



# User Manual // Overview & Function

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# X XER Toolkit Overview

The XER Toolkit is an Excel Addin that provides intelligent access to Primavera schedule data stored within an XER file or Primavera underpinning database.

The objective of the XER Toolkit is to help drive successful project delivery by providing tools that assist with improving the quality of project schedules. It achieves this by:

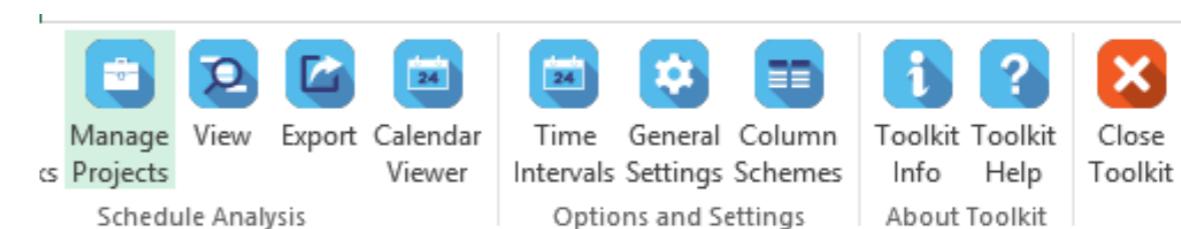
- Promoting schedule visibility and understanding throughout a project team.
- Providing the ability to pinpoint deficient aspects of a project schedule which can then be resolved.
- Providing tools that make graphical analysis of schedule data both simple to use and outputs that are easy to understand.



# X Manage Projects

The XER Toolkit is able to display and analyse data from multiple projects at the same time. Projects/ baselines can be imported from either XER Files or the (Oracle/ SQL) Primavera database.

Once projects/ baselines have been imported to the XER Toolkit, they are stored and managed in the 'Project Directory'.



## Project directory

Delete baseline project

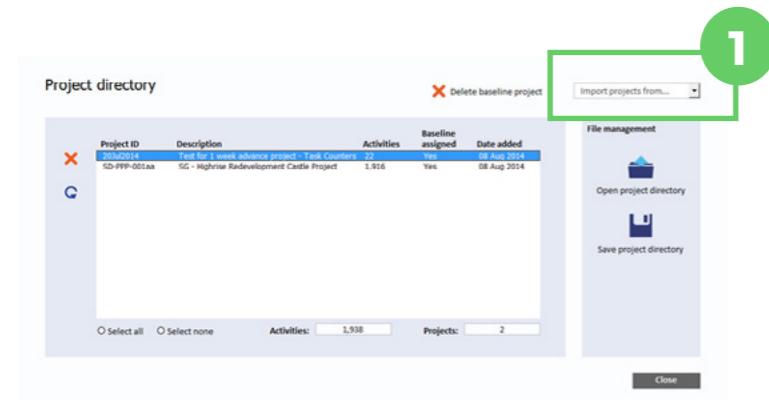
Import projects from...

### File management

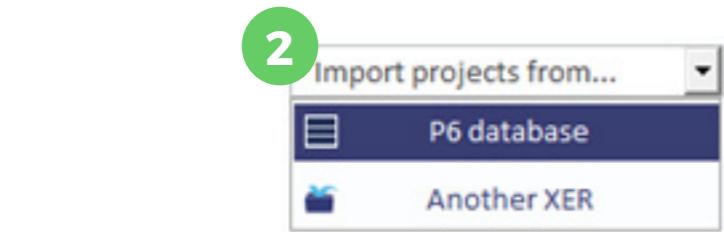
- Open project directory
- Save project directory

Close

## Import from P6 Database



- From the project directory window, click the drop down list box to import projects



- Select 'P6 Database' from the drop-down menu

- Enter database connection details and click to 'connect'

- Select EPS structure element where the project that is to be imported is currently stored

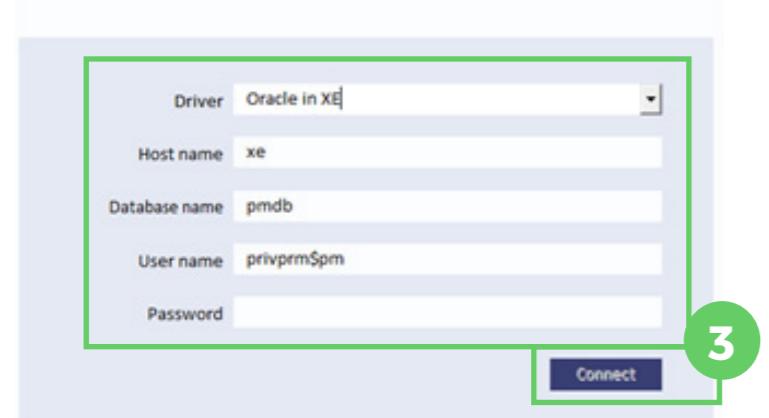
- Click 'View projects' to display all of the projects that currently reside in this EPS element. Projects from the selected EPS element and all sub-elements will be displayed

- Select the project(s) to be imported to the toolkit. In order to select multiple projects, press and hold the keyboard Ctrl key and then select by clicking with mouse the projects to be imported

- Choose whether to import associated primary baseline projects for selected projects

- Click 'Import selected' to import projects

## Database connection

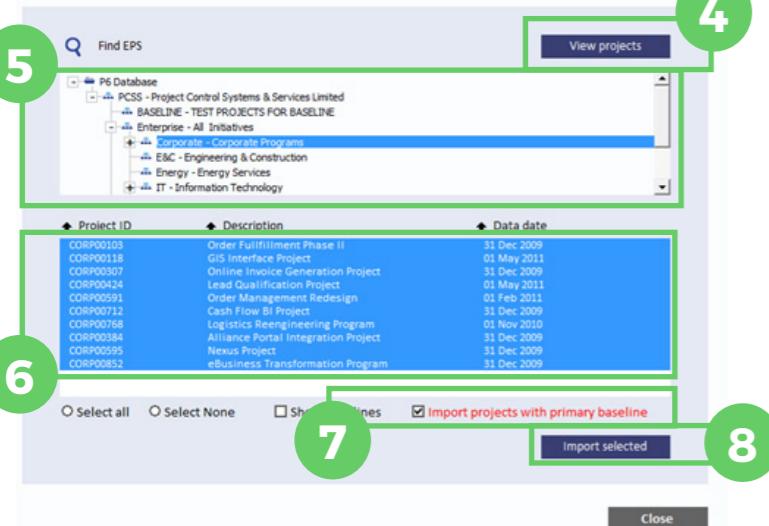


- Click 'View projects' to display all of the projects that currently reside in this EPS element. Projects from the selected EPS element and all sub-elements will be displayed

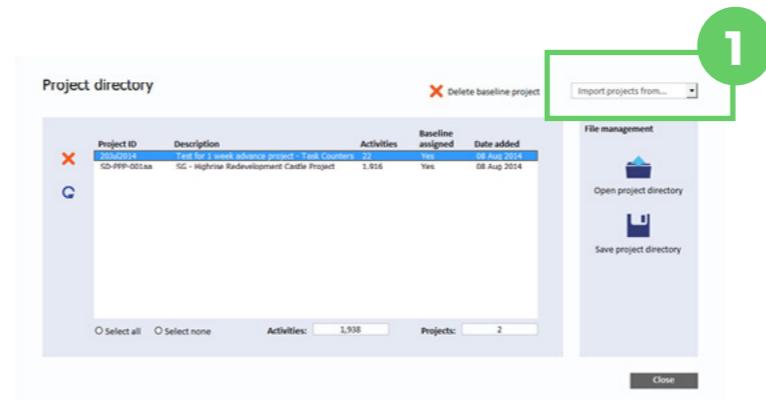
- Choose whether to import associated primary baseline projects for selected projects

- Click 'Import selected' to import projects

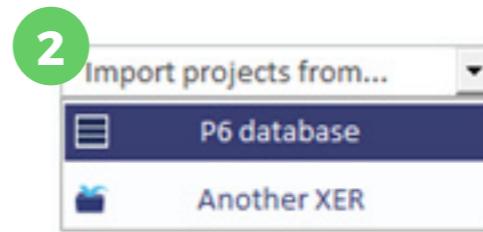
## Primavera database projects



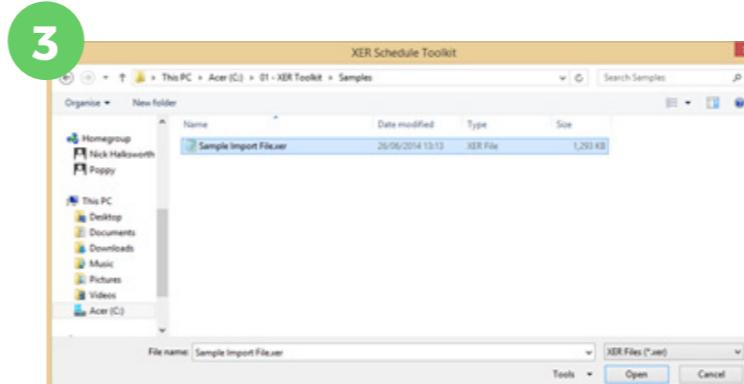
## Import from XER File



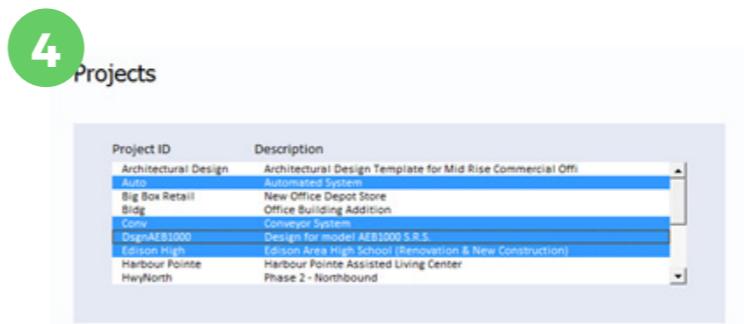
- From the project directory window, click the drop down list box to import projects



- Select 'Another XER' from the drop-down menu



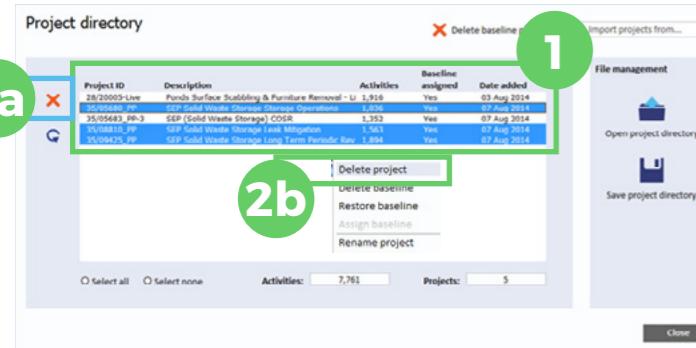
- Select the XER file containing projects to be imported



- Select projects to be imported and then click 'Select Projects'

NB: In order to select multiple projects, press and hold the keyboard Ctrl key and then select by clicking with mouse the projects to be imported.

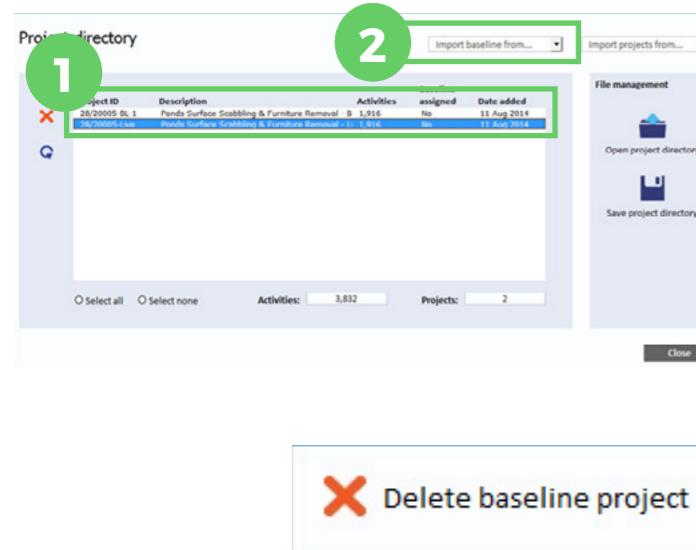
## Delete Projects



1. Select the project(s) to be deleted
2. a - Click the 'delete project' icon  
or  
b - Right click on the projects list and select 'delete project' from menu

NB: In order to select multiple projects, press and hold the keyboard Ctrl key and then select by clicking with mouse the projects to be imported.

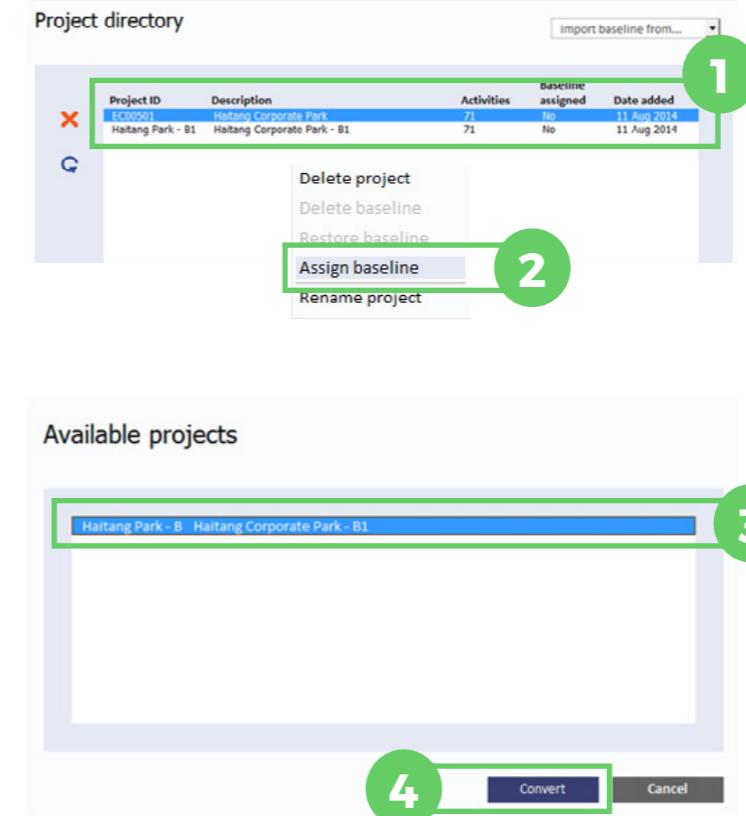
## Import Baseline Project



1. Select a project
2. Click the 'Import baseline from' drop down box and then follow same procedure for importing a project. The imported project will automatically be assigned as the baseline project for the original project selection.

NB: If a project is selected in the project directory that already has a baseline assigned, then the 'import baseline' drop down box will be replaced with a 'delete baseline' icon.

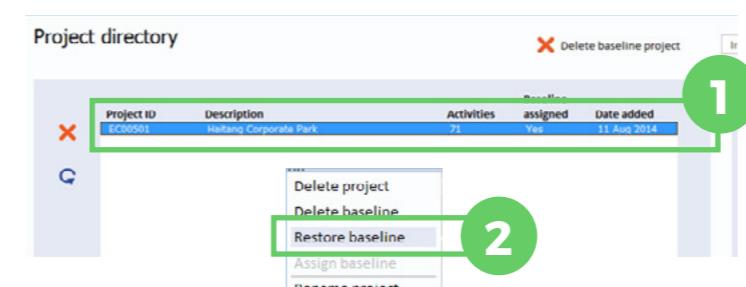
## Convert Another Project to a Baseline



1. Select the project(s) that will be assigned with a baseline project
2. Right click on the project list and select 'assign baseline' from the menu
3. Select baseline project
4. Click 'Convert'

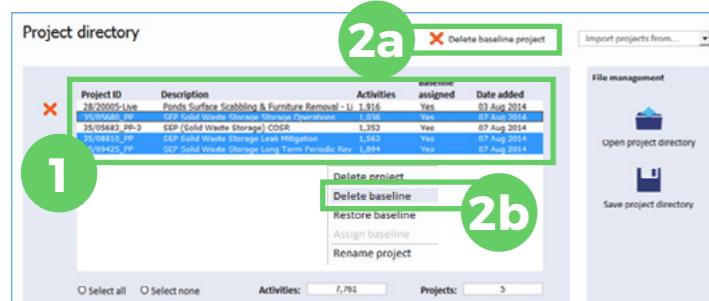
NB: Ensure that the project to be converted to a baseline has already been imported to the project directory.

## Restore Baseline Project



1. Select the project with baseline project assigned that is to be restored
2. Right click on the project list and select 'restore baseline' from the menu

## Delete Baseline Project



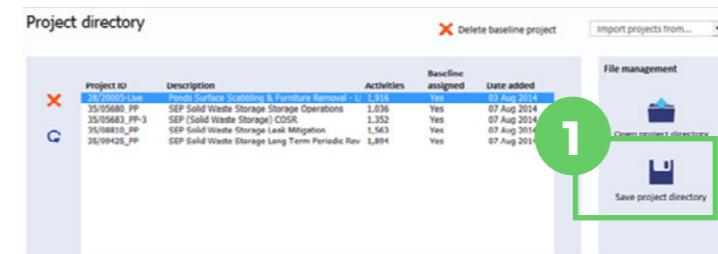
1. Select the project(s) with baselines to be deleted.
2. a - Click the 'delete baseline' icon.  
or  
b - Right click on the projects list and select 'delete project' from menu.

NB: In order to select multiple projects, press and hold the keyboard Ctrl key and then select by clicking with mouse the projects to be imported.

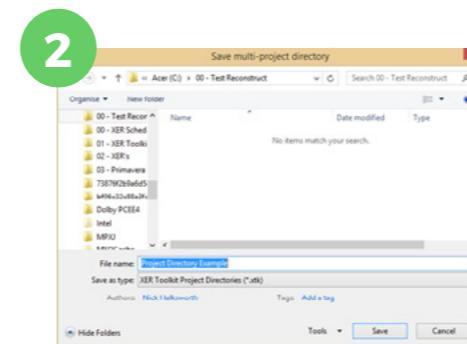
## Saving Project Directory

The file management functions within the project directory enable groups of projects to be saved to disc and restored again at a later point. They can also be shared between different XER Toolkit users.

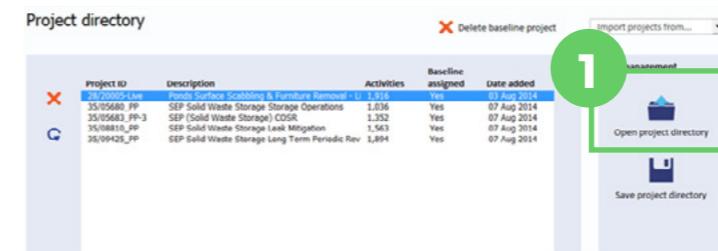
Saving and opening projects this way is much quicker than importing projects from XER files or the Primavera database.



1. Click on 'Save project directory'
2. Then choose a filename and location, then click 'Save'



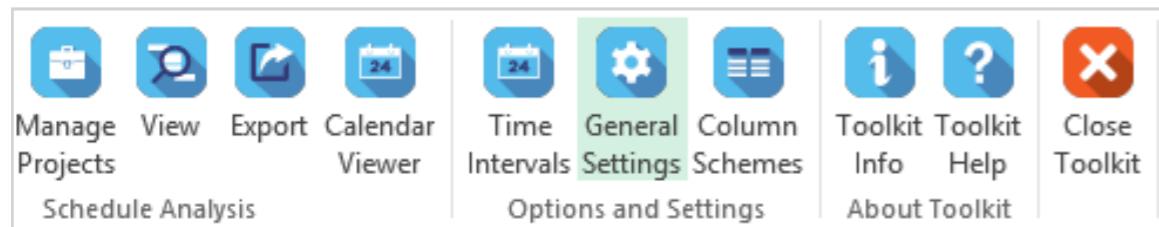
## Opening Project Directory



1. Click on 'Open project directory'
2. Then Locate your directory and click 'Save'

# General Settings

There are a number of generic options and settings that affect how the toolkit operates and the method by which baseline calculations are applied.



## General settings

Include activity codes and UDFs with schedule viewer

Duration to be shown in      Hours per day  
 Hours       Days      8

Estimate to complete =      Ratio  
Remaining cost  1.00

Use baselines to calculate planned/ earned values

Baseline values to use for calculating planned/ earned value  
Budgeted values

Baseline dates to use for distributing planned values  
Planned dates

 [Reset all defaults and clear current data](#)  
(This can be used to clear error loops)

### Include activity codes and UDFs with schedule viewer

When using the schedule viewer (including schedule quality results), the XER Toolkit is able to save activity code and UDF information with the schedule view. This enables users to view the activity codes and UDFs assigned to a selected task using the task detail window (see schedule viewer; task details). There is a performance benefit when deselecting this option due to the reduced size of data. The performance will be affected by the size of the schedule and number of codes/ UDFs assigned.

### Duration

Duration values are stored in hours within the toolkit database. The toolkit also provides the option to display duration values in days, dividing by a global 'hours per day' rate.

Duration to be shown in	Hours per day
<input type="radio"/> Hours	<input checked="" type="radio"/> Days
	8

NB: Durations displayed in days do not necessarily reflect the number of calendar days between the task start and finish and will differ between tasks using different calendars.

E.g. Using a global rate of 8 hours per day for a task that is 24 hours duration will display in the toolkit as 4 days duration regardless of calendar:

> 24 hour calendar = 1 calendar day

> 8 hour calendar = 4 calendar days

## Estimate to Complete

Estimate to complete can be calculated using 3 different methods:

The dialog shows the formula "Estimate to complete =". Below it are three dropdown options: "Remaining budget" (selected), "Remaining cost", and "Remaining budget \* efficiency ratio:". To the right is a "Ratio" input field with the value "1.00".

1. Remaining cost  
Total remaining cost of task
2. Remaining budget  
Total budgeted cost - Earned value cost
3. Remaining budget \* efficiency ratio  
 $(\text{Total budget} - \text{Earned value}) * 1/\text{Ratio value}$

## Baseline Dates to Use for Distributing Planned Values

When the option to calculate planned/ earned values from a baseline has been selected, the toolkit offers the opportunity to spread the planned values across the baseline project's planned or current dates (actual/ early).

If the option to use At Completion values for planned/ earned value calculations has been selected then this option will be automatically set to current dates.

NB: If the baseline project has not been assigned with any progress information, then changing this option will have no impact on distributed data calculations as the current dates will be the same as the planned.

The dialog shows the title "Baseline dates to use for distributing planned values". Below it is a dropdown menu with three options: "Current dates (At completion)" (selected), "Planned dates", and "Current dates (At completion)". A note at the bottom says "RESET all defaults and clear current data".

## Using Baselines to Calculate Planned/Earned Values

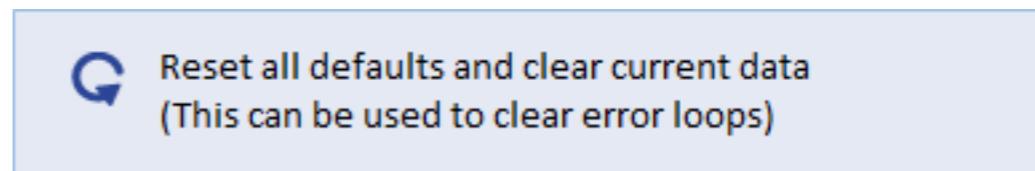
When a baseline project has been assigned within the project directory, the toolkit provides the opportunity to calculate planned/ earned values based on the resource and cost information in the baseline rather than using the current project values.

The dialog shows the title "Baseline dates to use for distributing planned values". Below it is a dropdown menu with three options: "Current dates (At completion)" (selected), "Planned dates", and "Current dates (At completion)". A note at the bottom says "RESET all defaults and clear current data".

## Resetting All Toolkit Setting Defaults

This option is provided in order to clear error loops and should only be used as a last resort.

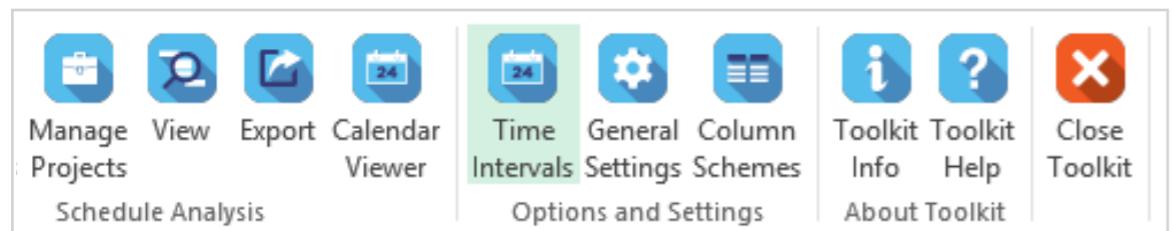
NB: All data and settings will be cleared/ returned to default settings. This includes deletion of current project data along with any column/ grouping schemes, filters and user defined financial period sets.



# ⌚ Time Distributed Interval Settings

The XER Toolkit provides the ability to produce time distributed data using a number of pre-defined interval settings (e.g. Daily/ weekly/ monthly/ yearly).

It also provides the functionality to create an unlimited number of user-defined financial period date sets. This is particularly helpful for the requirement to report against internal dates as well as differing external client financial reporting cycles.



## Interval settings

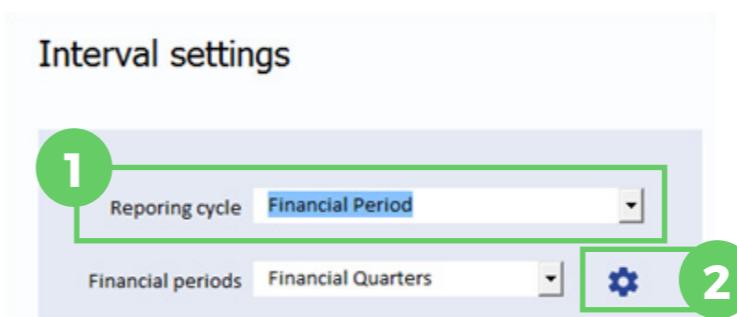
A screenshot of the 'Interval settings' dialog box. It shows a dropdown menu for 'Reporting cycle' set to 'Monthly'. Below it is another dropdown menu for 'Financial periods' set to 'Financial Quarters'. There is a checked checkbox for 'Auto fit timescale'. At the bottom, there are 'Ok' and 'Cancel' buttons.

## Standard Financial Periods

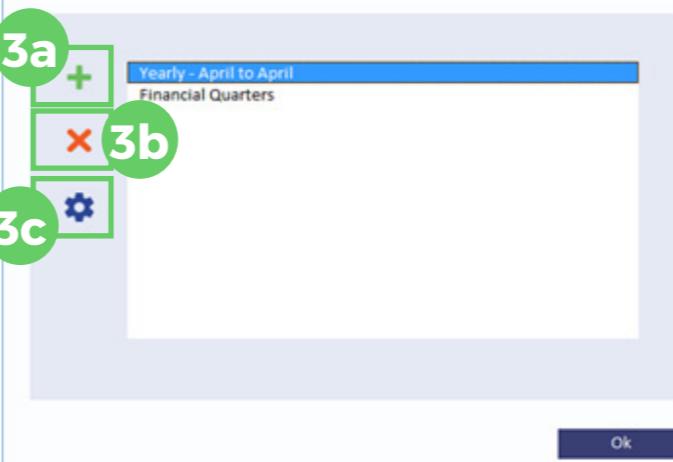
The Toolkit provides the following pre-defined interval settings:

- Daily
- Weekly (Monday to Sunday) - through – Weekly (Sunday to Saturday)
- Monthly
- Yearly (January to December)

## Create a New Financial Period Reporting Cycle



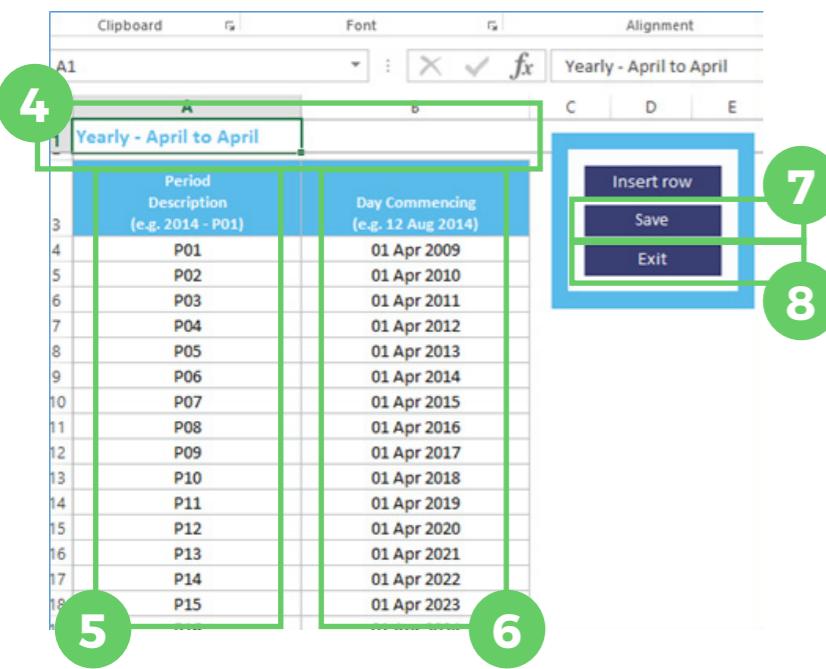
## Financial periods



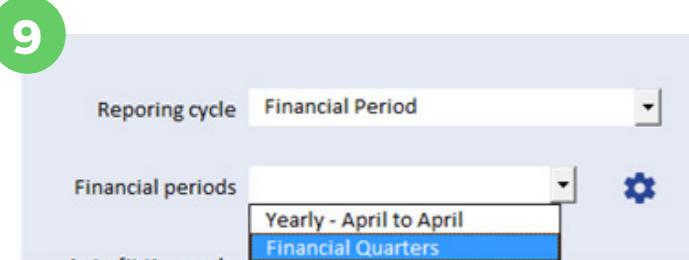
1. Select 'Financial Periods' from the reporting cycle drop down menu
2. Click the 'financial period settings' icon.
3. a - To create a new financial reporting period date set click the 'Add' icon.  
b - To delete an existing financial reporting period date set, select the financial period from the list and then click the 'Delete' icon.  
c - In order to alter an existing financial period date set, select the financial period from the list and then click the 'Settings' icon.

The XER Toolkit provides the ability to produce time distributed data using a number of pre-defined interval settings (e.g. Daily/ weekly/ monthly/ yearly).

It also provides the functionality to create an unlimited number of user-defined financial period date sets. This is particularly helpful for the requirement to report against internal dates as well as differing external client financial reporting cycles.



4. Enter a reference name for the financial period date set
5. Enter reference descriptions for each period
6. Enter the commencement date for each financial period
7. To save the financial period date set, click 'Save' on the menu
8. Click 'Exit' to return to the financial period menu where the new financial period date set will now be included within the list
9. Select the appropriate financial period from the main interval settings list.

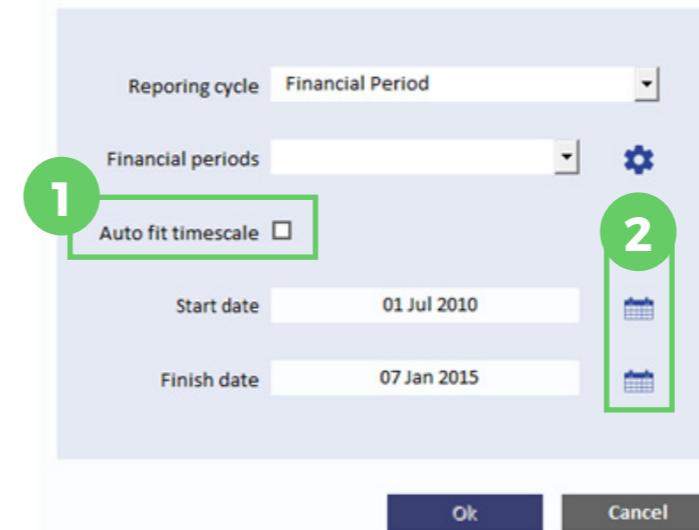


## Create a New Financial Period Reporting Cycle

By default, the Toolkit will define the reporting period as the earliest start date within the current set of projects, to the latest (late) date of the selected data.

Toolkit calculation speed and general performance decreases as the number of reporting periods increase. E.g. A reporting against a 10 year project at a daily interval will perform slower than reporting against the same project using a yearly reporting cycle. To this end, the toolkit offers the opportunity to define a time range for reporting which enables quicker performance for short duration intervals over a specific time-span.

### Interval settings

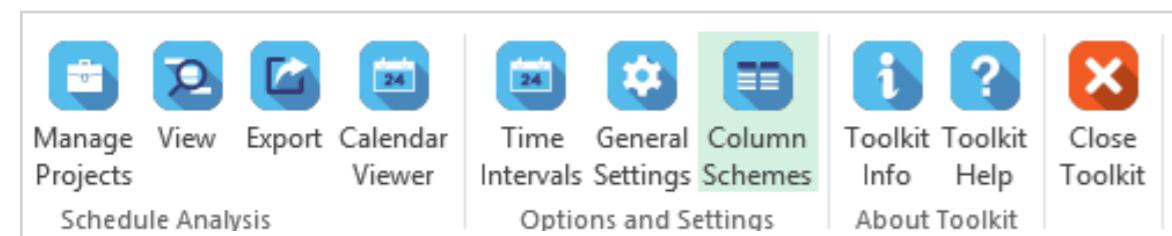


1. In order to specify a particular reporting period, deselect the auto-fit timescale.
2. Click the relevant 'start' and 'finish' icons to manually set the reporting period.

# Column Schemes

The current column scheme is defined by the columns that appear in the 'Column selected' list. All toolkit functions and outputs (including the schedule viewer) that include a data table will include the columns defined by the current column scheme.

The Column appearing at the top of the list will appear as the leftmost column in the data table and the column at the bottom of the list will appear as the rightmost column in the data table.



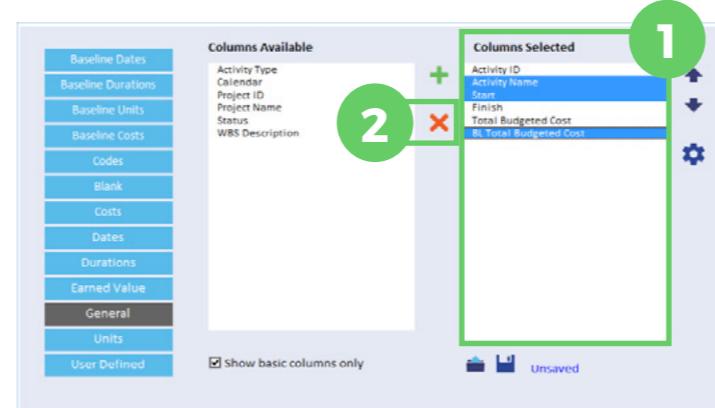
## Adding a Column to the Current Scheme



1. Select the column type
2. Select the required column(s)
3. Select the column in the current scheme that is to appear directly to the right of the added columns. Skip this step if you simply want to add the new columns to the far right of the data table
4. Click the 'Add Icon' icon

NB: In order to select multiple columns, press and hold the keyboard Ctrl key and then select by clicking with mouse the columns to be inserted.

## Deleting Column(s) From the Current Scheme

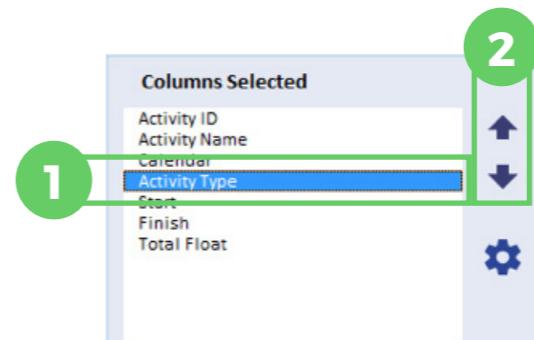


1. Select the columns to be deleted

2. Click the 'delete column' icon

NB: In order to select multiple columns, press and hold the keyboard Ctrl key and then select by clicking with mouse the columns to be deleted.

## Moving Column Position Within the Current Scheme



1. Select the columns to be moved

2. Click the 'Up' icon to move the column left in the output data table. Conversely, click the 'Down' icon to move the column right

## Format Column Settings

The screenshot shows the 'Format Column Settings' dialog. On the left, a list titled 'Columns Selected' contains items: Activity ID, Activity Name, Calendar, **Activity Type**, Start, Finish, and Total Float. The item 'Activity Type' is highlighted with a green border and a green circle with the number 1. On the right, there is a 'Settings' icon (a gear symbol) enclosed in a green circle with the number 2.

**Column settings**

Column Title **Activity Type**

**3a** Number Format N/A

Column Width 18

Text Align Center

**3b** Activity Code Display N/A

Ok Cancel

### A - Number / Date Format

The screenshot shows two dropdown menus for 'Number Format'. The first dropdown shows options like 1,000, 1,000.0, 1,000.00, 1000, 1000.0, and 1000.00. The second dropdown shows options like 12 Aug 2014, Aug 12, 2014, 12 August 2014, 12 August 2014, Tue Aug 12, 2014, Tuesday August 12, 2014, and Tuesday 12, August 2014.

### B - Activity Code Display

The screenshot shows a dropdown menu for 'Activity Code Display' with options: Description, Code ID, Full Path, Description, and Code & Description. The option 'Code ID' is highlighted with a blue selection bar.

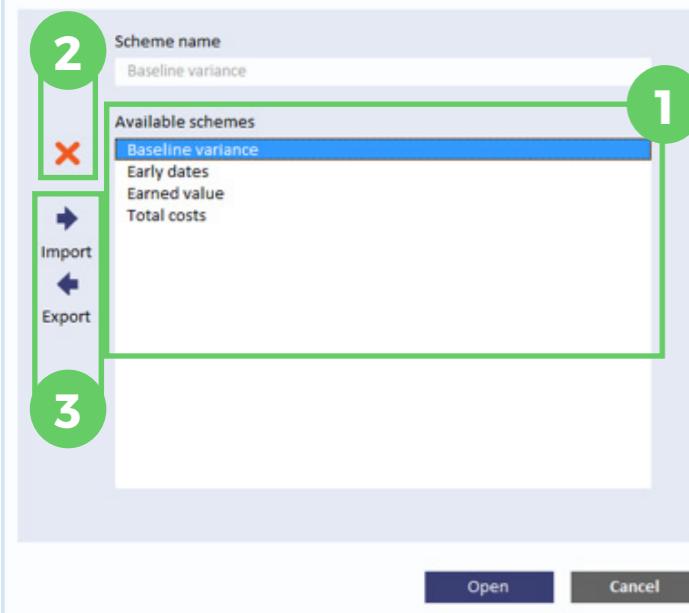
## Saving the Current Column Scheme

The screenshot shows the 'Saved scheme management' dialog. It has a 'Schema name' field containing 'Unsaved' (highlighted with a green border and a green circle with the number 1). Below it is a 'Available schemes' section with a delete icon, import icon, and export icon. At the bottom are 'Save' and 'Cancel' buttons, with 'Save' highlighted with a green border and a green circle with the number 3.

1. Click the 'Save' icon
  2. Enter a new scheme name or if an existing scheme is to be overwritten, select it from the list
  3. Click save
1. Click the 'Open' icon
  2. Select the scheme to be set as the current scheme
  3. Click 'Open'

NB: When opening or saving a column scheme, there are options to delete/ import and export pre-saved column schemes.

## Saved scheme management



### Delete a Saved Column Scheme

1. Select column scheme to be deleted
2. Click the 'Delete' icon

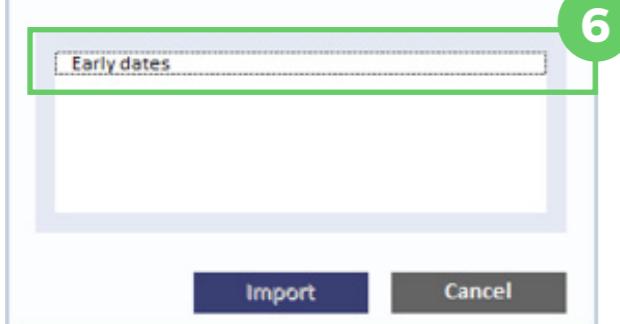
### Export Column Scheme

1. Select column scheme to be exported
3. Click the 'Export' icon and then choose a filename

### Import Column Scheme

3. Click the 'Import' icon
4. Select file containing column scheme(s)
5. Click 'open'
6. Select column scheme(s) to be imported.
7. Click 'Import'

## Import schemes

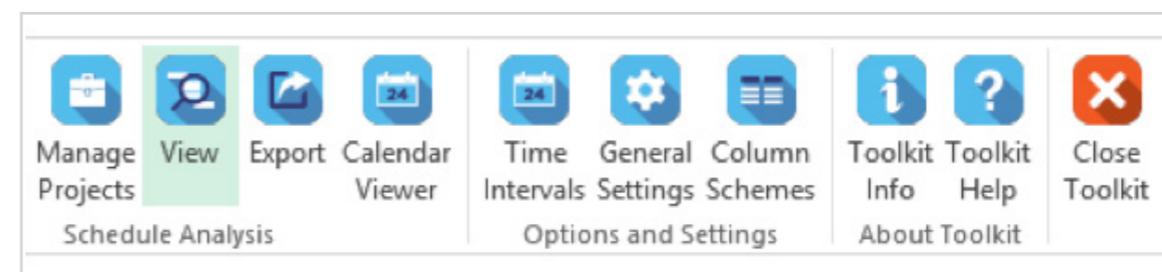


# Data Selection

The XER Toolkit is able to display and analyse schedule data from multiple projects simultaneously. By providing advanced filter and grouping functions, users can target precise aspects of a schedule(s).

E.g. A commissioning manager may want to view the resource demand histogram for a shared testing resource across a programme of projects. They may also want to view the applicable tasks for each resource across all the projects in a single schedule view.

Alternatively, a project controller may wish to analyse the schedule quality for construction tasks under the responsibility of an under-performing subcontractor.



The hierarchical data tree is used to select, organise, view and analyse the project schedules that have been imported to the toolkit's project directory. By selecting element(s) within the tree structure, examination of the schedule(s) can be accomplished at any level, from overview to granular.

By default, the data is organised by the respective project(s) Work Breakdown Structure. However, schedules can alternatively be organised by any combination of WBS element, activity code, UDF and/or a variety of other data fields.

NB: In order to select multiple elements from within the work structure, press and hold the keyboard Ctrl key and then select by clicking with mouse the elements to be viewed/analysed.

The screenshot shows the XER Toolkit interface with several key components highlighted:

- Top Left:** A search bar with a magnifying glass icon and a dropdown menu labeled "Show empty grouping bands" and "Expand to: 1".
- Left Sidebar:** A sidebar titled "XER - XER Toolkit - Multi Project (12,309)" containing a tree view of project elements like SURVEYING & LEVELLING, EXCAVATION, BACKFILLING, etc., each with a count in parentheses.
- Central Area:** A main panel with a "View schedule" button and a dropdown menu titled "View/analyse schedule data..." containing options like "View schedule", "View relationships", "View resources", etc.
- Bottom Left:** A "Grouping" section with icons for "Grouping", "Activity filters", "Assignment filters", and a red "Dashboard" button.
- Bottom Center:** A "Find element" dialog box with a search input field "ID/Description enter text to search for here" and a "Find Next" button.
- Bottom Right:** A "Show empty grouping bands" button and an "Expand to: 1" dropdown.

Green numbered callouts point to specific features:

- 1: Points to the "Grouping" section in the sidebar.
- 2: Points to the "View/analyse schedule data..." dropdown menu.
- 3: Points to the search bar at the top.
- 4: Points to the "Find element" dialog box.
- 5: Points to the "Find Next" button in the search dialog.
- 6: Points to the "Show empty grouping bands" button at the bottom.

- Clicking on the 'Settings' icon raises the filter and grouping menu.

When non-default filters or grouping structures are applied, it is indicated by red text in the menu. The settings icon also turns red (as shown to the left)

- Once the appropriate data has been selected, the user can click on the export/view/analyse menu

- The search function can be used to find text within any grouping band code or description in the current filter selection. By clicking find next (b), the next element containing the text to be searched will be highlighted in the tree structure

a - Enter the text to be searched for.

b - Click 'Find Next'

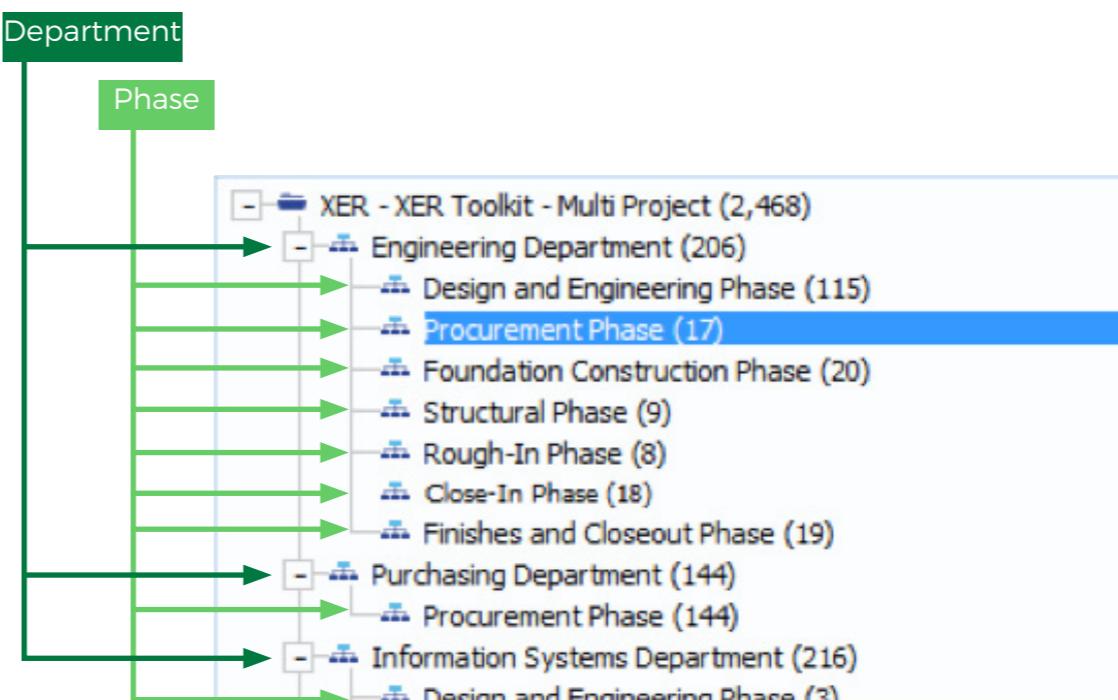
- When the work structure is organised by WBS, this option can be tagged to include WBS elements that do not contain any tasks

- Choose to expand all work structure elements to the selected level

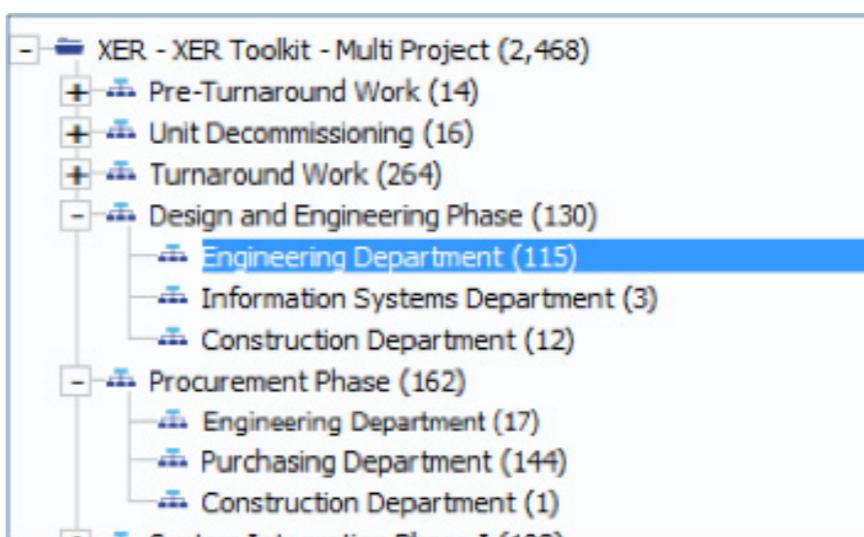
- The number displayed in brackets after each work element description represents the total number of tasks within that element (including tasks within the sub-elements)

## Task Grouping

A simple example to demonstrate the advantages of task grouping might be an engineering department manager that needs to understand the value of work that they will be required to manage throughout the various stages of a project. The work structure below shows a schedule grouped by Department/ Phase. At this point, the engineering manager could select any phase (procurement in the example shown) and proceed to use the toolkit's dashboard creator to generate a cost chart.

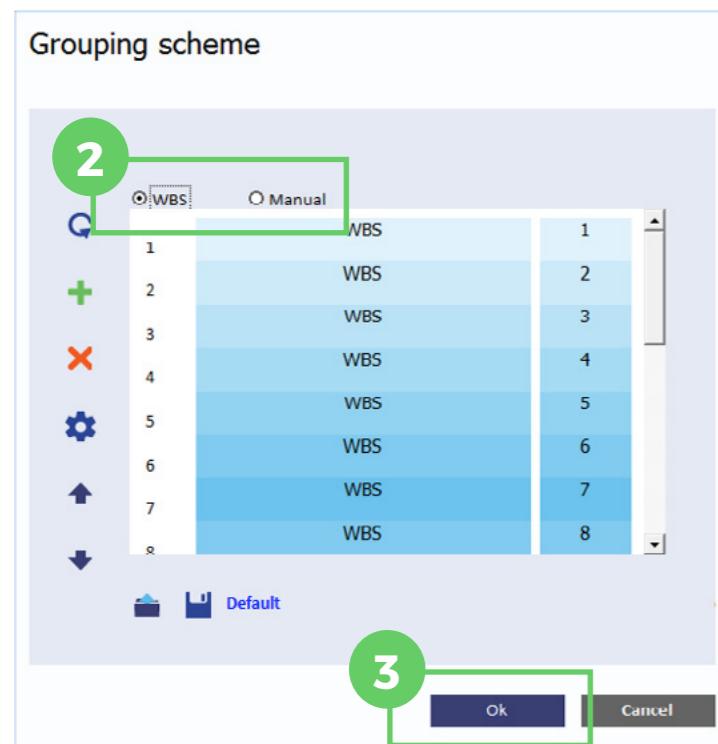
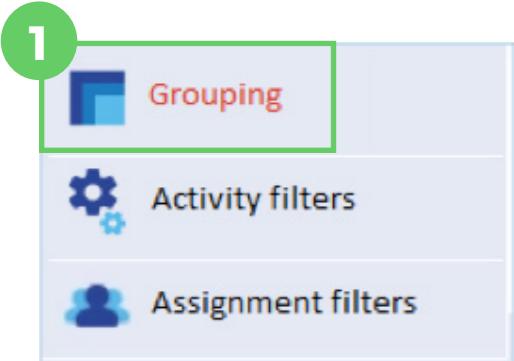


Similarly, a project manager might want to know which departments will be involved during each phase of a project. Therefore, we turn the above structure on its head as shown below.



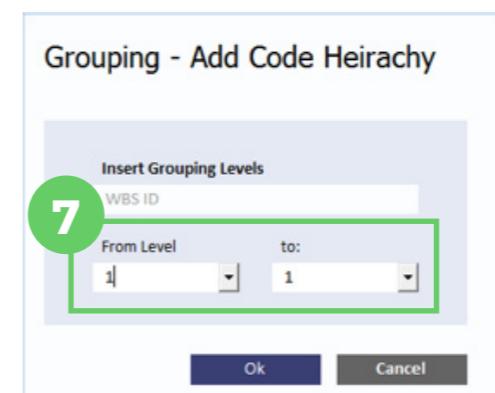
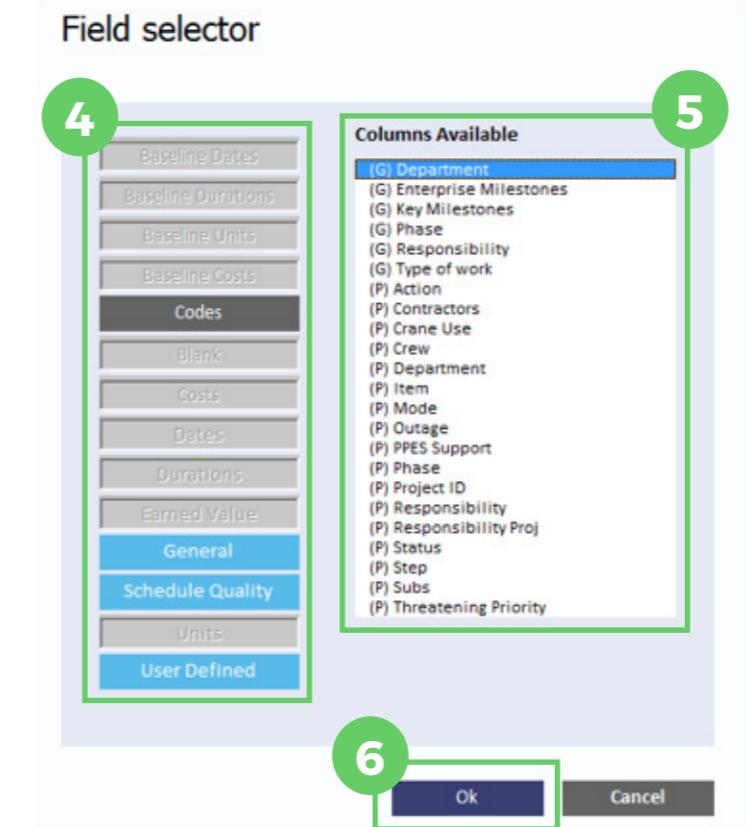
## WBS Default

The default organisation (grouping) structure applied within the toolkit is the project(s) Work Breakdown Structure or WBS.



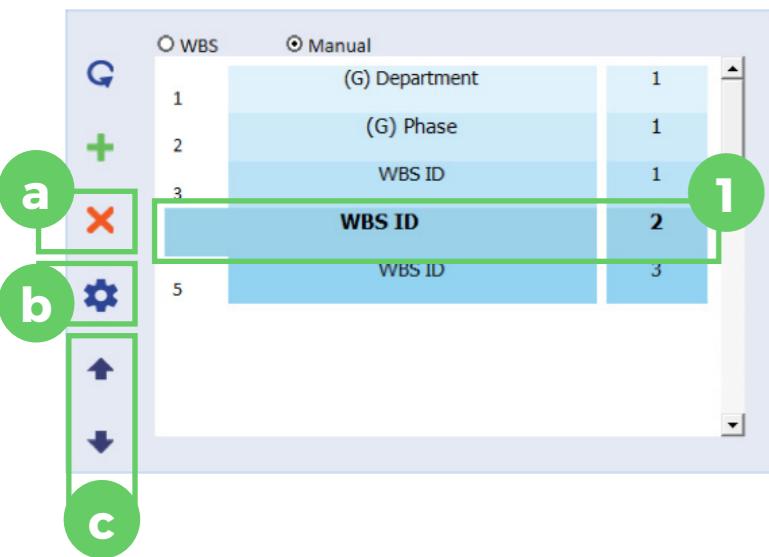
1. If a user defined grouping structure has been applied, as indicated by red text, the default can be reset by clicking the 'Grouping' icon.
2. Toggle the WBS/ Manual option to WBS
3. Click Ok

## User Defined Group Structure



1. To create a new grouping structure, click the toggle to 'Manual'
2. To clear the existing user defined structure, click the 'refresh' icon
3. Click the 'Add structure level' icon
4. Select the grouping structure element type
5. Select the grouping structure element
6. Click ok
7. In the case that the selected field is hierarchical (i.e. WBS ID), then multiple levels within the field hierarchy structure can be inserted at once by selecting the 'Level from' and 'Level to'
8. Repeat steps 3 to 7 until grouping structure is constructed as required

## Modifying a User Defined Group Structure



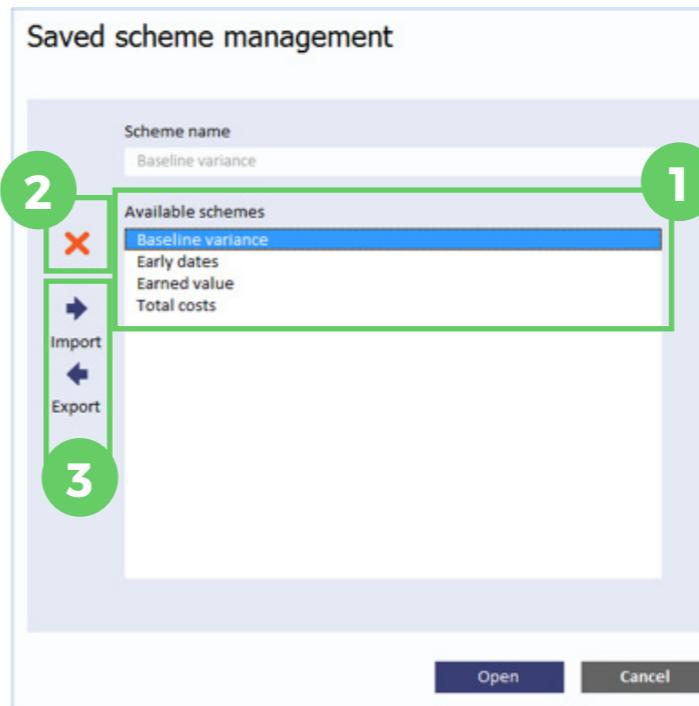
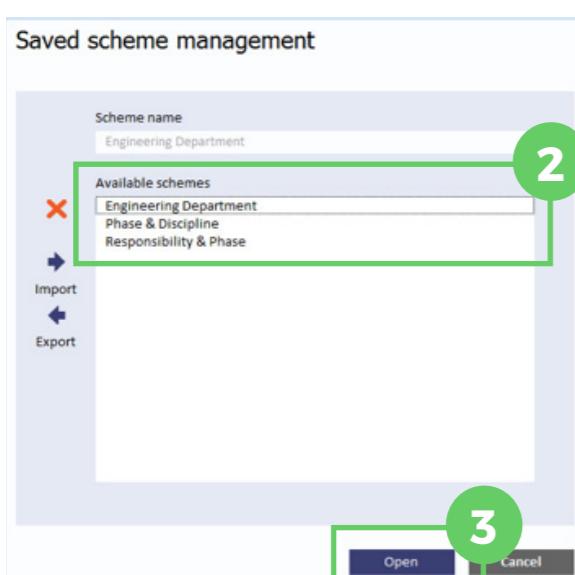
1. Select the element to be modified by clicking on the coloured band
- a - Click the 'Delete level' icon to delete the structure element
- b - Click the 'Settings' icon to change the structure element field
- c - Click the 'Up' or 'Down' arrows to move the structure element higher or lower in the structure

## Set a Saved Grouping Scheme as the Current Scheme



1. Click the 'Open' icon
2. Select the scheme to be set as the current scheme
3. Click 'Open'

NB: When opening or saving a grouping scheme, there are options to delete/ import and export pre-saved group schemes

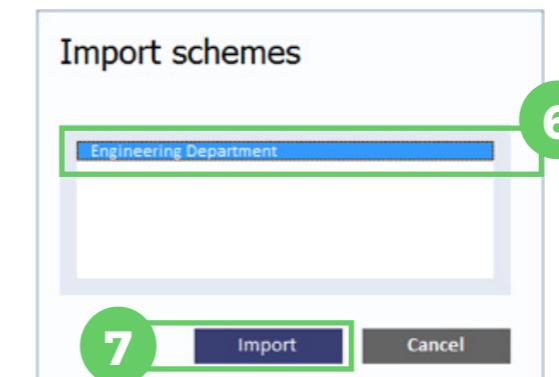
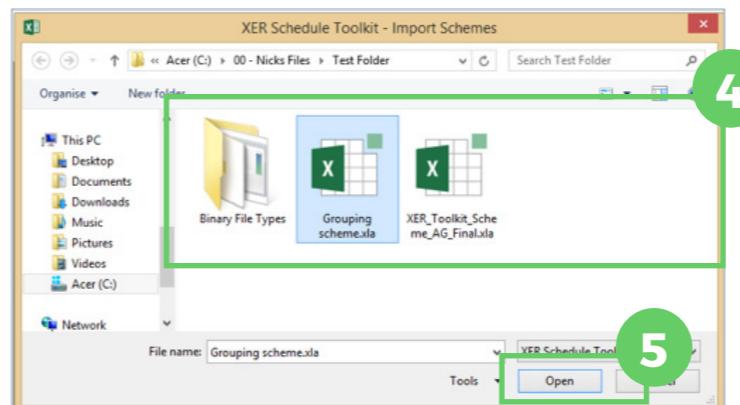


## Delete a Saved Grouping Scheme

1. Select grouping scheme to be deleted
2. Click the 'Delete' icon

## Export Grouping Scheme

1. Select grouping scheme to be exported
3. Click the 'Export' icon and then choose a filename



## Import Grouping Scheme

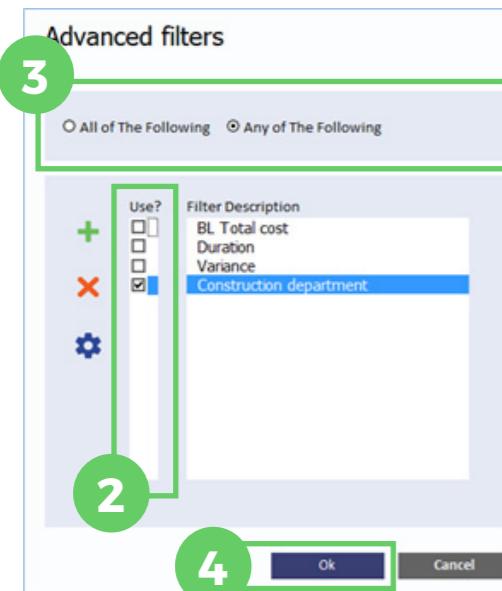
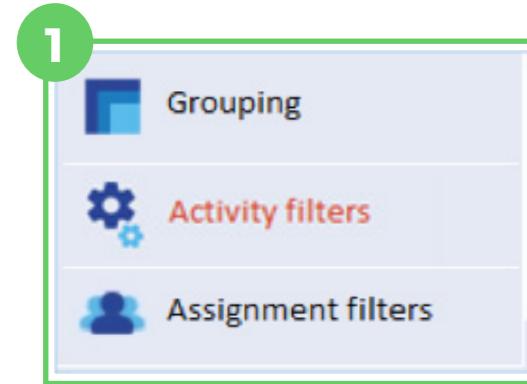
3. Click the 'Import' icon
4. Select file containing grouping scheme(s)
5. Click 'open'
6. Select grouping scheme(s) to be imported
7. Click 'Import'

## Activity Filters

The XER Toolkit has advanced filter capabilities and enables users to define complex, conditional filters that can isolate and display precise elements of a project schedule.

A simple example to demonstrate the advantages of applying a filter might be a construction director that needs to understand the value of construction tasks occurring across a portfolio of projects. The work structure below shows the projects that contain a construction scope element. At this point, the construction director could choose to generate a cost curve using the toolkit's dashboard creator at the portfolio level, or drill down into the detail of a specific project.

## Filter Selection



Filters Applied	
	Colour = Green Shape = Box
ALL filters	ANY filters
Green Sphere	Yes (Colour)
Green Box	Yes (Shape and colour)
Blue Box	Yes (Shape)
Red Sphere	
Red Box	Yes (Shape)

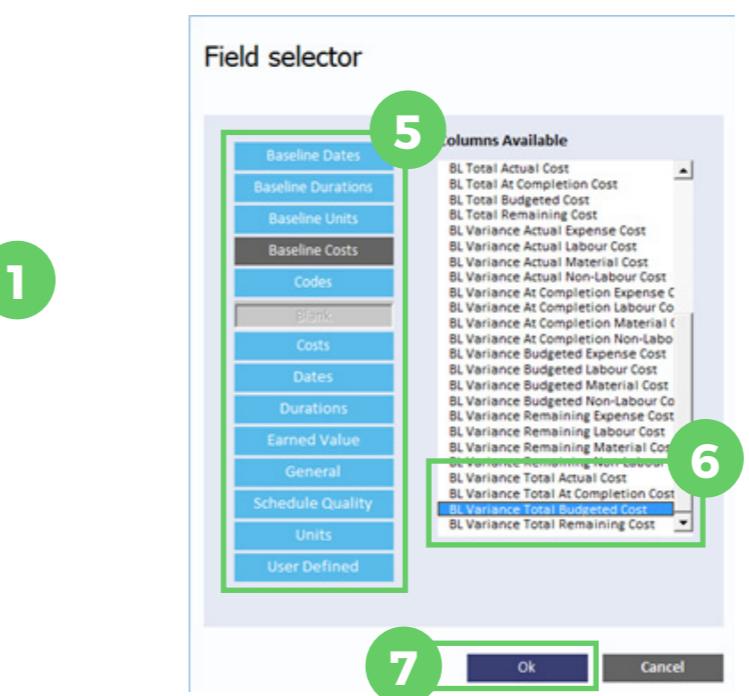
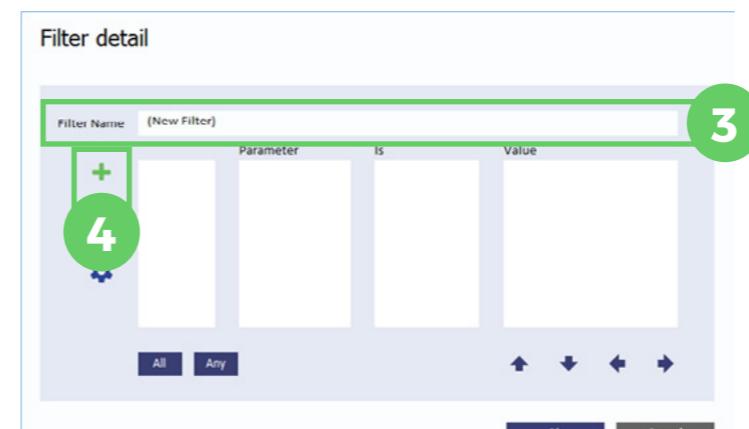
1. Click the 'Activity Filters' icon. The red text signifies that a filter is currently applied

2. Select which user defined filters to apply

3. Click to choose whether 'All' of the selected filter conditions should apply in order to select a specific task or whether a task should be selected if it meets at least one of the conditions of any single selected filter, i.e. 'Any' selected filter. See the table below and to the left.

4. Click Ok

## User Defined Filters



1. Select user defined filter
  - a - To delete, click the 'delete filter' icon

- b - To modify an existing filter, click the 'settings' icon and then follow steps for adding a filter

2. To create a new user-defined filter, click the 'Add filter' icon

3. Enter a reference name for the filter

4. Click the 'add' icon to add a filter condition

5. Select field type

6. Select field

7. Click Ok

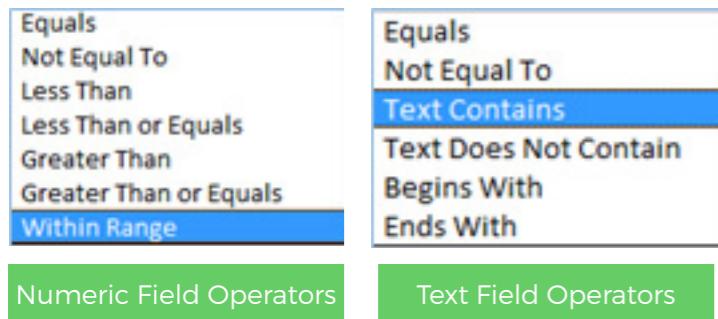
## Add filter condition

Selected Field  
BL Variance Total Budgeted Cost

Operator  
Not Equal To

Value  
0

Click the 'select field' icon to change



Filter Name: Cost variance

Parameter: All of the following BL Variance Total Budgeted Cost

Is: Not Equal To

Value: 0

Parameter: 01 Jan 2014-To--31 Dec 2014

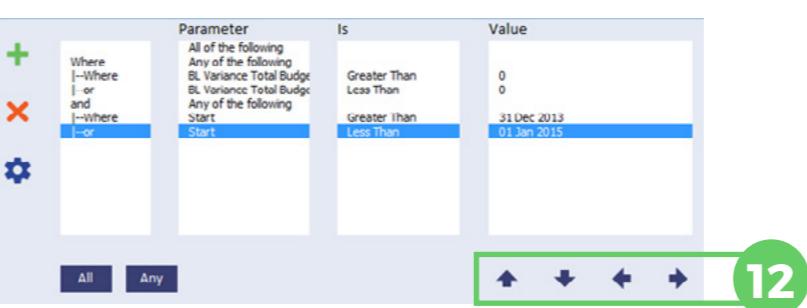
All      Any

8. Select the required filter conditions – the options available here will change based on the selected field data type

9. Repeat steps 4 to 8 to add multiple filter conditions

a - In order to delete an existing filter condition, select the filter condition to select and then click the 'delete condition' icon

b - To modify the filter condition, select and click the 'settings' icon



10. When adding a new filter condition, the toolkit automatically adds an 'All of the following' statement in the row immediately above the new condition. However, this can be changed to 'Any of the following' by double click on the 'All of the following' statement and vice versa

11. Additional 'All/ Any' statements can be added within to the filter definition to enable more complex criteria to be defined. To add a new statement, select the filter condition immediately above the position the statement is to be added and then click the 'All' or 'Any' button

12. Filter conditions can be indented behind 'All/ Any' statements to separate blocks of criteria as shown in example

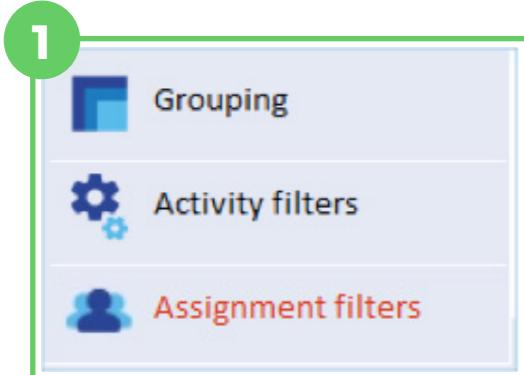
Simplified, the example filter above in words could read:

Tasks that start during 2014 and have a baseline Variance in total budgeted cost.

## Assignment Filters

The XER Toolkit's assignment filters can be used to identify tasks that require a particular resource, piece of equipment, a type of material or a combination of all 3.

### Current Filter



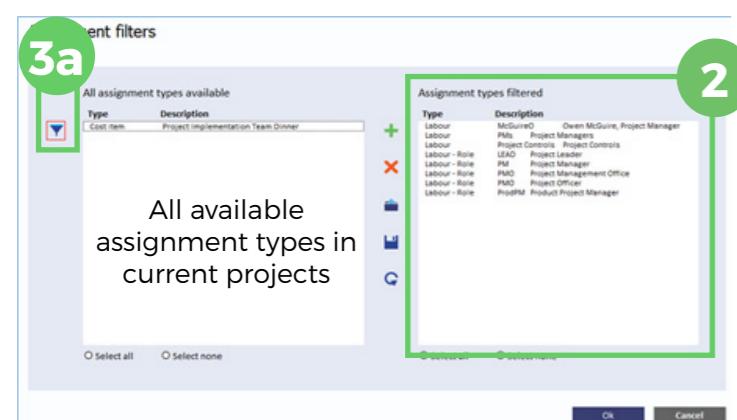
1. Click the 'Assignment Filters' icon. The red text signifies that a filter is currently applied

2. The assignments shown in the right hand list represent the currently applied filter. Therefore, only tasks that have one or more of these assignment types will be filtered within the analysis form work structure

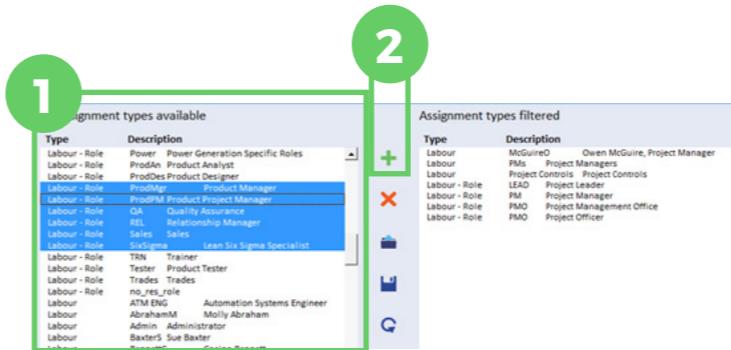
The list to the left hand side of the assignment form details all of the assignment types within the projects current imported to the toolkit

3. By clicking on the 'Filter' icon, the available assignment list can be filtered by: Assignment type or by text that appears in either the assignment code or description

To clear the available assignment filter, simply click the 'refresh' icon



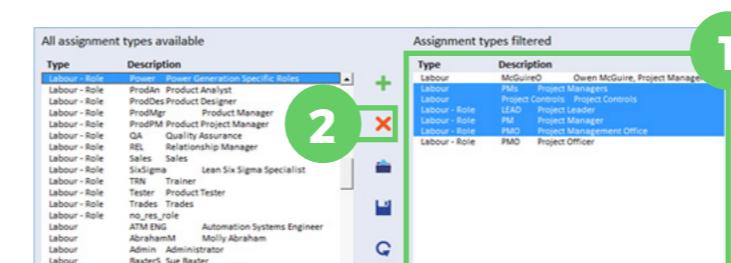
### Adding Resources to Filter



1. Select required assignments within the available assignments list
2. Click the 'add' assignment filter icon

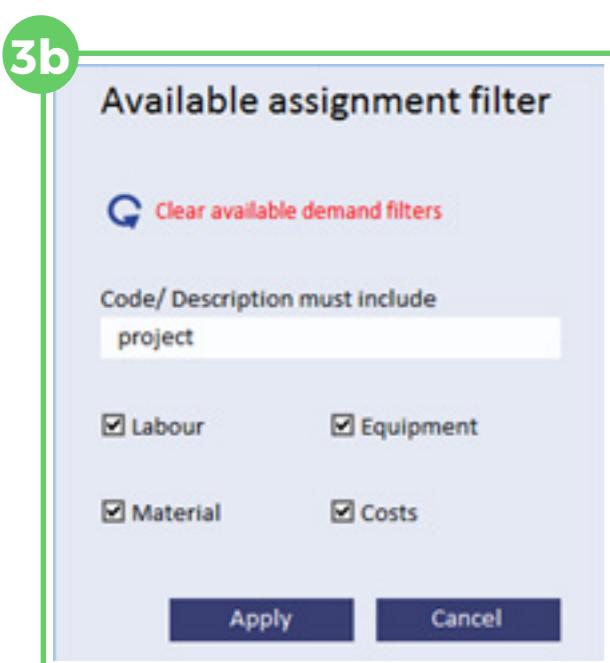
NB: In order to select multiple assignments, press and hold the keyboard Ctrl key and then select by clicking with mouse the assignments to be filtered.

### Deleting Resources from Filter

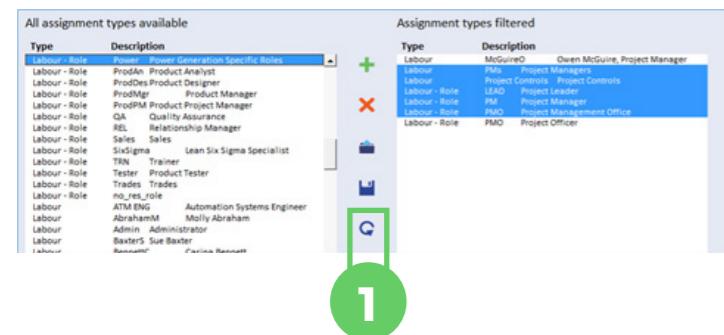


1. Select assignments to be removed from the current filter
2. Click the 'removed' assignment filter icon

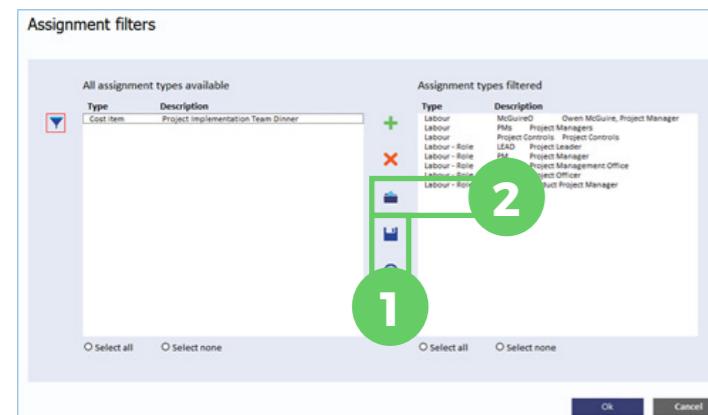
NB: In order to select multiple assignments, press and hold the keyboard Ctrl key and then select by clicking with mouse the assignments to be removed



## Clearing the Current Filter



## Assignment Filter Management



1. Click the 'refresh' icon

1. Click the 'Save' icon to save the current assignment filter. Provide a reference name and click save

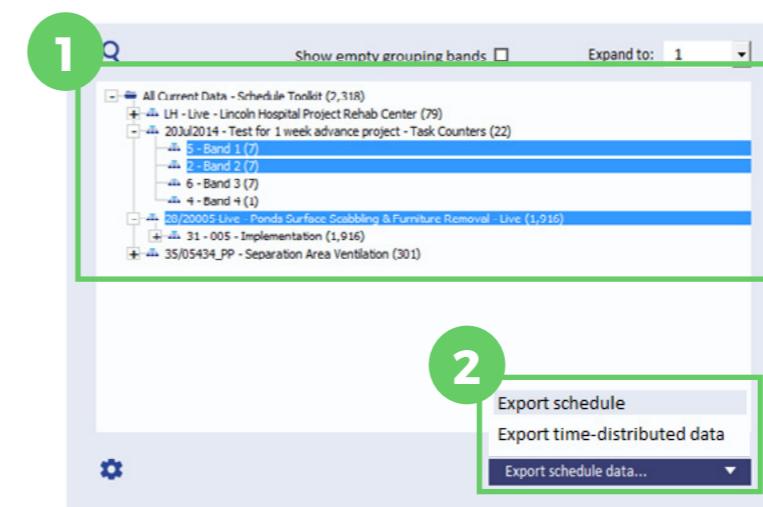
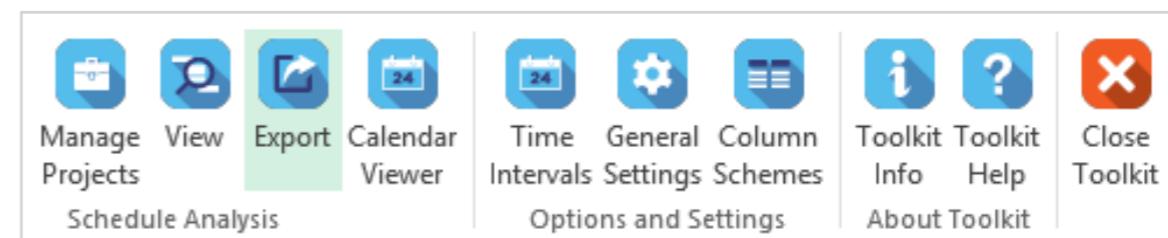
2. Click the 'Open' icon to open a pre-saved assignment filter. Select a pre-saved filter and click open

## Export Schedule or Time Distributed Data to Workbook

The toolkit provides an export function for producing gantt charts (or data tables) within Excel worksheets.

The outputs can be saved as standard workbooks that can be shared with and accessed by anyone that has Excel.

As a result, anyone engaged with the schedule in this format can benefit from the familiar functionality that Microsoft Excel provides as standard, including the ability to search, format, annotate and filter.



1. Select the work structure element to be export (all sub-elements and tasks of the selected level will be included)

2. Click menu item 'Export schedule data' and select the required export type

## General Layout Settings

Accessing the layout settings is slightly different depending on export type:

**Schedule Viewer**

1. Click the 'Layout Settings' icon. The red text under the icon signifies that some non-default settings are currently applied.

2. Update options as required (see to the left for description) OR;

3. Restore all default settings

4. Click Ok to apply settings

**Data export - (Tasks starting)**

1. Click the 'Layout Settings' icon.

**Exporting Time-Distributed Data**

1. Click the 'Layout Settings' icon.

## Schedule viewer options

2a. Check 'Draw Gantt (Untick to export data table)'.

2b. Under 'Table Display Options':

- Display Horizontal sight lines: 4 rows
- Display Table gridlines: checked
- Wrap Text?: checked
- Critical Path <= 0 Calendar Days
- Format to show actual date: A
- Max rows per sheet: 1500

2c. Under 'Gantt Options':

- Expand WBS/ Grouping to Level: All
- Include empty section headers: unchecked
- Draw Summaries only: unchecked
- Show float bars: unchecked
- Show Summary bars: checked
- Include Excel autofilter: checked

2d. Variance Column Formats:

- Early date/ shorter duration: A
- Late date/ longer duration: A
- Show late/ longer as:  -ve number
- +ve number

2e. Colour Schemes

3. Restore All Defaults

4. Ok / Cancel

## Table Display Options

1. Gantt chart area showing horizontal sight lines and gridlines.

2a. Data table (IT9001 to IT9006) showing tasks and descriptions.

2b. Data table (IT9001 to IT9006) showing tasks and descriptions, with the 'Actual' column highlighted.

3. Task bar for 'Gate 4 - Ready for Implementation' is highlighted in red, indicating critical path.

4. Task bar for 'Gate 1 - Project Funding Approved' is highlighted in green, indicating non-critical path.

5. Task bar for 'Project Start Milestone' is highlighted in blue, indicating early task.

- Display horizontal sight lines:** The number of rows between horizontal lines in the Gantt chart area (excluding grouping rows)
- Display table gridlines:** MS Excel borders can automatically be applied to the table area, or left
- Wrap text:** Text will wrap in cell when too long to fit on a single line
- Critical path <= ## days:** Early task bars will be coloured red when total float of the task less than or equal to the value entered in this box. Non-critical task bars will be shown in green
- Format to show actual date:** Cell will be pre-formatted when date represents an actual value – i.e. If a task has commenced or finished. The format style can be changed by clicking the coloured box

## Variance Column Formats

Activity Name	BL Start	BL Finish	Start	Finish	BL Variance Start	BL Variance Finish
Corporate Park	01 Sep 2010	21 Dec 2012	01 Sep 2010	29 Jan 2013	0	0
Engineering	01 Sep 2010	11 Jan 2011	01 Sep 2010	07 Jan 2011	0	0
Start Office Building Addition	01 Sep 2010	01 Sep 2010	01 Sep 2010	01 Sep 2010	0	0
Design Building Addition	01 Sep 2010	08 Nov 2010	01 Sep 2010	08 Nov 2010	0	0
Review and Approve Designs	08 Nov 2010	03 Dec 2010	08 Nov 2010	03 Dec 2010	0	0
Assemble Technical Data for	03 Dec 2010	13 Dec 2010	06 Dec 2010	15 Dec 2010	-1	-2
Review Technical Data on	13 Dec 2010	11 Jan 2011	13 Dec 2010	07 Jan 2011	0	2
Begin Building Construction	03 Dec 2010	03 Dec 2010	03 Dec 2010	03 Dec 2010	0	0
Site Preparation	03 Dec 2010	25 Jan 2011	03 Dec 2010	24 Jan 2011	0	2
Excavation	26 Jan 2011	23 Feb 2011	26 Jan 2011	24 Feb 2011	0	0
Install Underground Electric	24 Feb 2011	10 Mar 2011	17 Feb 2011	25 Feb 2011	5	9
Install Underground Water	24 Feb 2011	10 Mar 2011	22 Feb 2011	28 Feb 2011	2	8
Form/Pour Concrete Footings	10 Mar 2011	08 Apr 2011	11 Mar 2011	11 Apr 2011	-1	-1
Concrete Foundation Walls	08 Apr 2011	09 May 2011	15 Apr 2011	12 May 2011	-5	-3
Form and Pour Slab	09 May 2011	23 May 2011	12 May 2011	26 May 2011	-3	-3
Backfill and Compact Walls	24 May 2011	30 May 2011	27 May 2011	03 Jun 2011	-3	-3
Foundation Phase Complete	30 May 2011	30 May 2011	03 Jun 2011	03 Jun 2011	-3	-3
Erect Structural Frame	30 May 2011	27 Jul 2011	03 Jun 2011	03 Aug 2011	-3	-5
Build External Glazing	07 Jul 2011	09 Jul 2011	02 Aug 2011	02 Aug 2011	-5	-5

**Early date/ shorter duration (and more value for unit/ cost fields):** Cell formatting for numerical variance columns. The format can be changed by clicking on the coloured format box.

**Late date/ longer duration (and more value for unit/ cost fields):** Cell formatting for numerical variance columns. The format can be changed by clicking on the coloured format box.

**Show late/ longer (and more value for unit/ cost fields):** Delays/ increases can either be shown as a negative or positive number.

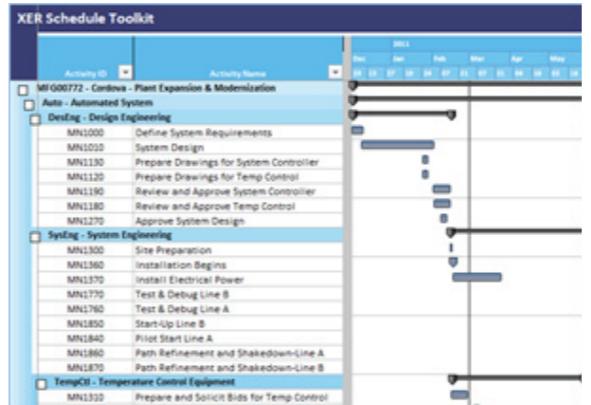
## Draw Gantt (deselect to export data table only)



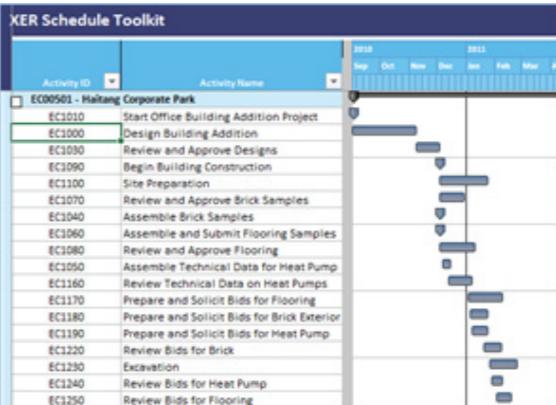
Data Table

Gantt Chart

## Gantt Options



Grouping band expanded to ALL levels

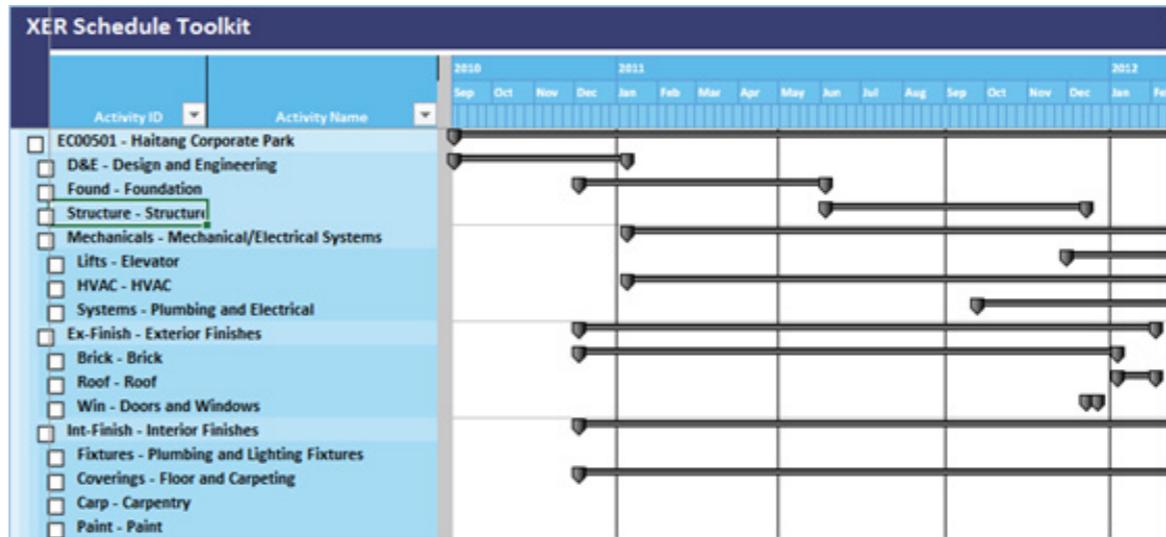


Grouping band expanded to level 1

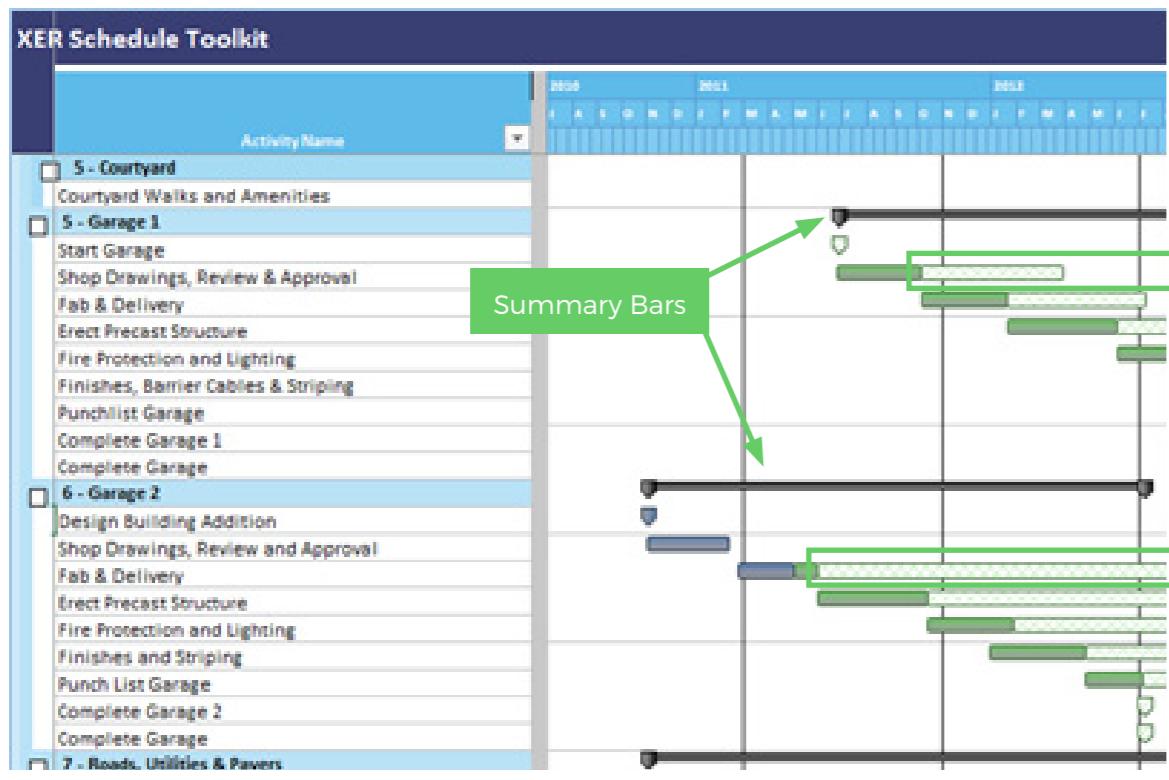
**Expand WBS/ Grouping to level:** Tasks can be grouped at any level within the work structure as demonstrated below.

**Include empty section headers:** By default, WBS elements that do not contain any activities are excluded from schedule exports. By ticking this setting, empty WBS elements will be included within the outputs.

NB: This option only applies when the project data is organised by the respective project's WBS.



**Draw summaries only:** When selected, tasks will not be shown on schedule exports and will instead be summarised at grouping level.



**Show float bars:** Task bars representing total float can be toggled on or off. The toolkit default excludes float bars from the output.

**Show summary bars:** The summary bars displayed against grouping structures can be toggled on/off.

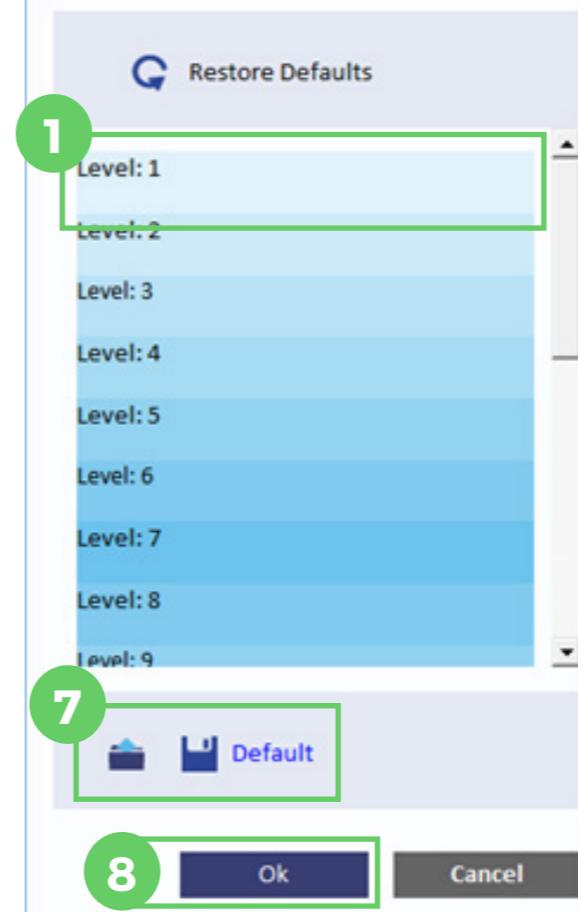
Activity ID	Activity Name	BL Start	BL Finish	Start	Finish	BL Variance Start	BL Variance Finish	BL Total
<b>ECMEN - Managing Corporate Risk</b>								
DBE - Design and Engineering	Start Office Building Addition Project	01 Sep 2010	11 Jun 2011	01 Sep 2010	07 Jan 2011	0	0	
EC1000	Design Building Addition	01 Sep 2010	08 Nov 2010	01 Sep 2010	08 Nov 2010	0	0	
EC1030	Review and Approve Designs	08 Nov 2010	03 Dec 2010	08 Nov 2010	03 Dec 2010	0	0	
EC1050	Assemble Technical Data for Heat	03 Dec 2010	13 Dec 2010	06 Dec 2010	15 Dec 2010	-1	-2	
EC1160	Review Technical Data on Heat Pumps	13 Dec 2010	11 Jan 2011	13 Dec 2010	07 Jan 2011	0	2	
<b>Found - Foundation</b>								
EC1090	Begin Building Construction	03 Dec 2010	30 May 2011	03 Dec 2010	03 Jun 2011	0	0	
EC1110	Cite Requirements	03 Dec 2010	26 Jun 2011	03 Dec 2010	26 Jun 2011	0	0	

**Include Excel auto-filter:** Excel's auto-filter can automatically be installed within the schedule's data table, enabling simple filtering capability of the table. Deselect this setting if it is not required.

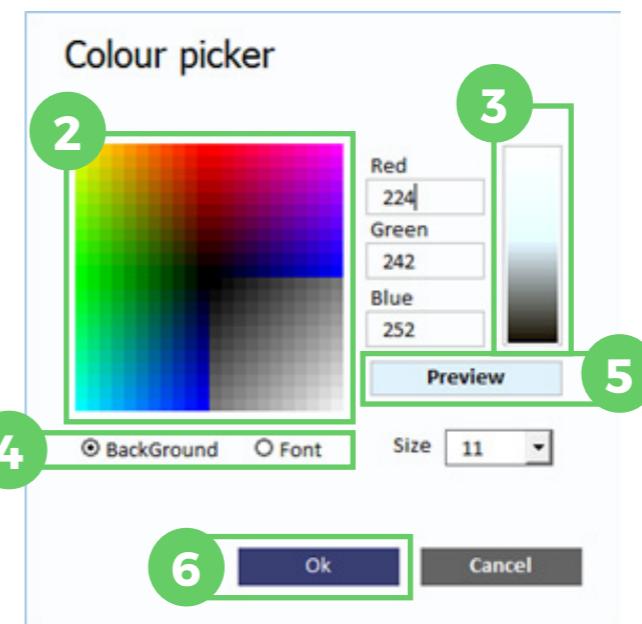
## Colour Schemes

**Colour schemes:** The colour scheme displayed against the various levels of the work structure grouping bands can be updated. Colour schemes can also be saved and shared with other toolkit users.

### Colour schemes

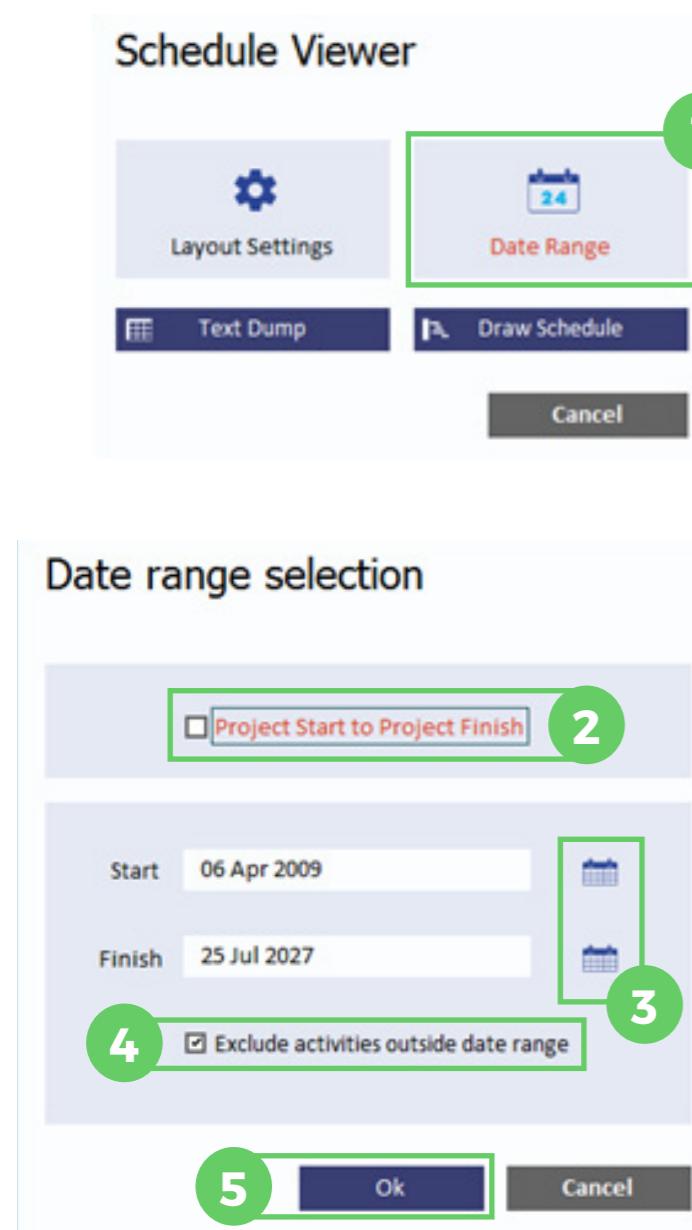


- Click on grouping level
- Click desired colour in main colour map
- Fine tune colour
- Toggle between font and background and repeat steps 2 & 3
- Select font size
- Click the 'Ok' button
- Use scheme management to save/ open existing schemes (see column scheme management for instructions)
- Click the 'Ok' button



## Gantt Date Range Filter

The date range filter sets the gantt chart timescale start and finish dates. It also provides the option to exclude tasks that do not occur within the specified time period, this enabling speedy filtering of schedule tasks occurring within a specified period.



1. Click on the 'Date Range' icon. The red text under the icon signifies that a filter is currently applied
2. The 'project start to finish' check box ticked is the toolkit's default value and will include all tasks. In order to define a specific time period, untick this box
3. Define the start/ finish dates by clicking the 'Date Selection' icons and selecting a date
4. Choose whether to include or exclude tasks that occur outside of the defined period. If included, tasks that do not occur within the time period will not have any corresponding task bars within the gantt chart
5. Click the 'Ok' button

## Exporting Time Distributed Data to a Worksheet

The toolkit can export a range of time distributed data types to standard excel worksheets. The data export feature helps take away the pain of transferring data to Excel from Primavera, offering a range of selection and formatting options.

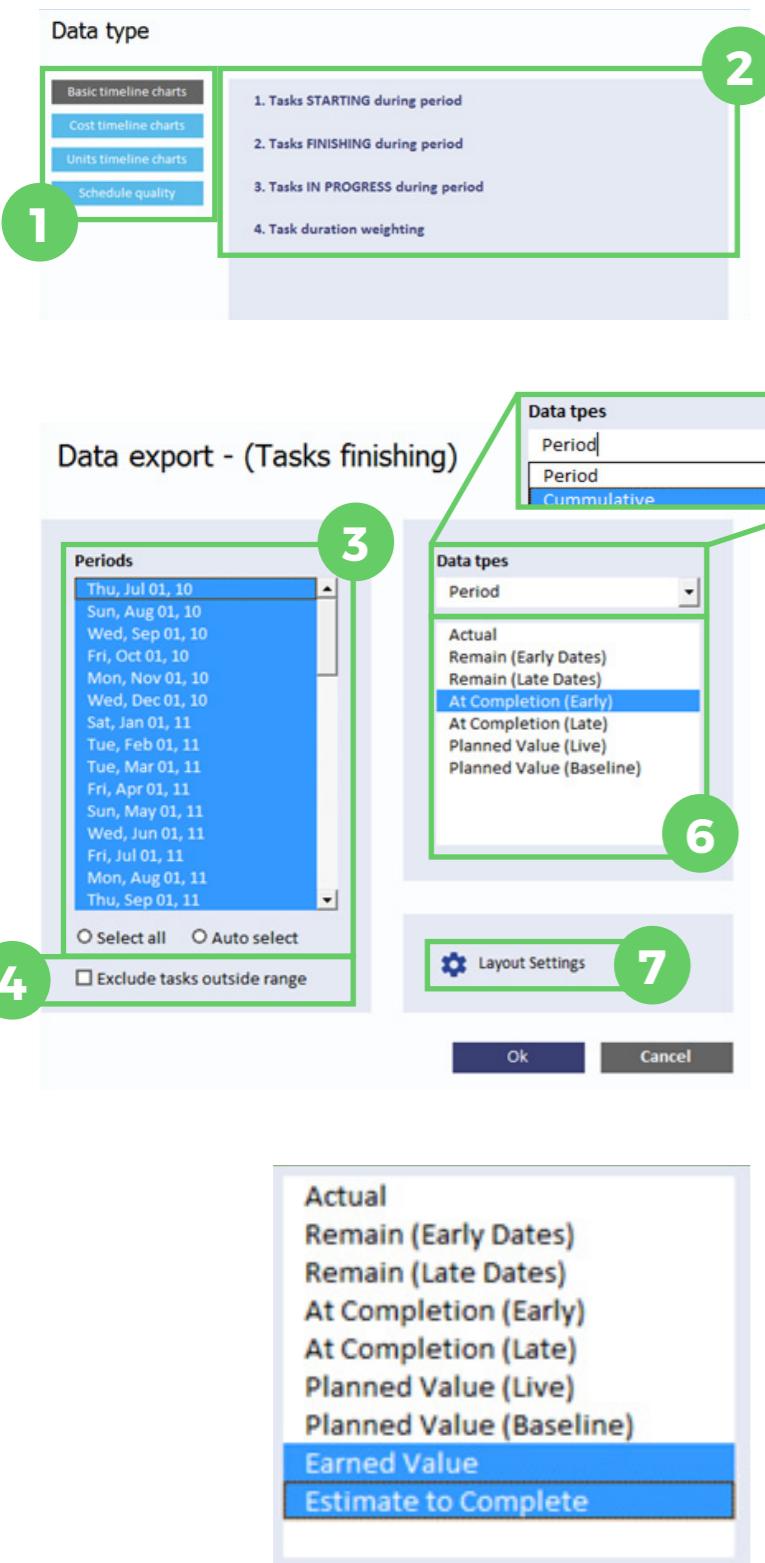
The toolkit also offers some data types that are not readily available within Primavera that are particularly helpful when trying to produce consistent time distributed data charts for schedule that do not have resources or costs assigned.

XER Schedule Toolkit: TASKS FINISHING >--- Period - At Completion (Early)				
Activity ID	Activity Name	01 Nov 2010	01 Dec 2010	01 Jan 2011
<input type="checkbox"/> X.LTK - Schedule Toolkit		121	92	75
<input checked="" type="checkbox"/> CORP00103 - Order Fulfillment Phase II				99
<input checked="" type="checkbox"/> CORP00118 - GIS Interface Project				
<input checked="" type="checkbox"/> CORP00307 - Online Invoice Generation Project				
<input checked="" type="checkbox"/> CORP00424 - Lead Qualification Project				
<input checked="" type="checkbox"/> CORP00591 - Order Management Redesign				
<input checked="" type="checkbox"/> CORP00712 - Cash Flow BI Project				
<input checked="" type="checkbox"/> CORP00768 - Logistics Reengineering Program				
<input checked="" type="checkbox"/> CORP00384 - Alliance Portal Integration Project				
<input checked="" type="checkbox"/> CORP00595 - Nexus Project				
<input checked="" type="checkbox"/> CORP00852 - eBusiness Transformation Program				
<input checked="" type="checkbox"/> ECO0501 - Haitang Corporate Park		3	1	2
<input checked="" type="checkbox"/> ECO0515 - City Center Office Building Addition		2	2	2
<input checked="" type="checkbox"/> ECO0530 - Nesbid Building Expansion				
<input checked="" type="checkbox"/> ECO0610 - Harbour Pointe Assisted Living Center		1	5	4
<input checked="" type="checkbox"/> ECO0620 - Juniper Nursing Home		4	1	2
<input checked="" type="checkbox"/> EC00630 - Saratoga Senior Community				
<input checked="" type="checkbox"/> NRG00800 - Sunset Gorge - Routine Maintenance Work		95	37	
<input checked="" type="checkbox"/> NRG00820 - Johnstown - Routine Maintenance Work				
<input checked="" type="checkbox"/> NRG00870 - Baytown, TX - Offline Maintenance Work				
<input checked="" type="checkbox"/> NRG00910 - Driftwood - Refuel Outage			17	20
<input checked="" type="checkbox"/> NRG00940 - Sillersville - Refuel Outage				17
<input checked="" type="checkbox"/> NRG00950 - Red River - Refuel Outage				

Task Data Table      Time Distributed Data Table

The above summarised example details, by project, the number of tasks planned to finish during each interval period. Similar reports can be produced for cost/resource/earned value data types and can be displayed as periodic values or cumulative.

## Layout Settings

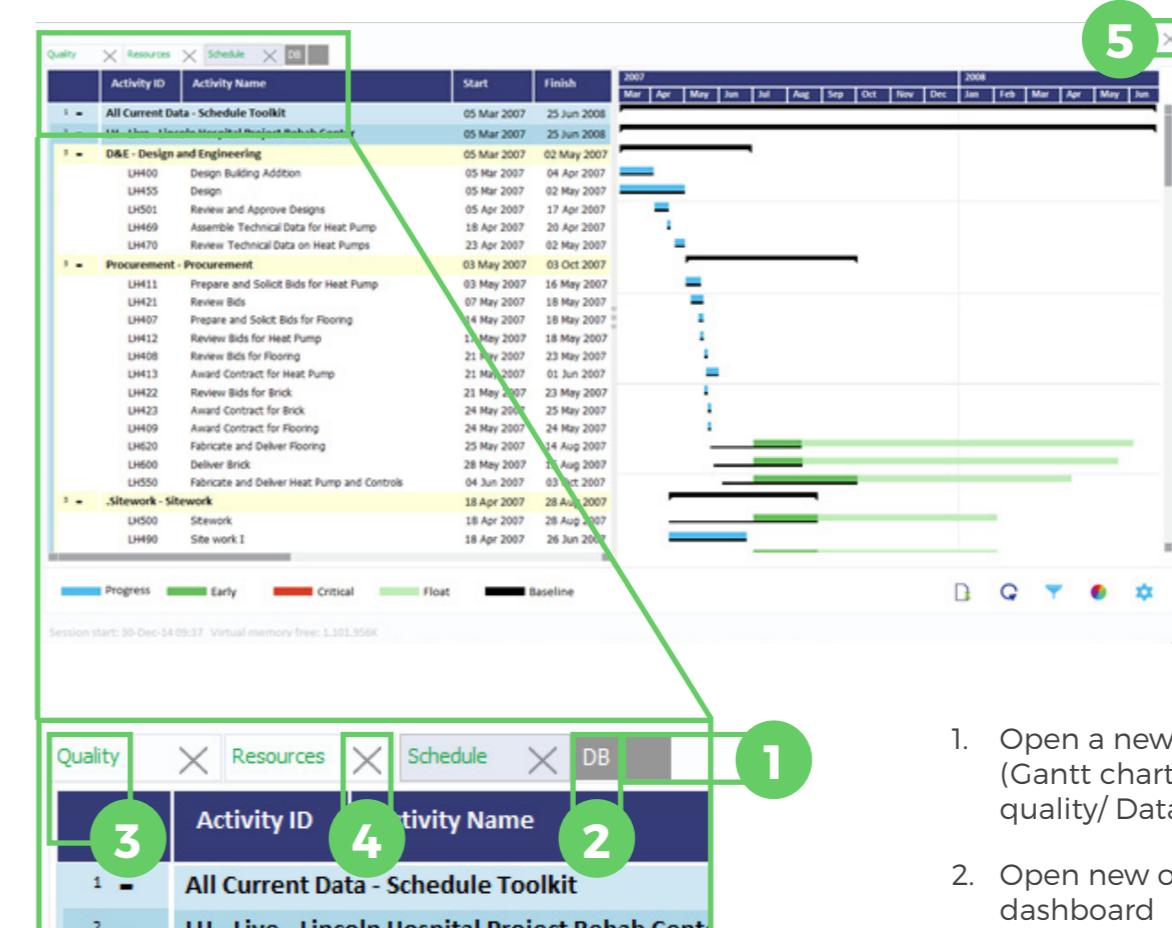


In order to select multiple data types for export, press and hold the keyboard Ctrl key and then select by clicking with mouse the data types to be imported.

- Select the appropriate data group (See data types)
- Select specific data type
- Select the periods that are to appear in the output report. A single column will appear in the spreadsheet for each selected column. By clicking on the 'Auto Select' toggle button, the toolkit will automatically select all of the periods that have values, and exclude any periods before or after
- Choose whether to exclude tasks that do not have a corresponding value for the periods selected. If tasks are included that do not have a time-distributed value, the task data table will be populated as normal but the time-distribution table will simply have no values
- Choose whether to output periodic values or a cumulative total
- Depending upon which data export type has been selected, there will be a range of data type values that can be exported. The example to the right shows the additional options for 'Earned Value' and 'Estimate to Complete' that can be selected for time-distributed cost data-exports
- Refer to layout settings – exporting a schedule to excel
- Click 'OK' button to export data

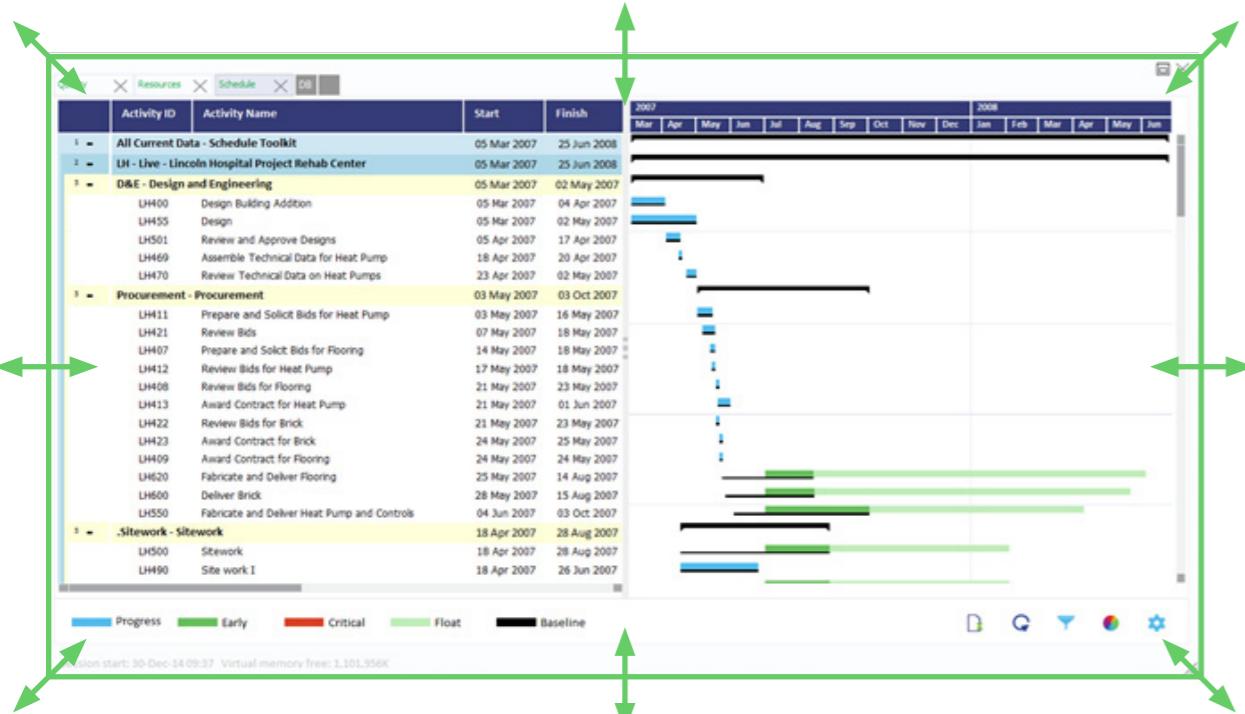
## Tab Viewer Window Overview

The XER Toolkit's various viewing functions (e.g. Schedule viewer/ quality/ dashboard) are displayed as separate tabs within the tab-viewer window. There is no limit to the number of Gantt, quality or data table tabs that can be created, however, only 1 dashboard tab can be created at a time. Dashboard tabs can however be saved to disc and opened again when required.



- Open a new tab window (Gantt chart/ Schedule quality/ Data table)
- Open new or view the current dashboard
- [Right click] to rename the tab
- Close individual tab (tab will not be saved)
- Close whole tab viewer window (all tabs will be saved)

NB: When closing an individual tab, the contents will no longer be accessible with the exception of the current dashboard which will automatically be saved. By closing the whole tab viewer window, all tab contents will be saved and accessible next time the tab viewer window is opened.



#### Moving

Select and hold left mouse button on outer border area (A). Then move mouse until form is in desired position.

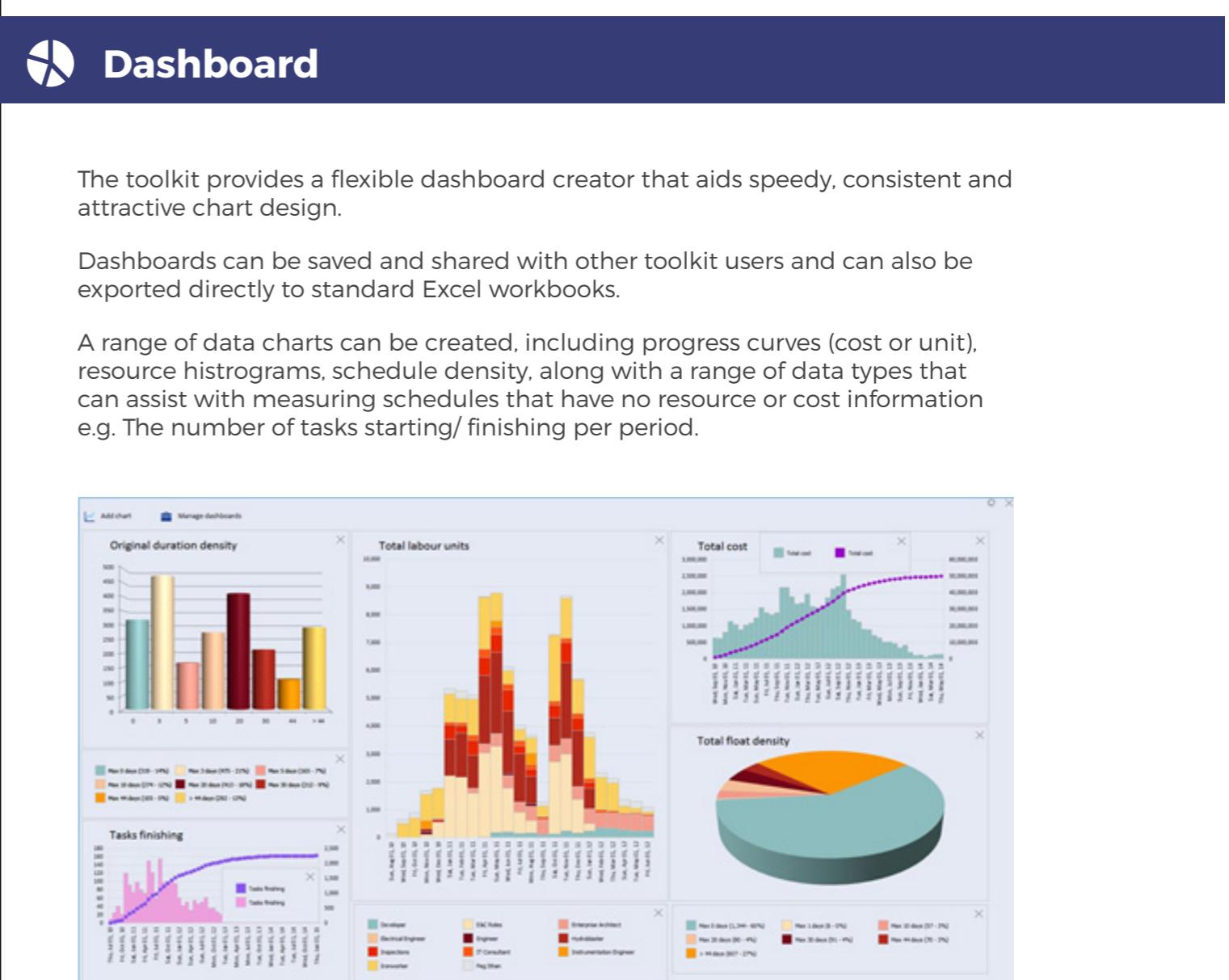
#### Maximising

Double click the outer border area of the window (A).

Select and hold left mouse button on outer border area (A), then move mouse to top of screen and release left mouse button.

#### Resizing

Select and drag edges (B) to desired size using left mouse button.



## Data Selection and Adding Charts



- From within the tab viewer window, click the dashboard tab

- To check or change the currently selected data, click the 'select data' icon. This will raise the data selection window

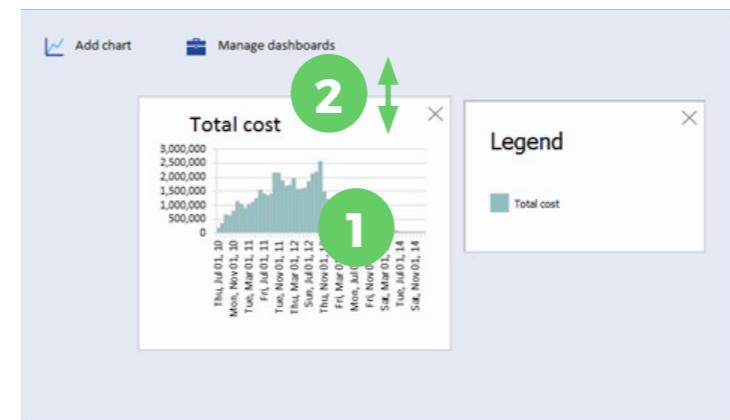
- Select the schedule data to be analysed

NB: In order to select multiple elements from within the work structure, press and hold the keyboard Ctrl key and then select by clicking with mouse the elements to be viewed/analysed.

- Click 'add chart' icon
- Select the appropriate data group (See data types)
- Select specific data type
- Enter a chart title
- Click the 'Ok' button
- Repeat steps 2 to 7 as required

NB: To overlay a new data-type to an existing time-distributed chart, simply right click the chart and choose 'Add data series'. See 'Adding Data Series'

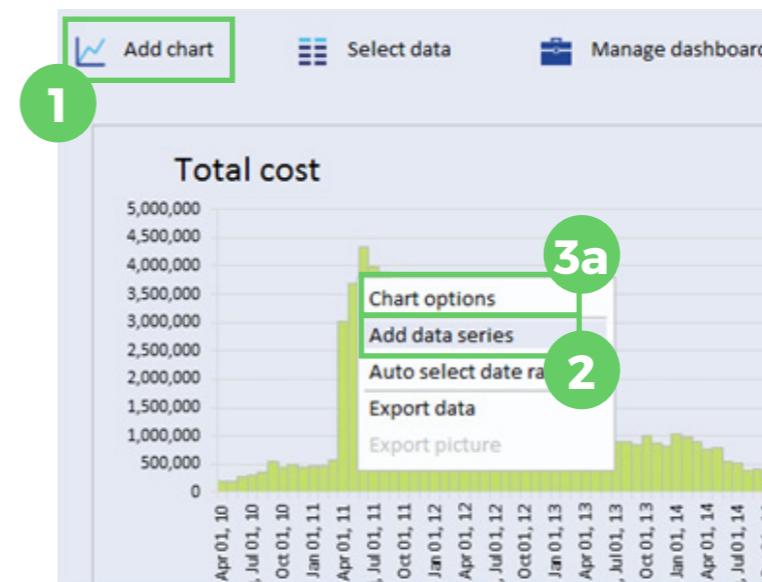
## Data Selection and Adding Charts



- Charts can be moved around the design view by click and dragging the chart with the left hand mouse button

- Charts can be resized by click and dragging the edge of the chart with the left hand mouse button

## Adding Data Series



- To add an entirely new chart, click the 'Add chart' icon. (Then, jump to step 4)

- To overlay a data series to an existing chart then, right click the chart and choose 'Add data series' from the menu. (Then, jump to step 4)

- New data series can also be added to the chart using the chart controls form

a - To initiate the chart controls form, right click on the chart and choose 'Chart Options' from the menu

b - Click the 'Add data series' icon. (Then, jump to step 4)

Periods	Value
Thu, Jul 01, 10	187,525
Sun, Aug 01, 10	354,000
Wed, Sep 01, 10	648,148
Fri, Oct 01, 10	625,717
Mon, Nov 01, 10	808,257
Wed, Dec 01, 10	1,137,646
Sat, Jan 01, 11	1,039,623
Tue, Feb 01, 11	897,360
Toe, Mar 01, 11	1,030,422
Fri, Apr 01, 11	1,097,309
Sun, May 01, 11	1,242,489
Wed, Jun 01, 11	1,552,335
Fri, Jul 01, 11	1,399,184

## Data types

**4**

**5**

- 1. Total cost.
- 2. Total material cost.
- 3. Total equipment cost.
- 4. Total labour cost.
- 5. Total expense cost.
- 6. Cost items or groups

4. Select the appropriate data group (See data types)

5. Select specific data type

## Chart Controls - Time Distributed Data

### Chart controls

**A**

Periods	Value
Thu, Jul 01, 10	187,525
Sun, Aug 01, 10	354,000
Wed, Sep 01, 10	648,148
Fri, Oct 01, 10	625,717
Mon, Nov 01, 10	808,257
Wed, Dec 01, 10	1,137,646
Sat, Jan 01, 11	1,039,623
Tue, Feb 01, 11	897,360
Tue, Mar 01, 11	1,030,422
Fri, Apr 01, 11	1,097,309
Sun, May 01, 11	1,242,489
Wed, Jun 01, 11	1,552,335
Fri, Jul 01, 11	1,399,184

Select all    Auto select

X axis display format: Period title **T**

Chart title: Total cost **T**

X-Axis title: Y-Axis title

**B**

**C**

Chart data series: Total cost

Series name: Total cost

Chart pattern: Histogramme - stacked

Interval display: Period

Data type: At Completion (Early)

Display against Y axis: Primary (Left) **T**

Legend:  Legend    Small legend

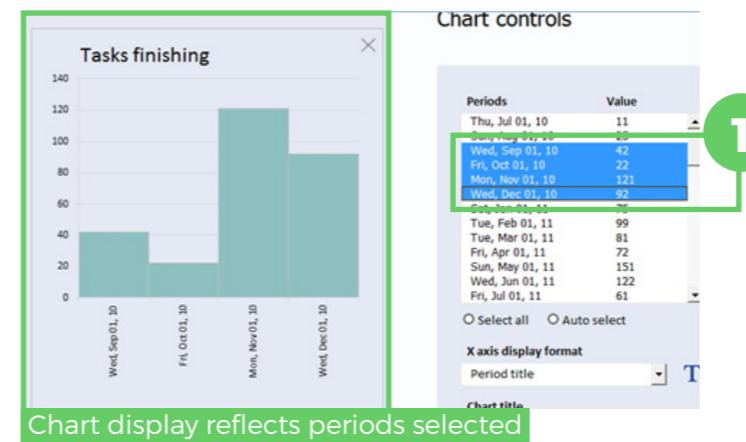
Gridlines:  Gridlines    Transparent

**D**

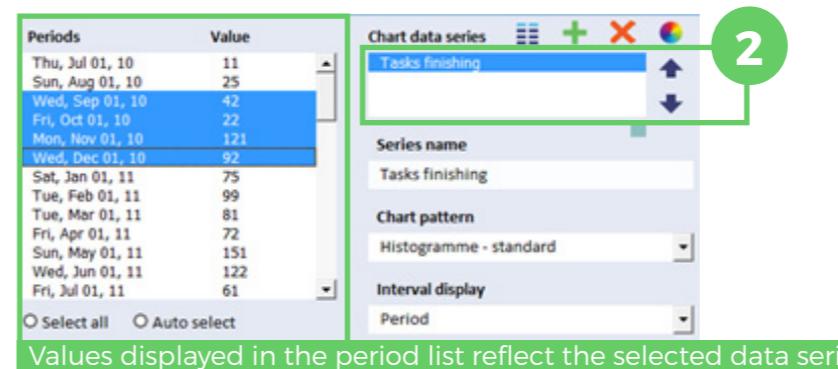
**E**

Close

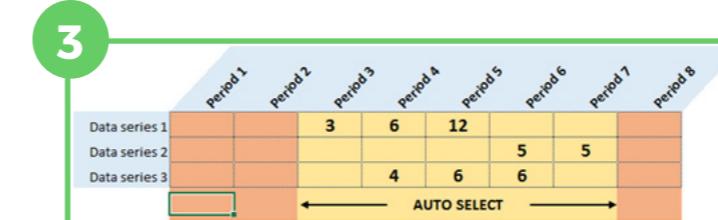
## A - Period Controls



1. Select the periods to be displayed in the corresponding chart



Values displayed in the period list reflect the selected data series



2. Select a data series to display its corresponding values within the period list

3. The 'Auto select' toggle button will determine the first and last periods that have at least one chart data series with a non-zero value. See example data table to the left

## B - Chart Titles

**1** X axis display format

Period title

Chart title  
This is the chart title

X-Axis title  
This is the X

Y-Axis title  
This is the Y

This is the chart title

This is the Y axis title

This is the X axis title

**2** X axis display format

Period title

Chart title  
This is the chart title

X-Axis title  
This is the X

Y-Axis title  
This is the Y

**3**

**4** Font format

A

B

C

D

Nr format 18 Aug 2014

Size 9

E Ok

Cancel

1. Enter the relevant chart titles as shown in the example to the left
2. Select the X-Axis display format from the following choices:
  - Period title (as defined by interval settings)
  - Start date [of financial period]
  - Finish date [of financial period]
3. Click on the 'Format text' Icons to modify the corresponding title font colour and size
4. A - Click desired colour in main colour map  
B - Fine tune colour  
C - Select font size  
D - (Where applicable), select the desired number format  
E - Click the 'Ok' button

## C - Chart Data Series

**1** Chart data series

Total cost  
Tasks starting  
Tasks finishing

**2** Chart data series

Total cost  
Tasks starting  
Tasks finishing

**3**

**4**

**5**

**6** Series name  
Tasks finishing

**7**

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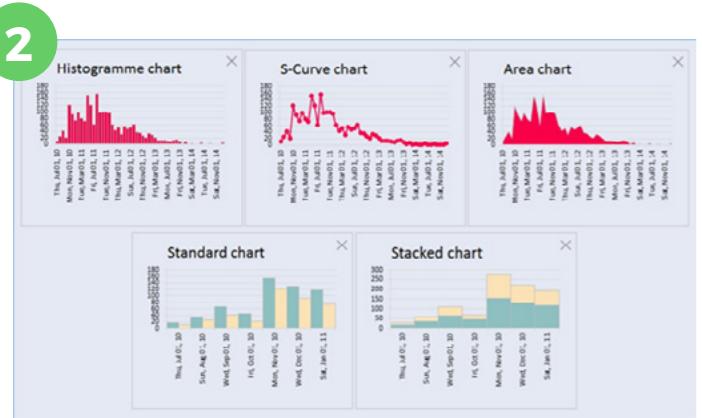
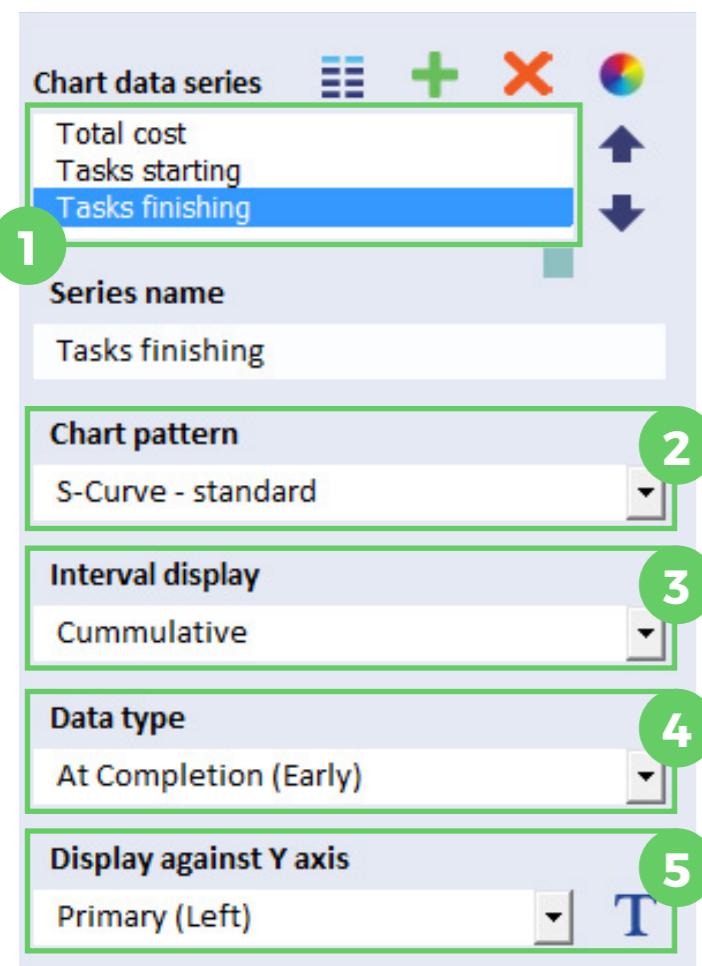
**584**

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<b

## D - Chart Data Display



- To modify the appearance of specific data series within the chart, select the data series within the list, then:

A - Delete Series

B - Change colour of data series

C - Change order of data series (chart series will move in front or behind other data series depending on the series order)

D - The series name as it is to appear in the chart legend

- Chart pattern types available



- Interval display types available

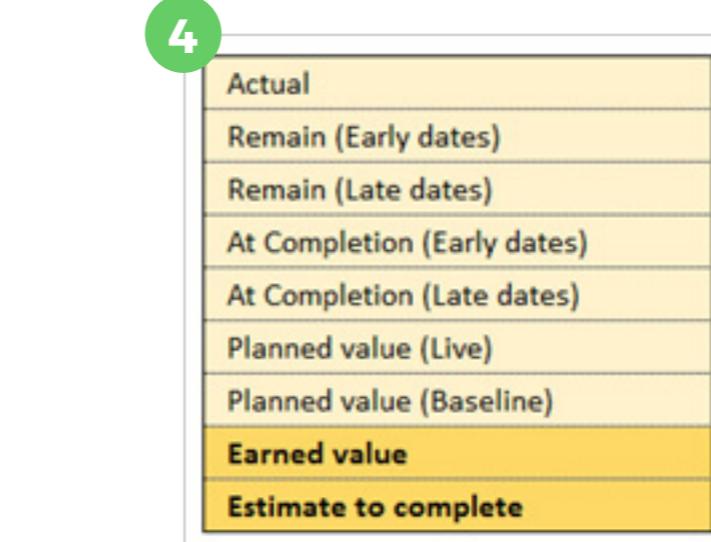
- Data type options

NB-1: Earned value & Estimate to complete values will only be available for chart series of data types: Unit or Cost.

NB-2: Planned value (Live) refers to planned values distributed across the current schedule's planned start/finish fields. This data type may fail to produce valid results under the following circumstances

The current schedule's planned start/ finish fields are not checked and verified during progress update cycles

Toolkit general setting 'Use baselines to calculate planned/ earned values' tagged as true



- Y-Axis Display Options

## E - General Chart Settings

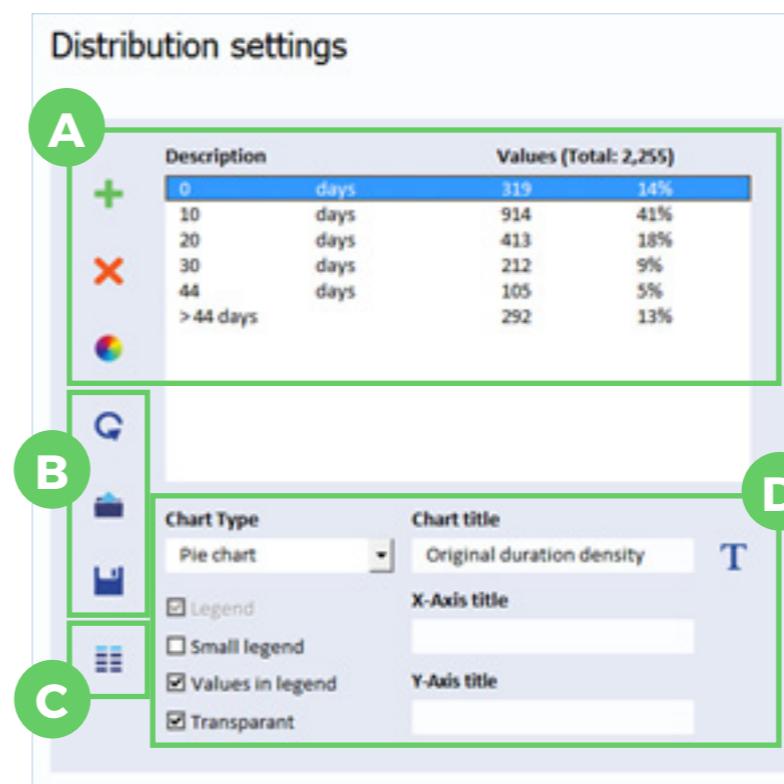


- Legend will be displayed or hidden

NB: Legend is only visible within the chart design screen. The legend will not be visible within the 'Add chart window'

- Toggle the legend size as required
- Toggle gridlines on or off as required
- Toggle transparency on or off as required

## Chart Controls - Proportional Data

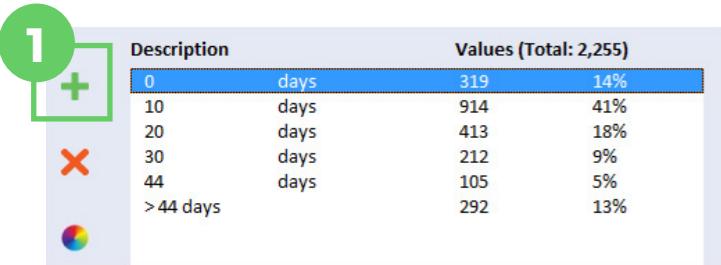


### A - Sector Settings

The value in the sector description represents the highest value for a qualifying result in that sector. i.e. In the example above, the top sector has a maximum duration value of 0 days, sector 2 qualifying results must have a duration greater than 0 days but less than or equal to 10 days. See the example table below:

Example data (Total Float)			Sector Settings			
Task	Duration	Sector	Sector	Description	Nr of tasks	% of Tasks
1	18	3	1	0 days	3	15%
2	2	2	2	10 days	7	35%
3	6	2	3	20 days	4	20%
4	20	3	4	30 days	2	10%
5	50	6	5	44 days	2	10%
6	100	6	6	>44 days	2	10%
7	44					
8	10					
9	20					
10	25					
11	30					
12	15					
13	9					
14	10					
15	0					
16	0					
17	5					
18	-1					
19	10					
20	35					

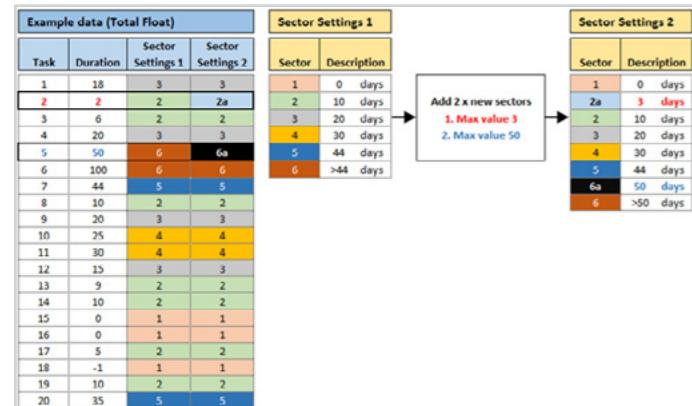
## Adding a Sector



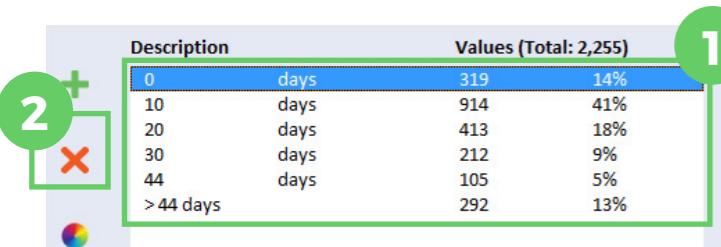
1. Click on the 'Add sector' icon

2. Enter the new sector's maximum value – e.g.. Using the example above, if the maximum value for the new sector is 3 then the existing sector with a maximum value of 10 will be split into 2 sectors. The first will have a range between 0 and 3 and the second will have a range between 3 and 10. See the table to the left

3. Click Ok



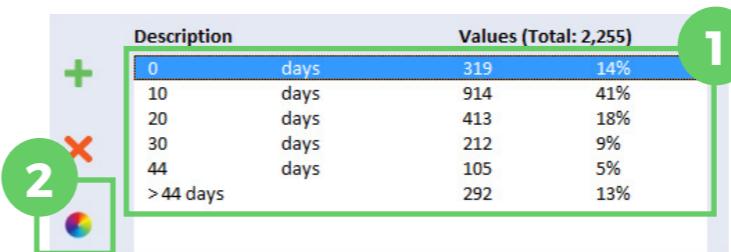
## Deleting a Sector



1. Select the sector to be removed from the list

2. Click the 'Delete sector' icon to remove the selected sector from the chart

## Modify the Colour of a Sector



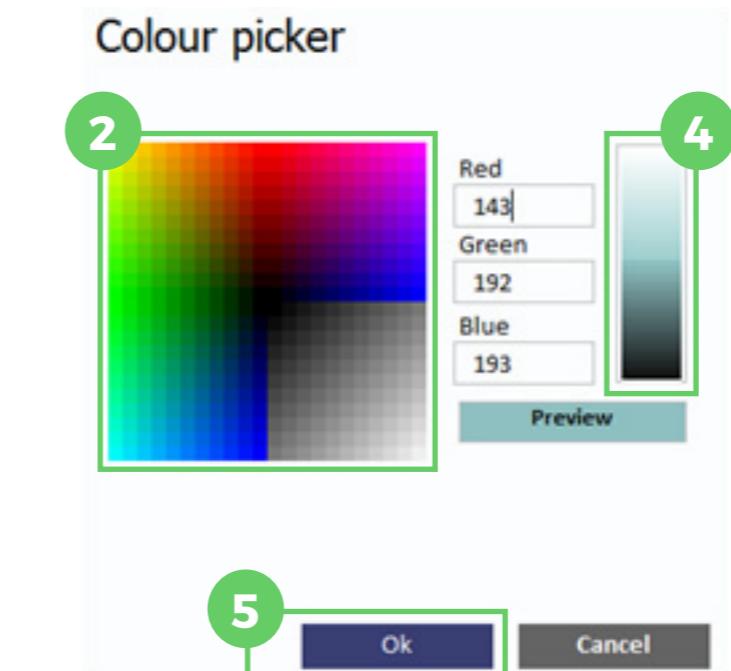
1. Select the sector to be modified

2. Click the 'Edit colours' icon to adjust the colour of the chart sector

3. Click desired colour in main colour map

4. Fine tune colour

5. Click Ok



## B - Proportional Data Chart - Settings Management



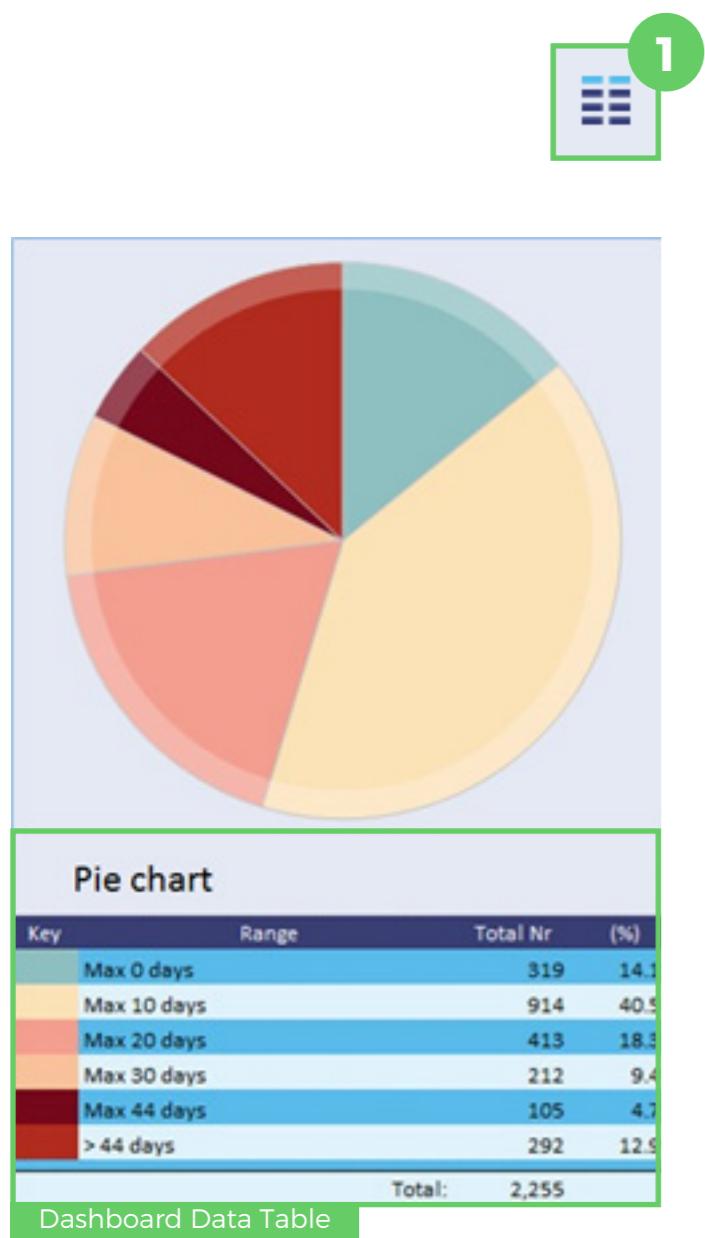
1. Click the 'Refresh' icon to reset the default sector settings

2. Click the 'Save' icon to save the current sector settings and colour scheme for future use

3. Click the 'Open' icon to use a pre-saved sector settings scheme

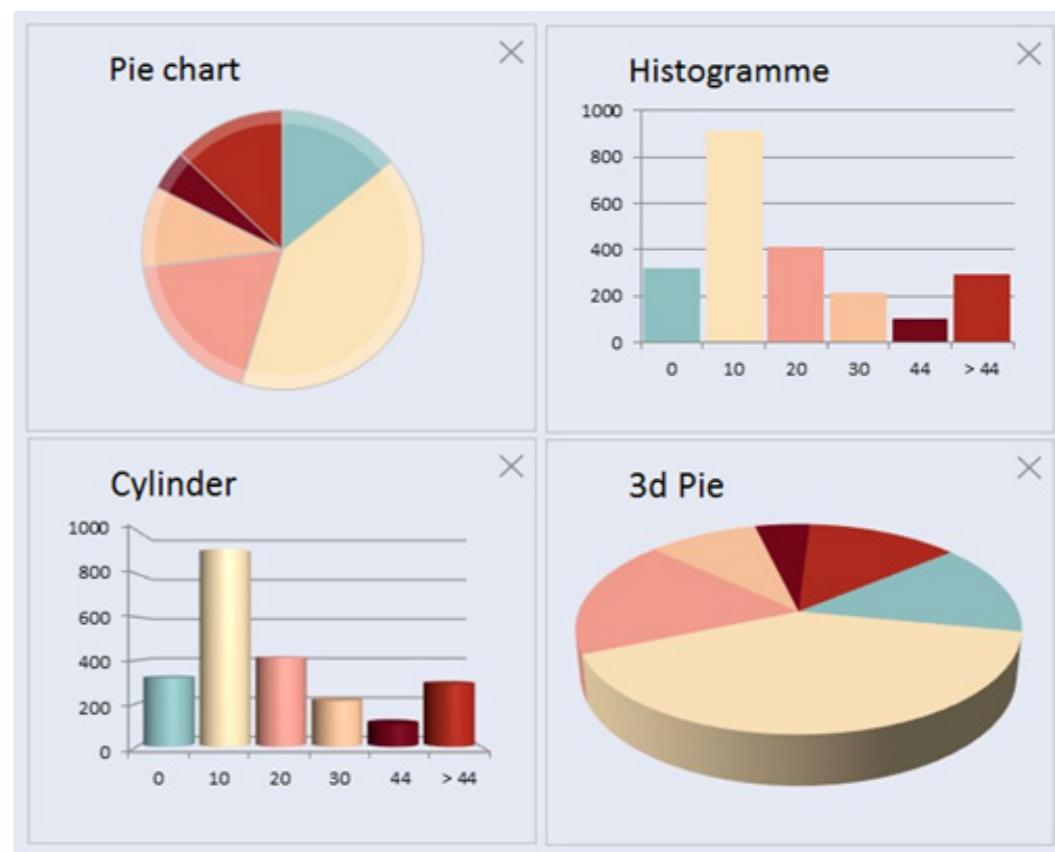
NB: For instructions on saving/opening toolkit schemes, see column scheme management.

## C - Data Table Export



- Click on the 'Data table' icon to send a chart data table to the current dashboard

## Chart Types Available



Select the desired chart type from the drop down box.

## D - Chart Appearance

Chart Type: Pie chart

Chart title: Pie chart

X-Axis title: (disabled)

Y-Axis title: (disabled)

Legend:

Small legend:

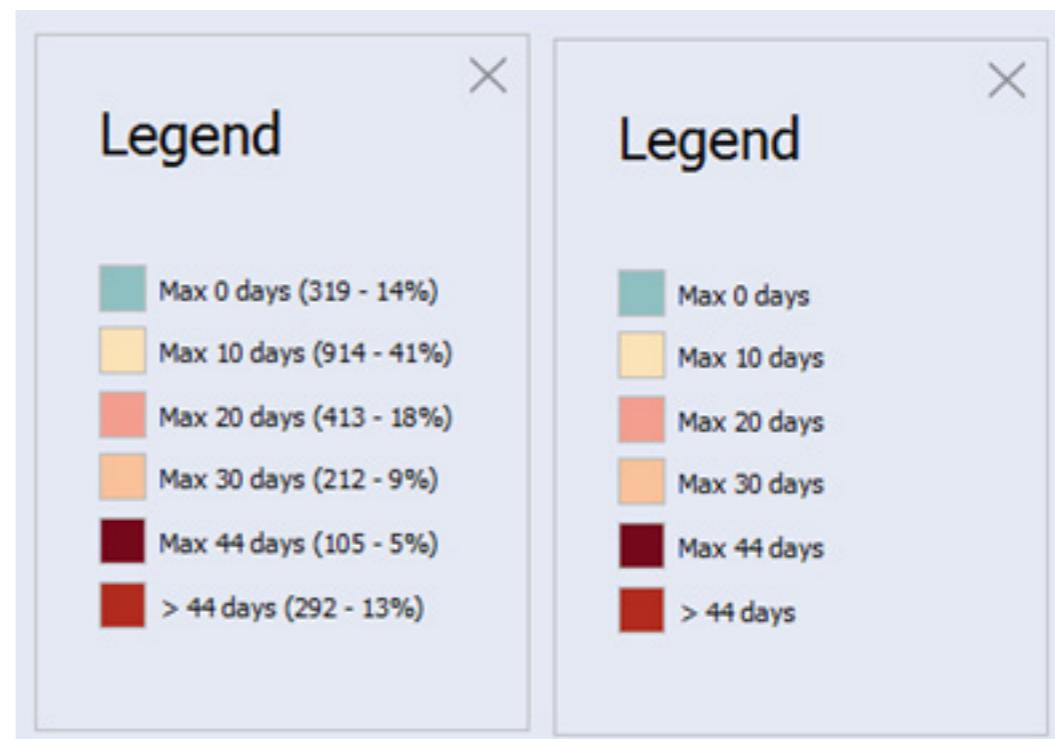
Values in legend:

Transparent:

For settings highlighted in red, refer to time-distributed chart instructions

NB: X & Y axis title settings will only be enabled for histogram / cylinder chart types.

## Chart Types Available



Select the desired chart type from the drop down box.

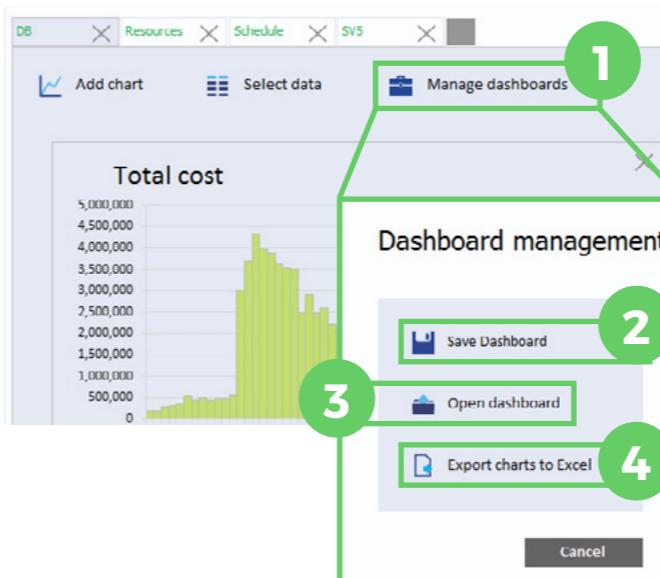
## Exporting Chart Summary Data to Excel Worksheet



1. Right click on chart and select 'Export data' from the menu

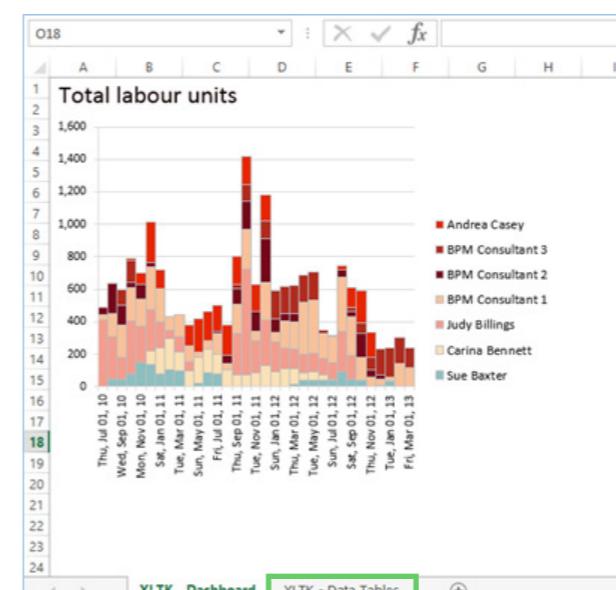
Period Title	Start	Finish	Sue Baxter	Carina Bennett	Judy Billings	BPM
Thu, Jul 01, 10	01 Jul 2010	31 Jul 2010	0	0	414	32
Sun, Aug 01, 10	01 Aug 2010	31 Aug 2010	45	0	267	134
Wed, Sep 01, 10	01 Sep 2010	30 Sep 2010	48	0	135	191
Fri, Oct 01, 10	01 Oct 2010	31 Oct 2010	79	0	329	20
Mon, Nov 01, 10	01 Nov 2010	30 Nov 2010	152	0	225	16
Wed, Dec 01, 10	01 Dec 2010	31 Dec 2010	136	82	257	26
Sat, Jan 01, 11	01 Jan 2011	31 Jan 2011	81	160	160	20
Tue, Feb 01, 11	01 Feb 2011	28 Feb 2011	108	189	54	83
Tue, Mar 01, 11	01 Mar 2011	31 Mar 2011	99	113	101	13
Fri, Apr 01, 11	01 Apr 2011	30 Apr 2011	4	92	62	92
Sun, May 01, 11	01 May 2011	31 May 2011	19	162	0	32
Wed, Jun 01, 11	01 Jun 2011	30 Jun 2011	88	145	0	50
Fri, Jul 01, 11	01 Jul 2011	31 Jul 2011	78	120	0	13
Mon, Aug 01, 11	01 Aug 2011	31 Aug 2011	0	105	0	36

## Dashboard Management



### Saving current dashboard

1. Click on 'Manage dashboards' icon
2. Click on the 'Save' icon
3. Provide a filename



Period Title	Start	Finish	Sue Baxter	Carina Bennett	Judy Billings
Thu, Jul 01, 10	01 Jul 2010	31 Jul 2010	0	0	414
Sun, Aug 01, 10	01 Aug 2010	31 Aug 2010	45	0	267
Wed, Sep 01, 10	01 Sep 2010	30 Sep 2010	48	0	135
Fri, Oct 01, 10	01 Oct 2010	31 Oct 2010	79	0	329
Mon, Nov 01, 10	01 Nov 2010	30 Nov 2010	152	0	225
Wed, Dec 01, 10	01 Dec 2010	31 Dec 2010	136	82	257
Sat, Jan 01, 11	01 Jan 2011	31 Jan 2011	81	160	160
Tue, Feb 01, 11	01 Feb 2011	28 Feb 2011	108	189	54
Tue, Mar 01, 11	01 Mar 2011	31 Mar 2011	99	113	101
Fri, Apr 01, 11	01 Apr 2011	30 Apr 2011	4	92	62
Sun, May 01, 11	01 May 2011	31 May 2011	19	162	0
Wed, Jun 01, 11	01 Jun 2011	30 Jun 2011	88	145	0
Fri, Jul 01, 11	01 Jul 2011	31 Jul 2011	78	120	0
Mon, Aug 01, 11	01 Aug 2011	31 Aug 2011	0	105	0
Thu, Sep 01, 11	01 Sep 2011	30 Sep 2011	0	76	256
Sat, Oct 01, 11	01 Oct 2011	31 Oct 2011	0	73	653
Fri, Nov 01, 11	01 Nov 2011	30 Nov 2011	0	96	195

### Opening a saved dashboard

1. Click on 'Manage dashboards' icon
2. Click on the 'Open' icon
3. Select a pre-saved file containing required dashboard

### Export charts to Excel

1. Click on 'Manage dashboards' icon
2. Click on the 'Export charts' icon

NB: Charts are exported to an Excel worksheet. Contained on a separate worksheet within the same workbook, the chart data tables are also exported. See to the left.

## Schedule Quality

The XER Toolkit's schedule quality function is an extremely powerful diagnosis tool that can identify technical deficiencies and assist with their rectification. The schedule quality metrics calculated by the XER Toolkit are established measures by which a schedule can be assessed to help determine whether it is realistic and achievable.

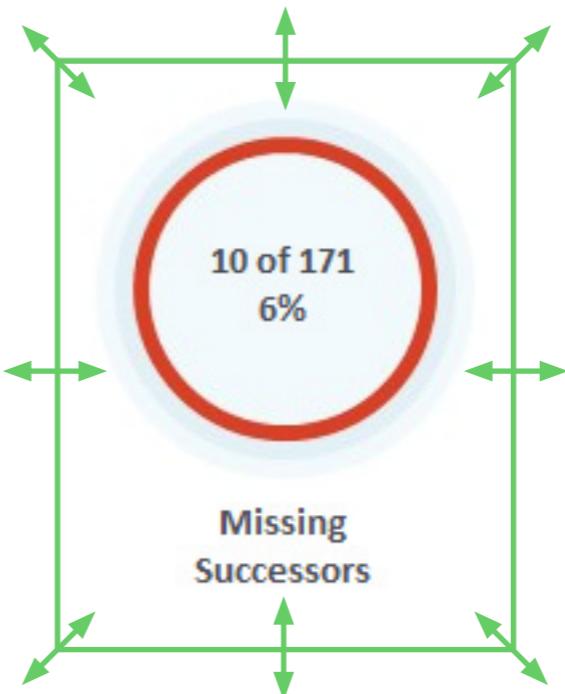
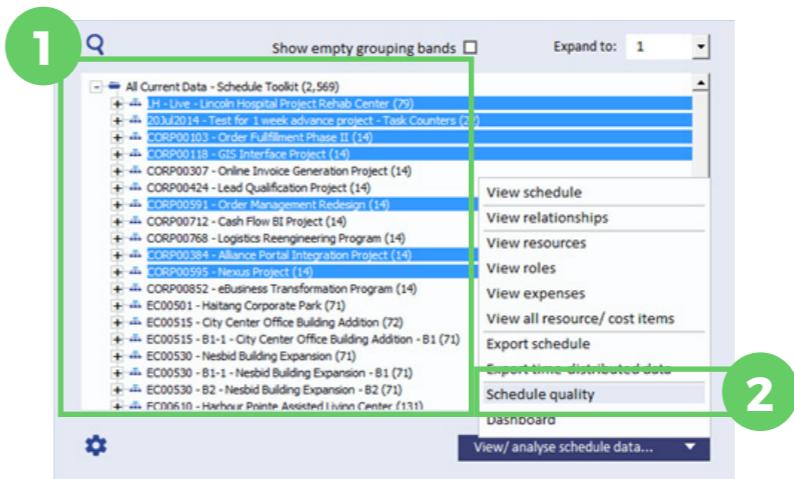
As with all schedule quality indicators, there is no 'one size fits all' result and to that end, the XER Toolkit has some versatile features including the ability to group and filter tasks across a range of programmes. This enables users to precisely target aspects of a schedule and identify areas that require attention. There are also various unique options for each quality check that further enhance the user's ability to analyse schedule data and fully understand the results.

The ranges by which red, amber & green are triggered can also be manually regulated by the user to reflect the nature and requirement of each individual project. To aid the user benchmark against pre-defined and industry recognised results, the XER Toolkit has default 'red, amber, green' trigger points built in.

The checks currently offered by the Toolkit are:

- Missing Predecessors
- Missing Successors
- Open ended tasks
- Open start tasks
- Relationships with negative lag (Lead)
- Relationships with lag
- Non-FS Relationship ratio
- Activities with hard & soft constraints
- High Float
- Negative Float
- High Duration
- Activities With High Cost
- Invalid Dates
- Errors associated with activities In Progress
- Activities Without Resource Assignments
- Assignment Dates Not Aligned to Activity Dates
- Late tasks – Starting
- Late tasks – Finishing
- Tasks without corresponding baseline activity.
- Redundant logic

## Data Selection and Running Quality Check



1. Select required schedule grouping elements to be analysed

2. Click 'schedule quality' from the view/ analyse menu

Each quality check result is represented as a separate tile in the dashboard overview. Results are indicated via a red, amber or green ring around the result detail.

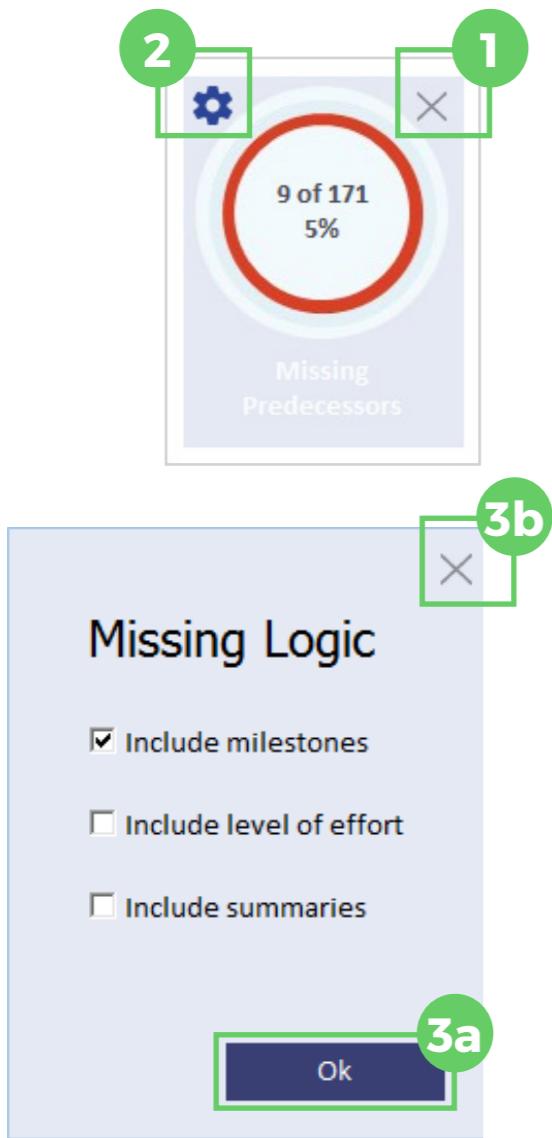
### Moving

Select tile and hold left mouse button. Then move mouse until tile is in desired position and release button.

### Resizing

Select and drag edges to desired size using left mouse button.

## Options and Settings

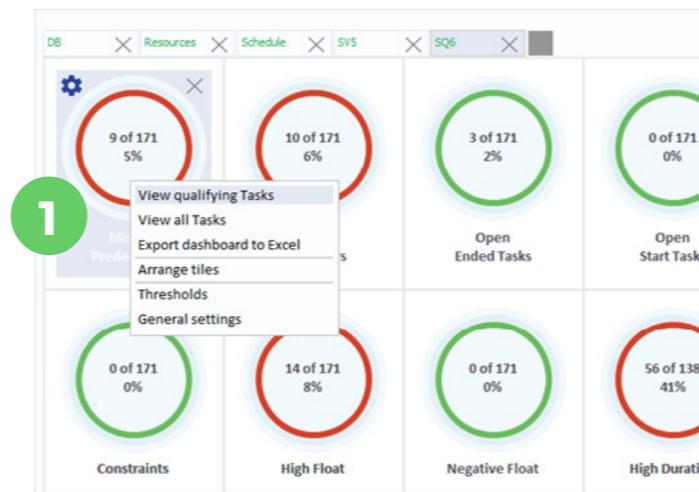


### Quality Check Specific Options

Hovering the mouse over a result tile highlights that tile and reveals an 'exit' icon, along with a 'settings' icon.

1. Clicking the 'exit' icon will make the highlighted tile disappear. It will no longer be accessible
2. Clicking the 'settings' icon will raise the quality check-specific options for the highlighted quality check. The example to the left displays the settings for tasks without a predecessor
3. To apply changes made to the quality check options, which will then be reflected in the dashboard tile, click 'Ok'. If no changes have been made or changes are to be discarded then click the 'exit' icon

## Right Click Menu



1. Right click anywhere on a quality check result tile to raise the menu

NB: The check-specific menu items (e.g. View qualifying tasks) apply to the particular quality check clicked with the right mouse button. Some menu items are however generic (e.g. Export dashboard to Excel)

### View qualifying [tasks/ relationships/ assignments]

Generates a new tab containing the specific results for the selected quality check. E.g. For tasks with missing predecessors, a gantt view tab will be generated containing the tasks that do not have a predecessor. Similarly, for resource assignments that have dates misaligned with their parent activity, a table view tab will be generated containing a list of the applicable assignments.

### View all [tasks/ relationships/ assignments]

Generates a new tab containing all of the tasks, relationships or assignments that were analysed.

### Export dashboard to Excel

Reproduces the schedule quality dashboard in a standard Excel worksheet.

### Arrange tiles

Tiles will be resized and moved for best fit within the dashboard window.

### Thresholds

Raises the thresholds window where users can set the red, amber and green trigger points for each quality check (see [quality checks > thresholds] for details).

### General settings

Raises the quality check-specific options for the highlighted quality check.

## Thresholds

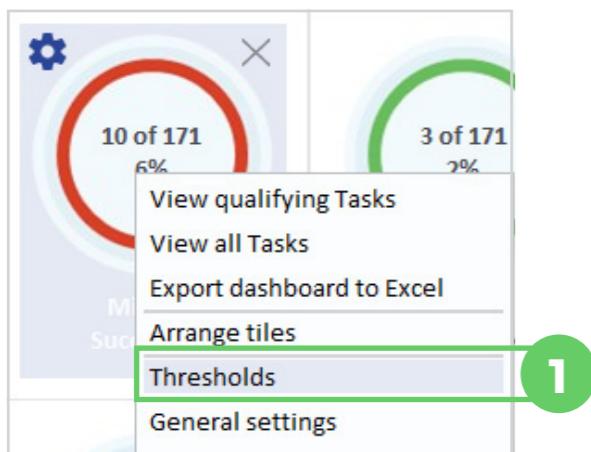
To aid the user benchmark against pre-defined and industry recognised results, the XER Toolkit has default 'red, amber, green' trigger points built in. These are, where applicable, based upon the Defence Contract Management Agency's (DCMA) 14 point schedule metrics.

The ranges by which red, amber & green are triggered can also be manually regulated which enables the user to tailor results based upon the specific nature of their project(s).

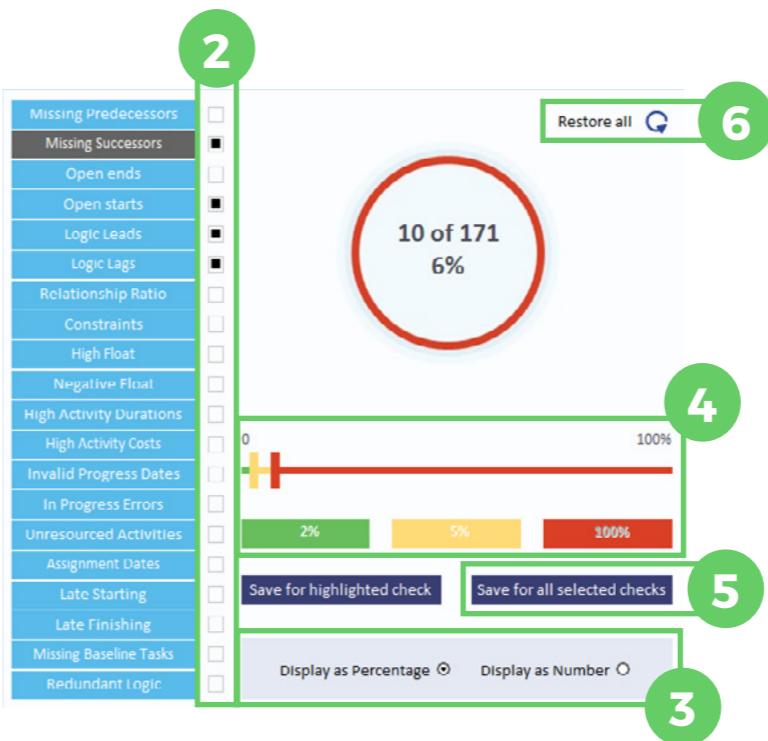
NB: The DCMA default values refer to the 'Red' trigger point. The DCMA standard does not refer to an 'amber' range. The DCMA reference document states:

'The identification of a "red" metric is not in and of itself synonymous with failure but rather an indicator or a catalyst to dig deeper in the analysis for understanding the reason for the situation. Consequently, correction of that metric is not necessarily required but it should be understood.'

## Adjusting Red, Amber and Green Thresholds



1. Raise the thresholds adjustment form via the right click menu



2. Select the quality check(s) to be adjusted

3. You can choose to display results as percentages or as a number. To provide an example of when it may be an advantage to use numbers rather than percentages, the example to the left, looks at activities with missing predecessor logic. Option 1 reflects the DCMA default whereas option 2 reflects the ideal network scenario

### Option 1 – Display as a Percentage

5% of activities without a predecessor raises a flag

### Option 2 – Display as a Number

1 activities without a predecessor raises a flag

4. Adjust the trigger points as required. This can either be achieved by dragging the coloured slider bars to the required points, or by typing values directly into the coloured boxes

5. Click the 'Save for all selected checks' button to apply the changes. The current schedule quality dashboard results will be updated to reflect the new thresholds. The new thresholds will also be applied to future schedule quality checks. The changes will not affect other schedule quality dashboards currently stored in the tab viewer window

6. Restore the toolkit's preset defaults by clicking the icon. This will also reset the default settings for each quality check type. The applicable settings are detailed on the next few pages, with their respective quality check description

## Quality Checks

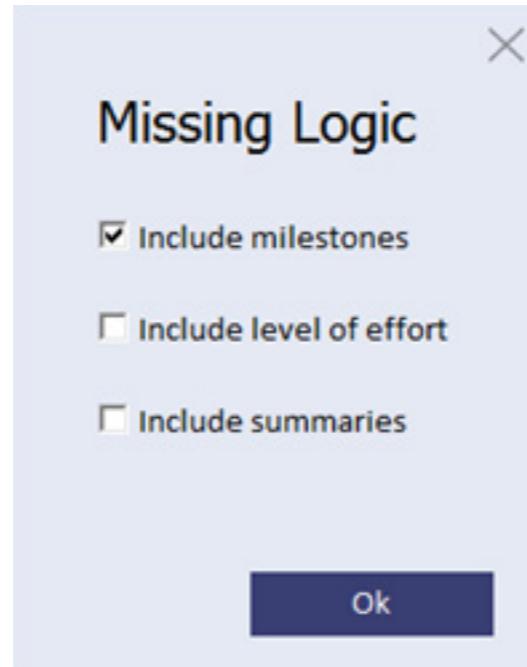
### Missing Logic (Tasks without predecessors or successors)

What the DCMA state:

*"This metric identifies incomplete tasks with missing logic links. It helps identify how well or poorly the schedule is linked together. Even if links exist, the logic still needs to be verified by the technical leads to ensure that the links make sense. Any incomplete task that is missing a predecessor and/or a successor is included in this metric. The number of tasks without predecessors and/or successors should not exceed 5%. An excess of 5% should be considered a flag. The formula for calculating this metric is as follows"*

$$\text{Missing Logic \%} = 100 \times \frac{\# \text{ of tasks missing logic}}{\# \text{ of incomplete tasks}}$$

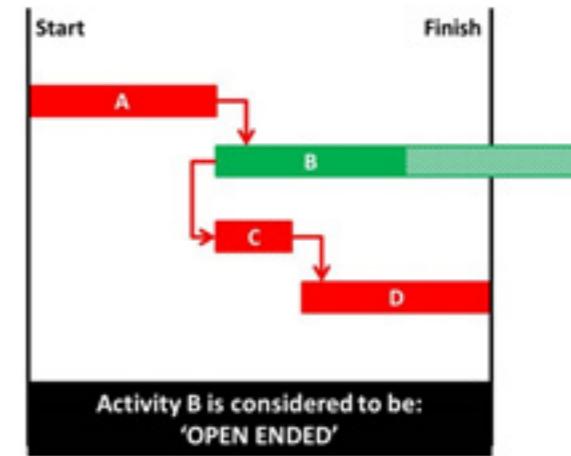
Users can choose to include/exclude some activity types from missing logic quality checks.



### Missing Logic (Open Start and Ends)

Not applicable to DCMA

Over and above the missing logic checks for tasks without any predecessors or successors, the Toolkit also provides checks that can assess whether the assigned logic is compliant with an ideal network scenario. As can be seen in the following example, a task may have successor(s) assigned but the completion of the task has no effect within the overall logical network.



Although activity B has a successor (Start to Start with activity C), it is considered as 'Open Ended' since its completion date could potentially slip until the point where all other activities within the network are complete before impacting upon the schedule's critical path.

NB: Relationships to and from Level of Effort/ WBS Summary activities cannot affect the start/ finish of other activities. Therefore, activities that only have predecessors/ successors that are Level of Effort or WBS Summary activities are effectively 'Open Ended'.

## Relationship Leads (Negative Lags)

What the DCMA state:

"This metric identifies the number of logic links with a lead (negative lag) in predecessor relationships for incomplete tasks. The critical path and any subsequent analysis can be adversely affected by using leads. The use of leads distorts the total float in the schedule and may cause resource conflicts. Per the IMS Data Item Description (DID), negative time is not demonstrable and should not be encouraged. Using MS Excel, count the number of "Leads" that are found. Leads should not be used; therefore, the goal for this metric is 0"

$$\text{Leads \%} = 100 \times \frac{\# \text{ of Logic Links with Leads}}{\# \text{ of Logic Links}}$$

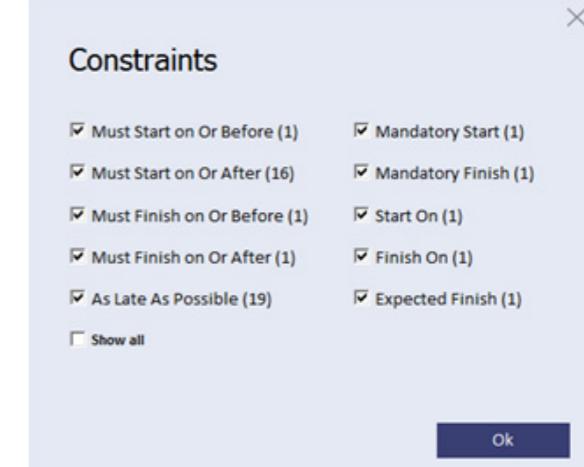
NB: there are no quality check specific settings for relationship lags.

## Constraints

What the DCMA state:

"This is a count of incomplete tasks with hard constraints in use. Using hard constraints [Must-Finish-On (MFO), Must-Start-On (MSO), Start-No-Later-Than (SNLT), & Finish- No-Later-Than (FNLT)] will prevent tasks from being moved by their dependencies and, therefore, prevent the schedule from being logic-driven. Soft constraints such as As- Soon-As-Possible (ASAP), Start-No-Earlier-Than (SNET), and Finish-No-Earlier-Than (FNET) enable the schedule to be logic-driven. Divide the total number of hard constraints by the number of incomplete tasks. The number of tasks with hard constraints should not exceed 5%."

$$\text{Hard Constraint \%} = 100 \times \frac{\text{Total \# of incomplete tasks with hard constraints}}{\text{Total \# of incomplete tasks}}$$



## Relationship Ratio

What the DCMA state:

"The metric provides a count of incomplete tasks containing each type of logic link. The Finish-to-Start (FS) relationship type ("once the predecessor is finished, the successor can start") provides a logical path through the program and should account for at least 90% of the relationship types being used. The Start-to-Finish (SF) relationship type is counter-intuitive ("the successor can't finish until the predecessor starts") and should only be used very rarely and with detailed justification. By counting the number of Start- to-Start (SS), Finish-to-Finish (FF), and Start-to-Finish (SF) relationship types, the % of Finish-to-Start (FS) relationship types can be calculated."

$$\text{Ratio \%} = 100 \times \frac{\# \text{ of Finish to Start Logic Links}}{\# \text{ of Logic Links}}$$

NB: There are no quality check specific settings for relationship ratio

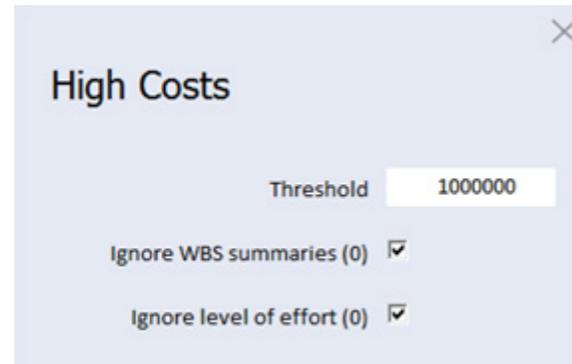
## High Cost

Not applicable to DCMA.

$$\text{High Cost \%} = 100 \times \frac{\text{Total \# of incomplete tasks with high cost}}{\text{Total \# of incomplete tasks}}$$

Users can choose to:

- Set the high duration threshold
- Include/ exclude some activity types from negative float quality checks



## In Progress Errors

Not applicable to DCMA.

$$\text{In progress errors \%} = 100 \times \frac{\text{Total \# of incomplete tasks with in-progress errors}}{\text{Total \# of incomplete tasks}}$$

Users can choose to include/exclude the specific in-progress errors from calculations

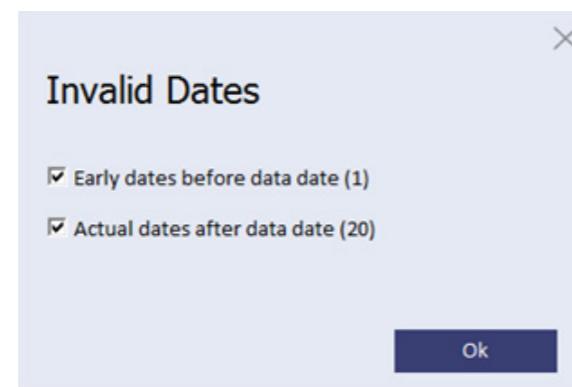
## Invalid Dates

What the DCMA state:

*"Incomplete tasks that have a forecast start/finish date prior to the IMS status date, or has an actual start/finish date beyond the IMS status date are included in this metric. A task should have forecast start and forecast finish dates in the future relative to the status date of the IMS (i.e. If the IMS status date is 8/1/09, the forecast date should be on or after 8/1/09). A task should not have an actual start or actual finish date that is in the future relative to the status date of the IMS (i.e. If the IMS status date is 8/1/09, the actual start or finish date should be on or before 8/1/09, not after 8/1/09). There should not be any invalid dates in the schedule."*

$$\text{Invalid dates \%} = 100 \times \frac{\text{Total \# of tasks with invalid dates}}{\text{Total \# of incomplete tasks}}$$

Users can choose to include/exclude the specific invalid date errors from calculations.



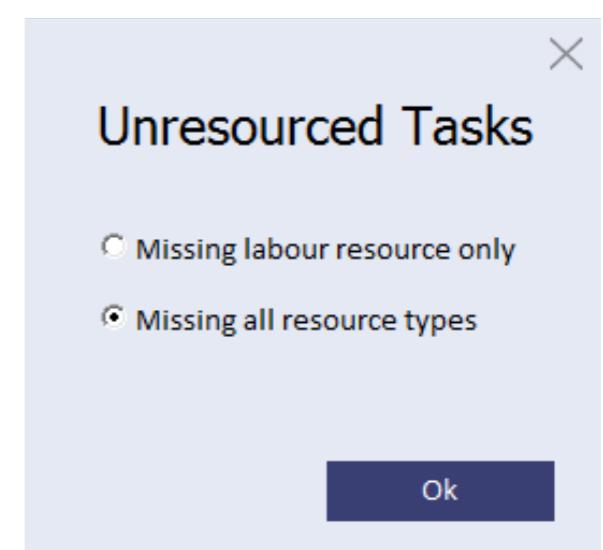
## Tasks Without Resources

What the DCMA state:

*"This metric provides verification that all tasks with durations greater than zero have dollars or hours assigned. Some contractors may not load their resources into the IMS. The IMS DID (DI-MGMT-81650) does not require the contractor to load resources directly into the schedule. If the contractor does resource load their schedule, calculate the metric by dividing the number of incomplete tasks without dollars/hours assigned by the total number of incomplete tasks."*

$$\text{Missing resource \%} = 100 \times \frac{\text{Total \# of incomplete tasks with missing resource}}{\text{Total \# of incomplete tasks}}$$

Users can choose whether to look at tasks without ANY resource or just those without a labour resource



## Invalid Dates

Not applicable to DCMA:

Primavera makes allowance for resources to be applied across an activity duration in 2 ways:

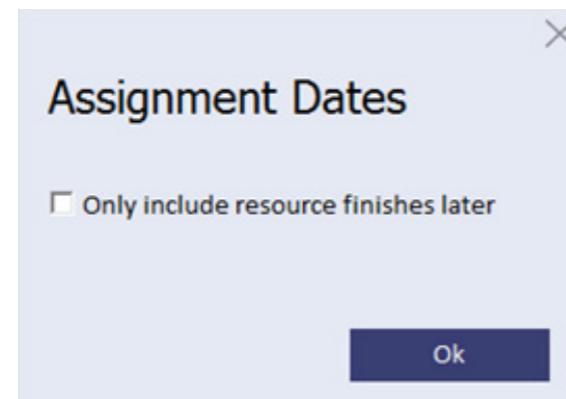
- Across the whole activity duration
- Across part of the activity duration

E.g. An activity scope that consists of laying a concrete base may only include resources for the initial part of that activity as the remaining duration may account for the time it takes for the concrete to set, during which no work may take place.

Although this can potentially be a useful feature, it can also lead to situations whereby resource dates become misaligned with their parent activity without the knowledge of the scheduler. Moreover, it is also possible for resource dates to go beyond the finish date of the parent activity.

$$\text{Assignment dates \%} = 100 \times \frac{\text{Total \# of resource assignments with misaligned dates}}{\text{Total \# of resource assignments}}$$

Users can choose to include all misaligned assignment dates or just the assignments with dates beyond the parent activity dates.



## Late Tasks - Starting

Not applicable to DCMA:

$$\text{Late tasks starting \%} = 100 \times \frac{\text{Total \# of tasks with late actual/projected start date vs baseline}}{\text{Total \# of tasks}}$$

NB: There are no quality check specific settings for relationship ratio.

## Late Tasks - Finishing

What the DCMA state:

### Missed Tasks

"A task is included in this metric if it is supposed to be completed already (baseline finish date on or before the status date) and the actual finish date or forecast finish date (early finish date) is after the baseline finish date or the Finish Variance (Early Finish minus Baseline Finish) is greater than zero. This metric helps identify how well or poorly the schedule is meeting the baseline plan. To calculate this metric, divide the number of missed tasks by the baseline count which does not include the number of tasks missing baseline start or finish dates. The number of missed tasks should not exceed 5%."

$$\text{Late tasks finishing \%} = 100 \times \frac{\text{Total \# of tasks with late actual/projected start date vs baseline}}{\text{Total \# of tasks}}$$

NB: There are no quality check specific settings for relationship ratio.

## Tasks Without Baseline

Not applicable to DCMA

The toolkit provides a check to determine tasks that do not have a corresponding baseline activity. This check compares a list of tasks based on Activity ID within the baseline project as compared with the live project. It does not compare task descriptions, WBS location or any other detail. Therefore, if an activity has been deleted within the live project and a new activity created that uses the same activity ID, then the task will not be identified as missing.

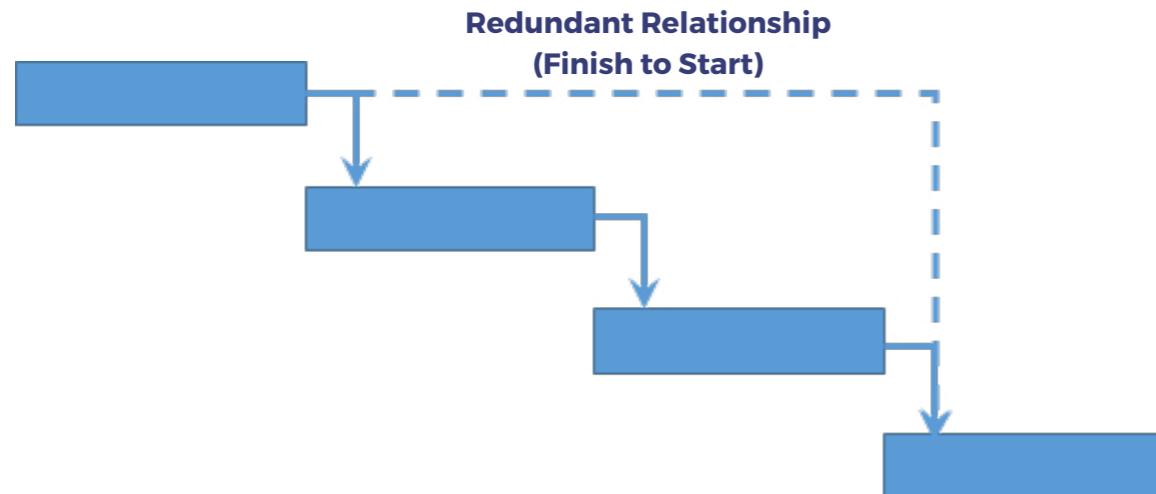
$$\text{Tasks without B/L \%} = 100 \times \frac{(\# \text{ of tasks in live project} - \# \text{ of corresponding B/L tasks})}{\text{Total \# of tasks in live project}}$$

NB: There are no quality check specific settings for relationship ratio.

## Invalid Dates

Not applicable to DCMA:

The toolkit analyses the logical relationships within a schedule network to determine whether any individual links are rendered redundant by a longer chain of logic. The toolkit analyses logical chains of the same type – i.e. Start to Start, Start to Finish, Finish to Start (shown below as dotted line) and Finish to Finish.



NB: The toolkit does not take leads or lags into account and therefore under some circumstances, relationship chains with leads and/ or lags may remove the redundancy. The toolkit therefore provides the ability to analyse each relationship line alongside the corresponding chain of tasks resulting in redundancy.

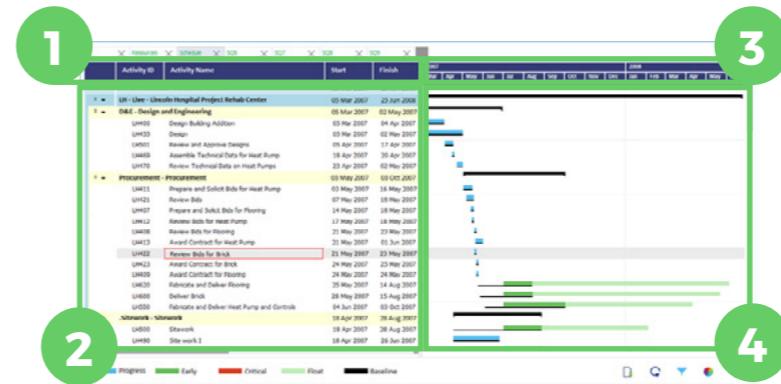
## Schedule Viewer

The XER Toolkit's schedule viewer function is a versatile schedule viewer providing access to most of the schedule data columns included within an XER file.

There are a number of features that enable easy filtering, sorting and grouping of tasks based on individual user requirements.

Schedule viewer outputs can be output to a standard Excel workbooks.

### Right-Click Menus



There are a number of different menu's that can be raised via the right-hand mouse button, depending on the location of the mouse.

#### Menus available:

1. Column and sort
2. Task and grouping menu
3. Gantt display
4. Timescale options

## Column and Sort Menu

Some options on this menu specifically relate to the particular column that was clicked to raise the menu.

**Sort ascending**

**Sort descending**

**Remove column**

**Column scheme**

### Sort ascending

The schedule tasks will be sorted within their respective grouping bands in ascending order based on the column clicked to raise the menu.

### Sort descending

The schedule tasks will be sorted within their respective grouping bands in descending order based on the column clicked to raise the menu.

### Remove column

Removes the column clicked to raise the menu.

### Column scheme

Raises the column scheme form, whereby the user can apply different data columns or format the existing columns based on requirement. This option will only apply to schedule data created in the viewer tab that relates to existing schedule data held within the toolkit's project directory. Therefore, if a project has been removed from the project directory since the viewer tab was created, then this option will result in error.

## Task and Grouping Menu

Some options on this menu specifically relate to the particular task or grouping band clicked to raise the menu.

**Remove filters and grouping**

**Expand all**

**Collapse all**

**Collapse to this level (3)**

**Expand all below...**

**Collapse all below...**

**Group to this level (3)**

**Show all grouping bands**

**Remove row from current view**

**Show hidden rows**

**Show task detail**

**Find text**

### Remove filters and grouping

Refreshes the original schedule view by removing all group and filter settings and also reveals any hidden tasks.

### Expand all

Expands all collapsed grouping bands. The schedule view will initially reflect the collapse/expand state of the data selection tree.

### Collapse all

Collapses all grouping bands.

### Collapse to this level (#)

Collapses all grouping bands to the same level as the task or grouping band clicked to raise the menu.

The following example shows a schedule collapsed to level 3:

#### Expand All Below

Expands all grouping bands below the grouping band clicked to raise the menu.

NB: This menu option is only available when clicking a grouping band – i.e. It is not available when clicking a task.

#### Collapse All Below

Collapses all grouping bands below the grouping band clicked to raise the menu.

#### Group to this Level (#)

Hides all grouping bands under the band clicked to raise the menu.

The following example shows:

**No grouping level applied**

**Grouped to Level 3**

#### Show All Grouping Bands

Removes any grouping settings applied

#### Remove Row From Current View

Hides the row clicked to raise the menu.

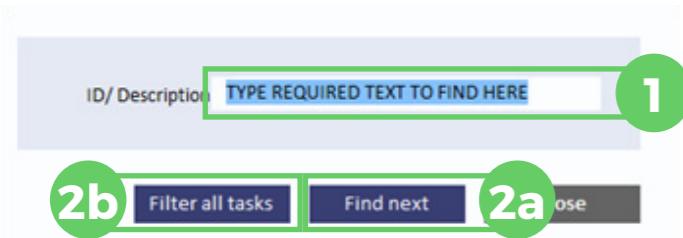
NB: This option only applies to task rows – i.e. It does not apply to grouping bands.

#### Show Hidden Rows

Displays any hidden task rows.

#### Show Task Detail

Opens the task detail form in order to view detailed information relating to the task clicked to raise the menu.



## Find Text

Finds or filters by a text string. This function searches all columns within the schedule table.

1. Type the text to be found/ filtered.
2. Click:

a - Click 'Find Next' to find next row/ column that includes the text string. The toolkit searches each column from left to right from the currently selected row onward. Once the toolkit search reaches the end of the schedule data table, it will return to the start of the schedule and continue searching. After each find, click the button again to search and move to the next field containing the string

b - By clicking on the 'Filter all tasks' button, any row that does not contain at least one column with the required text string will be hidden from view

## Gantt Display Options

The options contained within the gantt display menu can also be accessed via the schedule viewer general settings form.

[Hide gantt](#)

[Show logic](#)

[Display settings](#)

[Hide float](#)

[Hide baseline](#)

### Hide Gantt

Removes the gantt chart from view leaving the data table visible.

NB: To show a hidden gantt chart, use the schedule viewer's general settings form.

### Show logic

Toggles relationship lines on/ off.

NB: there are a range of additional logic display options available under the schedule viewer's general settings form (e.g. Display driving / non-driving / critical).

### Display settings

Opens the schedule viewer's general settings form.

### Hide / Show float

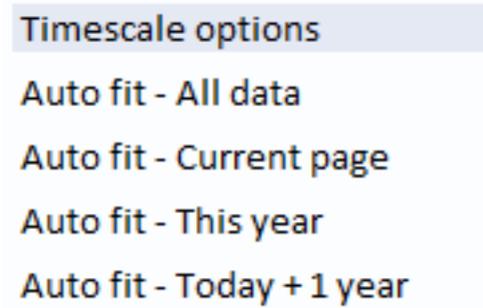
Toggles Gantt float bar visibility

### Hide baseline

Toggles Gantt baseline bar visibility

## Timescale Options Menu

Right click anywhere on the timescale to raise menu.



### Timescale options

Raises the timescale options form (See section on 'Timescale Settings Form').

#### Auto fit - All data

Sets the timescale to start from the earliest schedule task start date and finish on the latest schedule task finish date.

NB: The timescale uses the Actual & Early dates to calculate earliest/ latest schedule dates. Therefore, task late dates may go beyond the timescale finish and so float bars may be partially visible for some tasks.

#### Auto fit - Current page

Sets the timescale to start from the earliest task start date currently visible within the schedule viewer window and finishes on the corresponding latest date.

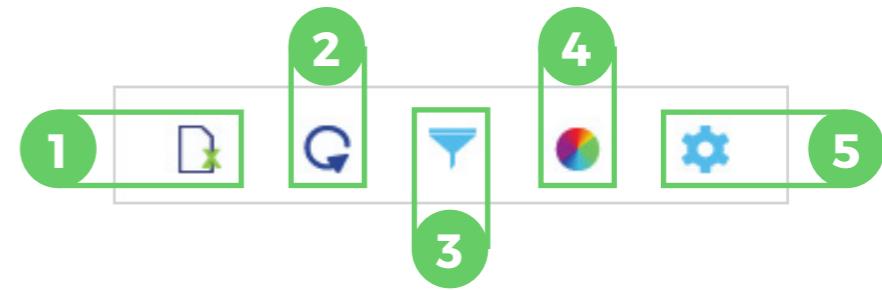
#### Auto fit - This year

Sets the timescale to start on January 1st and finish on December 31st for the current year.

#### Auto fit - Today + 1 year

Sets the timescale to start from today's date and finish 1 year from now.

## Additional Schedule Viewer Functions



### 1. Exports schedule to Excel worksheet.

Exports the current schedule to a standard Excel worksheet using the XER Toolkit's export function.

The following viewer settings are retained in the schedule export:

- Grouping structure
- Filtered/ hidden tasks
- Task sort order
- Column scheme

The following viewer settings are not retained in the schedule export:

- Gantt baseline bars
- Timescale settings

### 3. Open basic filters form

Provides users with the ability to apply additional pre-defined task filters. Filters applied using this function will not affect any filter originally applied when generating the schedule viewer tab using the data selection window.

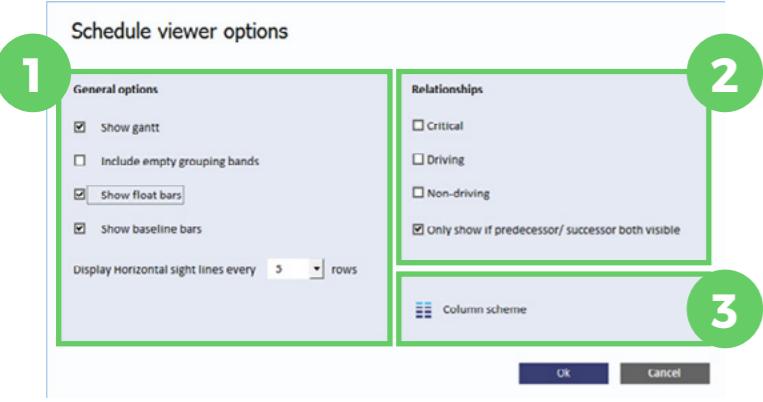
### 4. Colour scheme

Provides users with the opportunity to define and apply grouping colour schemes.

### 5. Open general schedule settings

Provides user with access to additional viewer settings (See section on 'General Schedule Viewer Settings Form').

## General Schedule Viewer Settings Form



### 1. General options

#### Show Gantt

Toggles the Gantt chart on/off

#### Include empty grouping bands

When tasks are grouped by WBS and this option is selected then grouping bands that do not contain any child tasks will be shown in the table. When deselected, empty grouping bands will be hidden.

#### Show float bars

Toggles task float bars within the Gantt chart window on/off.

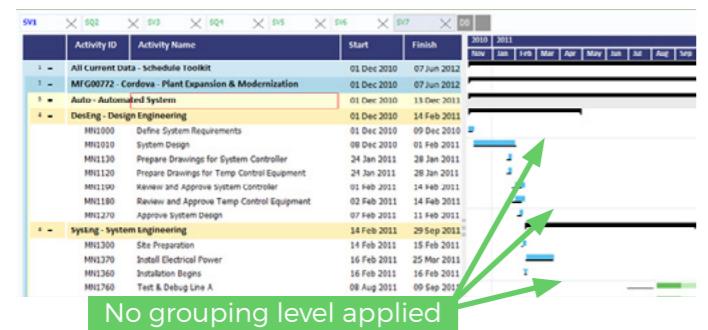
#### Show baseline bars

Toggles task baseline bars within the Gantt chart window on/off.

NB: Baseline bars are only visible for tasks that have a corresponding task within attached baseline project.

#### Display horizontal sight lines every # rows

The number of table rows between horizontal site lines within the Gantt chart window. The row count includes both task rows and grouping band rows. The example to the left shows horizontal site lines every 5 rows.



Activity ID	Activity Name	Start	Finish	2010	2011	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
<b>Struct - Structure</b>															
MU1510	Erect Structural Frame	28 Mar 2011	21 Apr 2011												
MU1550	Floor Decking	22 Apr 2011	20 May 2011												
MU1540	Begin Structural Phase	02 May 2011													
MU1580	Concrete First and Second Floor	23 May 2011	13 Jun 2011												
MU1630	Erect Stairwell and Elevator Walls	14 Jun 2011	27 Jun 2011												
MU1640	Erect Basement Slab	14 Jun 2011	27 Jun 2011												
MU1680	Structure Complete	27 Jun 2011	27 Jun 2011												
<b>Mechsys - Mechanical/Electrical Systems</b>															
MU1650	Rough-in Phase Begins	23 Jun 2011	23 Jun 2011												
MU1990	Rough-in Complete	20 Sep 2011	20 Sep 2011												
<b>Dev - Elevator</b>															
MU1690	Install Elevator Rails and Equipment	28 Jun 2011	19 Jul 2011												
MU2010	Install Elevator Cab and Finishes	21 Sep 2011	22 Sep 2011												
<b>HVAC - HVAC</b>															
MU1140	Procure and Solicit Bids for Heat Pump	13 Jan 2011	17 Jan 2011												
MU1160	Review Bids for Heat Pump	18 Jan 2011	19 Jan 2011												
MU2110	Award Contract for Heat Pump	20 Jan 2011	20 Jan 2011												
MU1230	Fabricate and Deliver Heat Pump and Controls	21 Jan 2011	20 Jun 2011												
MU1660	Install HVAC Ducts	23 Jun 2011	07 Jul 2011												
MU1890	Install HVAC Ducts	24 Aug 2011	25 Aug 2011												
MU1910	Set Heat Pump	26 Aug 2011	01 Sep 2011												
MU1980	Startup and Test HVAC	20 Sep 2011	20 Sep 2011												
MU2090	Install AC Grille and Registers	24 Oct 2011	20 Oct 2011												

- Non-driving (Light Grey)
- Driving (Black)
- Critical (Red)



Task AND Predecessor Visible



Task OR Predecessor Visible

### 2. Relationships

#### Critical/ Driving/ Non-Driving

Toggle specific relationship types on/off. The following example details a schedule with all relationship types visible:

#### Only show if predecessor/successor both visible

When selected, relationship lines will only be visible if both the task and its predecessor are visible within the current window. Any relationship lines where either the task or its predecessor are not visible within the current window will be invisible.

### 3. Column Schemes

Opens the column scheme form allowing the user to change the selected data columns or modify the column formats. See 'column scheme' section.

## Timescale Settings Form

### Gantt date options

**1**

Auto fit timescale <input checked="" type="checkbox"/>	Start	29 Nov 2010	Finish	10 Jun 2012
<div style="border: 1px solid #ccc; padding: 5px;"> <b>Row 1</b>  <input checked="" type="checkbox"/> Display?  <input checked="" type="checkbox"/> Site line?  Reporting cycle <select>Yearly</select>  Financial periods  Date format Year: 2015 </div> <div style="border: 1px dashed #ccc; padding: 5px; margin-top: 10px;"> <b>Row 2</b>  <input checked="" type="checkbox"/> Display?  <input type="checkbox"/> Site line?  Reporting cycle <select>Monthly</select>  Financial periods  Date format Month: Jan </div> <div style="border: 1px dashed #ccc; padding: 5px; margin-top: 10px;"> <b>Row 3</b>  <input type="checkbox"/> Display?  <input type="checkbox"/> Site line?  Reporting cycle <select>Weekly - (Sun to S)</select>  Financial periods  Date format Day: 02 </div>				
<input type="button" value="ok"/> <input type="button" value="Cancel"/>				

**2**

### 1. Timescale Range

Sets the start and finish dates for the Gantt chart timescale.



Selecting 'auto-fit timescale' will automatically set the timescale start date to the earliest task start date from within the current data selection. The timescale finish date will be set to the latest task finish date. When calculating the earliest and latest task dates, the toolkit uses actual and early dates only i.e. Late task dates are not considered.

By deselecting 'auto-fit timescale', the user can define the timescale start and finish dates manually. Task bars outside of this date range will not be displayed.

### 2. Row Settings (1, 2 & 3)

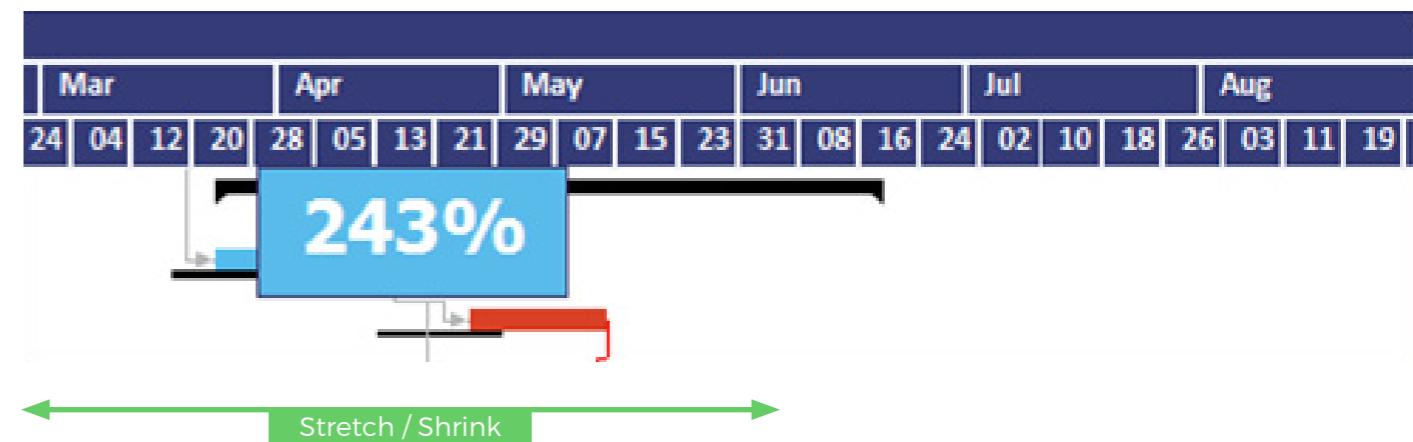
#### General

The toolkit can display 1, 2 or 3 timescale rows at the top of the Gantt chart. Each row can be customized independently to display a range of interval periods including pre-installed and user defined periods.

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
29	17	05	24	12	03	22	10	29	18	06	25	14	02
29	17	05	24	12	03	22	10	29	18	06	25	14	02

NB: the toolkit will automatically format the period widths based on the timescale's earliest start and latest finish dates in order for text to be displayed correctly.

In the example above, row 3 is configured to display daily values in date format 'dd'. In order to display legible values, the toolkit evaluates the smallest number of multiple periods in order to achieve this. As a result, the number of days between each period in the example range between 16 and 24 days.



The timescale can be stretched in order to show a greater level of granularity within the Gantt chart window. To do this, click and drag the timescale with the left mouse button until the desired timescale magnification is achieved.

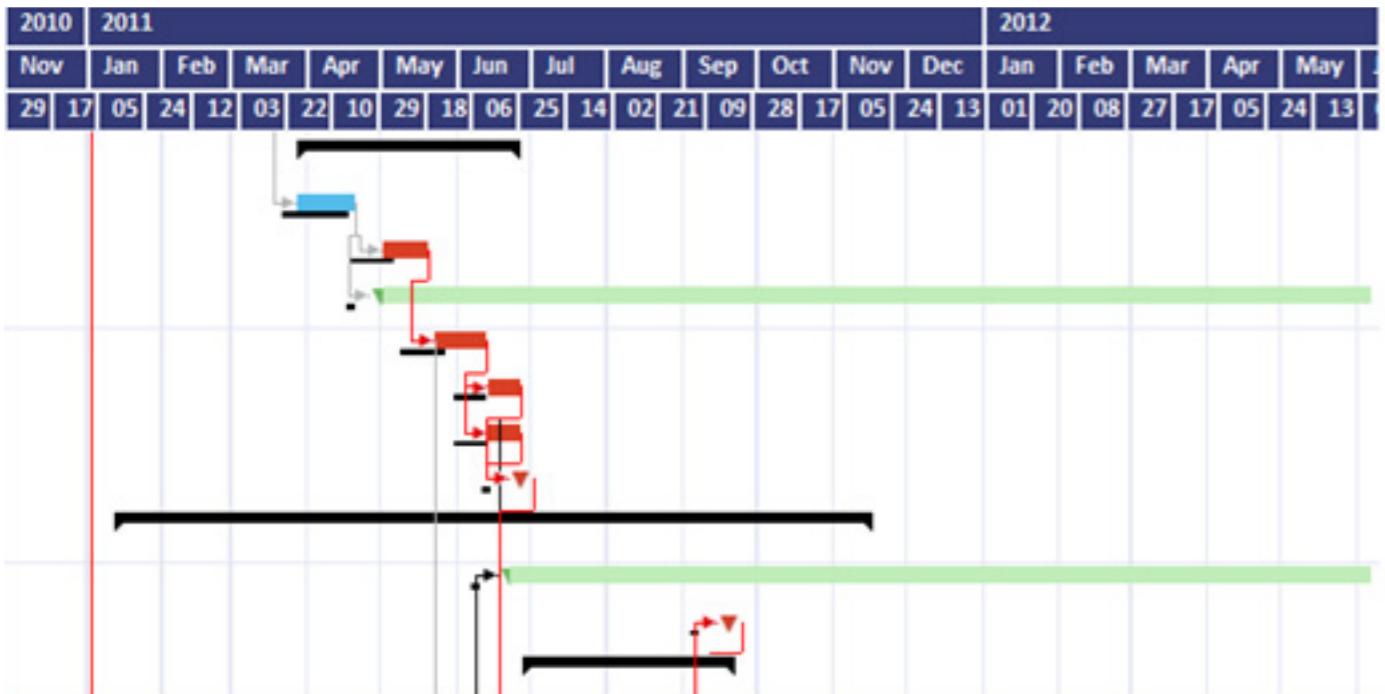
## Display?

Toggles the selected timescale row between visible and hidden.

## Site line?

A vertical site line will be displayed at the end of each period.

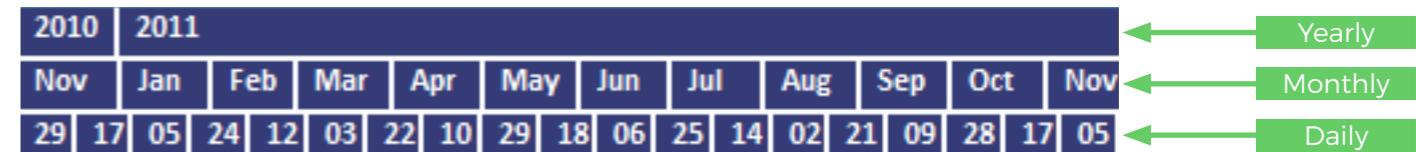
The following example displays a vertical site line at the end of each (monthly) period in timescale row 2:



## Reporting cycle

Select from toolkit interval reporting cycles, including user defined financial periods. The toolkit's default interval cycles available to choose from are:

- Daily
- Weekly
- Monthly
- Yearly



NB: See 'Time Distributed Interval Cycles' section for instructions to set up user-defined reporting periods.

## Financial Periods

Sets the user defined financial period set (when reporting cycle is set to financial periods).

## Date format

Sets the date format to be displayed for the selected row, e.g. For a monthly reporting cycle, users can select from the following date formats:

- 01
- J
- Jan
- January

## Basic Task Filters Form

Schedule viewer - basic filters

The form consists of several filter sections:

- 1. Refresh**: A button with a refresh icon.
- 2. Tasks in date range**: Includes fields for Start (01 Jan 2015) and Finish (31 Dec 2015), and checkboxes for 'Project start to project finish' and 'Include baseline dates'.
- 3. Task status**: Includes checkboxes for 'Not started', 'Completed', and 'In progress'.
- 4. Content search**: Three input fields for 'Activity ID contains text', 'Description contains text', and 'Any field contains text'.
- 5. P6 Task Type**: Includes checkboxes for 'Task dependent', 'WBS summary', 'Level of effort', 'Start milestone', 'Finish milestone', and 'Resource dependent'.
- 6. Baseline variance**: Sub-sections for 'Baseline Variance Start' (checkboxes: 'Start on time', 'Start early', 'Start late') and 'Baseline Variance Finish' (checkboxes: 'Finish on time', 'Finish early', 'Finish late').

At the bottom are 'Ok' and 'Cancel' buttons.

### 1. Refresh

Removes all basic filters.

### 2. Tasks in date range

The default selection is 'project start to project finish'. If this option is deselected then users can specify a start date and a finish date. Only tasks that take place partially or fully during this period will then be included. I.e. Tasks that start after this period or finish before this period will not be included within the Gantt chart or table.

### 3. Task status

Only tasks with one of the selected status will be included within the Gantt chart or table.

### 4. Content search

When text is entered within one of the 3 filter boxes, only tasks that contain the text (in the relevant column(s)) will be included within the Gantt chart or table.

Activity ID contains text  
Searches Activity IDs for text.

Description contains text  
Searches Activity Name for text.

Any field contains text  
Searches each column in the current Gantt chart table for text.

NB: The content search is not case sensitive

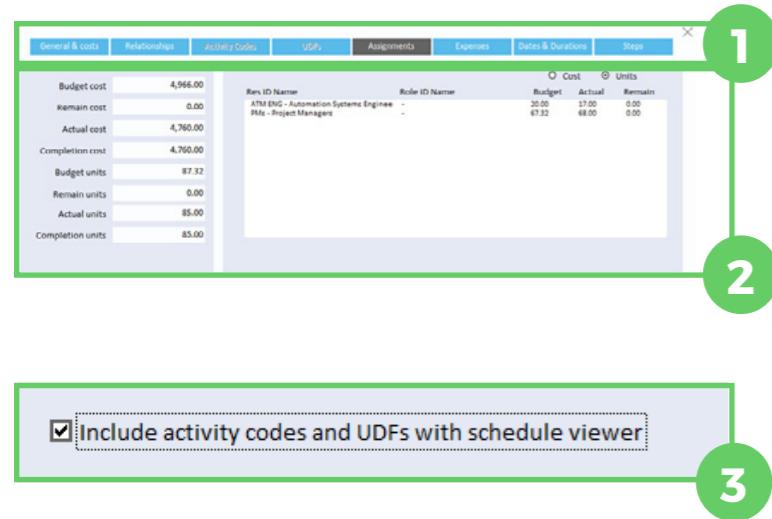
### 5. P6 Task type

Only task types selected will be included within the Gantt chart or table.

### 6. Baseline variance

Only tasks adhering to the selected variance conditions will be included within the Gantt chart or table.

## Task Details Form



### 1. Task information type menu

Detailed information is available for a variety of aspects of each task. Simply select the required data type to view the associated detailed information.

### 2. Task detailed information

By selecting different tasks within the Gantt chart table, the detailed task information window will automatically be updated in relation to the new selection.

### 3. Activity codes and UDF detailed information

Detailed information for activity codes and UDFs are only available when the Toolkit's general settings are as shown, to the left, at the point when the schedule tab is generated:

[www.xertoolkit.co.uk](http://www.xertoolkit.co.uk)  
[support@xertoolkit.co.uk](mailto:support@xertoolkit.co.uk)