right click** gives you a menu to make changes
- ▶ **Click and drag** will move an item from one part of the screen to another or will select multiple items
- ▶ **Shift button** will allow you to select adjacent items
- ▶ **Control button** will select non-adjacent items

Starting a new project

Templates are used to make creating a new project as quick as possible. A template can contain information that you use regularly in your projects like tables, code libraries, filters and many more items.

- ▶ Select the **File tab**
- ▶ Select **New**
- ▶ Select a template on which to base your project e.g. **Construction Template**



- ▶ Enter the details on the new project
 - Filename** – The name of the document
 - Name** – The print title
 - For** – Who the project is for i.e. the client
 - By** – Who the project is by i.e. your name or company
 - Start** – The start date for the whole project
- ▶ Click **Create**

Opening an existing project

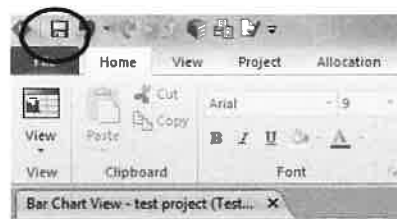
- ▶ Select the **File tab**
- ▶ Recent projects are displayed to the right. Double click to select & open a project



- ▶ If your project has not been opened recently, Select **Open** from the menu on the left
- ▶ Select your file & click **Open**

Saving a file

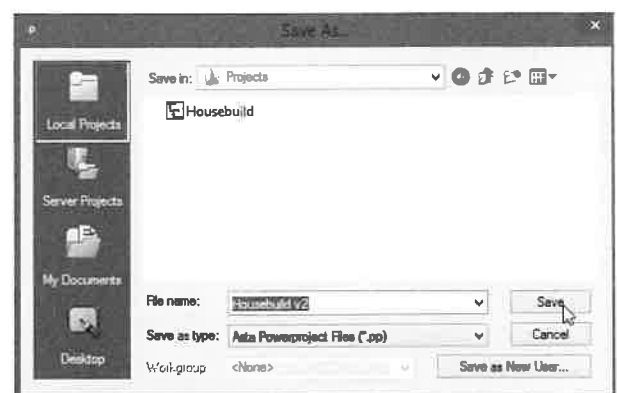
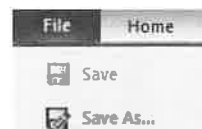
- ▶ Select the **File Tab** & Save or click the **Save** button on the quick access tool bar



Saving a file under a new name

When saving a file under a new name, the existing version is kept and a new version is saved under the new name.

- ▶ Select the **File tab** and **Save As**
- ▶ Enter a File Name and select where you wish to save the project
- ▶ Press **Save**.

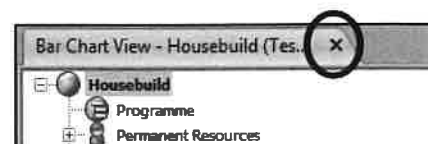


Closing a project

- ▶ Close the project tabs using the 'X' next to each tab

Or

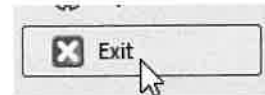
- ▶ Return to the **File tab** and select



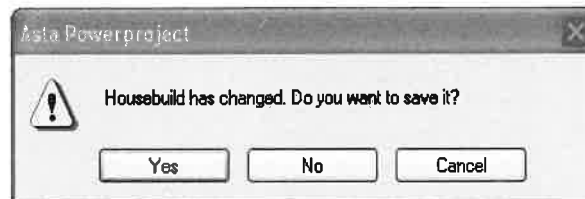
If the project has not been saved, you will be prompted to do so

Exiting Powerproject

- Select the **File Tab** & select **Exit** from the left hand menu

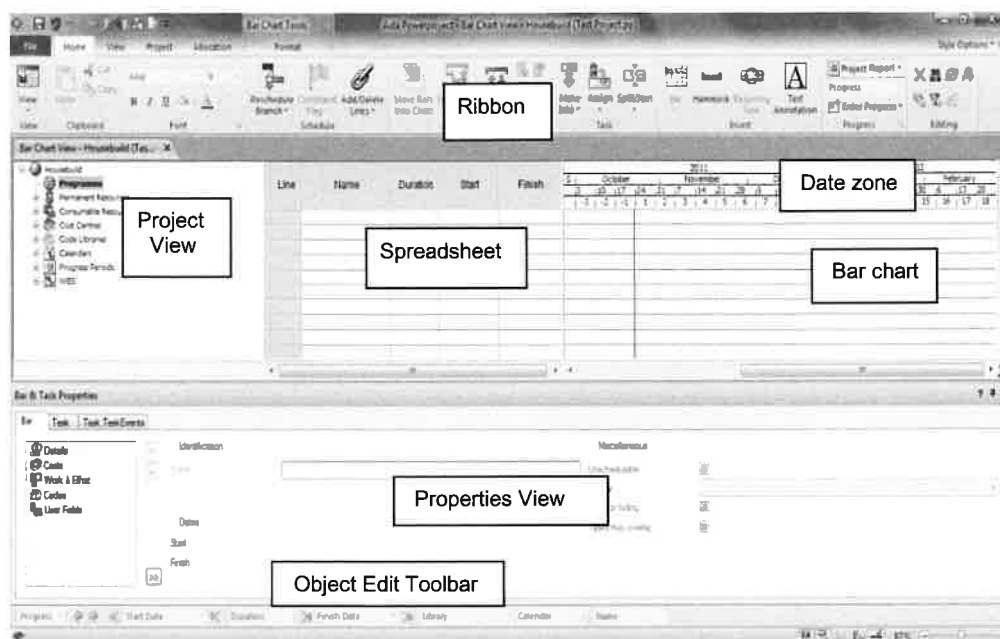


 N.B. If you try to close an individual project, or the Powerproject software altogether, without saving, Powerproject will ensure you do not accidentally lose changes by prompting to ask if you want to save



Powerproject screen areas

The **Powerproject** screen is divided into a number of areas. This may vary for existing projects where the layout has been changed to suit the needs of the user.



- ▶ **Ribbon** – Contains the commands for your project
- ▶ **Project View** – Shows the structure of your project and shows the list of library items available
- ▶ **Bar Chart** – Information on your project in graphic form, your Gantt Chart
- ▶ **Date zone** – Showing dates for years, months, weeks etc.
- ▶ **Spreadsheet** – Information on your project in tabular form
- ▶ **Properties View** – Allows you to edit the properties of a selected object
- ▶ **Object Edit Toolbar** – Used to edit tasks and/or links in the bar chart

The Project View

The project view lists information relevant to your project. It enables you to navigate the project & provides a method of allocating codes, resources, calendars etc.

The project view area can be hidden if screen space is at a premium

- ▶ Select the **Format** tab and click the  command

Or

- ▶ Select the same command on the bottom toolbar

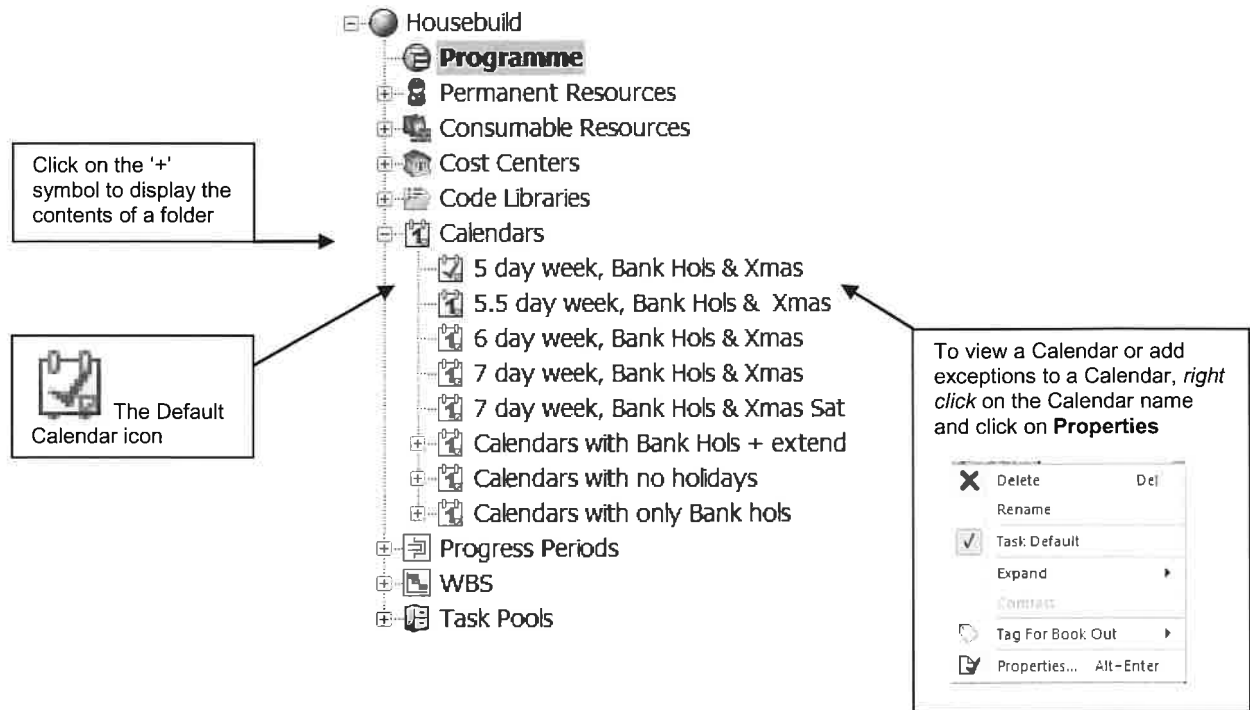


Calendars

Calendars define the working and non-working time within a project. The Calendar consists of a planned pattern of work to which *exceptions* can be added. An exception is any day which does not conform to the planned pattern of work, e.g. holidays or overtime

To display a list of available calendars

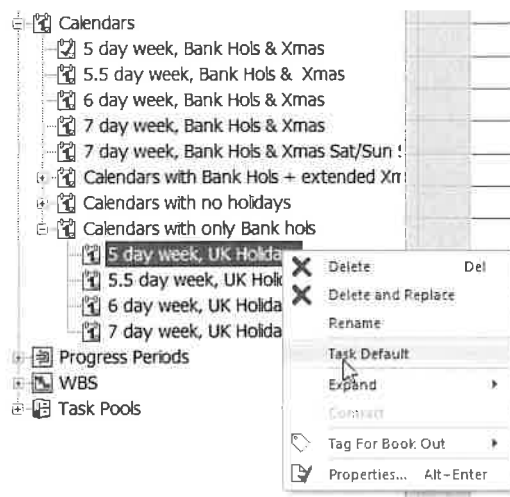
Calendars are accessed from the Project View



Any new task you create will follow the default calendars' work pattern

Select the Default Calendar

- Right click on the calendar you wish to set as the default



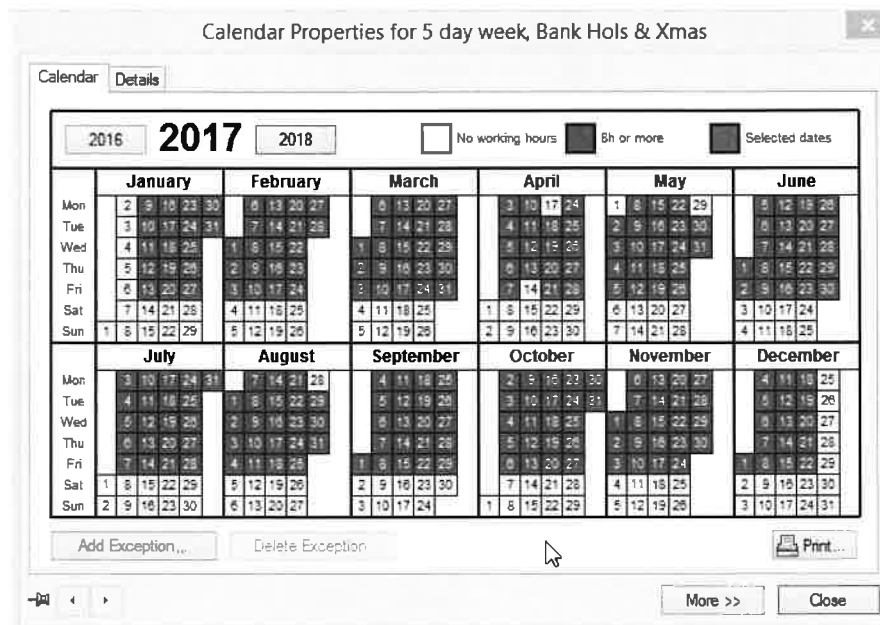
- Select **Task Default** from the list
- The tick will move to the new default calendar

Edit the Default Calendar

The calendars properties can be edited to match the specific working patterns of this project

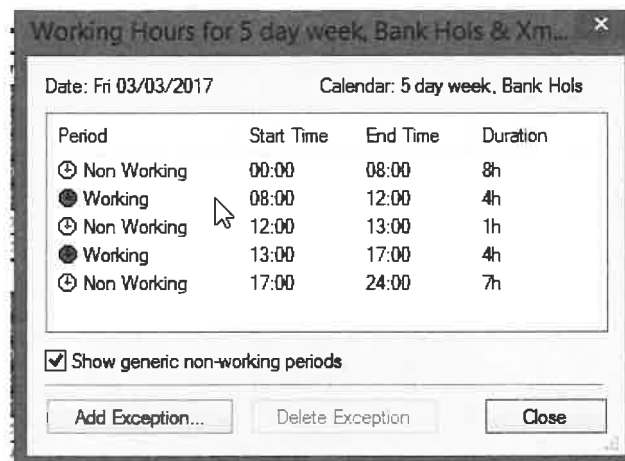
- *Right click* on the calendar you wish to edit
- Select Properties

Each day in the Calendar has a work pattern assigned to it. An **exception** is any day which does not follow that working pattern.



Each day has periods of working and non-working time assigned. To view these times

- *Double click* on the day you wish to view.

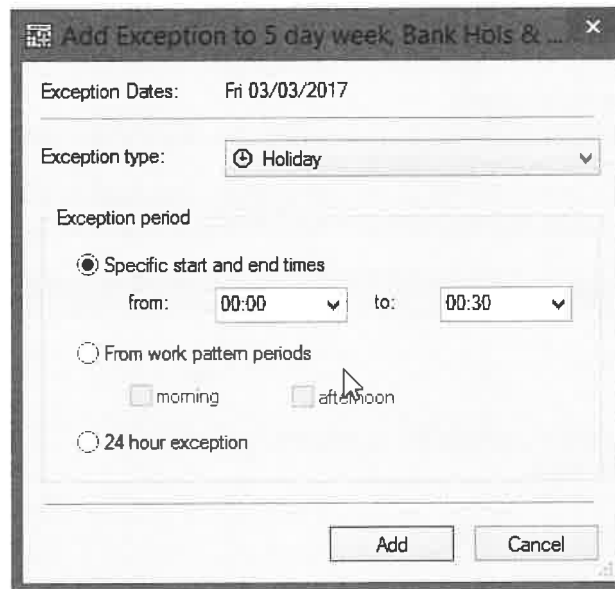


 All supplied calendars have the same 8 hour per day pattern

Adding exceptions

You can add additional exceptions to the calendar to show additional bank holidays, shut down days or additional weekend working.

- ▶ Left click on the date you wish to select.
- ▶ To select more than one date hold the **CTRL** key and click on each date
- ▶ Click the **Add Exception** button



- ▶ Select an Exception type down the drop down menu
- ▶ Choose the duration in the **Exception period** section
 - **Specific start and end times** allows you to set the start and finish of the time to the nearest 30 minutes
 - **From work pattern periods** matches the morning and afternoon to those already set for the calendar. (This option will produce the best results)
 - **24 hour exception** will add the selected exception for the whole 24 hours of the day
- ▶ Click **Add**

Deleting exceptions

Removing an exception from a date will return those dates back to the standard work pattern for the calendar

- ▶ Select the dates with the exceptions you wish to remove
- ▶ Click **Delete Exceptions**

Creating a project

A **project** is a series of tasks which must be completed to achieve a set of objectives.

The Spreadsheet displays the task information and the Gantt chart (Bar Chart) shows the tasks in their date position and duration.

Line	Name	Duration	Start	Finish	January			
					9	16	23	
					2	3	4	
+ 1	Task	3w	09 Jan	27 Jan				

A **Task** is a unit of work with a duration.

Tasks can be created on the Spreadsheet or drawn onto the Gantt chart and they can be linked to show relationships between them to create the critical path.

You can create more than one task on the same bar to show repetitive or intermittent working.

Task names can be used to describe the task and do not need to be unique

Entering bar & task names

- ▶ Move the mouse pointer over an empty cell in the **Name** column and **left click**
- ▶ Type a name and press **Enter**

Line	Name
	Set up Site
	Design
	Meetings
	Dig Footings
	Brickwork to DPC

Creating tasks

A task can be created either by typing the duration into the column on the **Spreadsheet** or by using the cursor to draw onto the **Bar Chart**. Once created, any aspect of the task can be edited using either the **Spreadsheet** or using the mouse on the task bar

To create tasks in the Spreadsheet

- ▶ Click in the duration column of the task in the table
- ▶ Type the duration you wish into the column. Use any duration unit by adding the appropriate letter after the number, i.e. d for days and w for weeks
- ▶ Press **Enter**. A task is displayed on the **Bar Chart**

To create tasks on the Bar Chart

- ▶ Place the mouse cursor in the **Bar Chart** on the line for the task. The cursor is a cross
- ▶ Left click and drag the mouse to the right

A pop up box displays the duration of the task

Line	Name	Duration	Start	Finish	Duration	Start	Finish
	Task				15d	09/01/2017	27/01/2017

- ▶ Release the mouse button when the task is the required duration
The task remains selected (highlighted in black)
- ▶ Click away from the task to deselect it. It is displayed green again

Moving and editing tasks

Tasks can be moved and edited using either the mouse or the **Object Edit Toolbar**

To edit your tasks on the Bar Chart

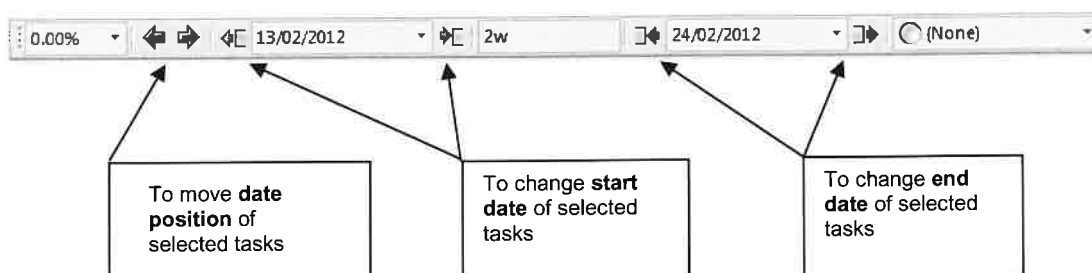
- ▶ Place your cursor on the task you wish to edit
- ▶ Your cursor will change to one of these shapes

	Select /move task: Place mouse cursor in the centre of a task. Left click & drag. While this cursor shape is showing an item can be selected or moved.
	Adjust start date of task: Place mouse cursor at start of a task. Left click & drag. While this cursor shape is showing the start date of a task can be moved without affecting the end date.
	Adjust end date of task: Place mouse cursor at the end of a task. Left click & drag. While this cursor shape is showing the end date of a task can be moved without affecting the start date.

To edit tasks on the Object Edit Toolbar

- ▶ Select a task on the **Bar Chart** using the  cursor as shown above

The **Object Edit Toolbar** is now displayed at the foot of the screen



Moving bars vertically

It is possible to change the order of tasks

To move **Design** to the top of the project

- ▶ Left click on the **line number** for the task you want to move. Place your cursor on the task in the bar chart, to display the  cursor



- ▶ Click and drag the bar to the line above

Inserting bars

You can insert new lines into your project to add new tasks or add space between existing tasks.

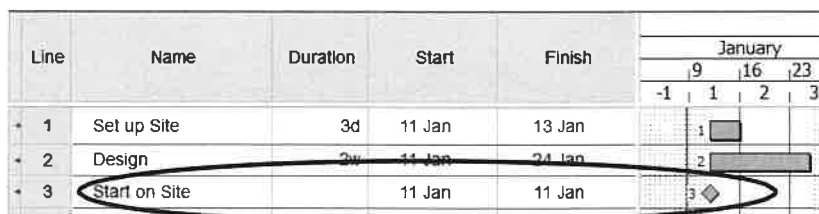
- ▶ Right click on the **line number** where you want to insert your new line.
- ▶ Select **Insert Bar** to insert a line above the selected line or **Insert Bar Below** to insert a line below the selected line

Milestones

Milestones are used to display key dates or events in our project and have zero duration

To create a Milestone

- ▶ Name the task in the normal way
- ▶ Enter **0 (zero)** in the duration column.



A diamond symbol appears in the bar chart. The duration column shows blank.

Milestones can either be a **Start** or **Finish** milestone. **Start** Milestones will show at the start of a working day, whereas **Finish** milestones will show at the end of the working day, e.g. if a task is completed on Friday afternoon, a **Start Milestone** will appear on Monday morning. A **Finish Milestone** will appear at the end of Friday afternoon. *By default, you will create a start milestone.*

To change a Milestone into a Start or Finish Milestone depending on your requirements

- ▶ Right click on the Milestone.
- ▶ Select Make Into > Start/Finish Milestone

Task-per-line mode

In **Powerproject**, it is possible to display more than one task on a bar. This is useful if you have several tasks of the same type or you have a process made up of a number of single tasks. **Powerproject** can separate tasks that exist on the same line by dropping them down onto separate lines. This is achievable by using **Task-per-line** mode

To create multiple tasks on the same line

- Using the cross cursor draw more than one task onto the same line in the **Bar chart**.

Line	Name	Duration	Start	Finish	January				
					9	16	23	30	
					-1	1	2	3	4
+ 1	Set up Site	3d	11 Jan	13 Jan	1				
+ 2	Design	2w	11 Jan	24 Jan					
+ 3	Start on Site		11 Jan	11 Jan					
+ 4	Meetings	2d	11 Jan	12 Jan	4				

Start 19/01/2017
 Finish 20/01/2017
 Duration 2d

 Note the table show the information for all tasks on the bar

- Click the + symbol to the left of the line number to display info for each individual task.

Line	Name	Duration	Start	Finish	January				
					9	16	23		
					-1	1	2	3	
+ 1	Set up Site	3d	11 Jan	13 Jan	1				
+ 2	Design	2w	11 Jan	24 Jan	2				
+ 3	Start on Site		11 Jan	11 Jan	3				
- 4	Design Meetings	2d	11 Jan	12 Jan	4				
5	Site Meetings	2d	19 Jan	20 Jan			5		

This is called **Task-per-line** mode.

- Click on the - symbol to roll the tasks back up onto one line

To roll up existing tasks

There are also buttons which allow you to select existing tasks on separate lines and roll them up onto one line

- Select the line numbers of the tasks you wish to place on one line

- On the **Home** tab, click the **Roll up tasks**  command

- The process can be reversed using the **Unroll task**  command

Linking tasks

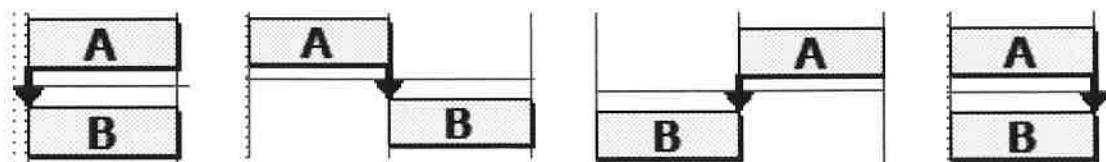
Once you have entered in your tasks you will need to consider the order that you wish to approach those tasks. It is possible at this point to move the tasks into order by selecting the start and finish dates that you wish to use

However, in order for the software to understand the order that you wish to work through your project, you will need to **link** your tasks to indicate how they relate to each other

Link types

Links can be drawn starting and ending anywhere along the length of a task and you can link tasks in many different ways. The type of **link** used depends on the nature of the relationship between tasks

There are 4 types of link:



Start – Start

Finish – Start

Start – Finish

Finish- Finish

In all cases, the direction of the arrow controls where the next task appears (A controls where B appears)

Links are drawn between tasks using following **cursor shapes**:

	<u>End link Cursor:</u> This cursor shape indicates that you are linking from / to the <i>end</i> of a task
	<u>Start link Cursor:</u> This cursor shape indicates that you are linking from / to the <i>start</i> of a task
	<u>Mid-link Cursor:</u> This cursor shape enables you to link from/to any <i>midpoint</i> along the length of a task. A pop up box will indicate your exact position during the task, e.g. 3 days into a 10 day task

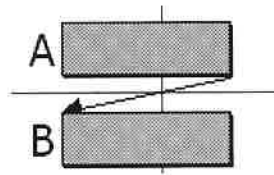
To draw a finish to Start link between 2 tasks

- ▶ Place the mouse at the end and at the top or bottom corner of the first (predecessor) task to display the end link cursor
- ▶ **Left click** and **drag** to draw the link to the start of the corresponding (successor) task.

- ▶ Release the mouse when the Start Link cursor is displayed

A link is made between the 2 tasks. The link arrow is green. This means that the link is selected.

- ▶ Click elsewhere on the **bar chart** to deselect the **link**



This tells **Powerproject** that task B cannot start before task A is finished

Sometimes it is necessary to show that tasks will happen simultaneously. To show this a link is drawn starting or ending somewhere along the length of a task known as a **mid-link**.

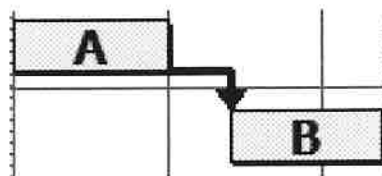


To draw a mid-link

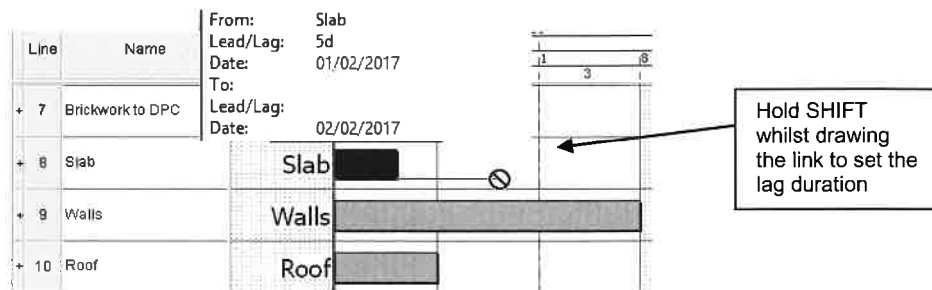
- ▶ Place the cursor at the start of the predecessor task. Without pressing, move the cursor to the right so that the mid-link cursor is displayed
- ▶ A pop up box will indicate where during the task you are linking from
- ▶ **Left click** at the desired position and drag to move the pointer to the desired position on the successor task
- ▶ Release the mouse when the corresponding link cursor is displayed

Drawing links with lead/lag time

There may be times when you need to insert a period of waiting or delay into your project, e.g. waiting for paint or concrete to cure



- ▶ Position the cursor at the bottom right hand corner of the predecessor task. The end link icon appears
- ▶ **Left click** and keep the mouse button held down
- ▶ **Press and hold** the **Shift** button on the keyboard.
- ▶ With the mouse button still held down drag the cursor horizontally. A pop up box will appear displaying the lead/lag duration



- ▶ Once you have reached the desired duration release **Shift** but **keep hold of your mouse button** and drag it over to where you want to end the link and let go



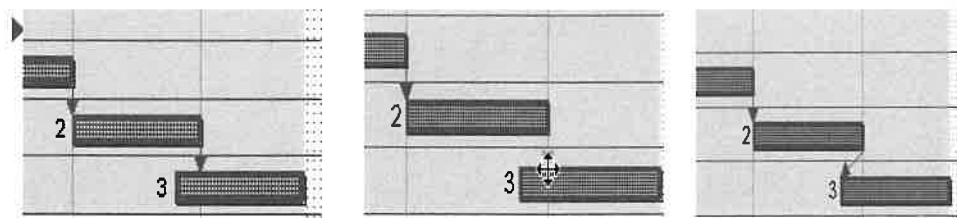
Alternatively the lag can be entered into the properties of an existing link

- ▶ Draw a Finish to Start link
- ▶ **Right click** on the link and select **Properties**
- ▶ Click on the **Link Start** tab
- ▶ Enter the lead/lag time in days, e.g. 2d

Moving/Editing Links

If you have drawn a link incorrectly, you can simply 'drag' the link to the correct position, rather than deleting & re drawing the link.

- ▶ Select the link (it will show as green)
- ▶ Hover the cursor over the end of the link you wish to move until a 'cross' cursor becomes visible



The link should have been to the start of task 3

When the link is selected the Drag/Move Cursor can be displayed

Pull the link to the correct position on the task

- ▶ Drag the link to the correct position

Block linking

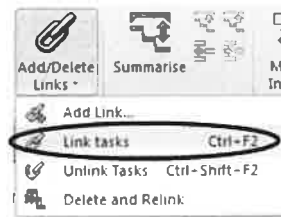
If you have more than 2 tasks to link together e.g. a whole section of work, the Add/Delete Links button can be used

- ▶ Select the tasks that you want to link

Left click & drag downwards to select adjacent bars

To link tasks that are not next to each other on the chart hold the ctrl button on keyboard while clicking on line number the task you want to link

- ▶ Click the **Add/Delete Links** button on the **Home** tab and then 'Link tasks'



Finish to Start links are placed between each of the tasks

Link tasks mode

Link Tasks mode enables you to link tasks automatically as they are created or as you select them one-by-one in the bar chart.

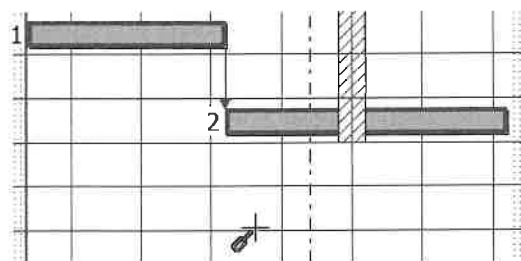
- ▶ Select the task you wish to link from
- ▶ On the **Home** tab, in the **Schedule** group, click the **Add/Delete Links** dropdown and select **Link Tasks Mode**.

The cursor changes shape to indicate that you are now in Link Tasks mode.



- ▶ Click on or draw the task you wish to link to

A Finish- to-Start link is drawn automatically from the first task to the second task

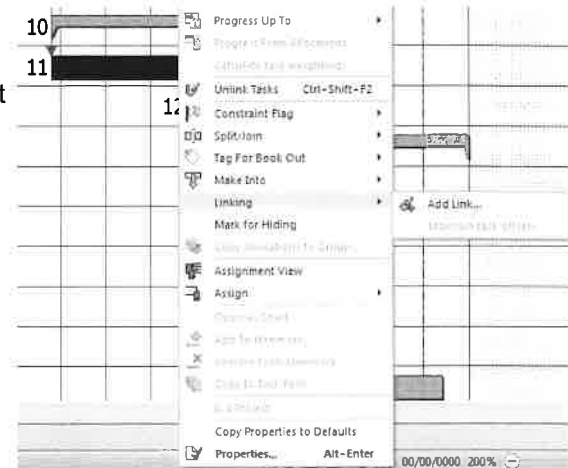


- ▶ As you click on or draw further tasks, each new task is linked to the previous task automatically as long as you remain in Link Tasks mode.
- ▶ To exit Link Tasks mode, on the **Home** tab, in the **Schedule** group, click the **Add/Delete Links** dropdown and select **Link Tasks Mode** again, or press **ESC**.

Linking tasks without drawing on the Bar Chart

It is possible to link tasks by selecting one or more tasks in the Bar Chart and specifying the predecessor/successor by name or ID. Creating links in this way is an easy way to link tasks which are not close to each other in the Bar Chart.

- ▶ Right click on a task or tasks on the Bar Chart
- ▶ Select **Linking > Add Link**



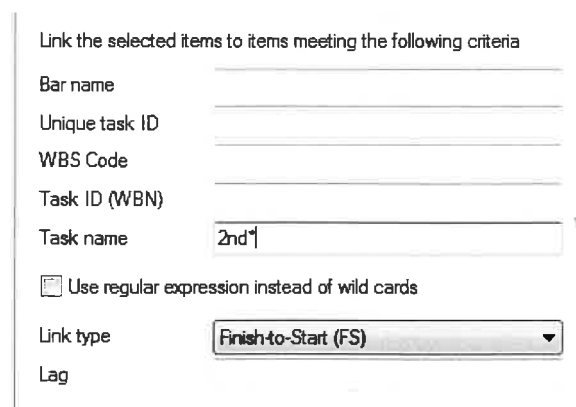
The **Link From/To** dialogue box is displayed

- ▶ Indicate if you are linking from or to the selected task(s)
- ▶ Identify the task you are linking to by name or ID number
- ▶ Select the type of link & any lag
- ▶ Press **Link** and Close



The Wild Card

 Placing an asterix (SHIFT + '8' on your keyboard) after the first few letters or words of the task acts as a wild card to search for all tasks that begin with those letters or words



 If more than one task meets the search criteria, they will be displayed in a list and you can tick to select as required.

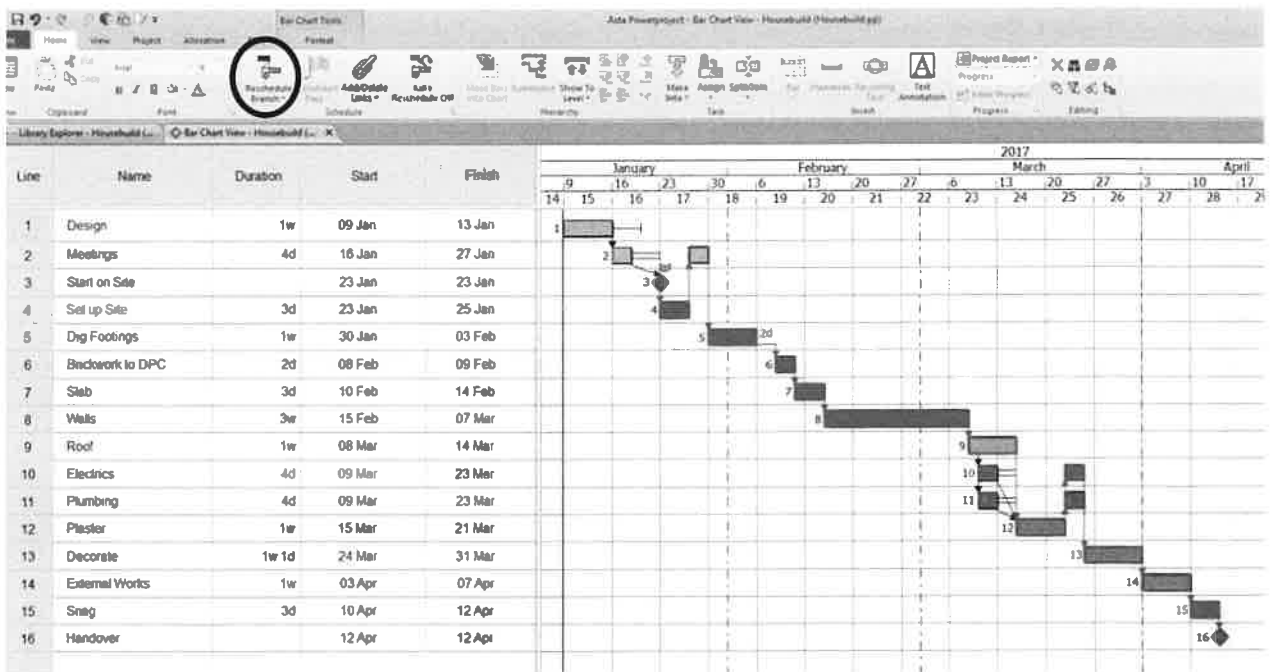
Reschedule

When you have linked your tasks, you must Reschedule the project. The reschedule performs a series of actions:

- ▶ Places the start of the first task at the beginning of the project
- ▶ Calculates the optimum start and end dates of all tasks according to the logical links applied
- ▶ Calculates whether a task has any float attached
- ▶ Shows whether a task is Critical (Critical Path Analysis)
- ▶ Identifies any constraints which have been exceeded
- ▶ Calculates the earliest project end date

To Reschedule the project

- ▶ On the **Home** tab, in the **Schedule** group, click the **Reschedule** command

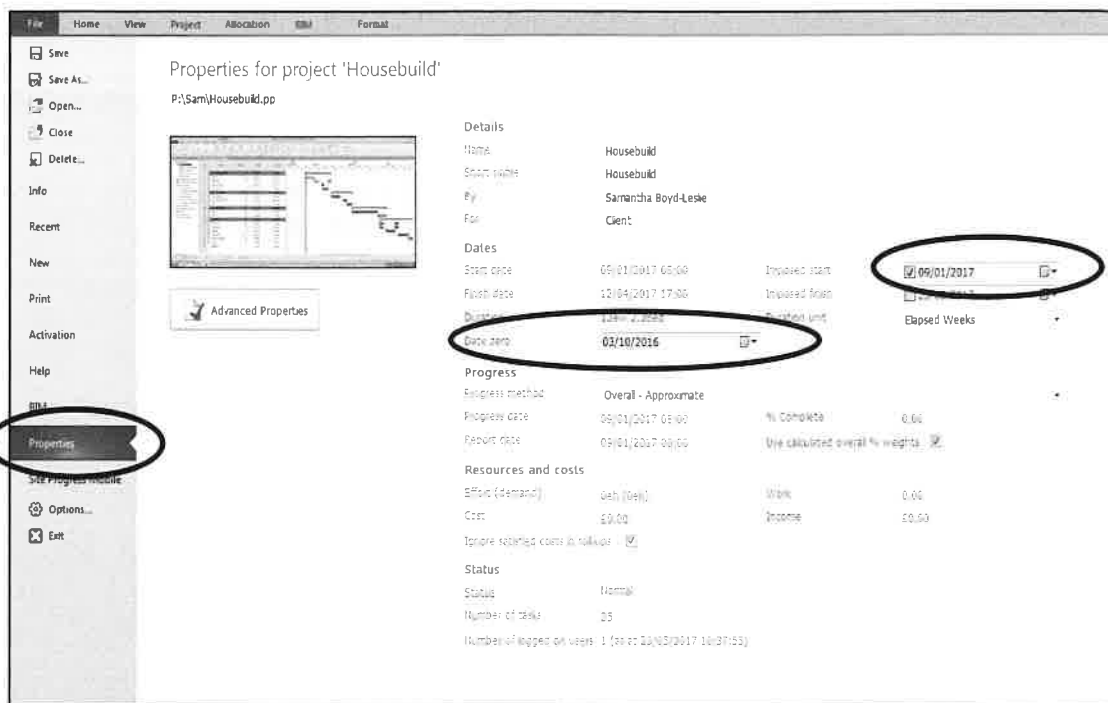


- ▶ The critical path of the project is shown outlined in red

Changing the project start date

The start date of the project can be changed at any time. This will define the start date of the 1st task and all tasks will be scheduled from this date.

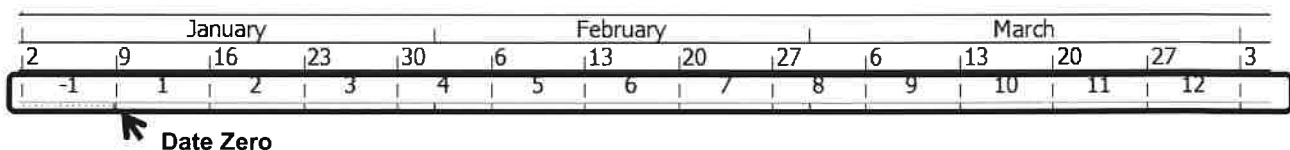
- ▶ In the **File** tab, select **Properties**



- ▶ Change the **Imposed Start** to the new project start date
- ▶ Click **Close**
- ▶ **Reschedule** the project to see the new start date take effect

Setting Date Zero

Reset Date Zero if you would like the Elapsed week ruler on in the **Date Zone** to start counting from the start date of the project



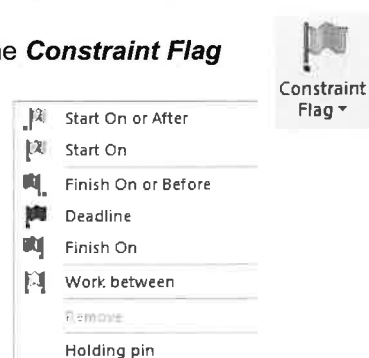
Constraints

Once the tasks have been linked and rescheduled, your project will be laid on the most logical order. What we have yet to take into consideration are any fixed dates that will need to be adhered to, such as a specific start on site date or a contract completion date.

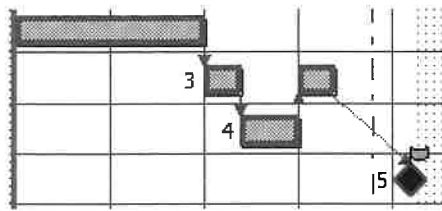
To show fixed dates in your project and to show the impact they have on the rest of the tasks in your project you will need to use Constraints on those tasks

Adding a constraint

- ▶ Select the task you wish to constrain and move it to the required date position
- ▶ On the **Home** tab click on the drop down arrow under the **Constraint Flag** command
- ▶ Select the constraint you wish to impose on the task



- Once the constraint has been added to the task, an flag will appear in on the task

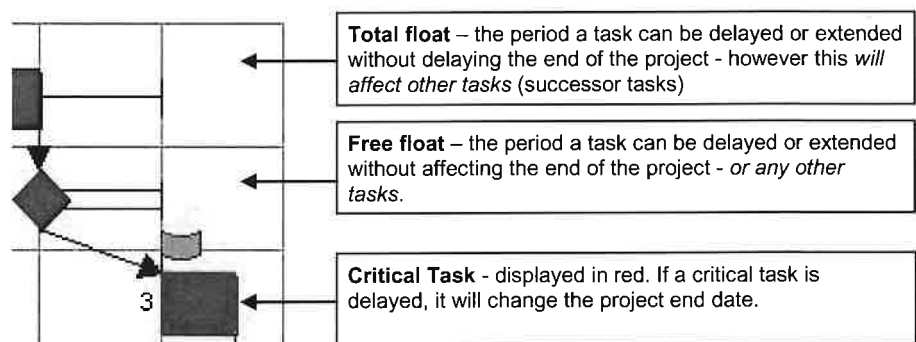


Types of Constraint

	Start on or after A soft constraint which will not allow the task to start before the constraint date, however to could move to a later date
	Start on A hard constraint which will fix the start of the task to a constraint date
	Finish on or before A soft constraint that will not allow the task to end after the constraint date, however it could finish earlier
	Deadline A soft constraint which works as a warning but will allow the project to move beyond the target deadline
	Finish on A hard constraint that will fix the end date of the task to the constraint date
	Work between A soft constraint that will allow either the start or the end date to be constrained between
	Holding pin A Constraint which will move with the task if the task is manually moved

Reschedule results (Float)

Rescheduling a project with constraints will affect the appearance of tasks & may result in some items showing **Float**



Structuring the project

Project management is not only about defining tasks and setting up their dependencies, it is also about organising the different parts of a project into a coordinated whole.

Powerproject lets you organise your project using Summary Tasks to group related tasks together.

Creating summary tasks

Summary tasks are useful for grouping related activities together in sequential order.

A summary task takes its position and duration from the position and duration of the tasks within the summary group.

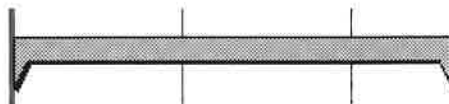
It provides 'rolled up' information relating to all tasks within the summary and gives the user control over displaying each & every task in the project or displaying only the summarised information.

- Highlight the bars and tasks you wish to group together by clicking and dragging on the line numbers within the table

- On the **Home** tab click the **Summarise** command



A summary bar appears on the **Bar chart**

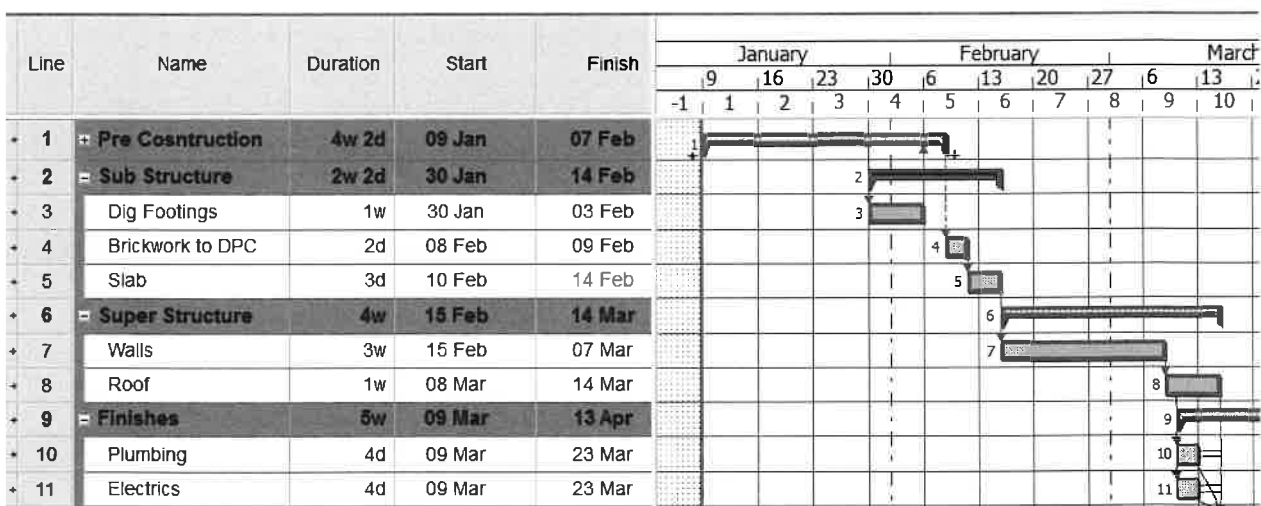


- Enter a name for the summary bar in the table e.g. **Sub Substructure**

You can now choose to hide the tasks that are part of the summary group from the chart so that only the summary bar & 'rolled up' details are displayed.

Opening and closing summary tasks

- On the **Bar Chart**, place the cursor over the summary task so that the sweet wrapper cursor is displayed and **double click**



- Individual tasks are hidden from view. Only the summarised details are displayed.
- **Double click** again to display the tasks.

Adding & Removing tasks into Summary Groups

- ▶ Select the bar(s)/ task(s) to add to the summary by clicking on the line number

- ▶ On the **Home** tab click on the **Indent** button on the ribbon



- ▶ Bars are added to the summary that is above

- ▶ To remove tasks from a summary group, use the **Outdent** button



Removing Summary Tasks

- ▶ Select *all of the contents* of the summary group
- ▶ Click the **Outdent** button from the ribbon

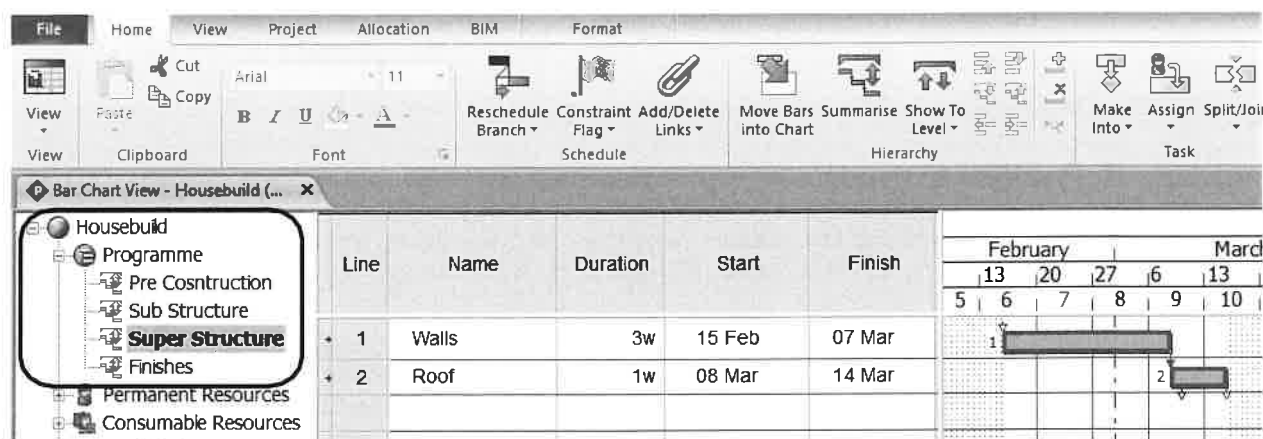
If there are no contents in the summary group the summary task no longer exists

Using the project view to navigate your project

The structure of our project is clearly displayed in the **Project View**.

- ▶ Click on the '+' sign to open the contents of headings. **Programme** is usually the top level
- ▶ Select any of the summary groups to display only that section of work on the **Bar Chart**

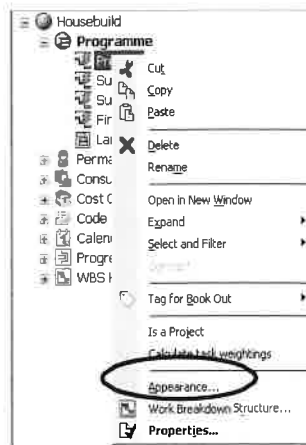
In the example below only the Superstructure phase is displayed on the bar chart.



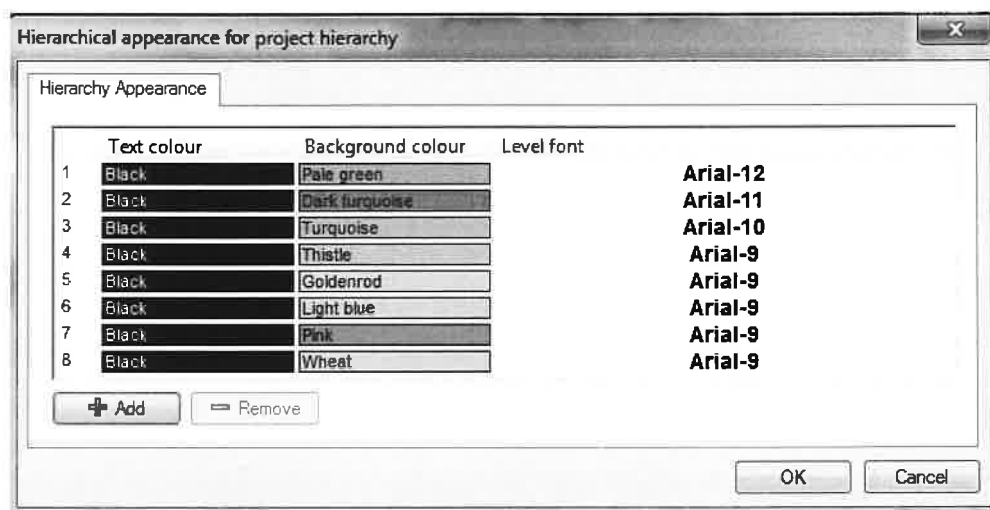
Summary bar level formatting

Summary Headings are displayed with a coloured banding. The spreadsheet cell colour and font, as well as the background colour for that row on the bar chart, can be edited in the Project View. The colouring is set for each level of the project, so more than one summary may have the same colour.

- ▶ In the Project view *right click* on any Summary level and select **Appearance**

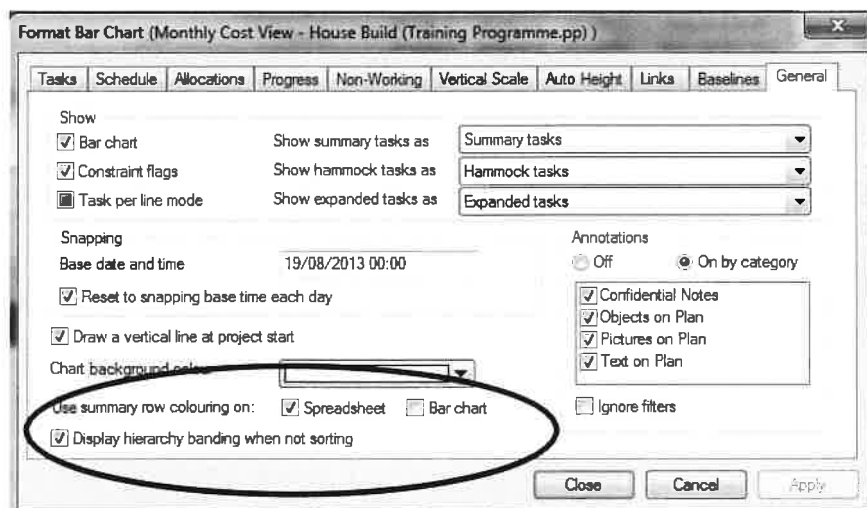


- Choose the text colour, background colour and font style and size of your choice



To control the appearance of the summary row colour on the spreadsheet & bar chart

- On the **Format** tab click the **Format Bar Chart** command
- On the **General** tab tick to show Summary row colouring on the Spreadsheet, *Bar chart* and also to show banding down the left hand side of the spreadsheet



Code libraries

Code Libraries allow us to colour-code tasks so that their appearance represents something relevant. A project can contain many code libraries, which can be hierarchically based. Once allocated to tasks the codes can be used as the basis of Filters & Sorts to report on our project.

The codes are created in the **Library Explorer**.

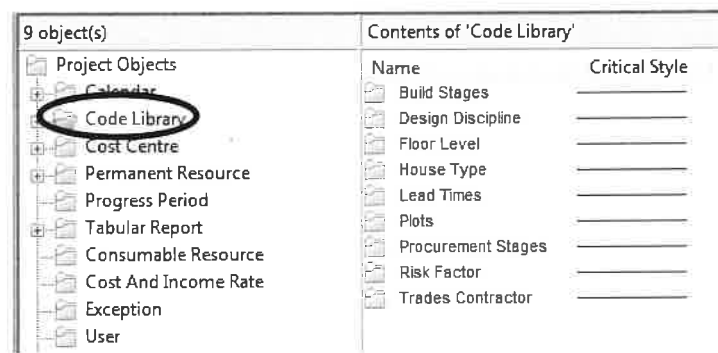
Creating code libraries

For this example, we will create a Code Library for Sub-Contractors used in the project

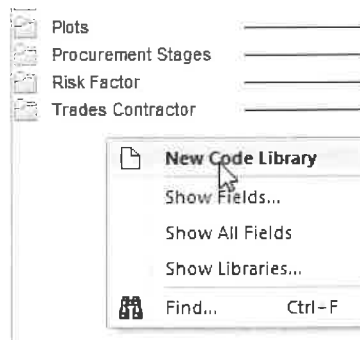
- ▶ On the **View** tab click the Library Explorer



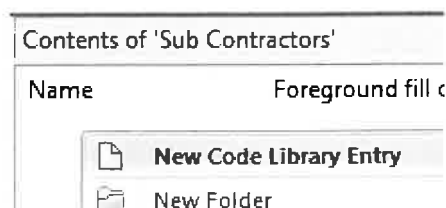
- ▶ In the left window of Library Explorer, click on the **Code Library** folder



- ▶ In the right window, on a blank part of the screen, **right click** and select **New Code Library**.

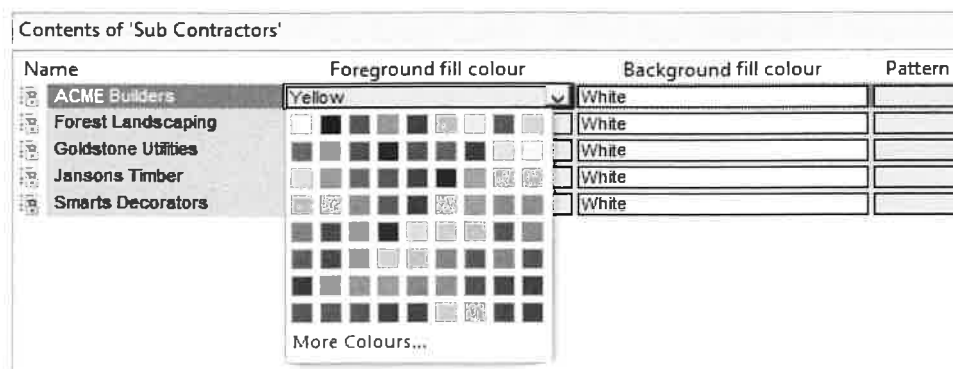


- ▶ Give the library a name (e.g. Sub Contractors). A folder is created
- ▶ In the right window, **double click** on the library folder
- ▶ **Right click** in a space in the right hand pane and choose **New Code Library Entry**



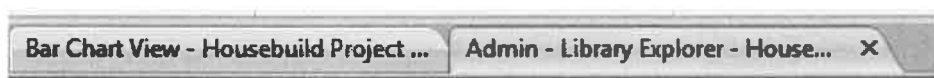
- ▶ Type in the names of the Sub contractors used in your project e.g **'ACME Builders'**. Press **enter** after each entry.

- Click under **Foreground Fill**, **Background Fill** and **Pattern** to select colours and patterns to identify this contractor



To return to the project

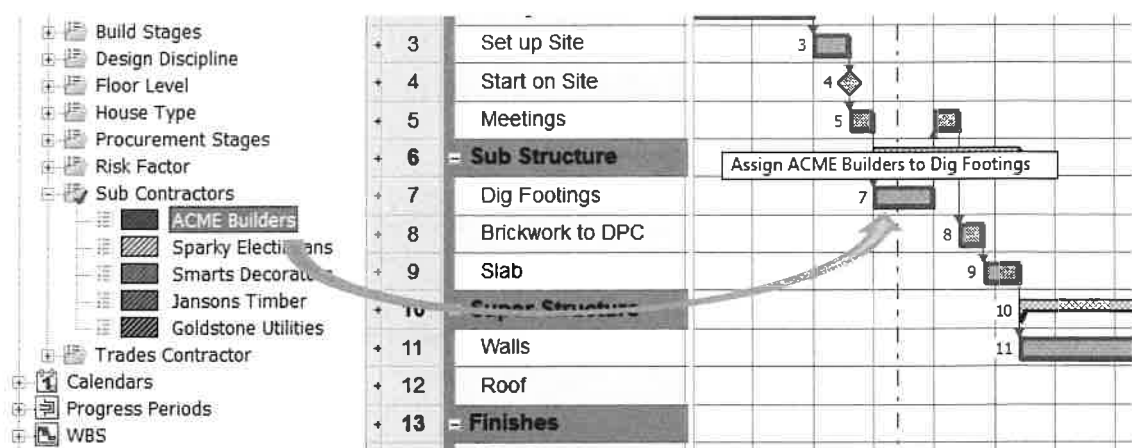
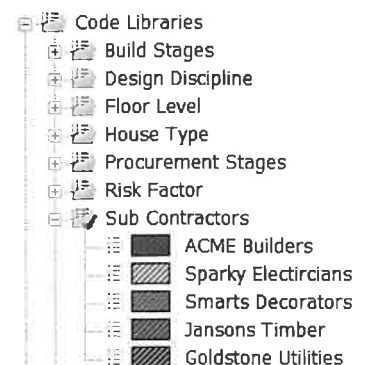
Click on the **Bar Chart View** Tab above the Library Explorer



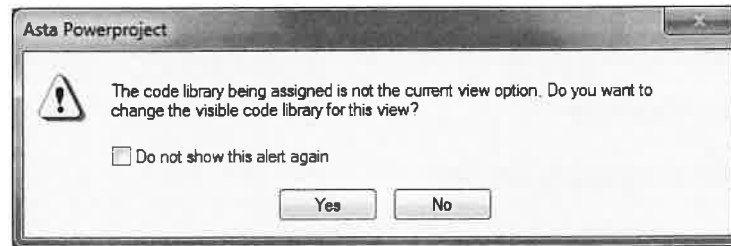
Allocating codes

Code Libraries are displayed in the **project view** and can be allocated to tasks by dragging & dropping.

- Click the **+** to the left of the **Code Libraries** folder to display all available libraries
- Click the **+** to the left of a folder to display the contents of that folder
- Place the cursor over the **Acme Building** code entry in the Project View
- **Click** the left mouse button **and drag** until the cursor is over the **Dig Footings** task, then release



The following message is displayed

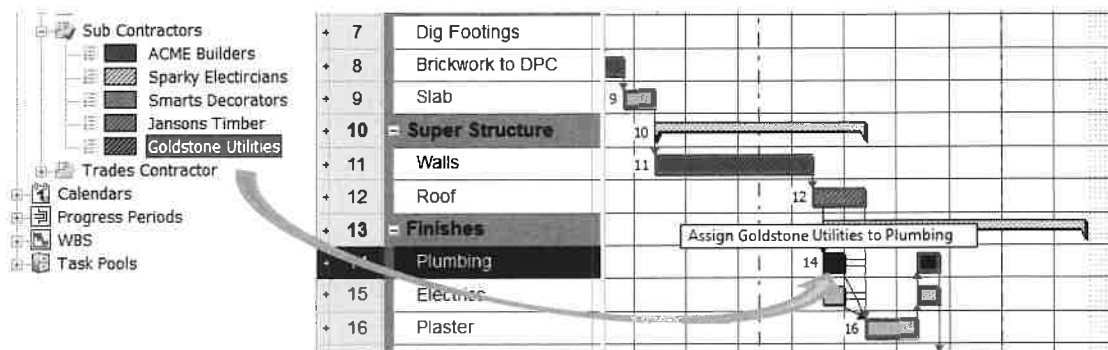


- Click **Yes** to display the new Code Library colour on your task.

Multiple task allocation

It is possible to allocate codes to more than one task at a time

- Select the **Bar** for Plumbing by clicking on the line number
- Place the cursor over the code entry in the **Project View**.
- **Click** the left mouse button **and drag** the cursor to one of the tasks on the **Bar Chart** then let go of the mouse.



- Click away to deselect and the bars will change colour

Switching the display between code library folders

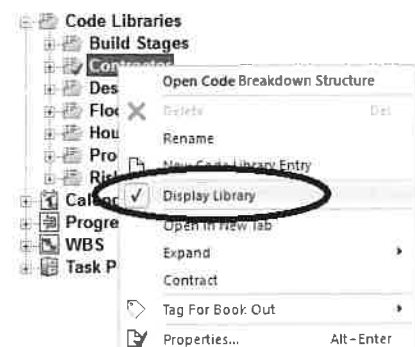
Powerproject will only allow you to display one Code Library at a time on your tasks.
To switch between folders:

- In the Project View, *right click* on the Code Library Folder you wish to display and select **Display Library**
- The **red tick** indicates the code library currently on display

To remove the display of Code Libraries:

- *Right click* on the folder that is on display (shows a red tick)
- Select **Display Library** to remove the display of this library.

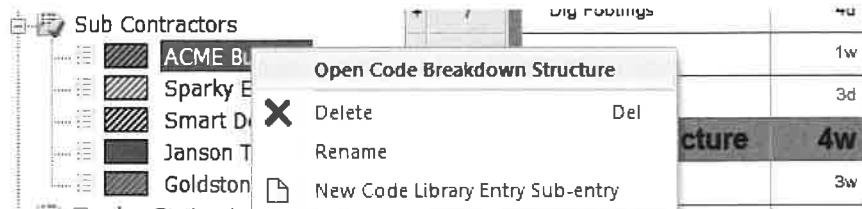
No code libraries are now selected to be on display



Viewing a Code Breakdown Structure

Once code libraries have been assigned to tasks in a project we can easily display tasks with a given code by displaying a 'code breakdown structure'.

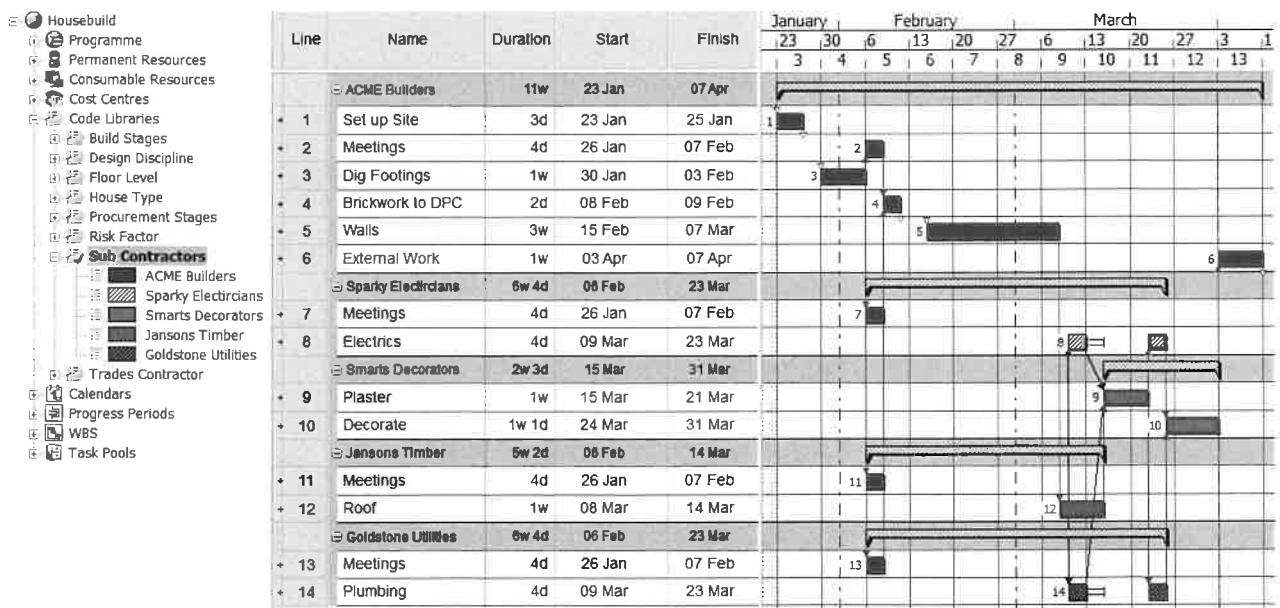
- ▶ Open the project view
- ▶ Right click on a code library entry
- ▶ Select **Open Code Breakdown Structure**



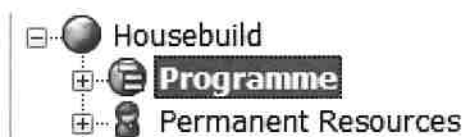
Only tasks with that Sub Contractor code are displayed on the project



- ▶ Click on other codes to display only those tasks
- ▶ Select the **code library folder** to view the whole project broken down by Sub Contractor

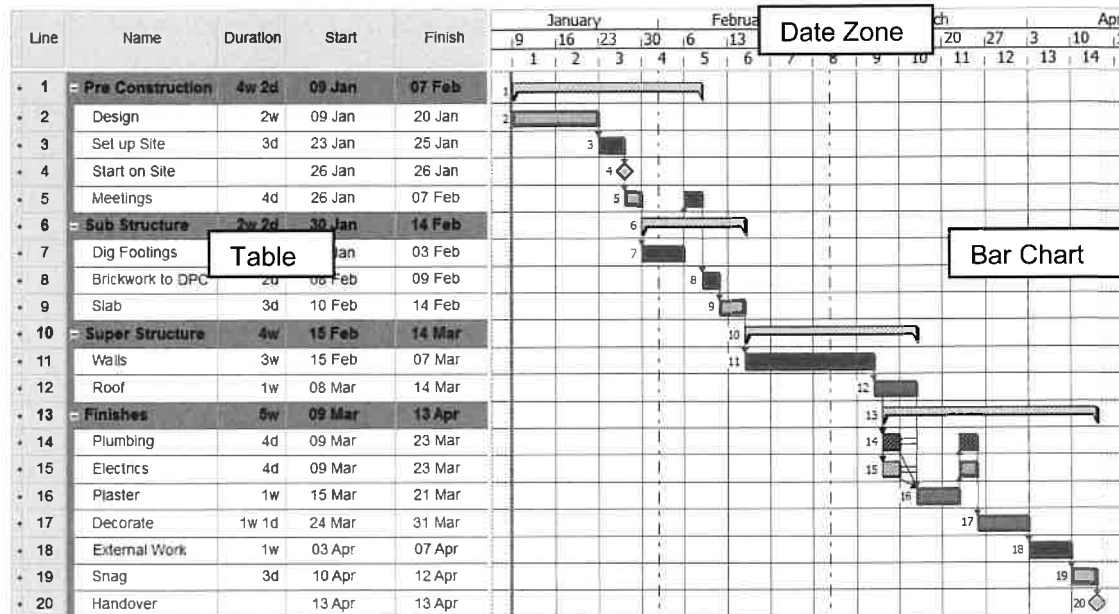


- ▶ To return to the standard view, select programme from the **project view**



Editing the view

The 'view' of your project is made up of 3 areas. Changes can be made to the appearance of each of these areas independently

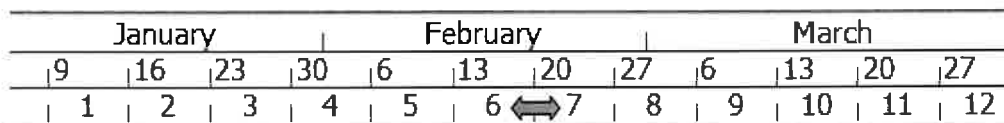


The Date Zone

The Date Zone is the area where date information relevant to the project is displayed. By default the Date Zone shows 4 rulers (Date lines) running across the top of the project, these are the Year, Month, Week Start and Project Week Numbers (elapsed weeks)

Adjusting the scale of the Date Zone

- Place the mouse in the Date Zone area on any of the red lines (tick marks)



- Left click and drag the mouse either left or right.

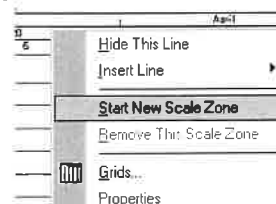
Slicing the Date Zone

The Date Zone can also be 'split' into two or even three different scale zones, so that all three areas can be scaled separately. This is useful when working on large projects.

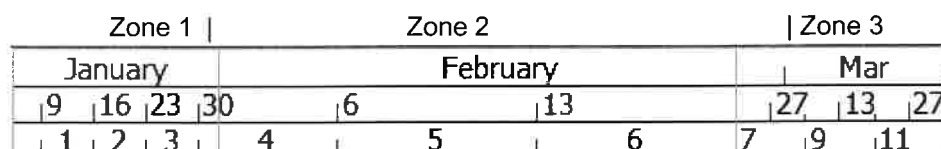
- Place the mouse in the Date Zone, over the area you want the new section to begin.

- Right click with the mouse.

- Select **Start New Scale Zone**.



A faint grey line will appear at the point of clicking. Dragging any of the red lines either side of the grey line will adjust the scale ONLY in that area.



To remove a scale zone

- ▶ *Right click* on the right hand side of the line you wish to remove
- ▶ The line will be removed and the scale will revert to how it currently looks on the left hand side.

Fit to window

When working on a large project not all tasks will be on display on the screen. Tasks can easily be repositioned so that they will all fit on to one screen



- ▶ Click on the View tab and
- ▶ Select which tasks you wish to fit to the current window

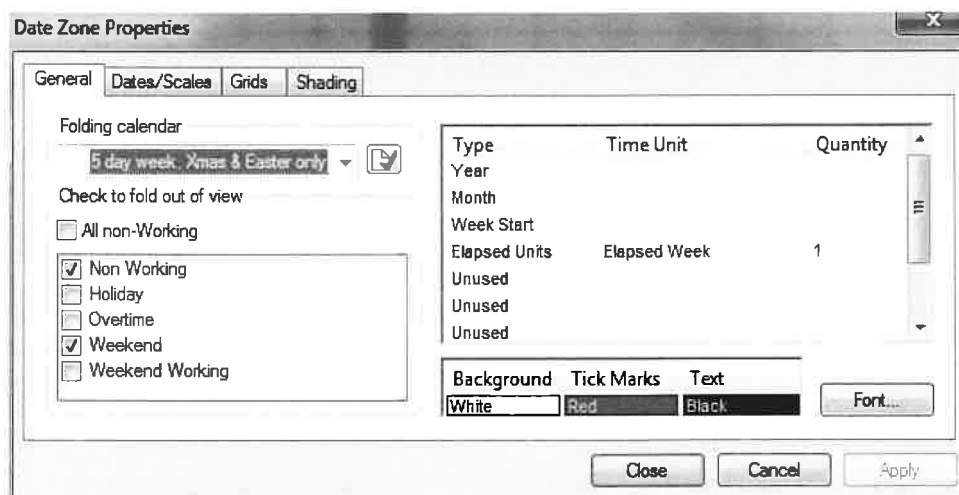


Adding/editing rulers on the Date Zone

The Date Zone can contain up to 10 rulers of date information across the top. To control the information that is displayed

- ▶ Place the cursor anywhere in the Date Zone area and right click
- ▶ Select **Properties** from the list

The **General** tab controls the folding Calendar and the date ruler on display



- ▶ To add a fifth ruler, click once on an **Unused** ruler and select from the drop down list
- ▶ To remove any of the rulers first select and then choose **Unused** from the list
- ▶ Click on **Apply** to see the changes on your project

Hiding non-working time

- ▶ Select from the options to ensure that non- working time is *not* displayed in your folding calendar. Holidays, Overtime & Weekend working are displayed as default on the Construction Template.

Check to fold out of view

☐ All non-Working

☒ Non Working

☐ Holiday

☐ Overtime

☒ Weekend

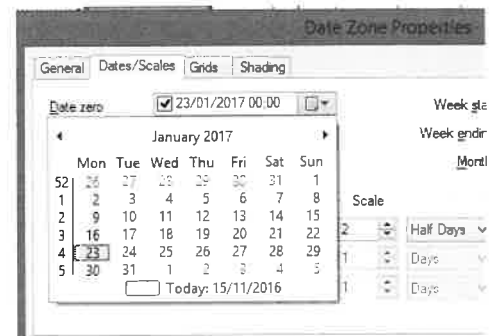
☐ Weekend Working

Week Numbering

Week 1 in the Date Zone will default to the project's start date when the project was first created. This is displayed in the 'elapsed week' line

To align week 1 to another date or if the start date has changed

- ▶ Select the **Dates/Scales** tab
- ▶ Against '**Date Zero**' use the date picker from the drop down arrow to choose your new week 1
- ▶ Click Close

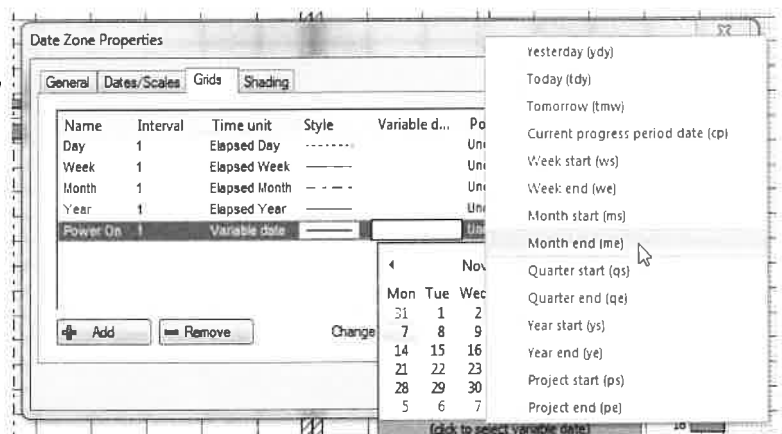


Grid Lines

The construction template supplied with Powerproject comes with some grid lines for Year, Month, Week and Day

Additional vertical grid lines can be added at dates specified by you e.g. a line that shows at a date of your choice or a variable date like 'Today's Date' or the 'Month End'

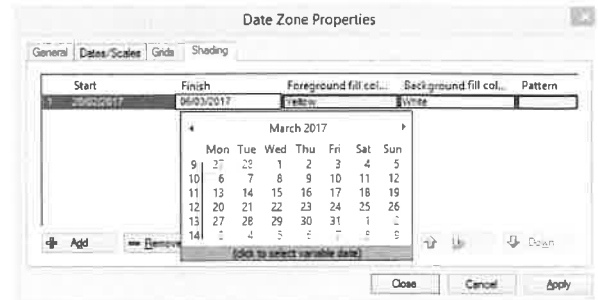
- ▶ Select the **Grids** tab from the Date Zone Properties dialogue
- ▶ Click **Add** to add a new grid line
- ▶ Enter a new **Name**
- ▶ Left click in the **Time Unit** column and change Elapsed Week to **Variable date**
- ▶ **Left click** in the space in the **Variable date** column . A date-picker will appear, choose your date or click on 'Click to select variable date' e.g. Month end
- ▶ Click on the thin black line and change the line **Style** to how you want your line to look
- ▶ Press **Close**



Shading

Powerproject can also put shading behind the tasks within the project. It has no effect on the project dates or scheduling but it can be used to show certain information i.e. bad weather, school term times etc.

- ▶ **Right click** in the Date Zone and select **Properties**
- ▶ Select the **Shading** tab
- ▶ Enter the Start and End dates for the shading from the list and then choose a colour
- ▶ Click **Close** to close the properties dialog. This will also 'Apply' changes



The Bar Chart

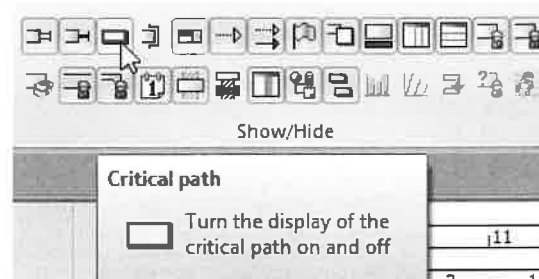
There are many Bar Chart attributes that you can switch on and off to tailor the chart display exactly to your needs. For example, you can choose whether to display Float, Critical Path, Code Libraries, non-working shading and much more

Show/hide switches



On the **Format** tab, there are two rows of show/hide switches, which will allow you to easily show and hide certain visual elements of the project. These are a quick way of turning on/off such things as Float, Critical Path, Progress lines, progress, and links.

- ▶ Hover your cursor over the buttons to see a Tooltip as to what the button does.

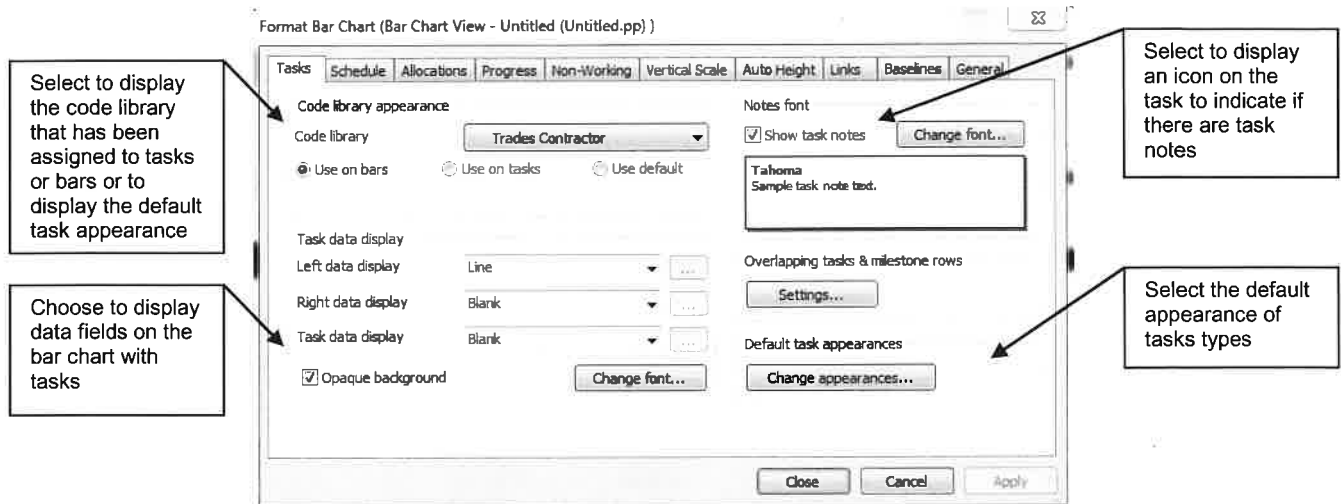


There are many more formatting options available. Select the **Format Bar Chart** option on the Format Tab to open the Format Bar Chart dialogue and make more specific changes to the display of the Bar Chart



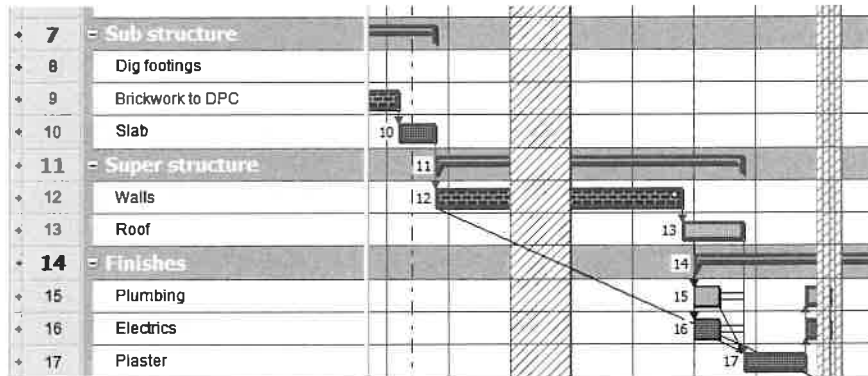
Specifying the appearance of tasks

As an alternative to displaying tasks using the appearance of the codes that are assigned to them, you can choose to display the default colour of tasks according to their task type. You could also choose to show task data alongside the tasks and indicate if there is a note on the task



Control the display of Non-Working time

Holidays & Weekend working are displayed on the Bar Chart in the form of coloured lines running vertically down the Gantt chart.



By default, the shading shows on the Chart and the Tasks & sometimes this could obscure the tasks themselves, as in the example above where weekend work has been added for the 2nd fix plumbing & Electrics tasks.

Use the Non-Working tab to control and improve this display to your requirements

Format Bar Chart (Bar Chart View - House Build (Housebuild Master.pp))

Select to display 'necking' to highlight non-working time like holidays

Select the calendar you want to use on empty bar lines

Remove the tick so that shading is not shown on tasks

Non-working display
☒ On tasks
☐ On allocations

Draw non-working shading
☒ On chart
☐ On tasks
☒ On allocations
☒ Remove outline

Standard work shading
☐ On chart

Categories
☐ Non Working
☒ Holiday
☐ Overtime
☐ Weekend
☒ Weekend Working

Subheading calendar
 5 day week, Xmas & Easter only

Necking
☒ Neck summary tasks to show where no tasks

Close Cancel Apply

Creating text annotations

- ▶ On the **Home** or **Format** tab, click the **Text Annotation** command
- ▶ Take the cursor onto the bar chart. Your cursor will be a letter 'T'
- ▶ Left click and drag the mouse downwards & to the right to **draw a box**:

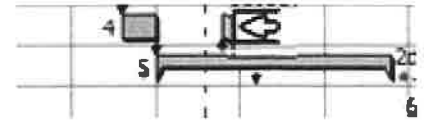


- ▶ The text colour, font, style and size can all be adjusted using the **Font** section of the **Home** tab
- ▶ Click away to deselect the box

Attaching annotations to tasks

Text annotations can be created to refer to specific tasks in your project. In this case the text box can be attached to the task so that it stays with it should it move in your project

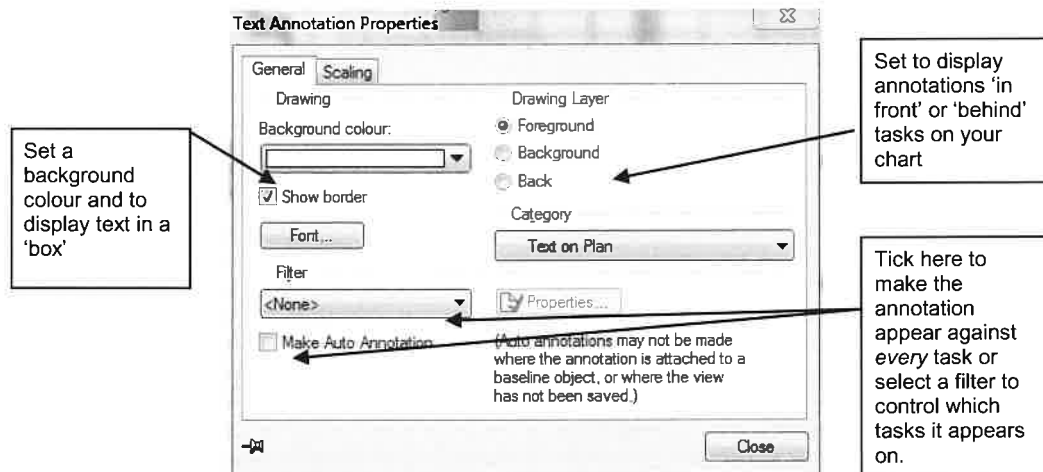
- ▶ Click on the annotation you wish to move
- ▶ Holding the left mouse drag the annotation toward the task you wish to attach it to
- ▶ The cursor will change to an arrow in a box to indicate how the text box will attach to the task



Formatting the text annotation

The properties of the text box can be adjusted to control how it looks on your project e.g., whether there is a border, set the text into the background of the project or even make the task annotation appear only against specific tasks in our project

- ▶ Left click once on the annotation to select it
- ▶ Right click and select **Properties**:



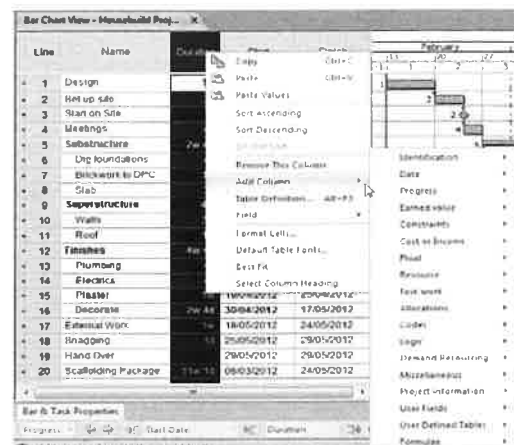
The Spreadsheet or 'Table'

The Spreadsheet can be customised to display whatever project information you choose. Columns contain Fields, which read data from your project, End date, Start date, Percent Complete and can be added, edited and deleted.

The Spreadsheet can be saved as a table so that it can be applied to other Bar Chart views. For example, you might have one table for entering new tasks and another for assigning progress.

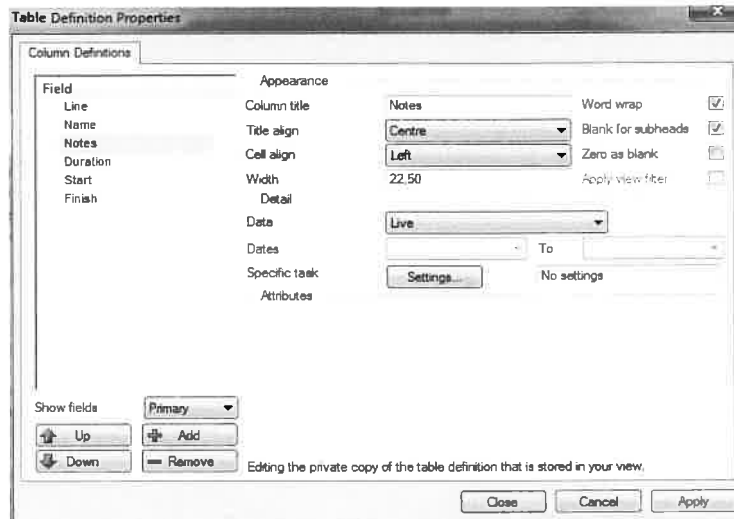
Adding columns to the table

- ▶ Right click on an existing column heading and select **Add Column**



- Choose a Field category (e.g. **Identification**) and then choose a **field** (e.g. Notes)

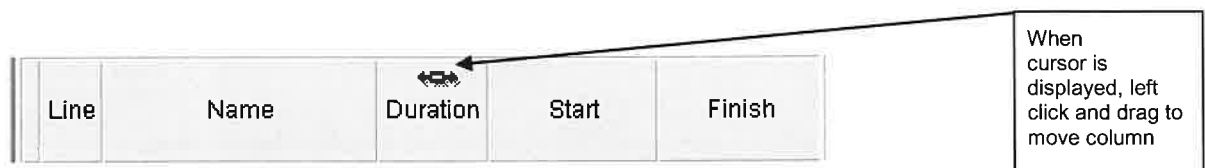
The **Table Definition Properties** appears and can be used to customise the appearance and attributes for the column



- Click **Close** once you have made your changes

To move the position of columns

- Place the cursor at the top of a column heading so that the select/move cursor is displayed



- *Left click & drag* column to desired position

Saving the Table

You can save the columns that have been created as a table so that it can be recalled in the future. This will allow you to switch between the different tables as required.

- In the **View** tab, click the **Table** command
- Select **Save As**
- Give your table a new name
- Choose a **Category** for the new table if desired

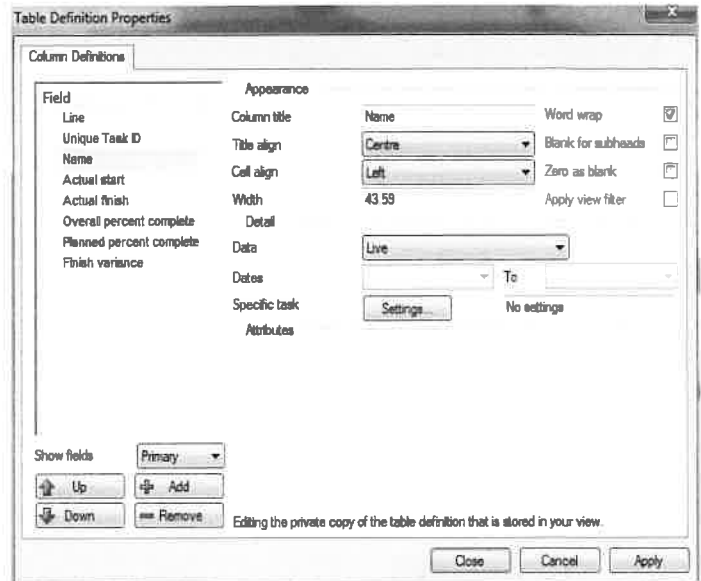
To switch between different tables

- On the **View** tab select **Table**
- Select from the list of saved tables in each category

Table definition

Table Definition is the properties box for the table you are in. It can also be used to create new tables and is useful for setting more specific attributes to produce more advanced tables e.g. changing a column title, referencing a token to a baseline rather than to the live project:

- ▶ *Right click* on a column heading and select **Table Definition**
- ▶ In **Column title** change the title of your column
- ▶ Click Close



Updating Progress

Once the project is underway, you should record its progress at regular intervals. Recording progress ensures that your project is kept up to date and lets you see if work is progressing as planned or if there are delays. It also ensures that you know how much work remains to be done to complete the project and will also give you a projected programme end date.

In Powerproject we can display a 'jagged progress line' style report with shading displayed on progressed tasks.

The simplest way to update progress is to use a single progress line. This allows you to change the report date to suit whichever frequency is required for creating your progress reports.

There are numerous ways to enter progress against your tasks. The easiest way is to use the spreadsheet to enter the data.

The following steps detail the actions you can carry out for updating progress on your project using the table.

Display a Progress Table

- Select a table or add columns to an existing table.

Example table layout

Line	Name	Duration	Start	Finish	Planned percent complete	Overall percent complete	Notes

Default Table
Progress Category
Identification Category

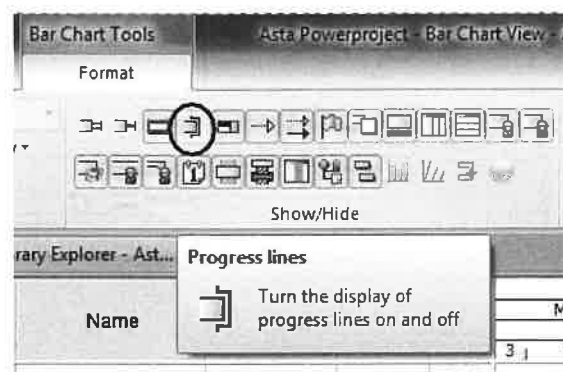
Once you have customised the table columns you will want to save this table to use again in the future.

- Click on the View tab > Table > Save As
- Give the table a name, e.g. "Progress Table"

Display Progress Lines

To view the progress drop line and shading on the tasks within the Bar Chart

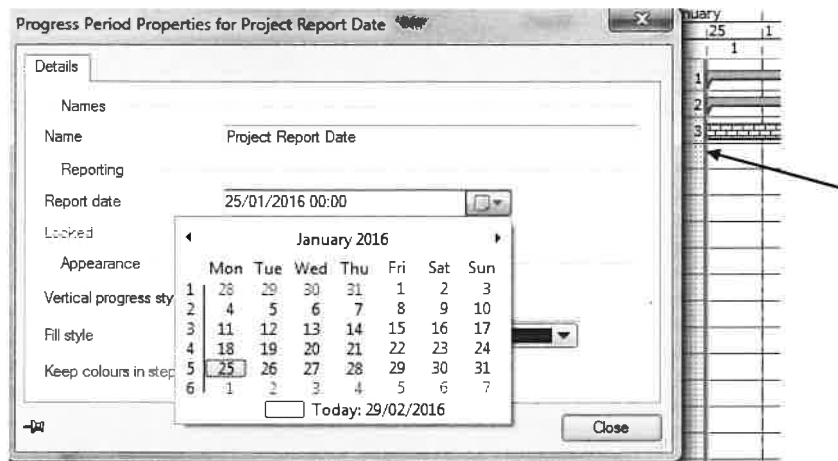
- On the **Format** tab select the **Progress lines** toggle switch



You should now see a black line showing in the bar chart, usually on the start date of new projects

Set the Report Date

- Double click the progress line in your bar chart.
The Progress Period Properties dialogue will appear

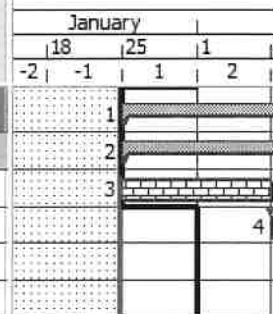


- Edit the Report date as required e.g. 1 week into the programme, and click **Close**

Enter Progress

Notice how the progress line starts from the Project Report Date and 'jags' around the left hand side of the task(s)

Planned percent complete	Overall percent complete	Notes
6.67		
29.41		
50.00		

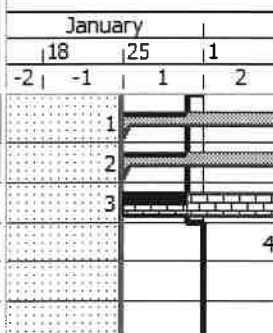


The **Planned Percent Complete** column tells you what you *should* have done by this date.

- Enter the percentage you have actually done in the Overall Percent Complete column
- Press Enter

The percentage(s) you enter will then be shaded up against the task(s) in the bar chart

Planned percent complete	Overall percent complete	Notes
6.67	5.33	
29.41	23.53	
50.00	40.00	



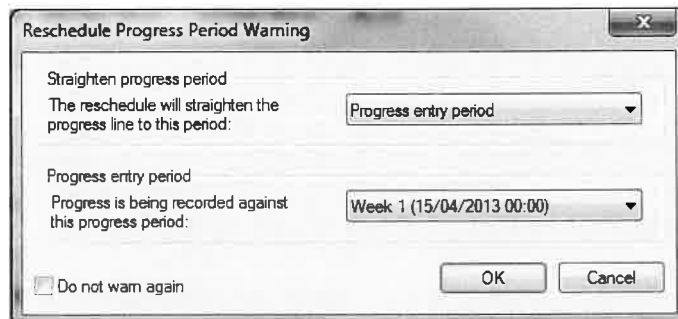
Reschedule

To see the effects of the progress we will ask Powerproject to straighten the progress line and move any incomplete tasks to the right of the Report Date. This may affect the end date of your project and will allow you to see the effect of any delays.

- On the **Home** tab, click the Reschedule Command



- In the 'Reschedule Progress Period Warning' pop up, set the 'Straighten progress period' to the 'Progress Entry Period'. If you do not want to straighten the line, select None.



The progress line will straighten and the incomplete section of the project will move to the right of the report date

Before Rescheduling

Planned percent complete	Overall percent complete	Notes	January				
			18	25	1	8	
			-2	-1	1	2	
6.67	5.33			1			
29.41	23.53			2			
50.00	40.00			3			
						4	

After Rescheduling

Overall percent complete	Notes	January				
		18	25	1	8	
		-2	-1	1	2	
5.33			1			
23.53			2			
40.00			3			
					4	

Notice the task splits and shows the delay after a reschedule has been actioned. The remaining work moves to the right of the progress line.



The planned % complete value may change once you reschedule. In order to retain the planned % complete & record variances against planned values you must baseline the project

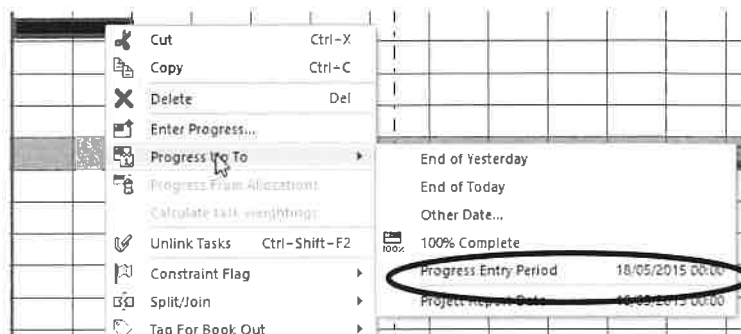
- Select **Undo** to display the un-rescheduled view of the project.

Marking progress up to a specific date

Use the 'Progress up to' option to mark progress up to a specific date or the current progress date.

To mark the first task up to date after Week 1

- ▶ *Right-click* on the selected task.
- ▶ Select **Progress Up To** and select the appropriate progress report date

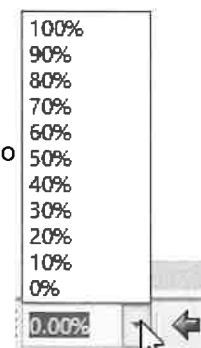


Marking progress using the Object Edit Toolbar

If the table is not configured to show Progress fields, values can be entered using the Progress field on the Object Edit Toolbar at the bottom of the screen.

This is also a useful way of entering progress against multiple tasks simultaneously.

- ▶ Select the task(s) that you want to progress
- ▶ Type the amount of progress into the 0.00% field on the object edit toolbar, or click on the drop down arrow and select the amount of progress from the pop up menu that appears.



Printing the Project

As a general rule, what you display on the screen is what will be printed. Therefore, select the 'View' of your choice or manually change any formatting, tables etc. to customise the display to what you wish to print.

The scale of the project can be adjusted to allow printing to a certain number of pages.

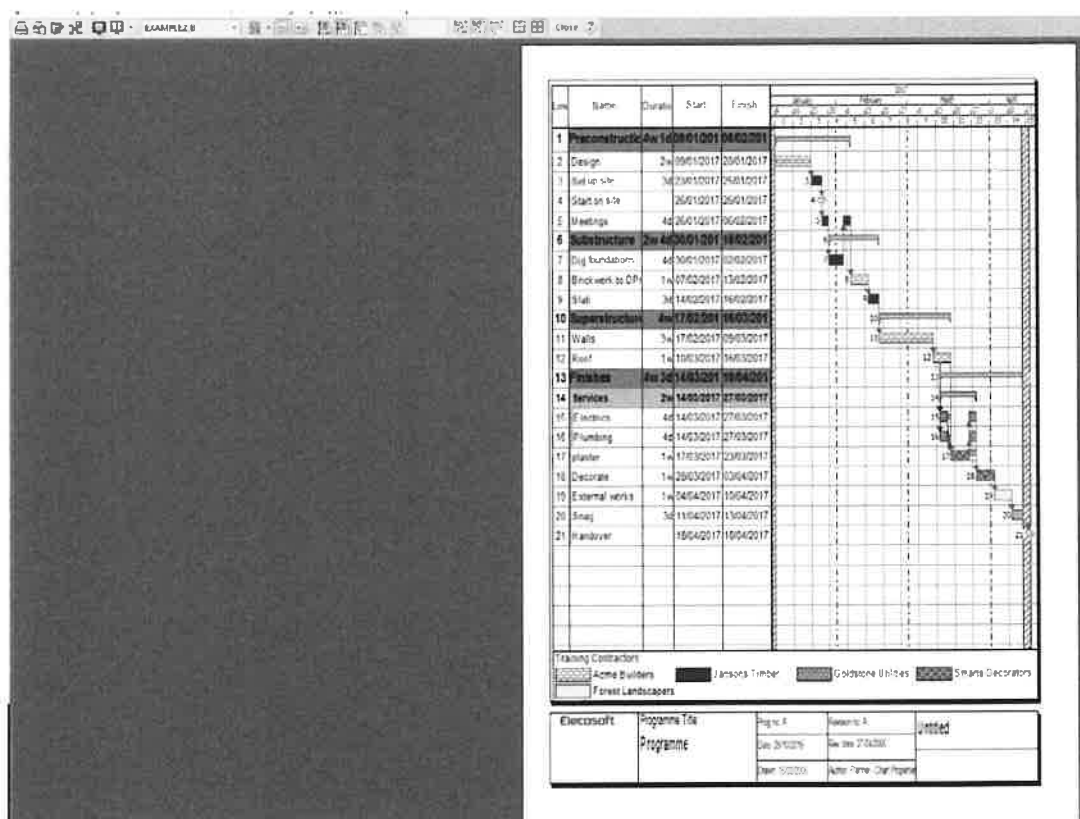
When you print an Powerproject file, it is printed with a border around the project. The border file enables you to display relevant project & company information along with your project data.

Some of this information, like the Project Name has already been completed. Other information can be edited at the print stage.

- ▶ Select the **File** tab
- ▶ Click the **Print** command on the left hand side
- ▶ Choose Full Preview

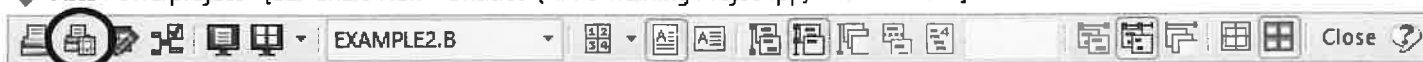


A preview of the print will be displayed

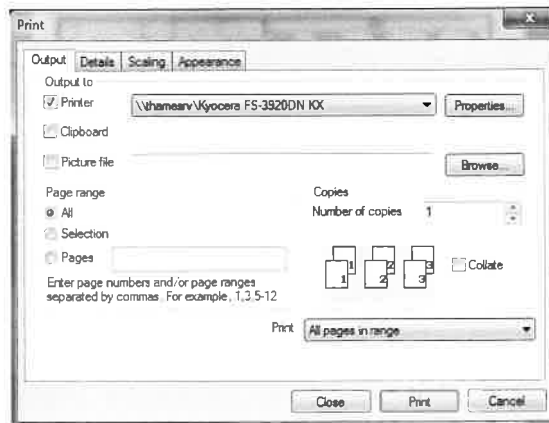


- ▶ Click the Print Settings icon to configure the settings to be used when printing, i.e. which printer or PDF writer to use, which border file to use and customise etc.

◆ Asta Powerproject - [Bar Chart View - Untitled (APP3 Training Project.pp) Print Preview]



Output Tab



The output tab control where the print out is going to and what file type is going to be created if applicable. The main output options are:

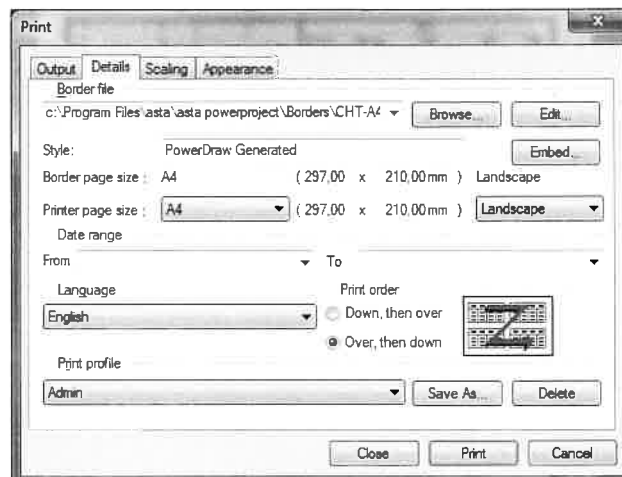
- ▶ **Printer** – Tick Printer and choose your printer from the drop down list; from the properties button decide your printer orientation and size (standard printer usage) Press the Print button to activate Print
- ▶ **PDF** – If you have a PDF writer installed, you should see it listed in your printer dropdown list. If not, consult your IT department who can install it for you
- ▶ **Clipboard** – Tick clipboard to have your print preview copied to the clipboard. You can then open Word, Excel etc. right click on the page and select paste, to paste your print preview into the document. Press the Print button to activate the copy to clipboard
- ▶ **Picture file** – Tick Picture file to have your print converted into a JPEG picture file, which can be inserted into Word, Excel, PowerPoint etc. Use the Browse button to choose where to save the new file and what filename to give it. Press the Print button to activate the file creation

The **Print Range** decides which pages of the project document you wish to print this time:

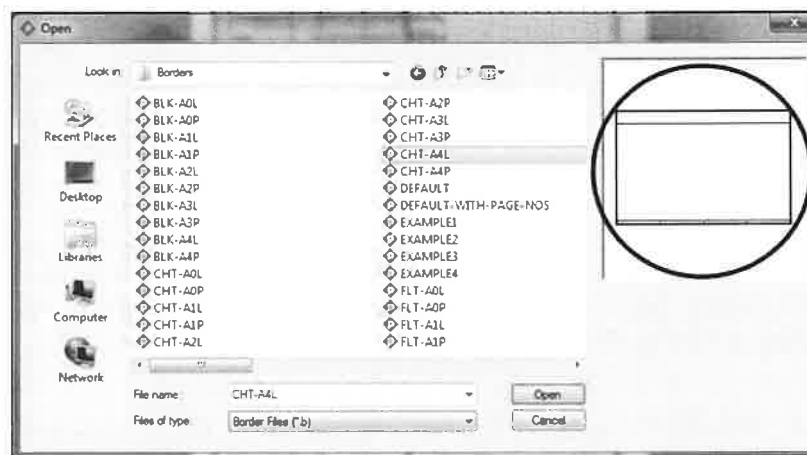
- ▶ **All** – Prints all pages
- ▶ **Selection** – Prints only what you have selected in Powerproject
- ▶ **Pages** – Prints only the pages you specify in the available field

Details Tab

The **Details** tab allows you to select the border file you will use and define the page size you will print.



- Click '**Browse**' to select your border. There are a number of examples supplied with Powerproject or you may have your own company border.



- The filenames of our border files contain a name (i.e. CHT) and page size (i.e. A4) and the orientation of the paper (i.e. 'L' for landscape or 'P' for portrait). A good default border to use would be CHT-A4L
- An example of the border file will appear on the right hand side

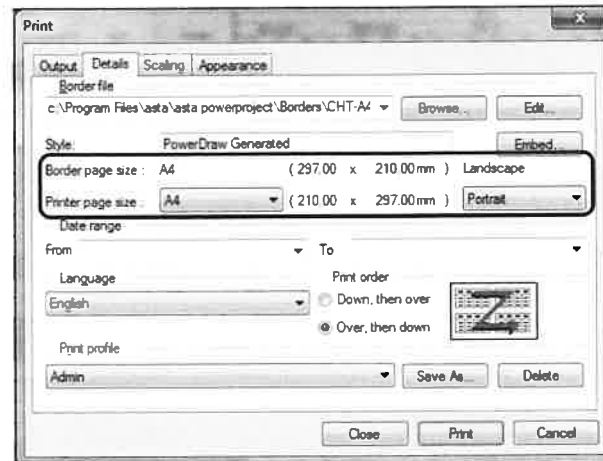
 The file location for Borders can be set in File-Options-File Locations. This means that Powerproject will always look to the default location for your Powerproject Border files

- Click Open when you have selected the appropriate border file

 Borders are separate files on your computer or network and do not form part of your Powerproject file. This may mean that if you send your project elsewhere to be viewed or printed, such as via email, the border file may not be available to the recipient.

To avoid this, you are able to embed the border file, which will add a compressed copy of the border file to the Powerproject file, meaning if it were to be sent, the border file would be included.

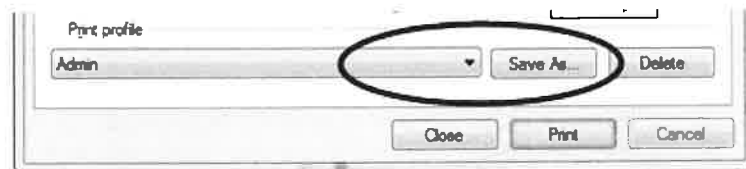
- Set the 'Printer page size' & Orientation to match that of your border. e.g. as seen below, the Printer page size needs to be changed to Landscape



In the **Date Range** section, you are able to select specific dates within the project that you wish to print

- From the two drop down cells, choose a start date for the data you are printing and an end date to slice that period for printing

Once you have chosen your settings, sizes and selections in the print dialogue box you can save all these ticks and clicks as a **Print profile**:



- With all selections made click on Save As
- Give your new profile a name, click on OK
- The next time you then want to print, go straight to 'Print profile' and choose the profile that you want from the dropdown arrow. All the selections you saved will be remembered

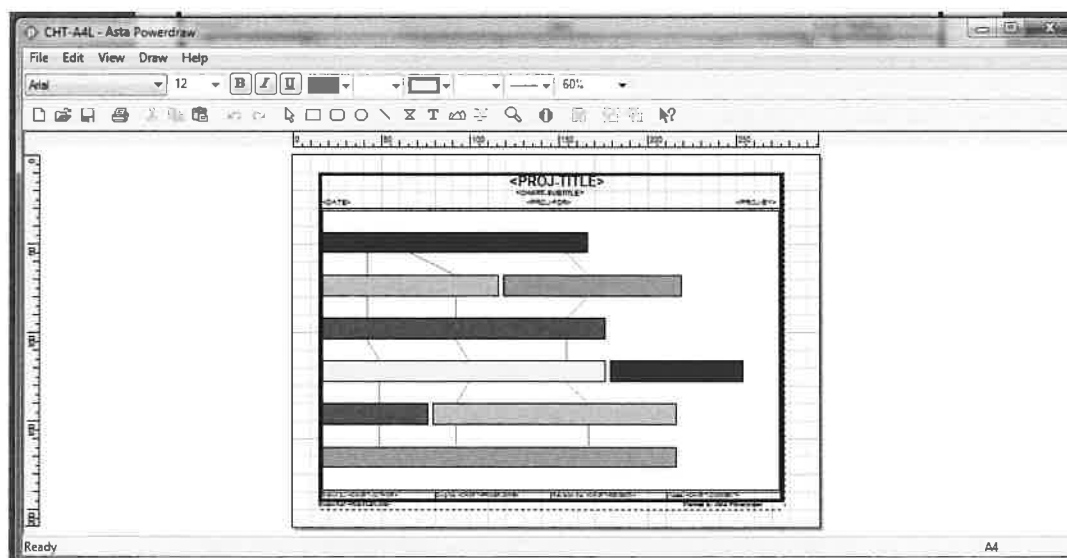
To customise your chosen border file and insert a company logo

- Click **Edit** on the right hand side to customise your border



This will open up a separate software programme called '**Powerdraw**', which is used solely to create and customise border files for Powerproject files

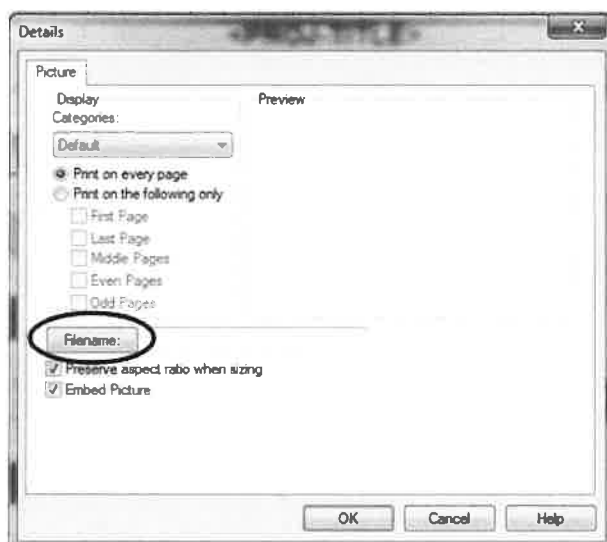
You will notice the fields of information that will be shown when this border file is printed, e.g. **<PROJ-TITLE>** as seen in the screen print below. These can be moved around your border file or deleted completely until you are happy with the layout and the project data that will be visible:



To insert a company logo



- ▶ Select the '**New Picture**' icon on the toolbar.
- ▶ Use the cursor to draw a square box where you want the logo to appear. The following dialogue box will appear



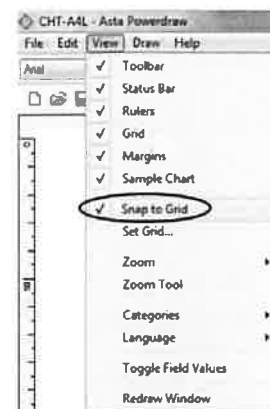
- ▶ Click **Filename** to navigate to the logo file you wish to use.
- ▶ Click **Insert** and **OK**. The logo is added to your border file.

By default, the picture(s) will snap around the faint square boxes that appear in the background of the border file. To reposition and resize it accurately

- ▶ Select **View** from the toolbar
- ▶ Untick the '**Snap to Grid**' option from the list

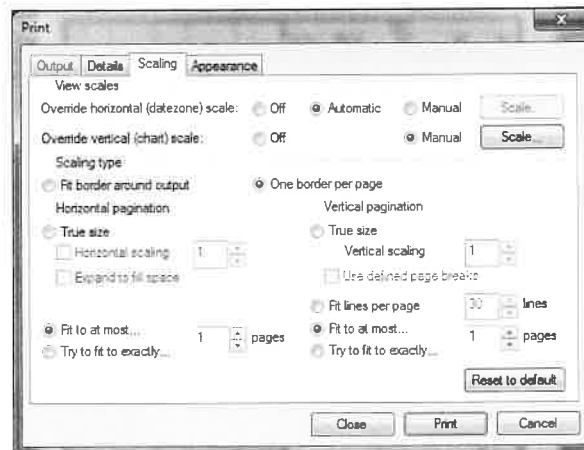
When all the changes have been made

- ▶ Click '**File**' and '**Save As**' to save the customised border file.



Scaling Tab

The scaling tab is used to control the size of your print out. It can be set manually, by selecting the actual print size of a time unit (i.e. 1 Week to a centimetre) or by selecting the number of pages you would wish to have.



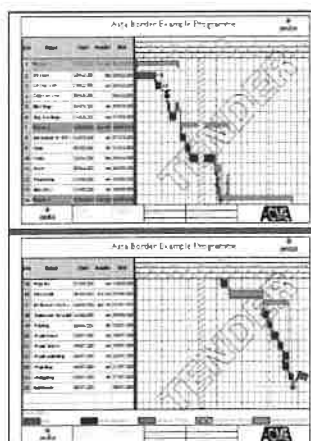
The **View Scales** options allow you to control the size manually:

- ▶ **Override horizontal (date zone) scale** – Allows you to control the scaling of the date zone (size of a week etc.) Automatically set by default
- ▶ **Override vertical (Chart) scale** – Allows you to control the scaling of each bar line, Allocation and Baseline height. This is controlled by the settings in Format Bar Chart, Vertical Scale but does not set them in the programme.

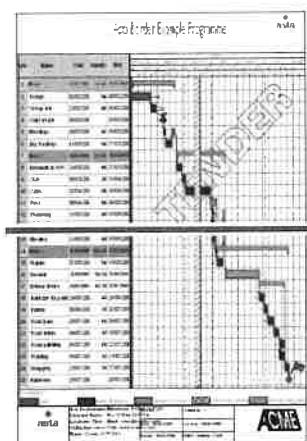
The **Scaling Type** details how the border file will be used on a multi-page print out.

- ▶ **Fit border around output** – If printing to more than one page, this setting allows you to apply the border around all of the pages
- ▶ **One border per page** – If printing to more than one page, applies your chosen border to each page printed

One border per page



Fit border around output

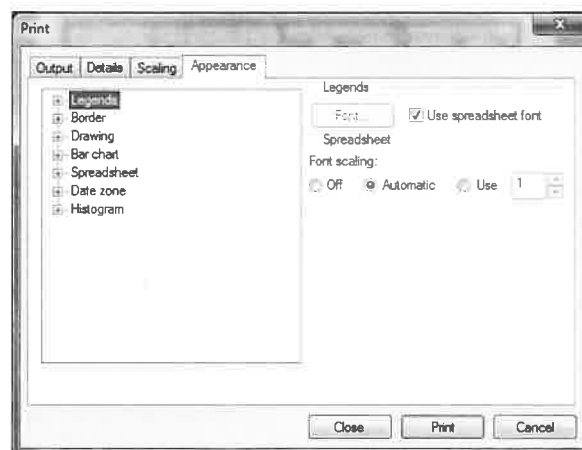


The **Horizontal & Vertical Pagination** options allow **Powerproject** to adjust the size of the print out to fit to a chosen number of pages.

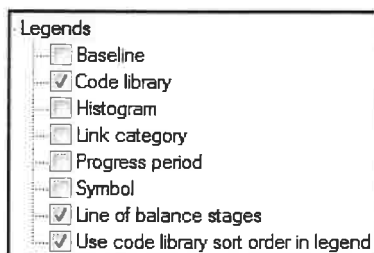
- ▶ **True size** – Prints your plan at the exact size set in the date zone or spread sheet, so may end up printing across a number of pages.
 - **Horizontal scaling** – With true size selected this will increase or decrease your print out by the number selected e.g. 1.5 would print at 1.5 times its normal size
 - **Expand to fill space** – Expands the chart to the edge of the border
 - **Vertical scaling** – Increases your vertical scale by the number entered. E.g. 2 would increase your vertical scale by twice the height
 - **Use Defined page breaks** – Prints a page dictated to by the position of a page break. A page break is created in the bar chart by right clicking in the bar chart where you want the page break to happen and selecting **Page Break**
- ▶ **Fit lines per page** – Gives you control of how many lines you would want printed on each page
- ▶ **Fit to at most** - Will fit it to the pages you specify 1x1, 2x2 but if you choose a size which is beyond a reasonable printout e.g. 5x5 pages for a 10 line programme it will keep it to a size which it regards as a best fit
- ▶ **Try to fit to exactly** – Will fit exactly to the pages requested whether it would look reasonable or not

Appearance Tab

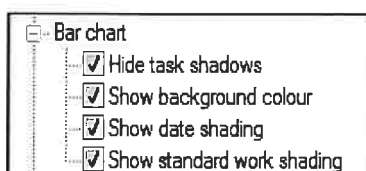
The appearance tab allows you to add or remove certain elements of the printout, such as legends, shading and hidden columns



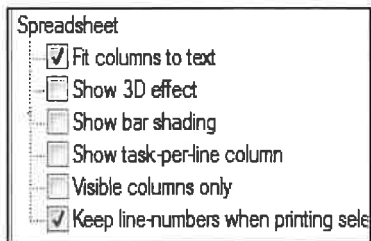
A small selection is shown below:



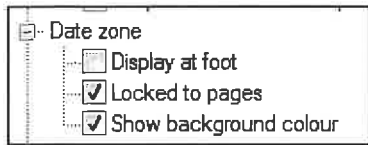
Legends – this shows a key at the bottom of the print out for any of the items ticked



Bar Chart – 'Show date shading' will either show or hide shading used on a plan

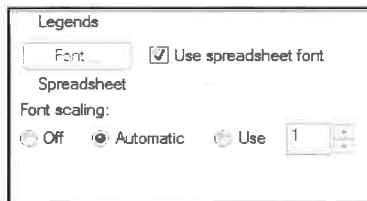


Spreadsheet – ‘Tick Visible columns’ only to only print the columns you can see on the screen



Date zone – ‘Display at foot’ will show the date zone at the bottom of the page as well as the top

On the right of the dialogue box:

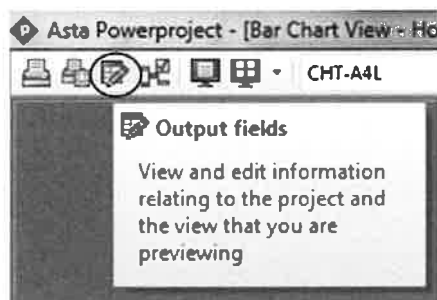


Legends – You can change the font of the legends which display at the base of the print out or just use the fonts from the spreadsheet

Spreadsheet – If a font is difficult to read, you can use these options to change the size of the font in the spreadsheet to make it easier to read

Output Fields

The Output fields icon (circled below) is where you can edit the display of relevant project and company information that may appear within your chosen border file:



The information you can edit in these tabs that show on our example borders include the programme Name (Long Name), Project for, Project by, Comment, Drawn by, revision number, etc.

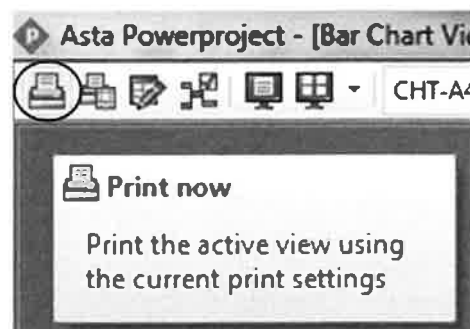
Display Switches

In Powerproject you are able to access the format display switches from the Format tab in the Full Preview screen. When you click the icon circled below you will see these appear on the right hand side of the toolbar:



Print

When you are satisfied with the layout and data displayed click the **'Print'** button from the toolbar circled below:



Glossary

Bar

The horizontal area identified by a line number, containing information in the Spreadsheet and one or more tasks in the bar chart.

Bar Chart

The area of the screen where Tasks are displayed graphically.

Border File

A print function which contains information to be included *around* your project, including graphics such as company logo, project information such as the project title and relevant dates.

Code (Colour)

A facility to allow the assignment of colours to tasks to represent information about the task.

Code Library

This is the library (or folder) that contains Codes, allowing you to have multiple 'categories' of codes

Constraint (Flags)

These are used to enforce dates when a Task can happen outside of the logic defined by the links. (stopping a task starting before a certain date, or stopping a task finishing after a certain date). Using Constraint Flags within the project can have a major effect on your Critical Path

Control Key (CTRL)

A key on the keyboard normally found at the bottom left (and one on the right) used throughout windows applications for specific commands (e.g. CTRL + S for saving) or for selective highlighting. (To highlight everything that is clicked upon whilst the key is held down)

Critical Path

This is the sequence of tasks through a project whose duration affects the project end date & the overall project duration. If any of the tasks on the critical path are changed the end date of the project will change. It is shown as a red outline on Tasks and as red Links.

Date Zero

Normally at the start of the project, but can be moved without affecting the project. Date Zero is the point where the elapsed week ruler in the Date Zone starts counting.

Date Zone

This is the area above your project that contains rulers of information (e.g. Elapsed week numbers, week start).

Exceptions

These are time periods that are different to the usual work pattern. e.g. holidays, working etc.

Float

This appears on items that are not on the Critical Path. Float is the amount of time a Task may be delayed or extended before the item re-joins the critical path and pushes out the end date of the project.

Free Float

Free float means that if the task is extended or delayed in anyway during its period of float only this item is affected, nothing else will move.

Lag (Links)

A link that has a delay at its start or finish end. Usually used at the start end of a link to allow a period of waiting time before the successor task. It is shown as the horizontal part on a Link (e.g. Concrete curing time, paint drying time or just delivery times).

Library Explorer

An area that allows you to navigate all of the folders of items used in your project. (Cost Centres, Calendars, Codes, Permanent Resources etc.) Some library items are displayed in the Project View others can only be viewed & edited from the Library explorer (e.g. Exceptions, Link Categories, and Currency)

Link

The relationship between two tasks, displayed as an arrow. If shown in red then the link is Critical.

Mid-link

A link that starts anywhere along the duration of a task rather than from (or to) the start or end of the Task.

Milestones

Milestones are points in time; they have no duration (0 days) and are used to represent key events within projects. (E.g. Handover)

Progress (Period)

The progress report date; the date at which progress is updated to the project. Can be displayed as a line going down the screen that will bend to the left to show items behind time and bend to the right to show items ahead of time.

Project View

The white window that opens on the left hand side of the screen. Used to navigate around the project, and to view & assign items into the project like Code Libraries, Cost Centres, Permanent Resources, Consumable Resources and Calendars.

Shift Key (or a bold arrow pointing up)

A key on either side of the keyboard, used for creating capital letters, to pick up any of the top row of symbols on the numerical keys and others. Also used to highlight a range of items, (left click on one item, then hold down shift and select another item. Everything in between becomes highlighted.) Also used for creating Lag links.

Spreadsheet (Table)

This is the yellow and white striped table down the left hand side of the screen (assuming the Project View is closed) The Spreadsheet is made up of different columns which contain data fields. Columns can be removed, added and moved within a table.

Summary

This type of task groups together Tasks on screen. The tasks can be rolled up & hidden so only the summary is shown. Items are grouped because they share certain information, for example, summaries could be used to group together all the Tasks on different floors. A Summary could also be used to show different phases or stages within a project. Multiple summaries can be placed inside of each other allowing a project structure or hierarchy to be created.

Task

The activities that appear within a Bar on the Bar Chart.

Template

A template is a project file that is used when creating a new project. A Template typically contain items needed in all new projects i.e. Calendars, Permanent Resources, Cost Centres, Code Libraries, Task Pools.

Total Float

Total float means that if the task is extended or delayed during its period of float, then all items directly after it (those containing Float) will also be affected as well.

Exercises

Exercise 1 – Shed Build Project

You have decided that you will buy and erect a new shed for your back garden. You need to create a new project to plan its construction

- Use the **Construction Template**
- The File Name and Title can be **Shed Build**
- The project will start **next Monday**

Information to enter onto the default calendar

- The first Friday you are going to take one day's holiday
- The sixth weekend (Saturday and Sunday) of the project you will be working 8 hrs. This working period should be added to your calendar.

Tasks to enter into the spreadsheet

Market Research	2 weeks
Buy Shed	Milestone
Delivery Period	10 days
Dig Base	6 days
Pour Concrete	2 days with 1 day lag for curing
Erect Sides	1 week
Paint (2 tasks on 1 line)	2 days for Undercoat 2 days for Topcoat
Roof	3 days
Window	1d
Door	½ day
Lock	½ day
Final Checks	1 day
Complete	Milestone

- You will need to ensure that the project is fully linked.
- There needs to be a 1 day lag on the link from pour concrete to allow for the curing.
- Each task must be linked and a reschedule is required to show the critical path.
- You have given yourself a maximum of **7 weeks** to complete the project, so it is likely that certain activities will have to be worked on at the same time.

What is the end date of your project?

Save and **Close** the project

Exercise 2 – Hierarchy

Open the Shed Build project from earlier

Create a project hierarchy

All current tasks will be put into the following summary tasks:

- **Phase 1** – Market Research > Dig Base
- **Phase 2** – Pour Concrete > Roof
- **Phase 3** – All remaining tasks

View different phrases of the projects

- Collapse **Phase 1** and **Phase 3** with the detail of **Phase 2** remaining
- In the Project View click on **Phase 2** to display the detail of this phase only
- Click on the programme icon on the left hand side of the screen to be able to see the whole project
- From the **Home** tab at the top of the screen click on the **Show To Level** button and select **All Levels**
- **Outdent** the **Complete** milestone from **Phase 3**

From the ribbon at the top of the screen click on the **Show to Level** button and select **Level 1** to collapse all phases - you should see the **Complete** milestone outside of the phases now.

Reopen all levels

Save and **Close** the project

Exercise 3 – Code Libraries

Open Shed Build.pp

You have decided that rather than carry out the work yourself you are going to use local subcontractors

You will use code libraries represent which subcontractor is going to carry out the work on each task

- Create a new code library folder called Sub Contractors
- Create the following entries in the folder:
 - **Sheds R Us Ltd**
 - **Marlon Ltd**
 - **Tristar PLC**
- Give each entry a colour and a pattern
- Allocate the codes to the tasks of your choice

Save and **Close** the project

Exercise 4 – Construction Project

Create a new project

- You will use the **Construction Template**
- The File Name and Title can be called **Construction**
- The Project will start **next Monday**

Information to enter onto the default calendar

- You will be working the morning of the first 2 Saturdays of the project
- You will be taking a day's holiday on the third Friday of the project

Tasks to enter into the spreadsheet

Procurement sheet piles	15d
Breakout concrete slab	3d
Piling platform	2d
Sheet piling	4d
Reinforcement	5d
1 st Floor Concrete	1d
Formwork	4d
Reinforcement	4d
Roof Slab Concrete	1d
Covers	1d
Complete	Milestone

Create a fully linked bar chart and then Reschedule to show the critical path

Create a project hierarchy

Create 3 summary tasks as below:

- | | | |
|---|---------------------|---|
| • | Construction | <i>Procurement Sheet Piles > Sheet Piling</i> |
| • | Main Base | <i>Reinforcement > 1st floor concrete</i> |
| • | Roof Slab | <i>Formwork > Covers</i> |

Create a code library folder

Call it '**Subcontractors**' and list the name of 3 subcontractor names of your choice Allocate these subcontractors to the tasks in your project

Save and **Close** the project

Exercise 5 – Progress

Open your *Shed Build* project from earlier

This project has started and you would like to monitor the progress of the work carried out to date

Create a table

Add the following columns to the *Default table* in your spreadsheet

- Planned Percent Complete
- Overall Percent Complete
- Notes

Save this table as '**Progress Table**'

Update on Progress

Enter the following progress

End of Week 1		
Market Research	20%	Reschedule to the 'Progress entry period'
End of Week 2		
Market Research	75%	Reschedule to the 'Progress entry period'
End of Week 3		
Market Research	100%	
Buy Shed	100%	
Delivery Period	On schedule	
Dig base	20%	Reschedule to the 'Progress entry period'
End of Week 4		
Delivery Period	100%	
Dig base	100%	
Pour concrete	100%	
Erect sides	50%	Reschedule to the 'Progress entry period'

Note the new end date of your project

Save and **Close** the project

Introduction to Powerproject, Part 1 - What Next?

1. Identify the next Powerproject course for you:

- **Introduction to Powerproject Part 2**

Building on the basics of project creation learnt in this course, Part 2 covers reporting, monitoring & controlling the project. Learn to use buffer tasks, filter & sort, baseline & monitor progress using multiple progress periods.

- **Managing Costs & Resources**

Learn to produce cashflow forecasts & track resource usage in projects

- **Introduction to Powerproject BIM**

Learn how to visualise your projects in 4D.

Check our website or call us for available dates.

2. Find out your Serial Number and write it here. You'll need this should you have to call our Helpdesk

Serial No.

3. Use your serial number to create a login to the **Customer Support Portal** at <http://support.elecosoft.com> for access to FAQ's, advice & the latest software releases.

Support lapsed?

A current support contract provides unlimited access to our Helpdesk & access to the latest software releases via our Online Support Portal.

Contact 01844 261700 for a quotation to renew

Powerproject Course Notes

Develop the skills you need to manage projects effectively with our software.

Elecosoft provides a wide range of standard and tailored courses at our Training Centre in Haddenham, Buckinghamshire, at customers' premises and at regional locations throughout the UK. We also offer comprehensive consultancy services including implementation, integration, project set-up and customisation.

To find out more about our training courses, visit our website elecosoft.com/training, email training@elecosoft.com or call the training team on +44 (0) 1844 261 700.

Elecosoft

T: +44 (0) 1844 261 700

F: +44 (0) 1844 292 336

E: info@elecosoft.com

elecosoft.com

Elecosoft®