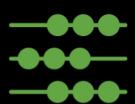


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User Manual



benchmark
estimating software



Benchmark Estimating Software User Manual

**This manual is designed to assist users in the day-to-day use,
and the setup and administration, of Benchmark Estimating
Software.**

Version 4.7, July 2018

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Whilst every effort has been made to ensure that this document and the software are in accordance with current practice, they are not intended as exhaustive statements on estimating and the methods used for estimating. Benchmark Global Pty Ltd accepts no responsibility for errors in, or omissions from, the document or the software, nor work done or omitted to be done in reliance on this document or the software.

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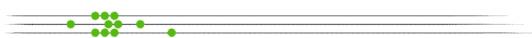
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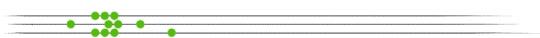
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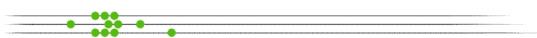
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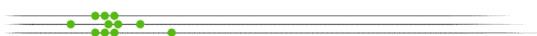
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Preface

This section describes the *conventions and features* used in this User Manual.

It also identifies *additional resources* available to help you install and use Benchmark Estimating Software.

Document Conventions

Keyboard Commands

When you are instructed to press a key on the keyboard, the key will appear in *upper case* letters: CAPITALS. When you are instructed to press two keys simultaneously, each key combination will be separated by a plus (+) sign. For example, CTRL+1.

Mouse Instructions

When instructed to click or select an icon or field, move the mouse pointer to the specified icon or field and click the left mouse button once. *Always use the left mouse button* unless otherwise instructed.

Benchmark Windows

Each window in Benchmark has a title at the top of the window. Where a window is referred to throughout this manual, it will be displayed in green text; for example – go to the **Administration** window.

Window names are shown in the top left corner of the screen shots.

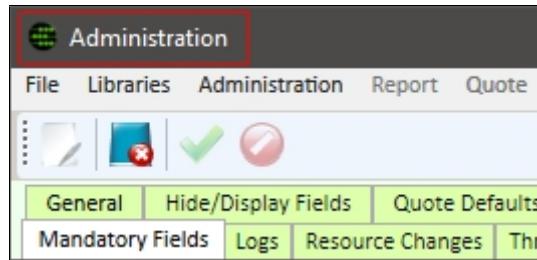


Figure 1: Window name highlighting example

Benchmark Fields

When instructed to type data into a field, or click in a field, the name of the field will be displayed in *this font style*.

Enter Text

When you need to type in text directly from the computer keyboard, this text will be displayed in **this font style**.

Menu Options

When instructed to select an option from a menu, the menu and the option will be separated by a → symbol. e.g. Administration → Codes.

Buttons

Benchmark buttons are signified by a different font. For example: Click the Click to Recalculate button.

Checkboxes

You can perform two actions on a checkbox:

- **Check** the checkbox
- **Clear** the checkbox

Checkboxes have two states:

- **Checked**



- **Cleared**



Document Features

Notes and Further Information

This document is designed to cater for users of different skill levels and different job functions. Some users will require more information on particular topics or may wish to read additional information. Where more advanced or detailed information about a topic exists, this is displayed in a notes box like that shown below.



Example of a note.

This is an example of a notes box which provides more information about a topic.

Important Steps or Warnings

When it is necessary to highlight important points about the software and its operation, this information is presented in a notes box with a warning icon, as shown below.



Example of an important topic/concept.

This is an example of a warning or very important message that should be read.

Edition-specific Features

Benchmark provides three editions of the Software:

- **Lite**
- **Professional**
- **Corporate.**

You can find details of the differences between these editions on the following page on the **Benchmark Estimating Software website** (<https://www.benchmarkestimating.com/solutions/estimating-software/>).

This document contains details on features in all three editions, but is written based on the *Professional edition*. *Lite* users may therefore find information on features which are only contained in *Professional* and *Corporate* editions.

The *Corporate* edition contains some additional features that change the way you use some standard features. To highlight this, you will find the following note box throughout this document.



Example of Corporate feature.

This is an example of a feature available only in the *Corporate edition* of Benchmark Estimating Software.

Special Products

Benchmark offers a standard product and two special product editions. The content in this manual, including all screen shots, is tailored to the standard product.

The two special product editions are:

1. The United Kingdom (UK) product. For this product *Progress Claims* are referred to as *Valuations* throughout the product.
2. Companies using the *Corporate* edition who use *Regionalisation* and wish for their *Resource* rates to alter *per Depot* rather than *per Region*. For this special product, *Region* is replaced with *Depot* (and *Depot* with *Region*) throughout the product.

Additional Resources

Installation Manual

The *Installation Manual* contains technical details and instructions on how to install and configure Benchmark on your IT network. This manual is included with the downloaded Benchmark installation software package.

The IT Administrator, or the person responsible for installing Benchmark, should read this Manual. Managers or *Super Users* may also be interested in reading some of the technical details.

Online Help

Benchmark Estimating Software includes an *online help system*. This system provides information and help for the Benchmark application. This includes information on installation, set up and administration, and day-to-day use.

There are two methods to access the *Online Help* system:

- Select the Help → Help menu.
- Press F1.

You can access the *PDF version* of the *User Manual* by clicking on the User Manual icon in the HELP & SUPPORT panel on [My Benchmark](#).

PDF Versions of All Manuals

You can access *PDF versions of all manuals* from within Benchmark. Find manuals under the Help menu, as shown below.

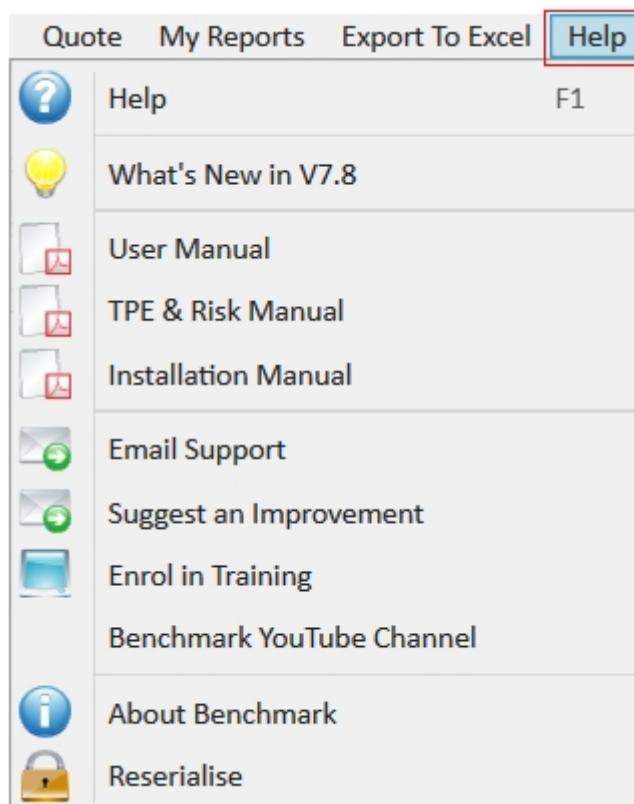


Figure 2: Help Menu

The User Manual can also be accessed from the Help tab on [My Benchmark](#).

Part One -

Introduction to

Benchmark

Benchmark Estimating Software Overview

Benchmark Estimating Software is for anyone in an organisation who needs to quickly produce accurate and consistent estimates. Benchmark is easy to use and offers different methods of estimating for different applications.

In addition to estimating, Benchmark Estimating Software helps in other operational functions including:

- Quote generation
- Following up quotes
- Marketing and sales reporting
- Pricing of variations
- Generation of Progress Claims
- Production of project management data and schedules
- Job costing
- Setting up budget data in other business systems (i.e. accounting, ERP etc).

Key Terminology

Here is an introduction to some key terms and definitions used throughout this Manual, and throughout the Benchmark system.

Term	Definition
Project	A job, bid or estimate in Benchmark.
Section	Highest level component of a Project. Sections are headings and are made up of Items of work. Sections are job specific – you can create your own Section headings for a Project or enter those defined by your Client. Section headings vary from industry to industry and project to project.
Item	Items describe the actual work that must be done. Items are made up of Resources and are also referred to as tasks or activities. The Item list (combined with their parent Section headings) define the scope of work for the Project.
Composite Item	Composite Items enable you to have Items within Items in your estimate, which means you can build up rates for Items with greater flexibility. A Composite Item can include regular items, text items, Composite Items (up to seven levels allowed) and Composite Totals. The cost for a Composite Item is the summed value of the individual Items which comprise the Composite Item, much like Resources within an Item. The Composite Item can have a quantity and a unit of measure different to the Items contained within its make-up.

Term	Definition
Composite Total	<p>Composite Totals offer more levels in an estimate, meaning you can produce quotes with clearer, more logical formatting. The additional levels also make estimating major projects far easier and facilitate more flexible integration with detailed WBS reporting and analysis. Composite Totals are available at the Project Item Level and can contain regular Items or Composite Items.</p> <p>A Composite Total sums all the Items and Composite Items. The Composite Total gives the user flexibility over how they wish their Items to be displayed in a Bill of Quantities.</p>
Resource	<p>Resources are the Plant, Labour, Material and Subcontract components required to undertake the work. Resources are the base components of an estimate in Benchmark.</p>
Sub Item	<p>A Sub Item (sometimes known as a composite Resource) is a group of Resources that can be treated as an individual Resource. Sub Items are commonly used for crews and major items of Plant (equipment).</p>
Direct Costs	<p>This is what it costs you to do the job (i.e. all of your Resources) and is sometimes referred to as your budget for the work.</p>
Profit	<p>The amount of money you make on your project. Sometimes referred to as Markup.</p>
Indirect Costs	<p>This refers to any Overheads and Contingencies that are allocated to a Project.</p>
Total Markup	<p>Generally referred to as the sum of the Profit and Indirect Costs.</p>
Margin	<p>Margin is generally a percentage, which is the Profit represented as a percentage of the final Submission Price.</p>
Database	<p>This is the file that stores your estimating libraries and all of the Projects you create. The database types supported by Benchmark are Microsoft SQL Server, SQLite, and Oracle. You can have one or many databases, as required by your business.</p> <p>For more information, refer to the <i>Installation Manual</i>.</p>
Database Connection	<p>A Database Connection stores Database parameters (settings). Each database you have can have a corresponding Database Connection.</p> <p>For more information, refer to the <i>Installation Manual</i>.</p>

Term	Definition
Portable Database	This is a particular type of database file used by single license users, and can also be used in larger companies by users who wish to <i>Check Out</i> an estimate and work on it offline. A Portable Database utilises the SQLite database format and has a .bp7 file extension.
Bill of Quantities (BOQ)	A BOQ is a document used in tendering, in which services, materials, parts, and/or labour are itemised. Also called a <i>Schedule of Items</i> or <i>Schedule of Quantities</i> . A client may supply a BOQ that includes a list of Items to price for the quote. An estimator may load this BOQ into Benchmark to generate <i>Sections</i> and <i>Items</i> .

Table 1: Key Benchmark Terminology

Resource-Based Estimating

The Benchmark system allows you to produce estimates based on the *Resources* required to complete your Project. The *Resources* allocated to a Project will consist of the *Labour*, *Materials*, *Plant (equipment)* and/or *Subcontractors* required to complete the works. This ensures your estimates are accurate and also provides you with a budget for the work.

You can create and store *groups of Resources* called *Items*. By creating *Items* that you use over and over again you save yourself a lot of time and increase consistency of pricing.

You can also create and use *Routines* to produce estimates. *Routines* prompt the user with a list of questions (like a checklist), and based on the answers, the *Routine* calculates the *Resources* required and builds the estimate for you.

Estimating Process Overview

When you begin an estimate in Benchmark, the program can give you a list of *Sections* to price. If you are doing civil construction, these *Sections* will include headings such as *Site Establishment*, *Pipework*, *Earthworks* and *Landscaping*. These *Sections* act as a reminder for you, so that you don't miss anything. You can modify the section headings so they are specific to each job, or as defined by your client.

Within each *Section* you allow for the cost of *Items*. So if you are bidding the *Pipework Section*, for example, you may need to allow for 250 metres of 375mm reinforced concrete pipes. You can add the *Item* for 375mm reinforced concrete pipes from the [Item Library](#), type in the *quantity* that you require, and Benchmark will bring that *Item* into your Project. When it does this it also calculates the quantities and costs of all *Resources* (*Labour*, *Plant*, *Materials* and *Subcontract*) required to complete the work.

If there is not a standard *Item* in the Library, you create a new *Item* and choose *Resources* from the [Resource Library](#) for that *Item*.

Routines are a very powerful Benchmark feature. *Routines* do all the work for you based on your answers to a series of questions presented when the Routine runs. It will provide you with the price you need quickly, and with the added benefit of the resource requirements and productivity to back up your price. You can use a *Routine* to estimate an entire Project or an individual Item.

When you have finished your estimate, you nominate the overheads and percentages for profit. You will then have a price for your project. You can spread the profit and overhead over your cost Items, and print out a quote/schedule to submit to your client.

You can print many internal and external reports about your Benchmark Projects. You can also export to construction programming software and export your budget to accounting/job costing systems.

Benchmark Libraries

Items, *Routines* and *Resources* are stored in *libraries* for all system users. Benchmark has other *Libraries* to store other key estimating and business data, such as *Clients*, *Subcontractors/Suppliers* and *Quantity Takeoff Sheets*. This library-based design saves you reinventing the wheel and enables key information to be shared effectively and in a controlled manner throughout your organisation.

Benchmark Flexibility

Benchmark is flexible enough to handle many estimating scenarios:

- If you do many repetitive estimates you can run a **Routine**.
- If you are issued a bill of quantities (BOQ) from a client, you can import this using **Load Spreadsheet** and price the schedule quickly using **Allocate**.
- You can create your own BOQ by adding *Items* from a *Library*.
- You can start a project by using a **Template Project**.

- You can price an entire project from first principles if required.
- You can price large maintenance projects using **Power Routines**.

Whatever type of Project you need to price, Benchmark has powerful and flexible functions to help you.

Benchmark Database

Benchmark stores all your data in a central database. The drawing below shows an overview of the main data elements stored in your database. You can have more than one database if needed, and this will depend on your business structure and how you plan to use Benchmark.

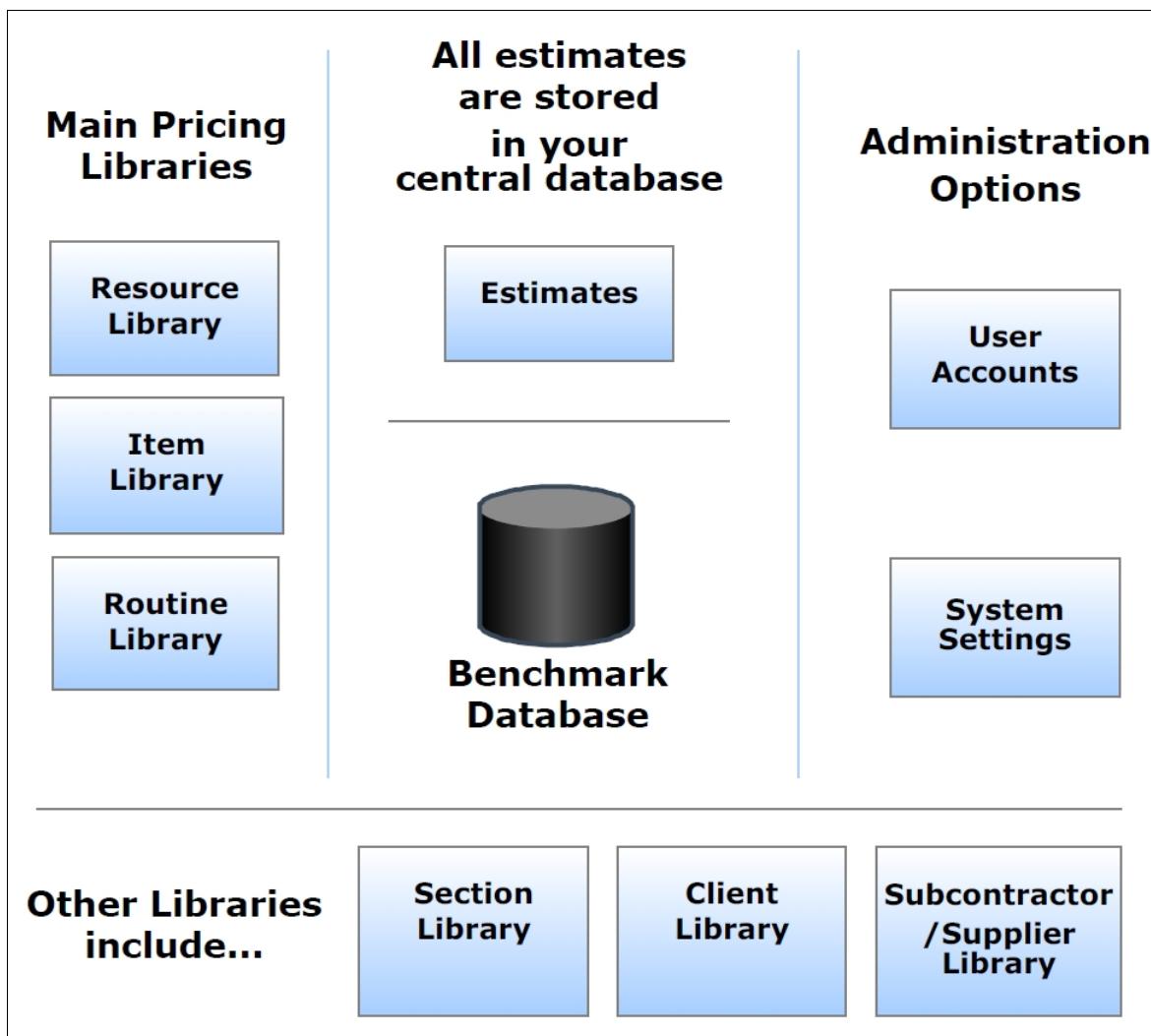


Figure 3: Main information stored in the Benchmark database

Your database(s) can be in *any of these locations*:

- On your computer.
- On a server on your premises.
- On a server in the cloud.

The database location depends on various factors including your IT requirements and how you use Benchmark. For more information on database set up, please refer to the *Installation Manual*.

Important Functionality

Icons to Add, Edit and Save Changes

Toolbar icon	Function
	Add icon. Adds a new Section/Item/Resource, etc. Shortcut: <CTRL+A>
	Edit icon. Edits the current window or selection. Shortcut: <CTRL+E>
	Duplicate icon.Duplicates the selection. Shortcut: <CTRL+D>
	Copy icon. Copies content. Shortcut: <CTRL+C>
	Paste icon. Pastes copied selection or value. Shortcut: <CTRL+V>
	Delete icon. Deletes current selection. Shortcut: <DELETE> key
	OK icon. Saves changes and/or commits a function. Shortcut: <ENTER> key
	Cancel icon. Cancels current edits; does not save changes. Shortcut: <ESC> key

Table 2: Icons to add, edit and commit changes

Add and Edit data

You can duplicate, copy, and paste within the Benchmark application. This is often more efficient than creating what you need from scratch. You can copy the contents of a single field or duplicate an entire Project.

In Benchmark, to edit your information, you must first enable *edit* mode in the current window.

Use any of the following methods to enter *Edit* mode:

- Right-click and select Edit.
- Press <CTRL+E> on your keyboard.

- Click on the Edit icon in the toolbar.



You will know when you are in edit mode as the OK and Cancel icons are *active* and the other fields are disabled/dimmed.

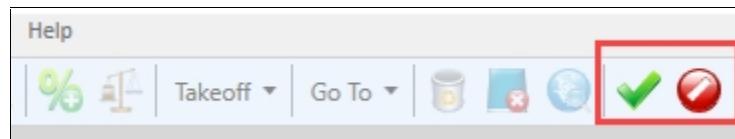


Figure 4: Edit Mode toolbar indicator

When does Benchmark Save Data?

Benchmark automatically saves the information to the database whilst using Benchmark. This auto-save operation takes place whenever you click on **OK**, or press **ENTER** on your keyboard to ok your changes.

Selecting **Cancel** instead of **OK** will mean any changes made will not be saved. **Cancel** works similar to Windows' undo operation. You access **OK** and **Cancel** from the right-click menu or the window toolbar. You can also press **ESC** instead of clicking **Cancel**.

The Enter Key and Carriage Returns

You can use the **ENTER** key on your keyboard when accepting or finalising a new data record. This is the same as right clicking and selecting **OK**.

To enter a carriage return in a text field you need to press **ALT+ENTER**.

Case Sensitivity for Resources

Resource descriptions in the **Resource Library** are *case sensitive*. For example, a *Resource* with the *description* of *BOBCAT* and a *Resource* with the *description* of *Bobcat* are recognised as two totally separate *Resources*.

Find Function

In some Benchmark windows, there is a **Find** icon on the toolbar, which looks like a set of binoculars. If you are searching for a record, click this button, enter your search criteria and press **OK**.



Drop-Down Boxes

Throughout Benchmark there are *drop-down boxes* associated with fields. To select an option from a drop-down box, you can click on it with your mouse, or you can type the first letter(s) of the response you require on your keyboard.

For example, if you want to select the *Item* unit, select the *Unit* drop-down box and press I on the keyboard. For the majority of drop-down boxes, the options can be customised in the [Codes](#) window.

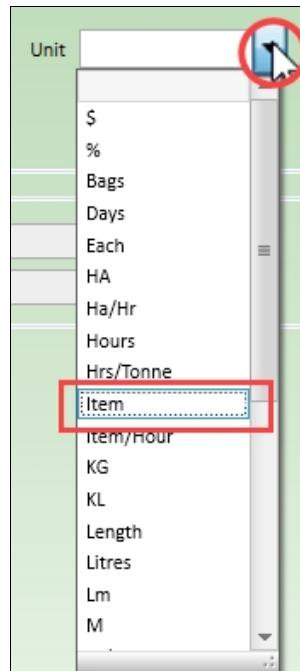


Figure 5: Drop-down list example

Shortcuts

There are numerous shortcuts within Benchmark, to make it easier to perform actions and move between windows. These include:

- **CTRL+A to ADD**
- **CTRL+E to EDIT**
- **CTRL+D to DUPLICATE**
- **CTRL+F to FIND**
- **CTRL+S to SHOW ALL.**

Within fields, you can also use standard Windows shortcuts to *Select All*, *Cut*, *Copy* and *Paste* text, as follows:

- **CTRL+A to SELECT ALL**
- **CTRL+X to CUT**
- **CTRL+C to COPY**
- **CTRL+V to PASTE.**

For a detailed list of shortcuts, please refer to the **Shortcut Keys table** (see "**Shortcut Keys**" on page 477).

Functions

You can access functions in Benchmark by *right-clicking*; this presents a menu with a list of the *functions available in that window*. The example below is from the **Project Details** window.

 Section	Ctrl+1 F3
 Add	Ctrl+A
 Edit	Ctrl+E
 Duplicate	Ctrl+D
 Add Project from Template	
 Load New Project	
 Load Revision	
 Routine	Alt+Ctrl+R
 Power Routine	
 Resource Rate Change	
 Load Spreadsheet	Ctrl+L
 Save Spreadsheet	
 Auto Allocate	Alt+A
 Auto Allocate from Project or Template Project	Alt+Ctrl+A
 Extras	Alt+X
 Spread	Alt+S
 Takeoff	▶
 Go To	▶
 Delete	
 Close	
 Browser	F9

Figure 6: Project Details - Right-click Context Menu

There are three options to perform a function:

- *Right-click*, then select the function.
- Use the *toolbar icon* for that function.
- Use a *shortcut*, if there is one associated with that function.

In the example above, from the *Project Details right-click menu*, you can see some shortcuts - **ALT+CTRL+R** to run a **Routine** and **CTRL+L** to **Load Spreadsheet**.

Right Click Menus and Toolbars

You can access menu options and functions through the *right-click context menu* from most Benchmark windows. The options available are *specific to the window* you are in. If you are in **Edit** mode, the right-click context menu displays the **OK** and **Cancel** options. For more information, refer to **When does Benchmark save data?** (on page 13)

The example below shows the *right-click context menu* from the **Estimator Library** window.

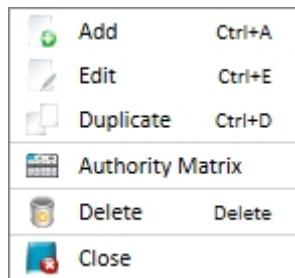


Figure 7: Estimator Library - Right-click context menu

Open Benchmark

When you open Benchmark, the **DATABASE CENTRE** window is displayed. Options in this window:

1. To open one of your *pre-configured Database Connections* (A), double-click on one of the listed database connections (this is what you will normally do after your IT Administrator configures the system).
2. Add, Edit or Delete a Database Connection (B).
3. Open a Portable Database (C).
4. Use Advanced features (D).
5. Connect to the selected Database Connection or Close Benchmark (E).

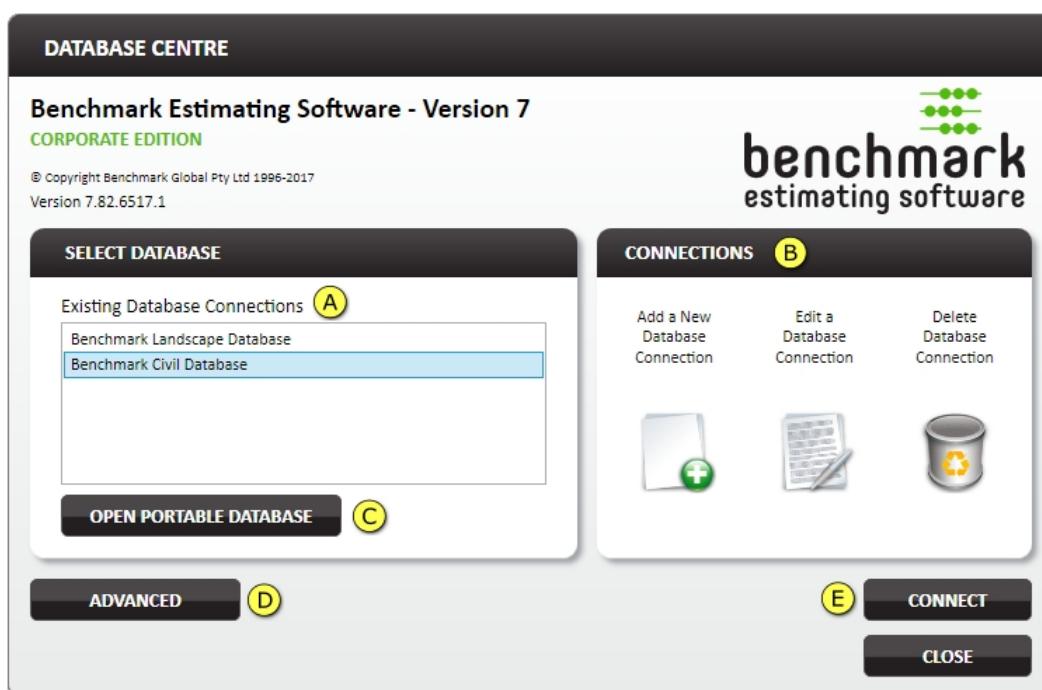


Figure 8: Benchmark DATABASE CENTRE window

Advanced features (D) consist of:

- *Restore Database* - to restore from a database backup.
- *Reserialise* - to re-license the software.
- *Installation Integrity Report* - to check installation of Benchmark is valid.



Open Benchmark for the first time.

When you open Benchmark for the first time after purchasing the software, you need to install a *Licence File* unique to your company and your computer. In this scenario you are presented with prompts to request and then install a *Licence File*. For more information about this process please consult the *Installation Manual* or contact your Benchmark Support team.

A **Database Connection** is a profile that relates to a Benchmark Database. Your IT officer may need to set up your Database Connection(s) for you; steps to do this are contained in the following pages. You can have multiple Databases, and corresponding Database Connections, if you wish.

A **Portable Database** is primarily used in the **Check Out** feature in Benchmark (For more information, refer to **Check Out Projects** (see "**Checking Out Projects**" on page 273)); Portable Databases are not recommended for multi-user environments.

Open a Database Connection

The standard method of opening a Benchmark Database is to *open a pre-configured Database Connection*. By the time you are reading this manual, you should have your Database Connection(s) configured to suit your business and your IT network (A).

Select your connection and click the CONNECT button (E), or double-click the Database Connection.

If you do not have any Database Connections, please refer to **Add a Database Connection** (on page 18) for instructions on how to add, edit, or delete a database connection (B).

Add a Database Connection

Your IT administrator need to add (and/or) edit your Database Connection(s), especially if you are using Microsoft SQL Server or Oracle. The *Installation Manual* contains detailed steps on how to add a database connection.

For convenience, we have included some details below on how to add a new database connection.

A Database Connection refers to a collection of settings which allow Benchmark to connect to a specific database, therefore, each Database Connection corresponds to one database. You can have one or more databases connections depending on your business' structure and strategic goals.

To add a new Database Connection:

1. Open Benchmark.

2. From the Connections panel of the **Database Centre** window, select Add a New Database Connection to display the following window:

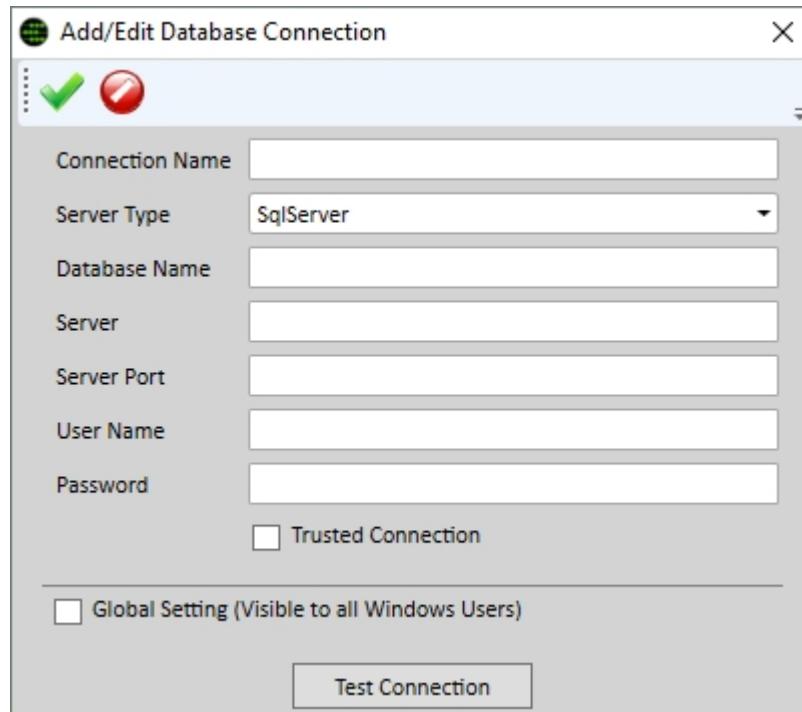


Figure 9: Add/Edit Database Connection

3. Enter the details of the Database Connection, using the instructions below as guidance. The steps differ depending on which database you are using.
4. Select the Test Connection button to test the connection. If the connection is unsuccessful one of the parameters you entered must be incorrect. Please review and correct these where necessary and try again.
5. When finished, select OK to save the connection settings. Your database connection will now be saved in the list of available connections/databases.

Repeat these steps above if you have multiple databases.



Sample and blank databases

When you first purchase Benchmark, sample databases and a blank database are included in the software download package. These can be installed during installation but this decision is up to you. The sample databases are located in the directory where Benchmark was installed. The default directory is C:/Program Files (x86)/BenchmarkV7. You can also create your own database. For more information, refer to **Create a new Database** (on page 278).

SQLite Connection Settings

Option	Description
Connection Name	Enter a name for the Database Connection. This can be whatever you wish and is what will appear in the Database Centre window under the SELECT DATABASE heading.
Server Type	Select SQLite from the drop-down list. When you do this most of the fields in this window are dimmed and are not required for SQLite.
Database File	Select the Browse button to the right of this field and browse to find the SQLite database. This database has a <i>.bp7</i> file extension.
Server	Not required for SQLite
Server Port	Not required for SQLite
User Name	Not required for SQLite
Password	Not required for SQLite
Trusted Connection	Not required for SQLite
Global Setting	<p>Check this <i>only</i> if you are using <i>Remote Desktop Services or Citrix</i> and want this database connection to be available to all users.</p> <p>Note: SQLite databases are not recommended for two or more concurrent users.</p>

Table 3: Database Connection Settings for SQLite

MSSQL Connection Settings

Option	Description
Connection Name	Enter a name for the Database Connection. This can be whatever you wish and is what will appear in the Database Centre window under the SELECT DATABASE heading.
Server Type	Select SqlServer from the drop-down list.
Database Name	This is the name of your database as it is stored in MSSQL. It can be the same or different to the Connection name. For more information, refer to Sample and blank databases (see " Sample Databases " on page 278).

Option	Description
Server	This is the name of your SQL Server and is specific to your computer. You may also need to enter the instance name such as <i>servername\SQLInstanceName</i> . For more information, refer to DB Server name (see " Database Server name " on page 279).
Server Port	If the SQL Server is using a non-standard port (due to a Firewall for example), enter this port here. For more information, refer to DB Server Port (see " Database Server Port " on page 279).
User Name	This is the user name for the relevant account for your SQL Server. For more information, refer to DB User name and password (on page 279).
Password	This is the password for the relevant account for your SQL Server. For more information, refer to DB User name and password (on page 279).
Trusted Connection	Click Use Trusted Connection if you can use Windows authentication. (Note that this will only work if the current account, that you are logged in with, has been mapped to the master database during installation by an MSSQL Administrator, or is mapped to another database).
Global Setting	Check this only if you are using <i>Remote Desktop Services or Citrix</i> and want this database connection to be available to all users.

Table 4: Database Connection Settings for MS SQL Server



The sample/blank MSSQL databases that can be installed during Benchmark software installation have the following Database Names. If you installed these databases and you wish to add a new database connection, use the following names in the Database Name field.

- BMCIVIL
- BMLANDSCAPE
- BMEMPTY

BMCIVIL and BMLANDSCAPE can be used as starting points for Civil and Landscaping clients respectively. BMEMPTY can be used for anyone who wishes to start with a clean, empty database.



The name of your SQL Server is specific to your computer/business. If you already have SQL Server installed, then you must enter the SQL Server name specific to your installed SQL Server. If you are using the SQL Server 2008 Express, the *Server name* should be

NameOfYourComputer\Benchmark. You must determine the *NameOfYourComputer*; this can be found in the **Control Panel → System** window.



Depending on your operating system and firewall settings, SQL Server may be blocked by default from passing through your firewall. If your connection fails, this may be the cause and to rectify this you must seek advice from your local IT support who maintains your network.

Oracle Connection Settings

Option	Description
Connection Name	Enter a name for the Database Connection. This can be whatever you wish and is what will appear in the Database Centre window under the SELECT DATABASE heading.
Server Type	Select <i>Oracle</i> from the drop-down list.
TNS	Transparent Network Substrate, is the name of the TNS Oracle server configured in the TSNName.ora file of the Installed Oracle Client. Alternatively, this can be the IP Address, Port / service name of the Oracle Database Server (i.e IPADDRESS,1521/servicename).
User Name	This is the <i>user name</i> for the relevant account (schema) for your Oracle Database Server.
Password	This is the <i>password</i> for the relevant account (schema) for your Oracle Database Server.
Global Setting	Check this only if you are using <i>Remote Desktop Services or Citrix</i> and want this database connection to be available to all users.

Table 5: Database Connection Settings for Oracle

Open a Portable Database

A *Portable Database* is a database file type used for the **Check Out** function in Benchmark, which can be used to work on an estimate when you are offline and cannot connect to your primary database. If you *Check Out* a Project, Benchmark creates the checked-out Project in a *Portable Database* format.

Customers with one (1) licence of Benchmark Estimating Software can use a Portable Database as their main database format.

Portable Databases are not recommended for multi-user environments.

If you use a portable database regularly, you can set up a Database Connection to it, and open it that way. You can also open a Portable Database:

1. In the **Database Centre** window, click on Open Portable Database as shown below (A):

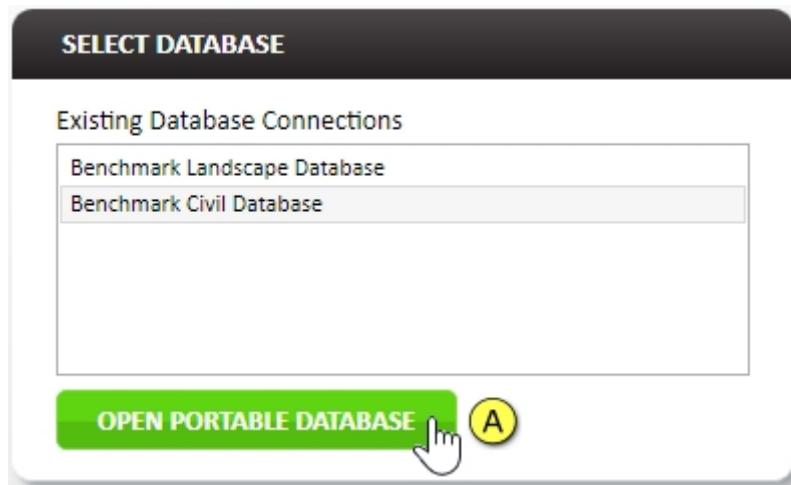


Figure 10: Database Centre - Open Portable Database

2. Browse to find your Portable Database. A portable Benchmark database will have a **.bp7** file extension and will have the following icon.



After connecting to a Database

After you connect to a *Database Connection*, you are presented with one of two options:

- **My Benchmark**
- A **Login** window (if you have multiple Benchmark users set up).

At the **Login** window:

1. Enter your *USER NAME* and *PASSWORD*.
2. Click the **Login** button, or press **ENTER**, to display the **My Benchmark** window.

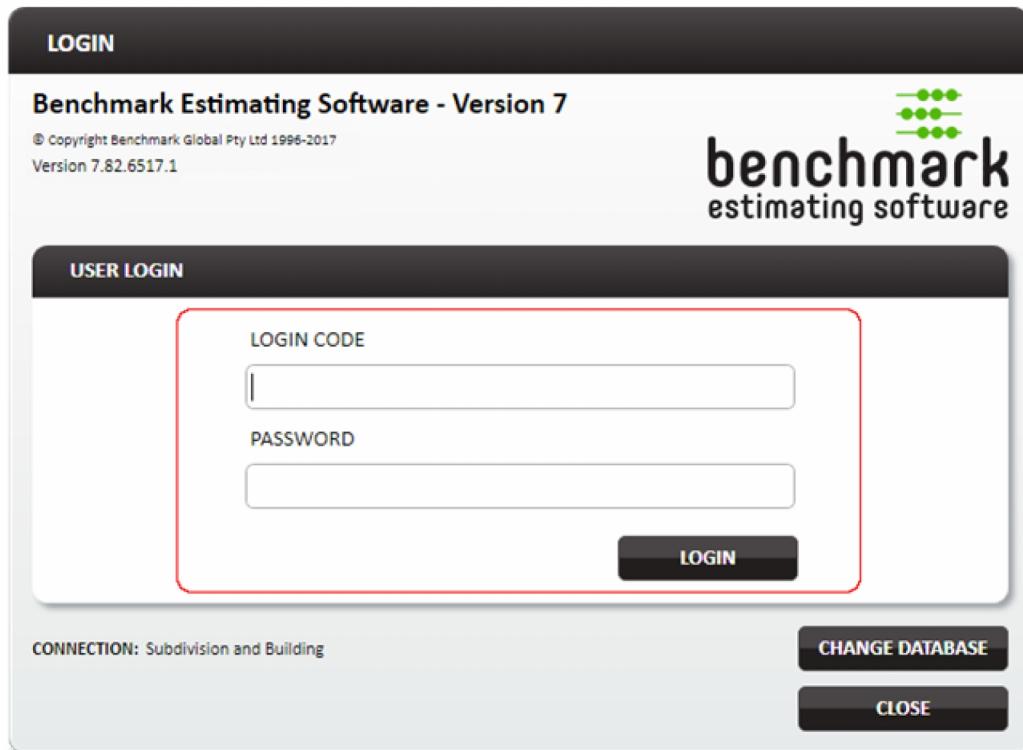


Figure 11: Login Window

For more information, refer to **My Benchmark** (on page 26).

Navigate Benchmark

There are several key navigation windows and options within Benchmark Estimating Software:

➤ **My Benchmark**

The navigation hub for Benchmark Estimating Software. It provides functions to add a new project, a summary of won, lost and pending projects, a list of the most recent projects for the current estimator and provides a customisable list of navigation links for the Libraries and other main areas within Benchmark.

➤ **The *Benchmark menu* (on page 32)**

Gives access to various areas including reports, quotes, libraries and administration functions.

➤ **The *Project Browser* (on page 42)**

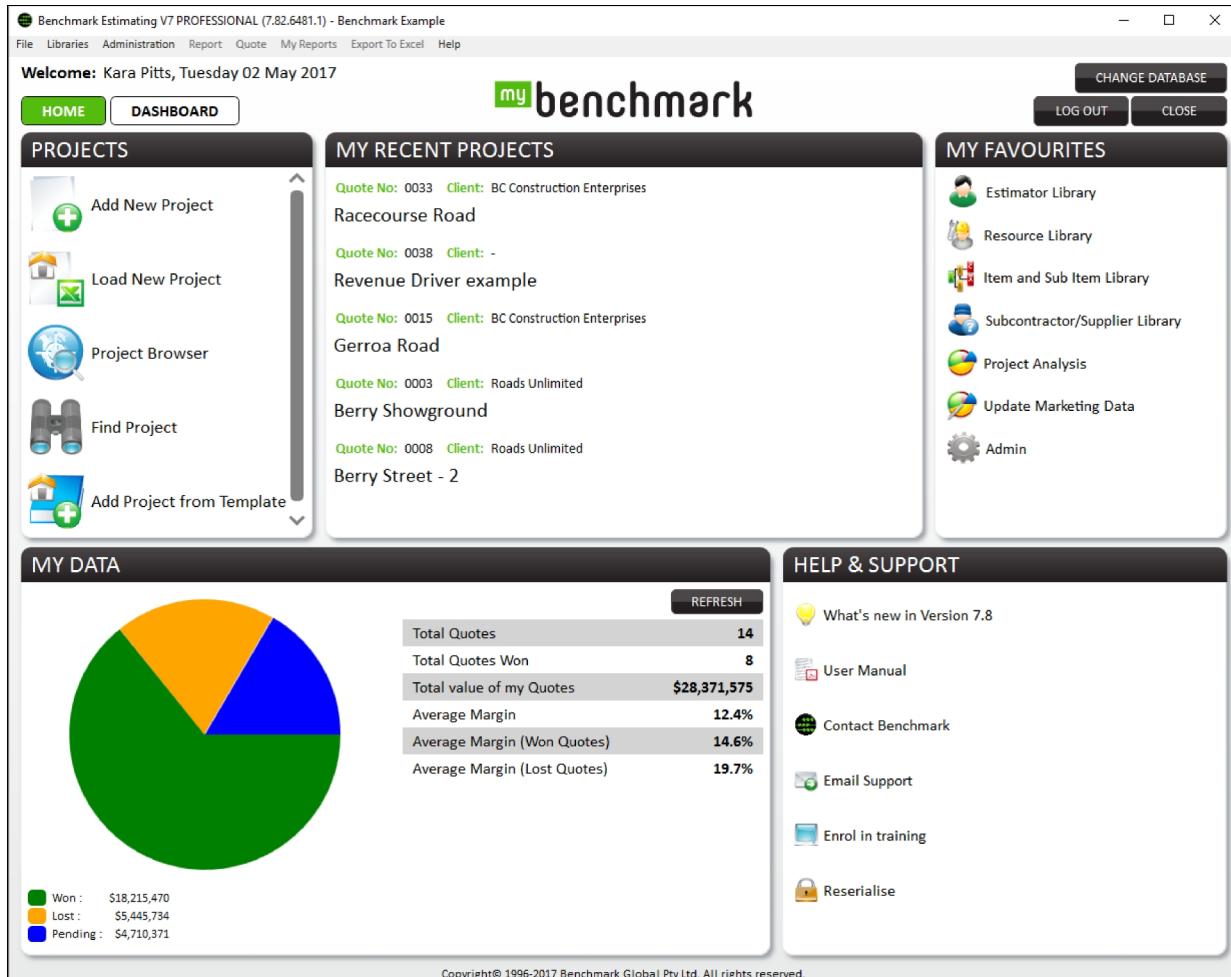
Lists all Projects in the database, allows users to find old projects, and allows for powerful searching, sorting, reporting and more.

➤ ***Right-click menus and toolbars* (see "*Right Click Menus and Toolbars*" on page 16)**

➤ **Keyboard shortcuts.** For more information, refer to ***Benchmark Shortcuts* (on page 477)**.

There are also options for *navigating within a Project*. For more information, refer to ***Project structure and navigation* (on page 52)**.

My Benchmark



The screenshot shows the 'my benchmark' interface with the following sections:

- HOME:** Contains links for 'Add New Project', 'Load New Project', 'Project Browser', 'Find Project', and 'Add Project from Template'.
- DASHBOARD:** Shows 'MY RECENT PROJECTS' with a list of recent projects and their details. Projects include 'Racecourse Road', 'Revenue Driver example', 'Gerroa Road', 'Berry Showground', and 'Berry Street - 2'. Each entry shows a quote number and client information.
- MY FAVOURITES:** A list of links to various Benchmark features: Estimator Library, Resource Library, Item and Sub Item Library, Subcontractor/Supplier Library, Project Analysis, Update Marketing Data, and Admin.
- MY DATA:** A pie chart showing the distribution of projects by status: Won (green), Lost (orange), and Pending (blue). Below the chart is a summary table with the following data:

Total Quotes	14
Total Quotes Won	8
Total value of my Quotes	\$28,371,575
Average Margin	12.4%
Average Margin (Won Quotes)	14.6%
Average Margin (Lost Quotes)	19.7%
- HELP & SUPPORT:** Links to 'What's new in Version 7.8', 'User Manual', 'Contact Benchmark', 'Email Support', 'Enrol in training', and 'Reserialise'.

Figure 12: My Benchmark

My Benchmark is the starting point to Benchmark and the central workspace for the user.

My Benchmark provides quick access to the Benchmark features and areas that you use the most. It also provides access to key market share data. You can customise **My Benchmark** to suit your specific requirements

My Benchmark is split into the following distinct areas:

- HOME
 - PROJECTS: Project quick links.
 - MY RECENT PROJECTS: List of recent projects.
 - MY FAVOURITES: Customisable list of links Benchmark Libraries and other main features.
 - MY DATA: Won, Lost and Pending Projects summary.
 - HELP & SUPPORT: Links to Help and Support.
- DASHBOARD

- Provides widgets for displaying marketing data. For details, refer to **DASHBOARD** (on page 29).



Shortcut to **My Benchmark** using F10.

From anywhere in Benchmark, the user can return to the **My Benchmark** window by pressing F10.

Projects

The Projects panel of **My Benchmark** provides the following icons:

- Add a New Project – Adds a new Project (estimate).
- Load New Project – Adds a new Project by loading project data from a spreadsheet.
- Project Browser – Lists all Projects in your Database and provides you with powerful search and sort functionality as well as business reporting.
- Find Project - Opens the **Project Browser Advanced Find** window, where you can enter multiple criteria for your search.
- Add Project from Template - Prompts the user to select a Template Project and will create a new Project based on that Template.

Template Projects is an *Add-On module* to Benchmark.

To customise the PROJECTS panel, click the Settings icon.

The Settings icon becomes visible when you position your mouse pointer in the panel.

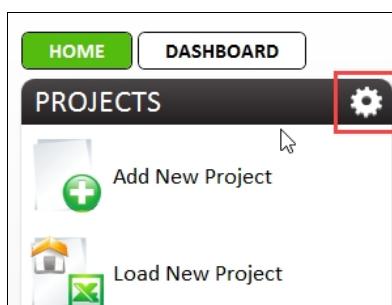


Figure 13: My Benchmark - PROJECTS - Settings icon

My Recent Projects

This panel contains a list of your recent projects. Click the Settings icon to select which fields and how many Projects to display.



My Favourites

You can add links to your most visited Benchmark options so that you can access them with a single click.

To customise My Favourites:

1. Click the **Settings** icon that becomes visible when you move your mouse into the **MY FAVOURITES** area of **My Benchmark**.



2. Click the arrow controls to *add or remove* favourites (A), and to *order* them (B).

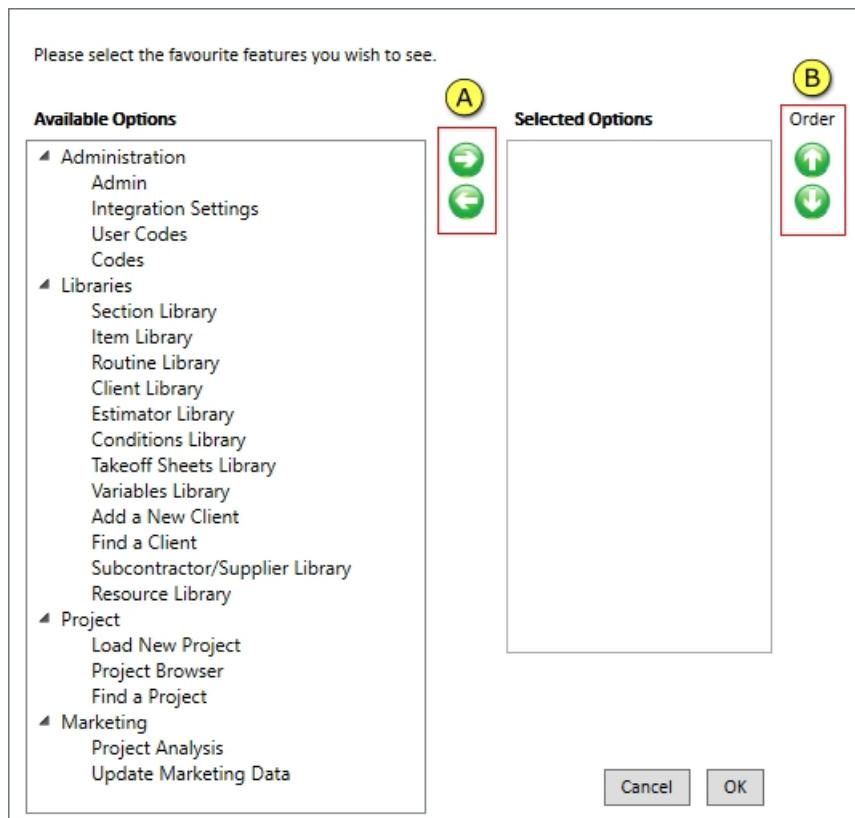


Figure 14: My Benchmark - Select favourite features

My Data

The My Data segment contains the following information and can be customised for each estimator:

- A pie chart showing the *comparative values* of your *Won, Lost and Pending Projects*.
- The *cumulative value* of your *Won, Lost and Pending Projects*.
- The *total number* of Projects, the *number won*, and the *value* of all your Projects.
- *Average Margin* percentages.

Help & Support

The Help & Support area of **My Benchmark** features these options:

What's new in Version 7.8

- Link to *Release Notes* for the current version.

User Manual

- Link to PDF version of the *User Manual*.

Contact Benchmark

- Open the Contact Us page of the Benchmark website. Users can choose the most appropriate contact details for their location or submit a form requesting information.

Email Support

- Enables you to email the *Support Team* with a question or issue at **Benchmark Support** (<mailto:support@benchmarkestimating.com>).

Enrol in Training

- Takes you to the Benchmark Estimating Software website where you can apply online for upcoming training sessions.

Reserialise

- Enables you to reserialise your Benchmark Estimating Software or send a request to Benchmark Support for a new Licence File.

Dashboard

Access the Dashboard from the Dashboard button in the **My Benchmark** window. The **DASHBOARD** provides customisable *widgets* for displaying marketing data.

Widgets can display:

- Won/Lost/Pending results
- Reasons for Loss results
- Competitor comparison results
- Forward Order results.

To customise the Dashboard:

1. Click on the Dashboard Settings button to display the customisation options:

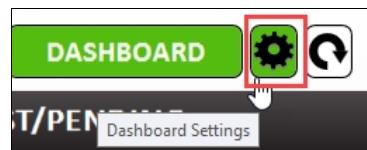


Figure 15: My Benchmark - Dashboard - Dashboard Settings button

The **Dashboard Settings** window enables you to select a layout from the available styles (A). After you have selected a layout you can select the graphs you wish to display.

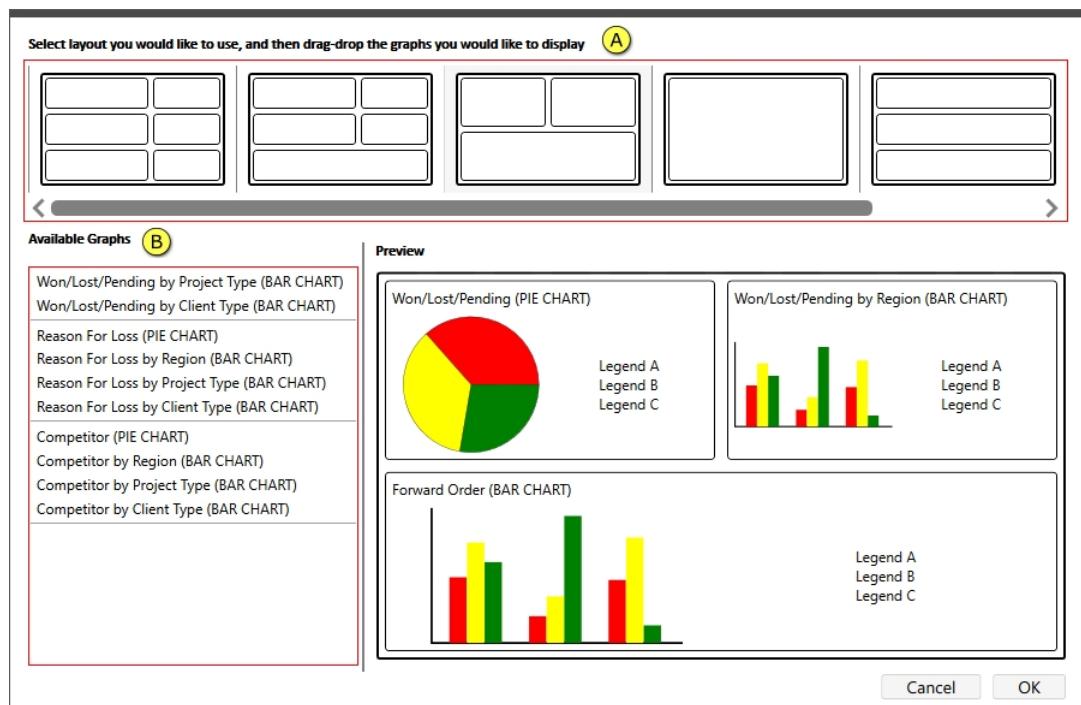


Figure 16: My Benchmark - Dashboard - Dashboard Settings

2. To add a graph to your layout (B):
 - Click and drag the graphs from the list on the left to the desired position in the layout preview, or
 - Double-click on the desired graphs.
3. Click OK to save your selections.
4. Once you have set up your layout and chosen your charts you can set up options for each graph. To set up graph options, click the **Settings** icon at the top right corner of each graph.



Access to the Dashboard feature

The System Administrator must provide users with access to the Project Analysis feature before they can use the Dashboard.



My Benchmark settings

My Benchmark settings are *database-specific* and *user-specific*, so Benchmark saves all your customisations. If you use more than one database, you can export your settings from one database and import them to another database to save you time. To export or import your My Benchmark settings:

Select File → Utilities → Export/Import My Benchmark Settings.

Benchmark Menu

The Benchmark menu is *at the top of the main Benchmark windows.*



Figure 17: Benchmark Menu

File Menu

The File menu includes the following options:

- Change Estimator: Log on to your current Benchmark database with a different Login Code and Password
- Change Database: Select a different Benchmark Database
- New Portable Database: Create a new Portable Database
- View Logged In Users: See which users are logged on.

This option is useful for Administrators and enables them to confirm that no users are logged on before performing maintenance activities.

- Utilities:

The File → Utilities menu provides options to *backup data, check data integrity, Export and Import data, backup and restore customisations, and other utilities.*

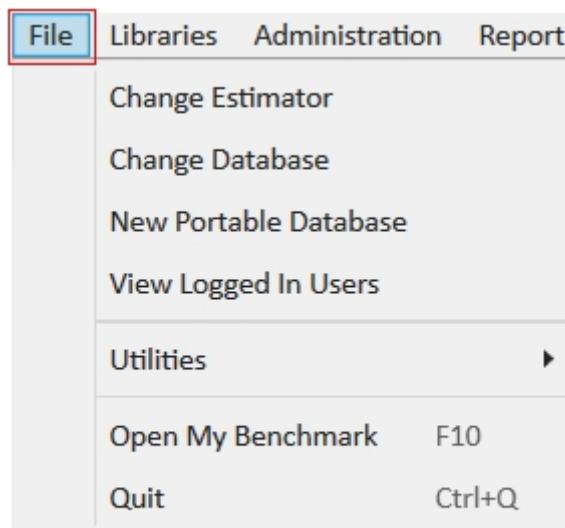


Figure 18: File Menu

Libraries Menu

Benchmark is a Library-based system; the Libraries are designed to save you from re-inventing the wheel and from re-typing data repeatedly, as well as to improve the consistency and accuracy of your estimating.

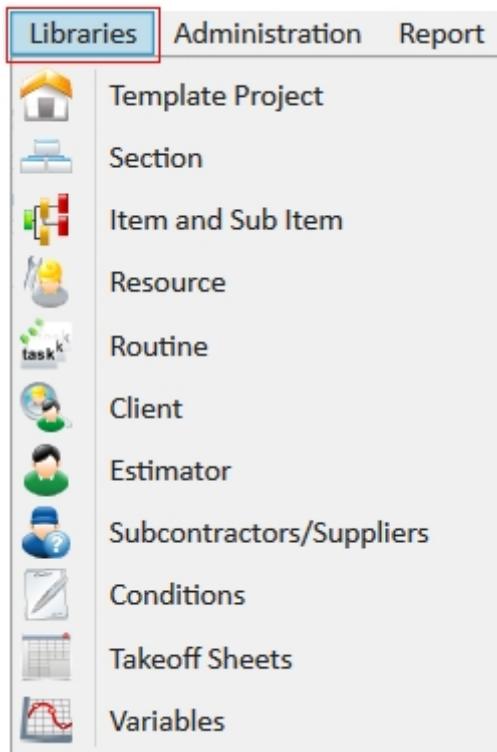


Figure 19: Libraries Menu



Available Libraries

Sub Items, Takeoff Sheets and Variables will only be displayed if you have enabled these features in the [Administration](#) window.

The [Template Project Library](#) is part of the [Template Projects add-on module](#) and is only available if you have purchased this module.

A brief description of the purpose of each of these Libraries is contained below:

Library	Description
Template Projects	<p>The Template Projects feature enables you to create templates which can be used as the basis for other projects. Templates are stored in the <i>Template Project Library</i> and you can control which users can access this Library.</p> <p>You can also use Template Projects as a source of <i>Item</i> data with features like <i>Add Item from Project</i> and <i>Auto Allocate from Project</i>.</p> <p>Template Projects are not included in the <i>Project Browser list</i>. They are also not included in any <i>Marketing analysis reports</i>, or other <i>business reports</i> run from the <i>Project Browser</i>.</p>
Section	<p>Highest level component of a Project. Sections in the <i>Section Library</i> are purely headings; if you price the same type of work repeatedly you can set up a standard list of Sections in this Library and these can be added to each estimate if you wish.</p>
Item and Sub Item	<p>Items (sometimes known as tasks or activities) in your <i>Item Library</i> relate to the standard Items that you undertake in your business. If you price the same Items repeatedly you can store these in the <i>Item Library</i> to save time. Items in the <i>Item Library</i> are <i>built-up</i> with <i>Resources</i> and are also referred to as tasks or activities.</p> <p><i>Sub Items</i> are a powerful feature for crews, large Plant Items, or assemblies. A <i>Sub Item</i> can be added to an Item as a <i>single Resource</i> but will contain additional detail for optimum accuracy and flexibility.</p>
Resource	<p>The Resource Library stores all your <i>Plant, Labour, Material and Subcontract prices</i>. This is like a central price list, and when a price is updated you can do this in the Resource Library and the rest of the system is updated for you automatically.</p>
Routine	<p>Routines are a powerful Benchmark feature that <i>prompt the user with questions</i> (like a checklist) about a <i>Project/Item</i>. The user answers the questions and the Routine uses those answers to price the Project/Item. The Routine Library is where your Routines are created and maintained.</p>
Subcontractor / Supplier	<p>The Subcontractor/Supplier Library can list all the Subcontractors/Suppliers that you deal with. This helps ensure that your subcontractor/supplier data is up to date by keeping it stored in the one location.</p>

Library	Description
Estimator	The Estimator Library stores all the accounts for your Benchmark users. In this Library you can set up <i>login codes/passwords</i> and also set up <i>user permissions</i> to access and use Benchmark functions.
Client	The Client Library can store the details of the <i>Clients</i> that you deal with. This saves you re-typing client's details every time and helps ensure that your client data is maintained and up to date by keeping it stored in the one location.
Conditions	This Library stores your <i>Standard and commonly used Project Specific Conditions</i> which you can then add to each of your Projects, to save you re-typing information.
Takeoff Sheets	This Library can store your standard <i>Quantity Takeoff Sheets</i> for your business which you can then use in your estimates. (Note that this feature is only visible when it has been enabled in the Administration window).
Variables	The Variable Library can store standard <i>Variables</i> that can be used as a basis for <i>Item and Resource calculations</i> in the Libraries. These could be for <i>Wastage</i> or <i>Density of Road Base</i> , for example. (Note that this feature is only visible when it has been enabled in the Administration window).

Table 6: Overview of Libraries

Every Library in Benchmark can be controlled on a user-by-user basis. This means that organisations can restrict certain users from accessing and editing data in Libraries. This is set up in the [Estimator Library](#); information on how to set up user accounts is contained in [Create and Edit User Profiles](#) (see "[Create and Edit an Estimator Account](#)" on page 335).



Corporate Version Libraries

For *Corporate* version users, most Libraries allow information to differ, or be shared, between different geographical *Regions*. The Estimator may be able to access information relating to their *home Region* but not to *other Regions*. For more information, refer to [Set up Estimator Accounts](#) (on page 335).

Administration Menu

The Administration menu is where you access the following features:

1. The **Administration** window, where you can control the features and default settings of your Benchmark system, such as default profit and overhead percentages, the use of your company logo and disable or enable functionality. For more information, refer to ***Customise Administration Settings*** (on page 288).
2. The **Role Based Access** window, where you configure access for estimators based on their role. For more information, refer to ***Role Based Access*** (see "***Role-Based Access***" on page 349).
3. The **Integration Settings** window, where you configure how your company integrates Benchmark with external systems such as iSeekplant, LDAP, Viewpoint Vista, Jobpac, etc. For more information, refer to ***Integrate with other applications*** (on page 447).
4. The **Codes** window, where you can customise the contents of the drop-down boxes in the system, to suit your business. These drop-down boxes (or *Code Types*) are for fields like *Units*, *Resource Groups*, and *Job Categories*, etc. For more information, refer to ***Set up Codes*** (on page 284).
5. The **User Codes** window, where you manage the *User Defined Codes* for the drop-down menu options used with Custom fields. For more information, refer to ***Custom Fields*** (on page 260).

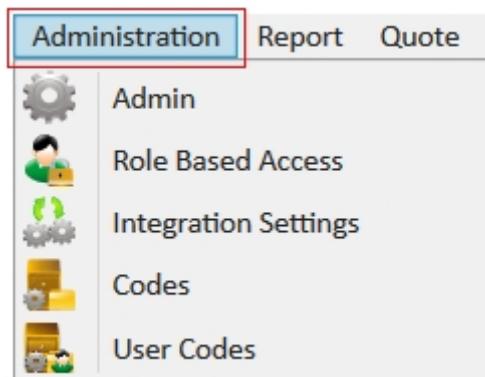


Figure 20: Administration Menu

Report Menu

Benchmark provides many reporting options from the Report menu. For more information, refer to **Produce Reports for your Estimate** (on page 212).

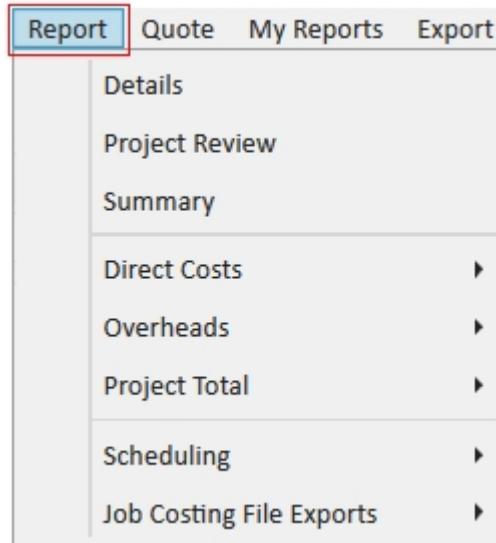


Figure 21: Report Menu

Quote Menu

Benchmark provides many different quote options from the Quote menu. For more information, refer to **Quotes** (on page 214).

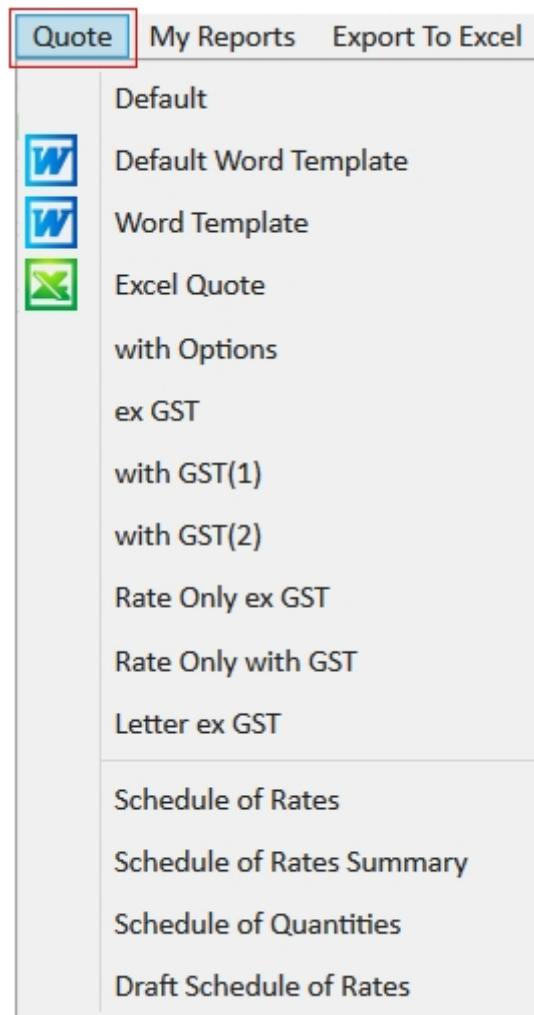


Figure 22: Quote Menu

My Reports Menu

Use the My Reports menu to select your favourite reports. For more information, refer to **Set up favourite Reports with My Reports** (on page 221).

Export to Excel Menu

You can export data to Excel from *Projects* and *Libraries*.

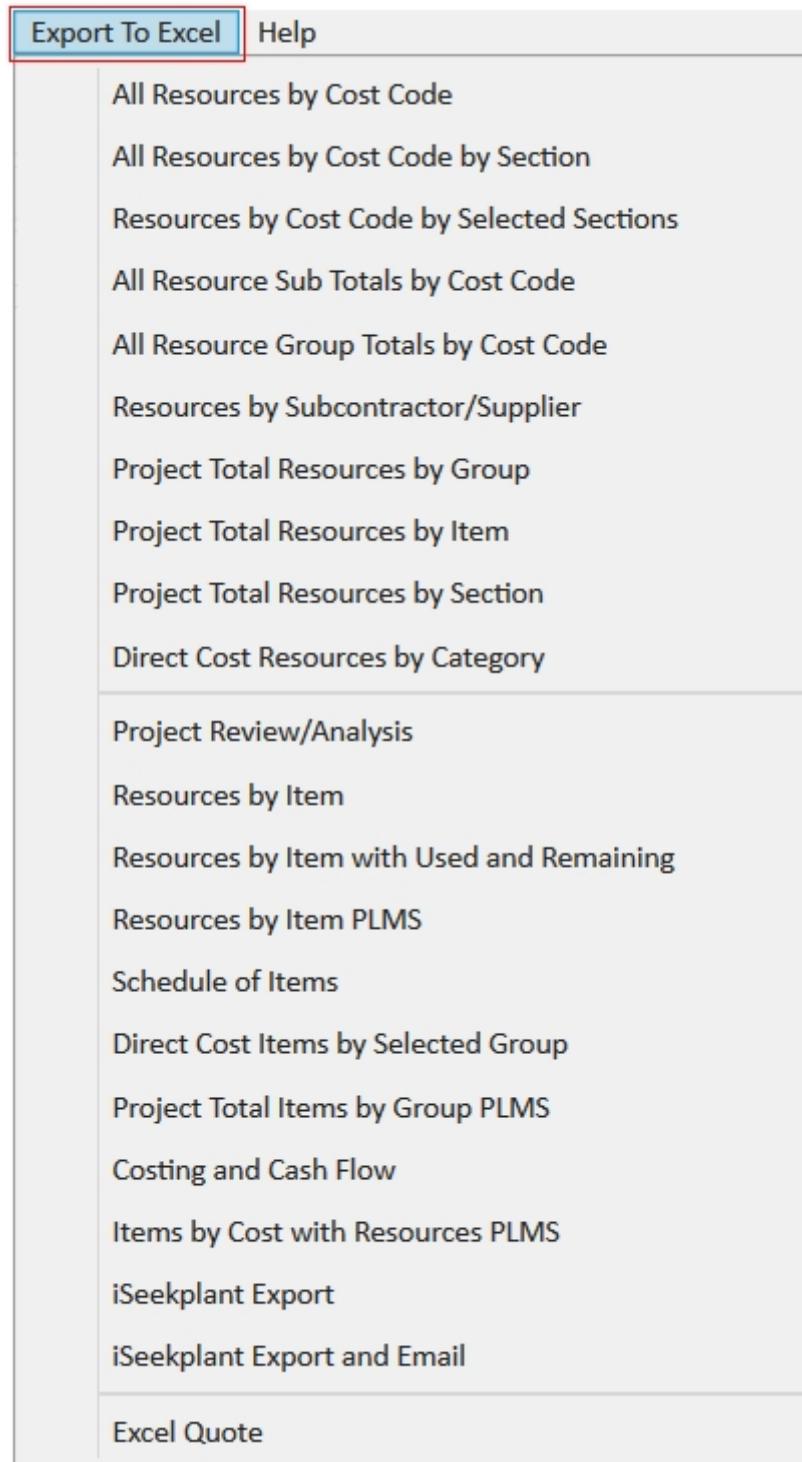


Figure 23: Export to Excel Menu

For more information, refer to **Export your Estimate data to other systems** (on page 226).

Help Menu

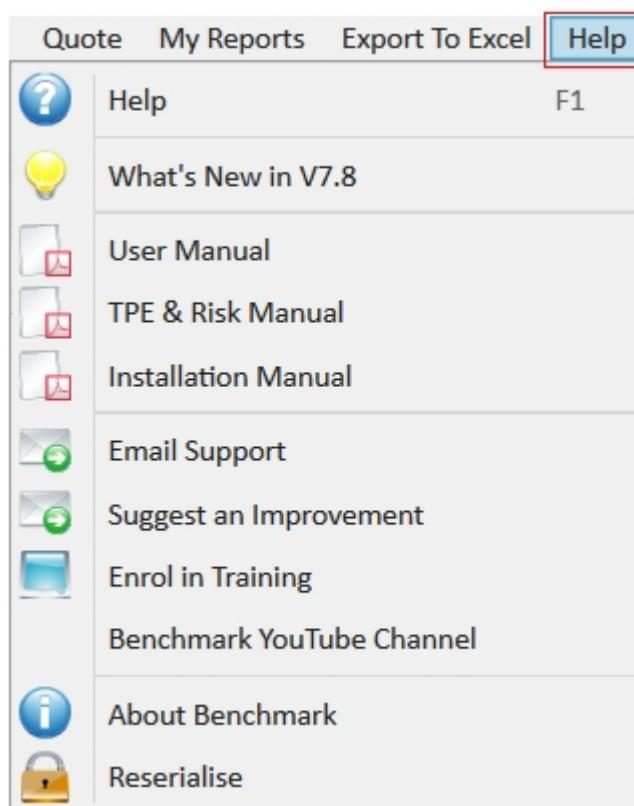


Figure 24: Help Menu

Benchmark Help menu features:

Help (F1)

- Link to *Online Help File* that is installed with Benchmark

What's new in V7.8

- Link to *Release Notes* for the current version

User Manual

- Link to PDF version of the *User Manual*

TPE and Risk Manual

- Link to PDF version of the *TPE and Risk Manual*

Installation Manual

- Link to PDF version of the *Installation Manual*

Email Support

- Enables you to email the *Support Team* with a question or issue at **Benchmark Support** (<mailto:support@benchmarkestimating.com>).

Suggest an Improvement

- Enables you to email the *Product Team* (<mailto:product@benchmarkestimating.com>) with suggestions for improvements and new features

Enrol in Training

- Takes you to the Benchmark Estimating Software website where you can apply online for upcoming training sessions

Benchmark YouTube Channel

- Link to *Benchmark's YouTube channel*, where you can find instructional and marketing videos

Reserialise

- Enables you to reserialise your Benchmark Estimating Software or send a request to Benchmark Support for a new Licence File.

Project Browser

The **Project Browser** gives estimators a customisable view of Projects that can include all Projects that they have permission to see, or just their own. Estimators can perform many Project related functions from the **Project Browser**.

Access the Project Browser from **My Benchmark** → **Home** → **Projects**, click the Project Browser toolbar icon from most windows, or use the shortcut F9.

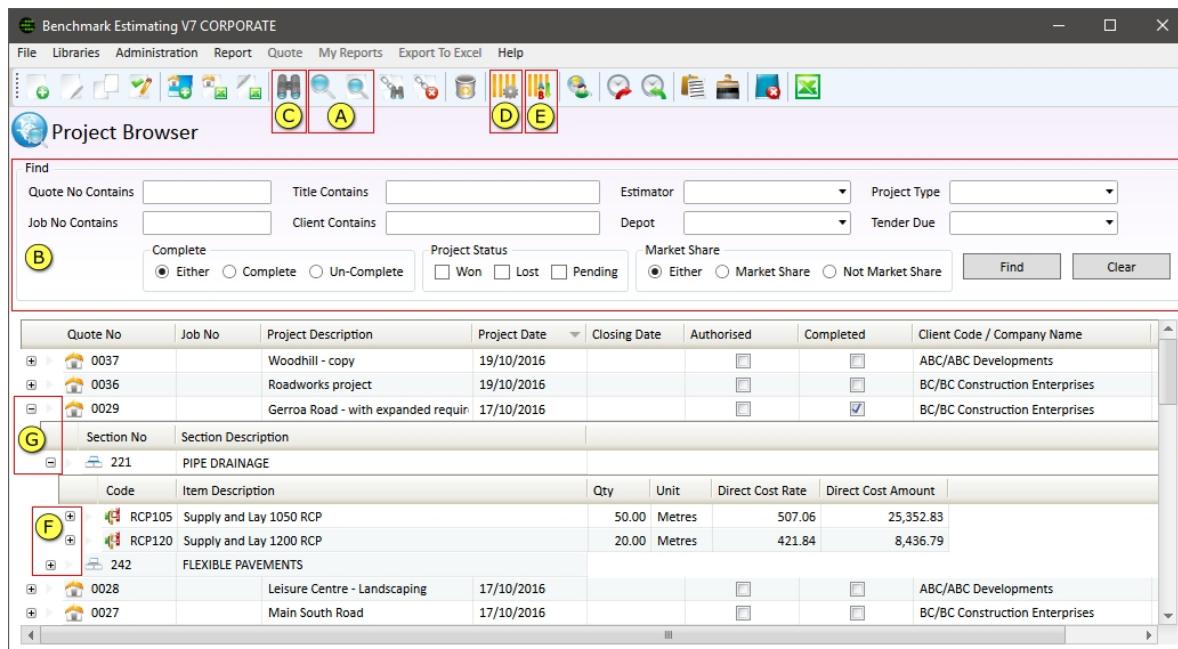


Figure 25: Project Browser

The **Project Browser** has many useful functions, some of which are listed below.

The Project Browser:

- Enables estimators to view all Projects they have access to, or only their Projects (**Show All**, **Show Mine** - **A**).
- Provides estimators and managers with a fast way of finding previous projects using one of two features:
 - **Find** (on page 45) - **(B)** to quickly find Projects using simple search criteria.
 - **Advanced Find** (on page 45) - **(C)** to use detailed search criteria to find Projects with specific content.
- Is *completely customisable* per user, with the following features:
 - **Field Selection** (on page 47) **(D)**.
 - **Custom Sort** (on page 49) - Sort Setting **(E)**.
 - **Drag and drop columns** (on page 50) to re-order them in the grid.
 - **Re-size column widths** (on page 50) to resize fields and see more, or less, of their content.
- Enables estimators to *expand* Projects and *drill down* to the Resource level.

- Expand (F) and Collapse (G) functions.
- Enables estimators to compare two or more Projects.
For more information, refer to ***Use Project Comparator to Compare Projects*** (see "***Comparing Projects***" on page 257).
- Includes many *business reporting* options. For more information, refer to ***Produce Multiple Project Reports*** (on page 220).
- Enables estimators to ***Export Project Browser data to Excel*** (on page 50).
- Enables estimators to ***Duplicate a Project*** (on page 75) from within the **Project Browser**.

What Projects Can a User See in the Browser?

When a user first opens the **Project Browser** they will see the *list of Projects* they have worked on or are still working on. This list will be the same as if the user selected the Show Mine feature.

If a user has been granted access to All Projects they can use the Show All feature to list all projects. The Projects a user can see in the **Project Browser** can also be impacted by the Regionalisation feature and settings (only available in the *Corporate* edition); here Administrators can nominate Project access based on *Regions*.

Benchmark also has a Bid Team feature which allows you to nominate a team of people to work on individual projects.

When the Bid Team feature is being used, the list of Projects displayed in the **Project Browser** will change for some users. The table below shows the projects a user can see in the **Project Browser** and includes the expected behaviour for the Show Mine and Show All features, for users with different types of project access permissions, and if Bid Team is enabled or disabled.

Project Access in Estimator Library	Use Bid Team	Project Browser Show Mine	Project Browser Show All
ALL PROJECTS	NO	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By 	<ul style="list-style-type: none"> • All projects in the database
ALL PROJECTS	YES	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team 	<ul style="list-style-type: none"> • All projects in the database
MY PROJECTS	NO	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By 	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By

Project Access in Estimator Library	Use Bid Team	Project Browser Show Mine	Project Browser Show All
MY PROJECTS	YES	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team 	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team
REGIONAL PROJECTS [^]	NO	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) 	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • All other Projects in estimator's permitted regions
REGIONAL PROJECTS [^]	YES	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • On the Bid Team (regardless of Project Region and estimator's permitted regions) 	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • On the Bid Team (regardless of Project Region and estimator's permitted regions) • All other Projects in estimator's permitted regions

Table 7: Access to projects in Project Browser

[^] Regional Projects access is only applicable in the Benchmark Corporate edition.

Search for Projects

Estimators can use two features to search for Projects:

- Find

- Advanced Find.

Find

To find Projects, enter *search terms* in any of the *find fields*, then click the **Find** button.

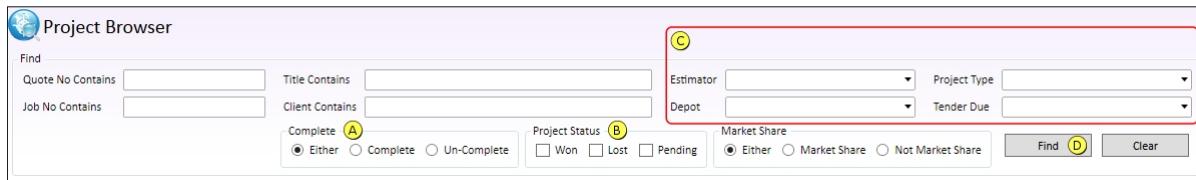


Figure 26: Project Browser - Find options

Advanced Find

In the **Project Browser**, click on the Advanced Find toolbar button to search and filter through the *Sections, Items* and/or *Resources* in your projects, as well as the *Projects* themselves.

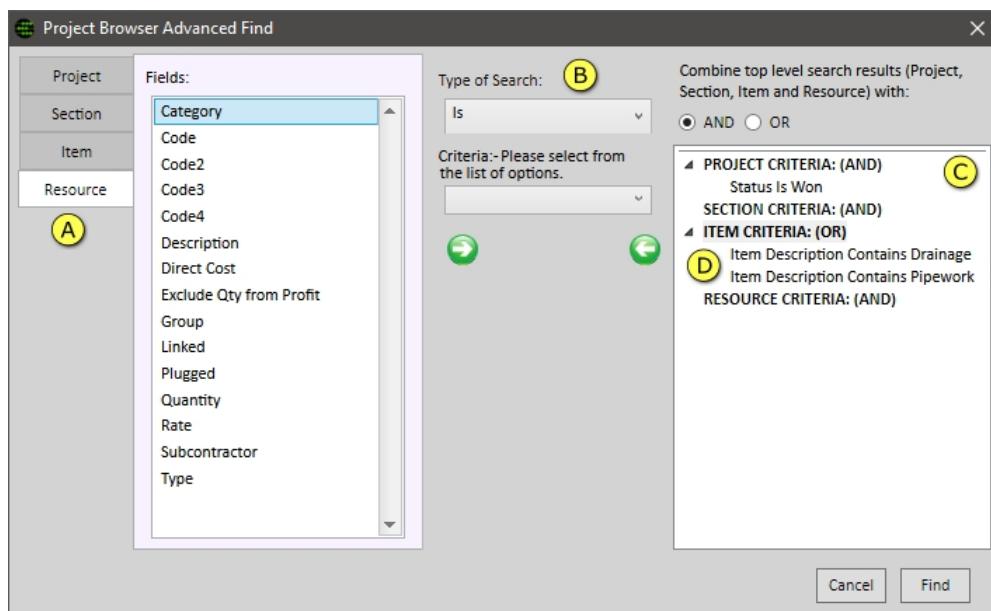


Figure 27: Project Browser - Advanced Find window

Key features include:

- Search and filter within one or more of the *Project, Section, Item* and *Resource* levels (A).
- Define your search / filter criteria (B) and add to the existing filters (C).
- Build complex search queries by combining with *AND / OR* search terms (D).

Example 1:

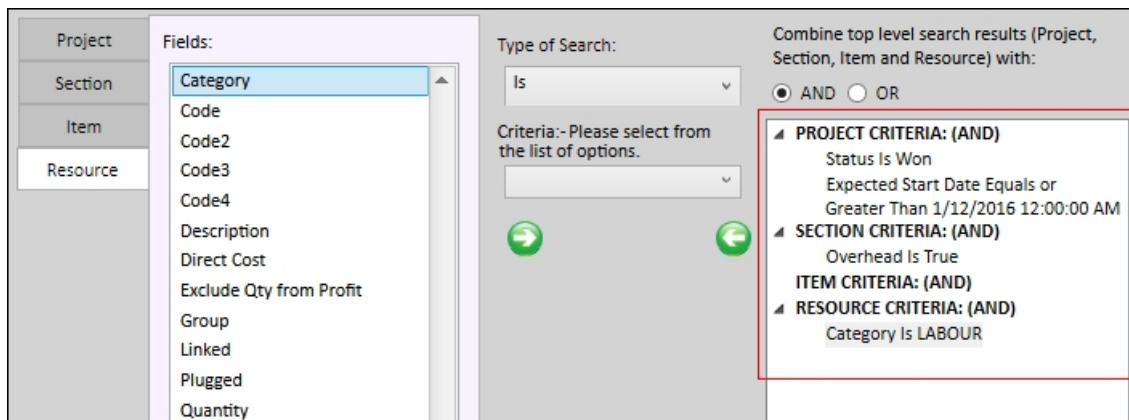


Figure 28: Project Browser - Advanced Find window - Example 1

In this example, we have added four search criteria to find Projects:

1. Where *Status* is *Won*.
2. Where the *Project Expected Start Date* is on or after *01/12/2016*.
3. Which have a *Section* which is an *Overhead*.
4. Which include a *Resource* with a *Resource Category* of *LABOUR*.

Another way of saying this, is that this find criteria will return all *LABOUR Resources* (including their parent *Items/Sections*) in *Overhead Sections only*, for all *WON Projects* with an *Expected Start Date on or after 1 Dec 2016*.

Example 2:

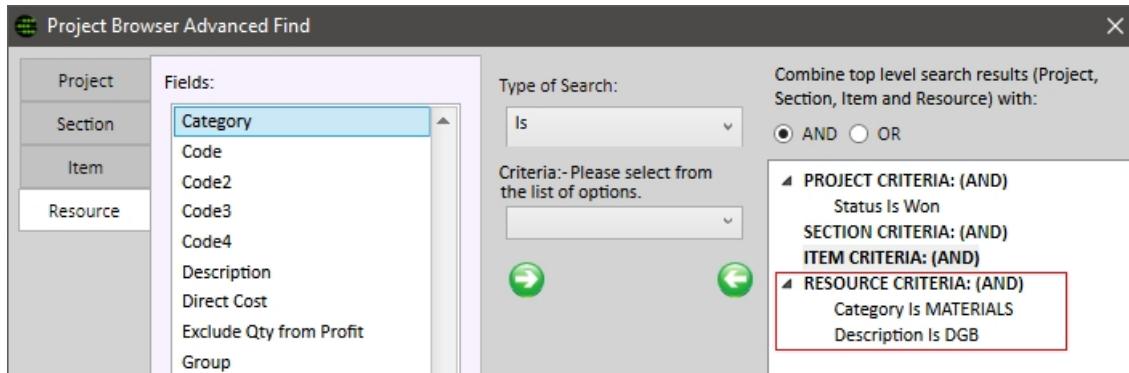


Figure 29: Project Browser - Advanced Find window - Example 2

In this example, we have added two search criteria to find *ALL Projects* that contain a specified *Resource*; in this case:

1. *Resources with a Category of MATERIALS.*
2. *A Resource Description* containing the word *DGB*.

When the estimator executes the Example 2 Find criteria, Benchmark returns all Projects which have a *MATERIAL Resource* whose *description contains DGB*. The result will also include *parent Sub Items* (if applicable), *Items* and *Sections* for these *Resources*.

Advanced Search Criteria Options

To change, add, and remove *AND* and *OR* conditions, right-click in the criteria section of the Advanced Find window, as shown below:

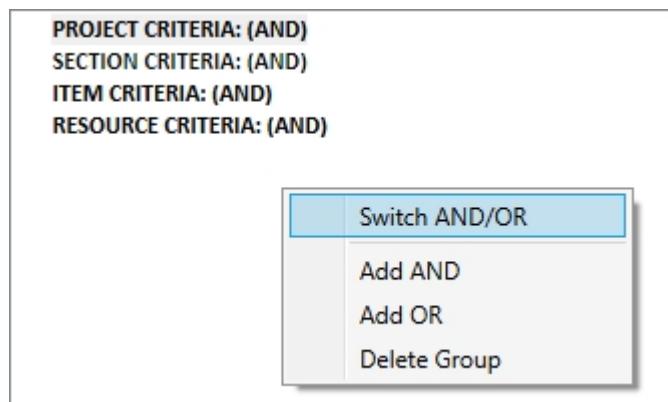


Figure 30: Project Browser - Advanced Find - AND OR Options

Customise the Project Browser View

Each user can customise the Project Browser to suit them. The customisations available are:

- Field selection
- Sort options
- Drag and drop columns
- Re-size column widths.

Customisations are personalised and saved for each estimator. This applies to the column widths, location, applied filters, displayed fields and sort order; which all persist for each estimator between their Benchmark sessions.

Field Selection

In the **Project Browser**, click the Field Selection toolbar button to customise which *Project*, *Section*, *Item* and *Resource* attributes are displayed in the **Project Browser** window.



Choose from a wide range of attributes for each of these hierarchies.

- Select one or more fields at the *Project*, *Section*, *Item* and *Resource* levels (A).
- Click the left and right arrow controls (B) to move fields between *Available* (C) and *Displayed* (D) or double-click on a *Displayed Field* to move it to an *Available Field* and vice versa.

- Click the up and down arrow controls (E) to change the order of displayed fields.

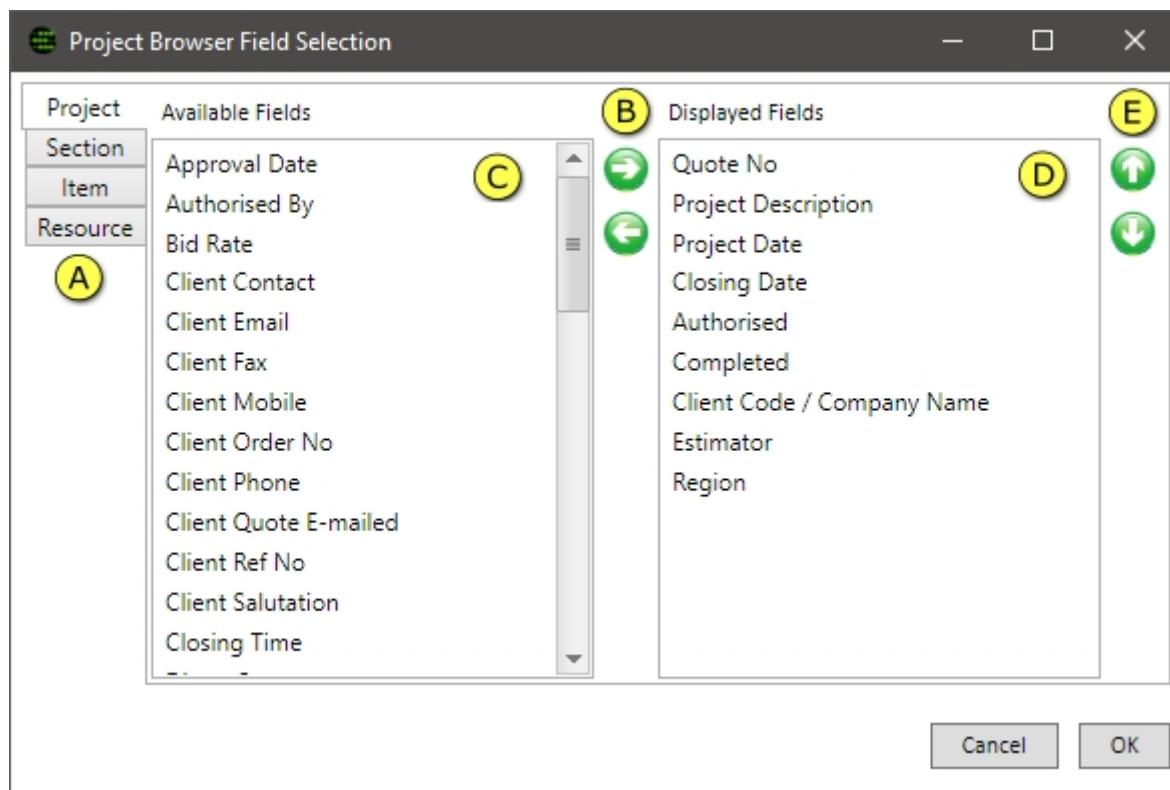


Figure 31: Project Browser - Field Selection window

Quick Sort

To sort your view in the **Project Browser**, click on a *column header* (A). As shown below, you can use this *quick sort function* at the *Project* and *Section* hierarchy, and the *Item* and *Resource* hierarchy.

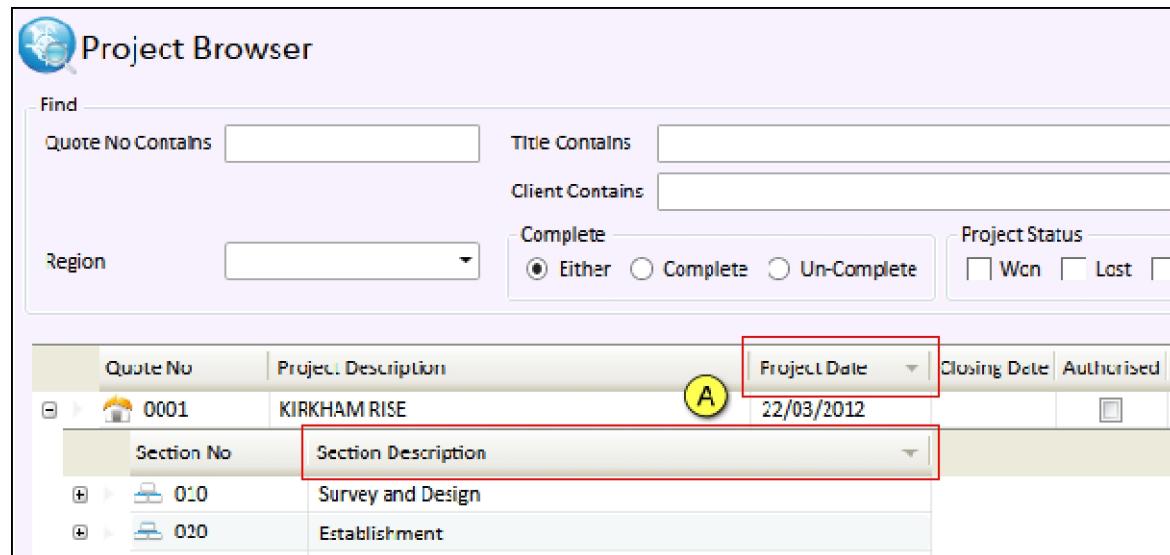


Figure 32: Project Browser - Sort on screen

Custom Sort

To do a custom sort, click on the Sort Setting toolbar button in the Project Browser.



You can use the **Sort** window to sort by more than one criteria and at multiple levels. For example, you can view Projects sorted by the *date* (most recent first), then by *Section Direct Cost* – from the highest cost to the lowest.

In the **Sort** window, you can:

- Sort fields within the *Project, Section, Item and Resource* levels (A).
- Choose from fields, even those not currently displayed (B).
- Choose the sort order (C) and add or remove from the sort list (D).

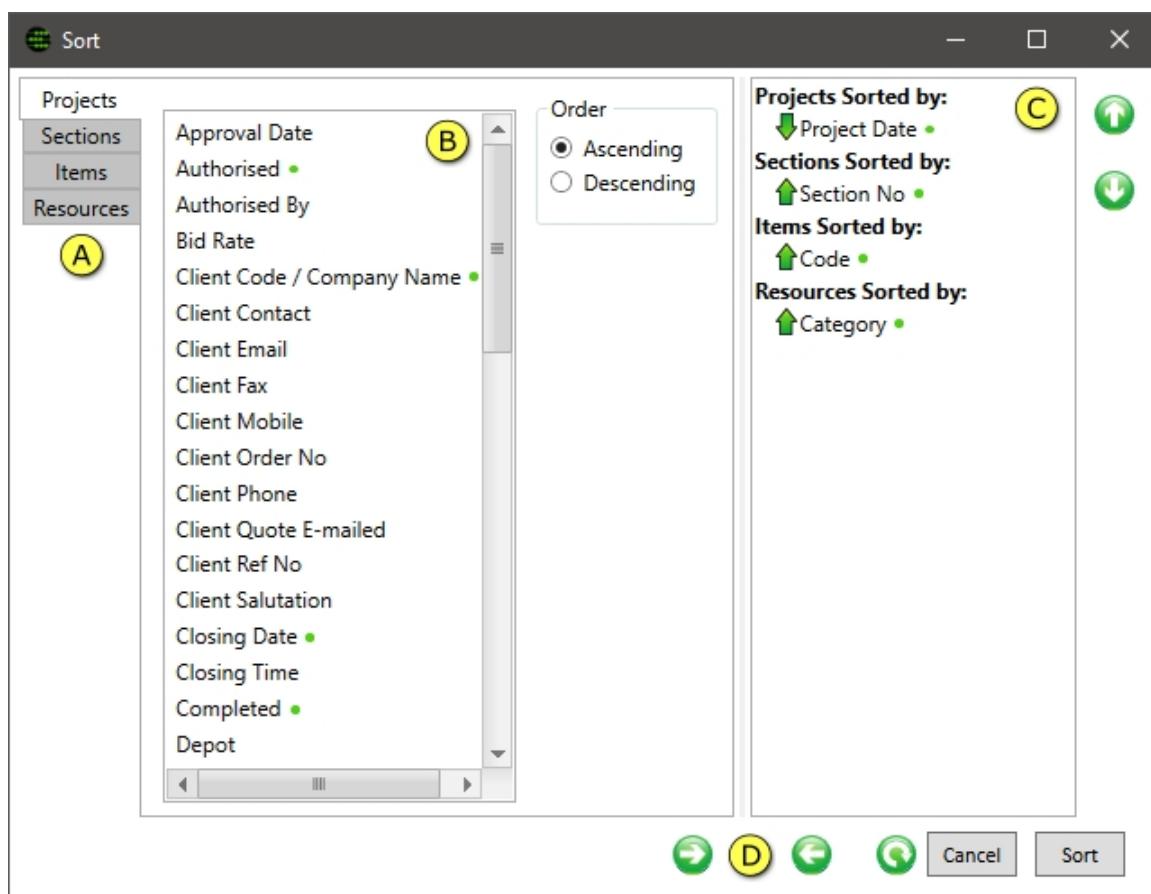


Figure 33: Project Browser - Sort window



What is the green dot • besides some of the fields?

It indicates that the field is currently displayed in the Project Browser.

Drag and Drop Columns

You can *drag and drop* the columns in the **Project Browser** to change their display order. Click on any *column header* to drag and drop it to its new location. This achieves the same result as using the change order buttons in the **Field Selection** window.

Re-size Column Widths

Re-size column widths to better fit the displayed data. To re-size the column width, position the mouse at the end of the column header and drag to the left or right.

When the mouse is in the correct position, the mouse pointer will become a two headed arrow:

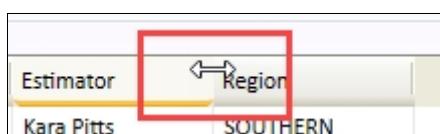


Figure 34: Project Browser - Re-size columns

Export Project Browser Data to Excel

In the **Project Browser**, click on the Export to Excel toolbar button to save your current view of the projects into an Excel spreadsheet for further analysis.

To run this export:

1. Open the **Project Browser**.
2. Select the Export to Excel toolbar button.
3. Choose from one of three export options:
 - *Project Browser View*, exports a copy of exactly what you are currently viewing.
 - *Fully Expanded*, exports all information meaning Project, Section, Item, Resource and Sub Item data based on the fields you have elected to display at each level in the Field Selection feature.
 - *Fully Collapsed*, exports only the Project level information.
4. Select the *File name*: and navigate to the folder where wish to save the file. Type in a name for the resultant file.
5. Click Export.



Data export limits

Because this export may generate a large amount of data, your IT Administrator can configure a *row limit* in the Benchmark configuration file if your business requires this. If the limit is exceeded, Benchmark displays a warning message. The user is given the option of cancelling the export or continuing.

For more information on how to enforce this limit, refer to **Project Browser Export to Excel** (on page 469).

Prohibit users from running this export

Administrators can use an *Access permission* in the [Estimator Library](#) to prohibit certain users from running this powerful export. For more information, refer to [**Set up Estimator Accounts**](#) (on page 335).

Project Comparator

You can use the Project Comparator feature to compare two or more Projects listed in the Project Browser. This feature performs powerful what-if analysis to help with management decision making, and acts as an excellent reporting/analysis tool to track changes in estimates as a project progresses through its lifecycle.

For more information, refer to [**Use Project Comparator to Compare Projects**](#) (see "[**Comparing Projects**](#)" on page 257).

Project Structure and Navigation

Each estimate that you create in Benchmark is called a *Project*. A Project has a simple work breakdown structure:

- A **Project** in Benchmark is broken down into **Sections**.
- Each **Section** is broken down into **Items**.
- **Items** are further broken down into **Resources**.

Each *Project* can have many *Sections*. Each *Section* can have many *Items* and each *Item* can have many *Resources*.

This structure is illustrated in the drawing below for an example Project:

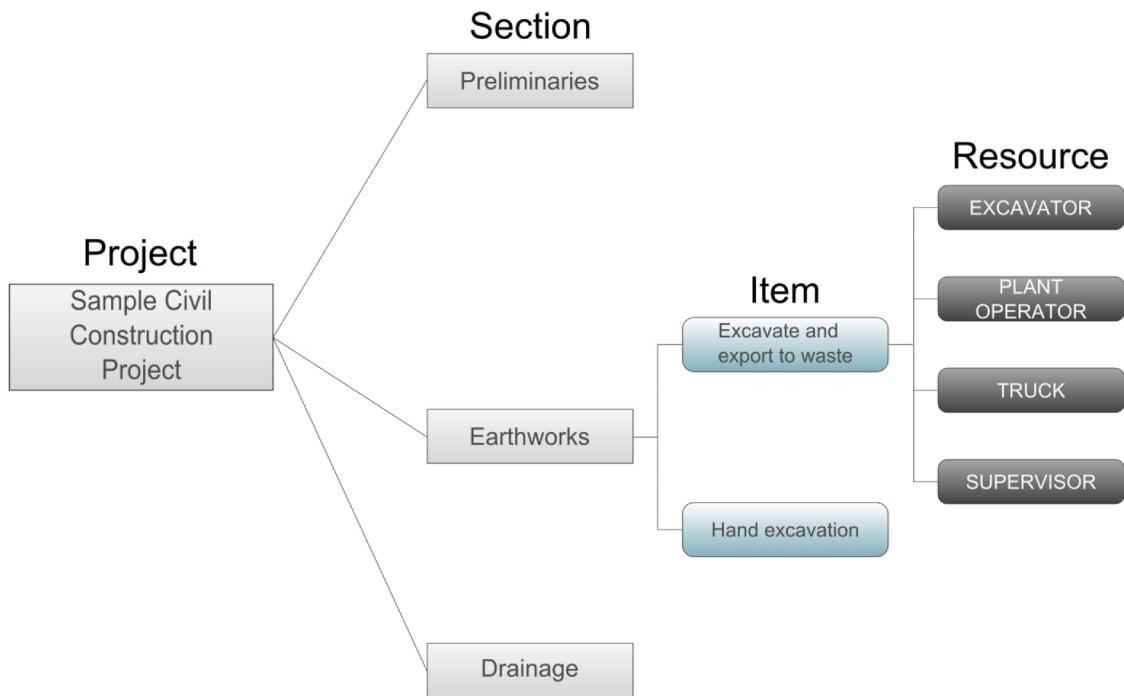


Figure 35: Project Structure

Each level (*Project*, *Section*, *Item*, *Resource*) displays in its own window in a Benchmark Project.

The illustrations below show you the four main windows/levels and how they relate to each other. These are the four main windows you will work in when preparing an estimate.

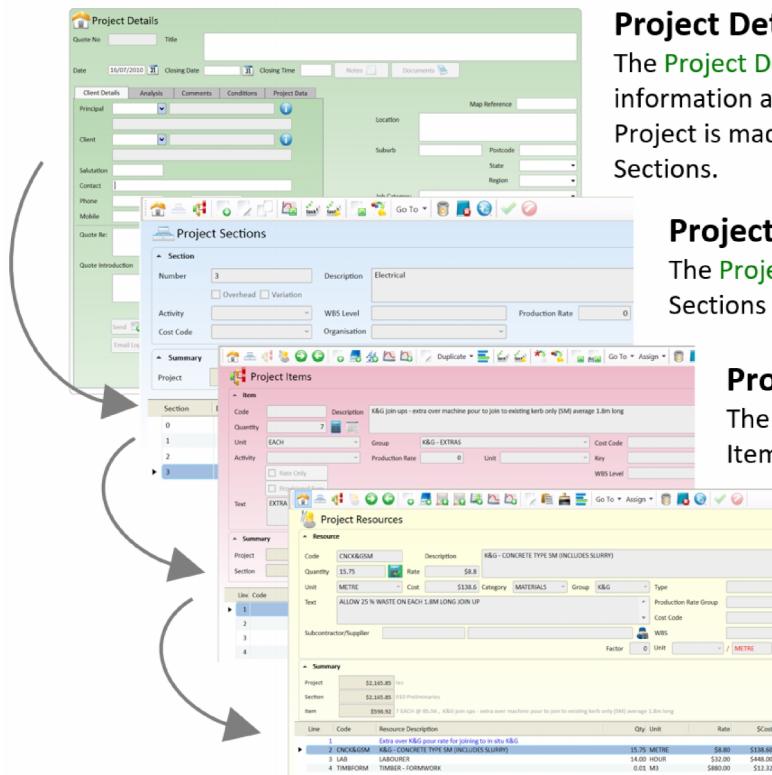


Figure 36: Project Overview

Another way of representing this basic structure is shown below:

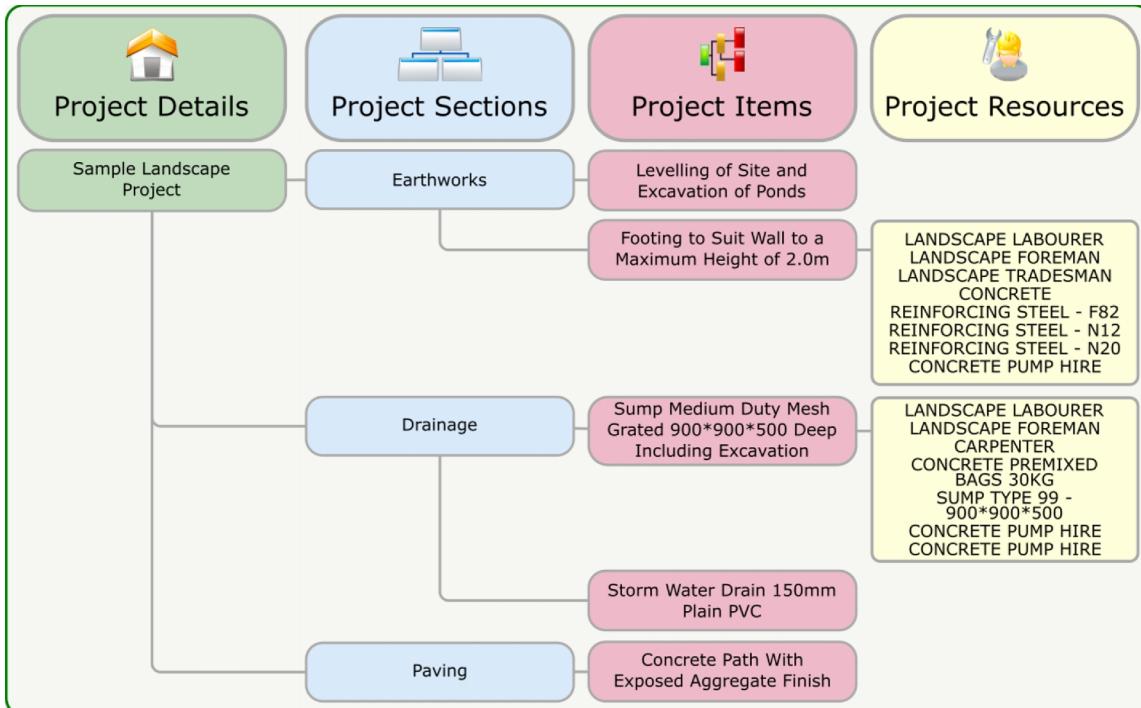


Figure 37: Project Overview

Additional Levels of Detail in an Estimate

Benchmark offers advanced features that provide users with additional *levels* of detail in their estimate. These features are Composite Totals, Composite Items and Sub Items.

Composite Totals

Composite Totals provide additional levels of detail at the Project *Item level*. They are ideal for headings and where you need sub-totals in a BOQ.

For more information, refer to ***Use Composite Totals*** (see "**Add Composite Totals**" on page 96).

Composite Items

Composite Items provide additional levels of detail at the Project *Item level*. They are ideal for complex Items that you wish to break down further, and where you only want the *parent Composite Item* to appear in your bid.

For more information, refer to ***Add Composite Items*** (on page 97).

Sub Items

Benchmark also offers you an additional level of *Resource detail* in an estimate by using a *Sub Item*. You would commonly use *Sub Items* for *larger Items of Plant*, or *Crews*. If you are using *Sub Items*, your Project structure can be represented as shown below (note the difference at the *Resource level* to the illustration above).

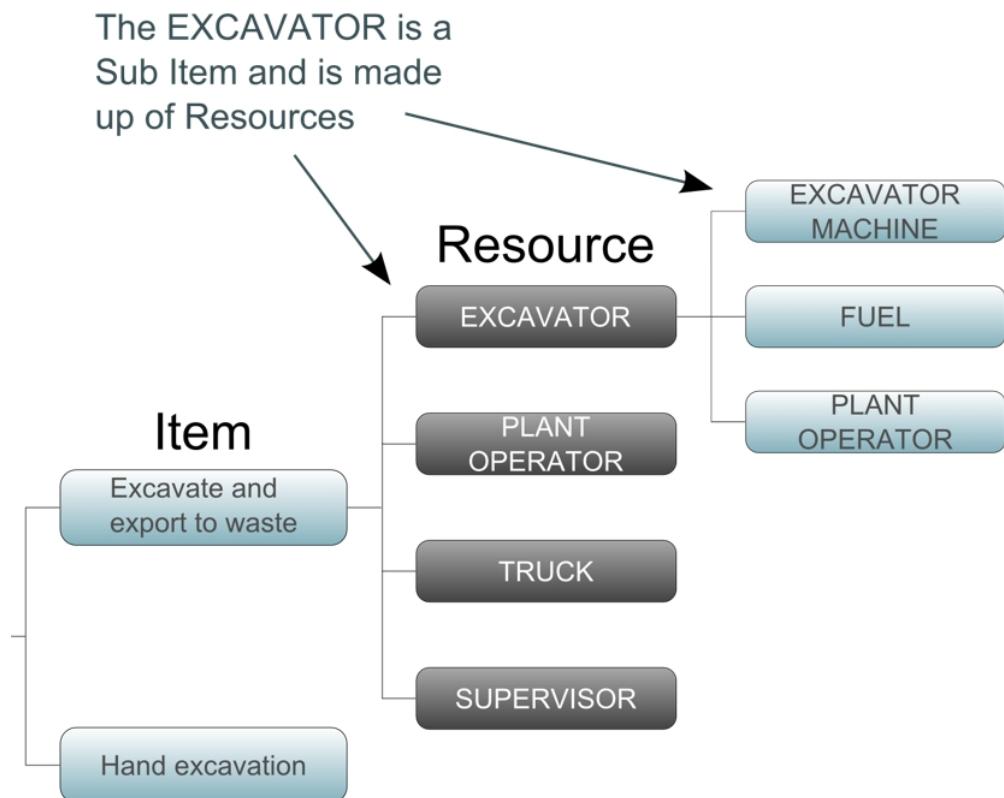


Figure 38: Project Structure - Sub Item

Key Navigation Icons

The toolbars in most Benchmark windows include the icons listed below. Because different functions are available in different windows, each Benchmark window will also have some unique icons and functions.

In most cases, there is a keyboard shortcut that corresponds to these icons. For more information, refer to **Shortcut Keys table** (see "**Shortcut Keys**" on page 477).

Navigation icons

Toolbar icon	Function
	Project icon. Returns to Project Details window.
	Section icon. Returns to Project Sections window.

Toolbar icon	Function
	Item icon. Returns to Project Items window.
	Resource icon. Returns to Project Resources window.
	Next icon. Goes to next Section/Item/Resource, etc.
	Previous icon. Goes to previous Section/Item/Resource, etc.
	Close icon. Closes window.
	Project Browser icon. Open Project Browser window

Table 8: Navigation icons

The Project Details Window

If you add a Project or open a previous Project, Benchmark displays the **Project Details** window. This window displays the main data about a Project including *summary costs*, and also provides access to the majority of project Reports and other key functions, like Project Explorer (A).

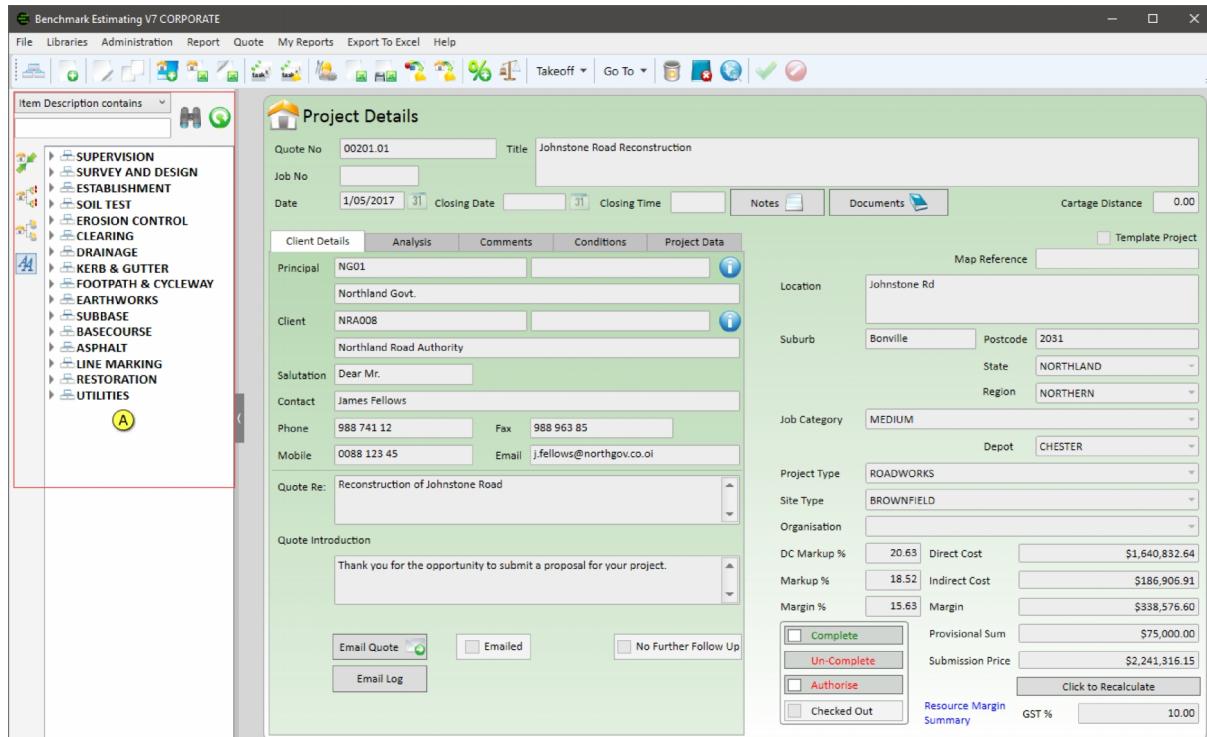


Figure 39: Project Details window

Navigation



Click on the Section icon in the toolbar to go to the **Project Sections** window and view/edit the *Project Sections*. You can also press <CTRL+1> on the keyboard to go to the *Section* level or right-click and select Section.

You can also use the Project Explorer (A) to navigate your estimate structure.

For more information, refer to **Project Explorer** (on page 60).

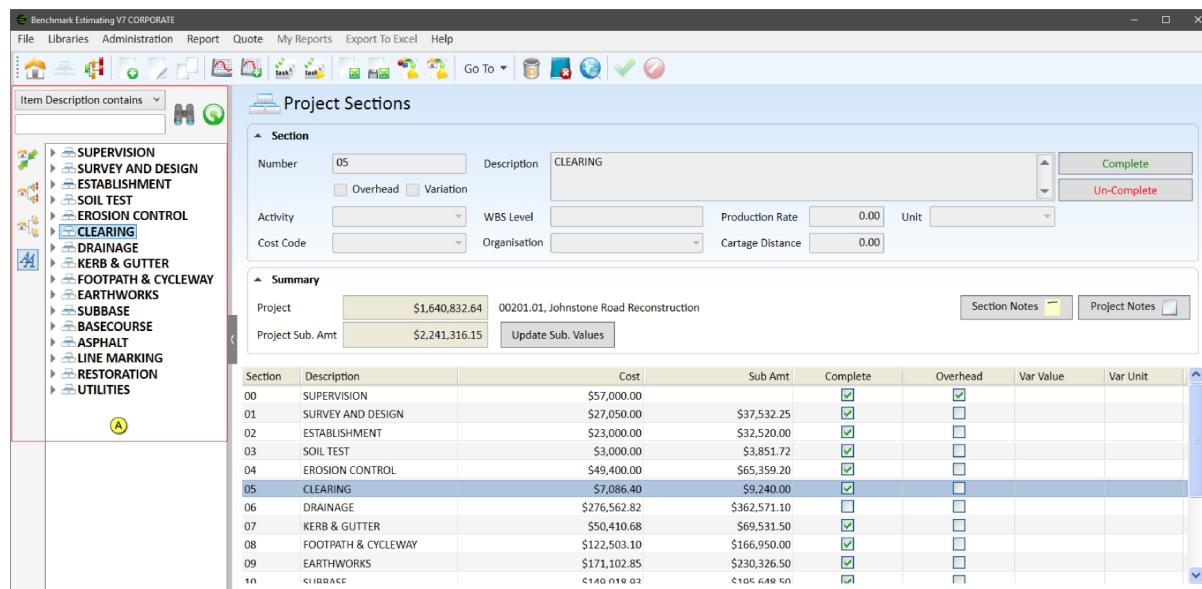
Reports and Exports

From the **Project Details** window you can also access the following key reports and exports:

1. Reports
2. Quotes
3. Exports to Excel
4. Exports to other business systems
5. The My Reports feature.

The Project Sections Window

The **Project Sections** window lists the *Sections* in your Project.



The screenshot shows the 'Project Sections' window with the following details:

- Section:** Number 05, Description: CLEARING, Status: Complete.
- Summary:** Project: \$1,640,832.64, Project Sub. Amt: \$2,241,316.15.
- Table:** A grid of sections with their details:

Section	Description	Cost	Sub Amt	Complete	Overhead	Var Value	Var Unit
00	SUPERVISION	\$57,000.00		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
01	SURVEY AND DESIGN	\$27,050.00	\$37,532.25	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
02	ESTABLISHMENT	\$23,000.00	\$32,520.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
03	SOIL TEST	\$3,000.00	\$3,851.72	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
04	EROSION CONTROL	\$49,400.00	\$65,359.20	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
05	CLEARING	\$7,086.40	\$9,240.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
06	DRAINAGE	\$276,562.82	\$362,571.10	<input type="checkbox"/>	<input type="checkbox"/>		
07	KERB & GUTTER	\$50,410.68	\$69,531.50	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
08	FOOTPATH & CYCLEWAY	\$122,503.10	\$166,950.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
09	EARTHWORKS	\$171,102.85	\$230,326.50	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
10	SUBBASE	\$1,410,019.03	\$1,016,449.60	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Figure 40: Project Sections window

Navigation

How to navigate to other levels of the estimate:

	<p>Click the Project icon to return to the Project Details window.</p> <p>You can also press <CTRL+2> on your keyboard to go <i>up</i> to the Project Details window.</p>
	<p>Click the Item icon to go to the Project Items window for the highlighted Section. You can also press <CTRL+1> on your keyboard to go <i>down</i> to the Item level. You can also double-click on a Section to go to the Project Items window for that Section.</p>

Table 9: Project Section Navigation Icons

You can also use the Project Explorer (A) to navigate your estimate structure.

For more information, refer to **Project Explorer** (on page 60).

The Project Items Window

The **Project Items** window lists the *Items* for the *Section* you are currently in; an example is shown below.

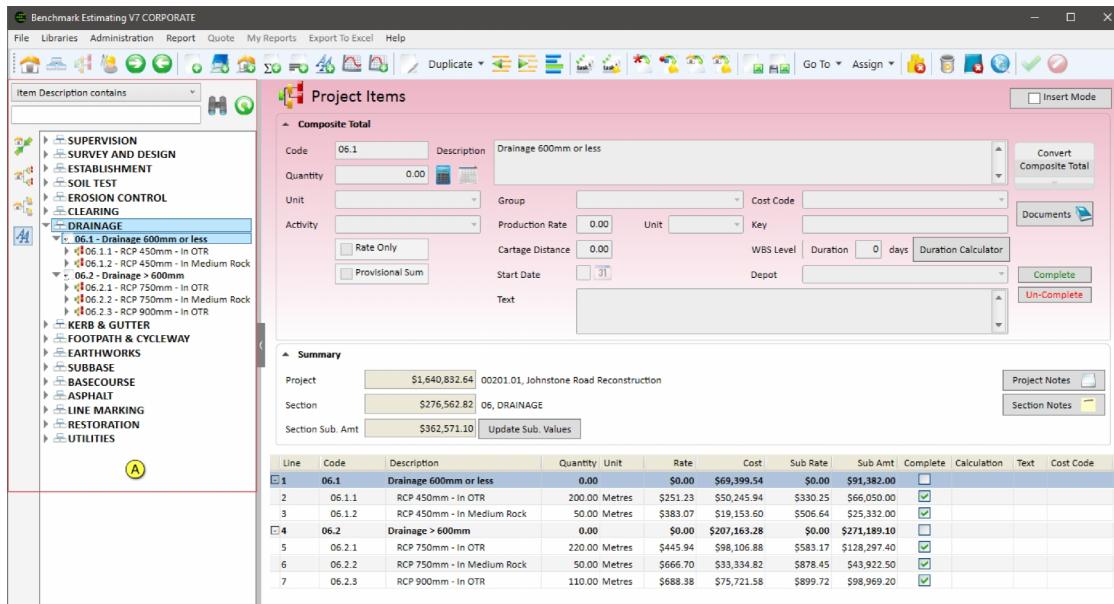


Figure 41: Project Items window

Navigation

The table below illustrates how to navigate to other levels of the estimate.

	<p>Click the Project icon to return to the Project Details window.</p>
	<p>Click the Section icon to go to the Project Sections window.</p> <p>You can also press <CTRL+2> on your keyboard to go <i>up</i> to the Section level.</p>

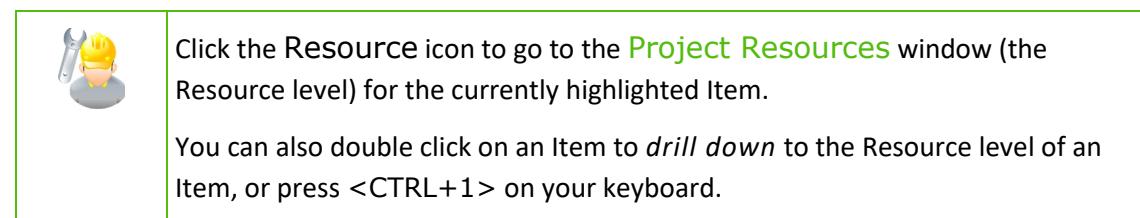


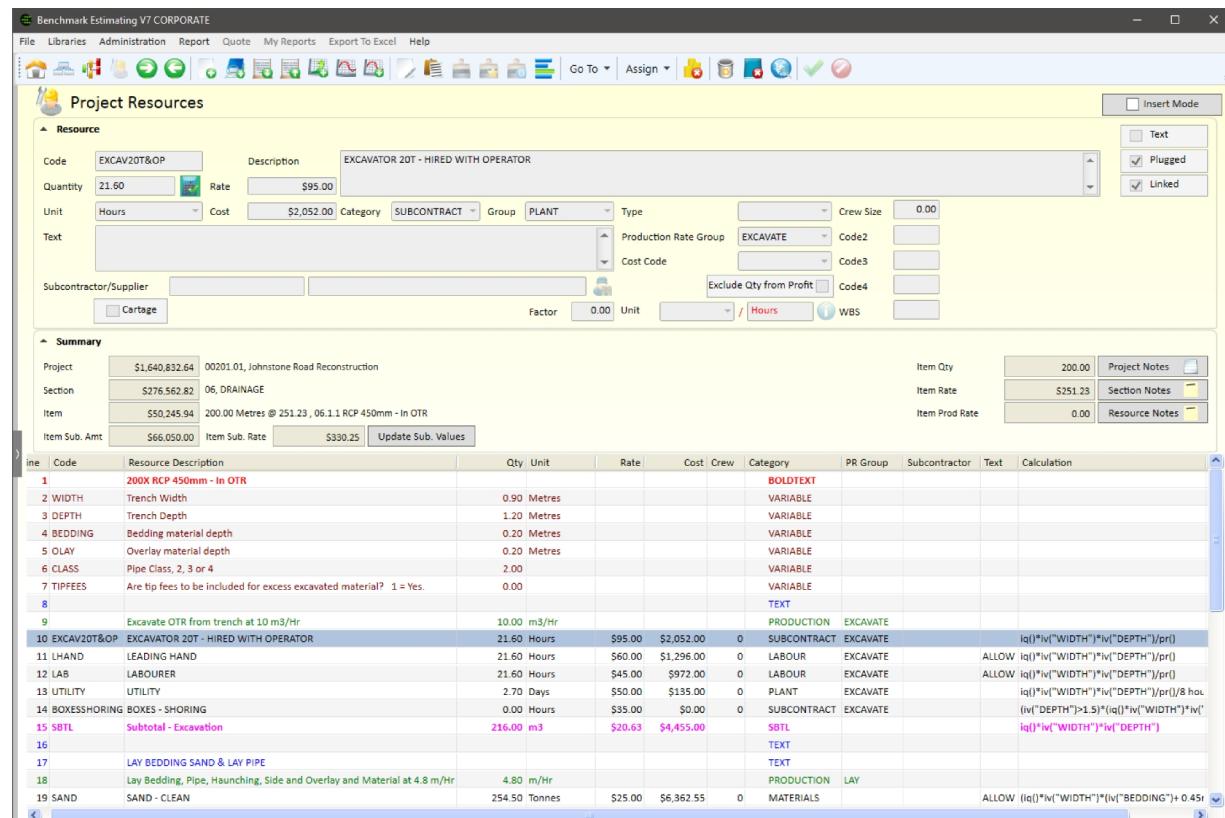
Table 10: Project Item Navigation Icons

You can also use the Project Explorer (A) to navigate your estimate structure.

For more information, refer to **Project Explorer** (on page 60).

The Project Resources Window

The **Project Resources** window lists the Resources for the currently selected Item. An example is shown below.



The screenshot shows the 'Project Resources' window in the Benchmark Estimating software. At the top, there's a toolbar with various icons for file operations, navigation, and data entry. Below the toolbar, the main area is divided into sections:

- Resource:** This section contains fields for 'Code' (EXCAV20T&OP), 'Description' (EXCAVATOR 20T - HIRED WITH OPERATOR), 'Quantity' (21.60), 'Rate' (\$95.00), 'Unit' (Hours), 'Cost' (\$2,052.00), 'Category' (SUBCONTRACT), 'Group' (PLANT), 'Type' (EXCAVATE), 'Crew Size' (0.00), 'Production Rate Group' (EXCAVATE), 'Cost Code' (Code2, Code3, Code4), and 'Exclude Qty from Profit' (unchecked). There are also checkboxes for 'Text', 'Plugged', and 'Linked'.
- Summary:** This section provides a summary of project details: Project (\$1,640,832.64), Section (06, DRAINAGE), Item (\$50,245.94), and Item Sub. Amt (\$66,050.00). It also shows item rates and production rates.
- Resources:** This is a grid view showing the breakdown of the item into specific resources. The columns include Line, Code, Resource Description, Qty, Unit, Rate, Cost, Crew, Category, PR Group, Subcontractor, Text, and Calculation. The grid lists items such as '200X RCP 450mm - In OTR', 'TRENCH WIDTH', 'TRENCH DEPTH', 'BEDDING', 'OVERLAY', 'PIPE CLASS', 'TIP FEES', and various labor and subcontract resources like 'LEADING HAND', 'LABOURER', 'UTILITY', 'BOXESSHORING BOXES - SHORING', 'SBTL', 'LAY BEDDING SAND & LAY PIPE', and 'SAND - CLEAN'. Some rows have specific formulas in the 'Calculation' column.

Figure 42: Project Resources window

Navigation

The table below illustrates how to navigate to other levels of the estimate.

	<p>Click the Project icon to return to the Project Details window.</p>
---	---

	Click the Section icon to go to the Project Sections window.
	Click the Item icon to go to the Project Items window (the Item level). You can also press <CTRL+2> on your keyboard.
	Next Item
	Previous Item
	Use Project Explorer (on page 60)

Table 11: Project Item Navigation Icons

The Project Explorer presents the Project in a clear hierarchy, provides both Find and Filter features, and enables fast navigation to any Section, Item, or Resource within a Project .

The *main advantage* of using Project Explorer is that you can *navigate directly to different Items in the same or other Sections, and directly to Resources in the same or different Items*.

For more information, refer to **Project Explorer** (on page 60).

Project Explorer

Project Explorer is a navigation tool with a Filter feature to find certain *Items*.

By default, the **Project Explorer** is visible when in an estimate, but you can hide it by clicking on the icon as shown below:

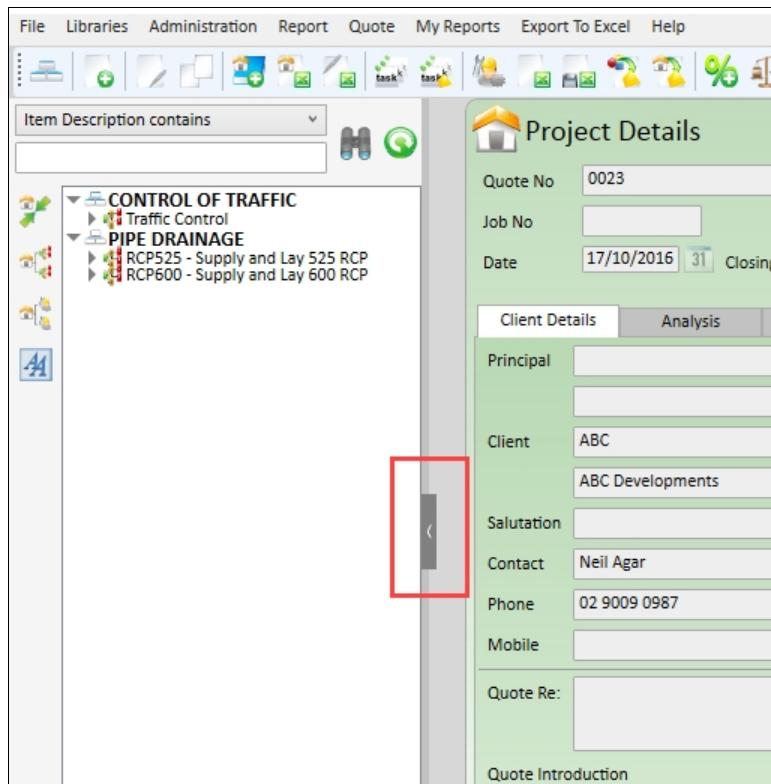


Figure 43: Project Explorer - Hide option

Navigate the Estimate

The Project Explorer allows you to navigate the Section, Item and Resource structure within an estimate, and drill down to the Resource level. You can *expand the Project* to display the Resources and open the **Project Resources** window without opening the **Project Sections** or **Project Items** window, thus saving time.

The image below demonstrates how this feature helps users navigate within an estimate, and highlights some of the key features of the Project Explorer.



Figure 44: Project Explorer Options

Project Explorer Navigation Icons

The table below explains how the **Project Explorer** navigation icons function.

Icon	Function
	Collapse All Collapse All will collapse any expanded <i>Sections</i> , <i>Items</i> and <i>Sub Items</i> and display only the <i>Section level</i> details.
	Expand to Item Expand to Item will expand the Project to show <i>all Items</i> within <i>every Section</i> .
	Expand to Resource Expand to Resource will expand the entire Project to show all <i>Items</i> and <i>Resources</i> within it.

Icon	Function
	<p>Click to show/hide Item Text</p> <p>Show/Hide Item Text lines. Note that blank Item Text lines (i.e. Text Items without a description) will never be shown in the explorer regardless of the status of this toggle.</p>

Table 12: Project Explorer navigation icon functions



Enable or Disable Project Explorer

This feature is enabled by default.

An Administrator can *disable* it in the **Administration** window, General tab if your organisation does not wish to use it.

Find Items with Filters

The Project Explorer includes a Filter feature to help users find Items in an estimate based on various criteria.

The image below shows the filter options:

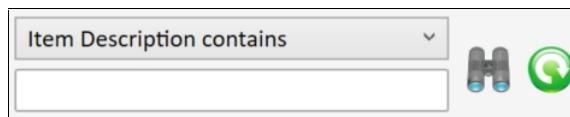


Figure 45: Project Explorer - Search Filter

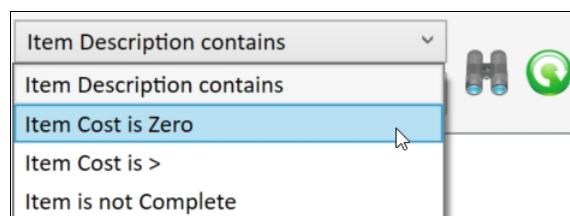


Figure 46: Project Explorer - Search Filter options

The table below explains the list of available filters and how they work:

Filter	Description
Item Description Contains	This filter allows the user to enter some text, and the filter will then list all Items in the Project whose description contains this text.
Item Cost is zero	This filter will list all Items whose <i>Cost is zero</i> , allowing an estimator to quickly find <i>unpriced Items</i> in a Project. Items without a cost (i.e. <i>Inactive Items</i> , <i>Rate Only Items</i> and <i>Text Items</i>) are excluded from this filter search.

Filter	Description
Item Cost is >	When using this feature, the user can search for all <i>Items</i> whose <i>cost is greater than a nominated value</i> . This can be useful when finalising an estimate and where the estimator and/or manager wants to focus on the Items with the largest values. Items without a cost (i.e. <i>Inactive Items</i> , <i>Rate Only Items</i> and <i>Text Items</i>) are excluded from this filter search.
Item is not Complete	This filter will show all <i>Items</i> in a Project which are <i>not yet Complete</i> , allowing an estimator to quickly find and finish bidding these Items.

Table 13: Project Explorer filter options



How filters operate:

- When a filter is executed and if a Section has no Items that qualify with the filter criteria, the Section will not be shown.
- When a filter is executed the parent Section of the Item will always be shown.
- When a filter is executed and if the resultant Item(s) is a member of a Composite Item or Composite Total, then all parent Composite Item(s) and Composite Total(s) will also always be shown.
- When a filter is executed and if the resultant Item(s) is a Composite Item or Composite Total, then all child members of the Composite Item/Total will also be present in the explorer view regardless of whether the child Items qualify with the filter criteria.
- Blank Text Items will never be shown in the explorer.

Navigate Within Windows

The <TAB> key may be used to move to the next field within a window. A flashing vertical line (the cursor) indicates where text will appear when you type. Holding the <SHIFT> key and pressing the <TAB> key will move to the previous field. You can also use the mouse to move between fields.

Part Two - Using Benchmark

Estimate Your Direct Costs

The *Direct Costs* of your estimate are made up of *Material, Labour, Plant* and *Subcontract* costs. This chapter covers the elements and features to create a project, add or load your estimate works and produce a quote submission for your client. Benchmark includes features to build up your *Direct Costs* and to make your estimating quicker and more accurate. These features include:

- Creating Projects from Templates.
- Duplicating existing projects.
- Building your schedule based on your Libraries or previous projects.
- Loading spreadsheet schedules.
- Quantity calculations.
- Routines.
- Profit, Indirect Cost and Submission Spread.
- Quotes and Reports.
- Exporting to other systems.
- And more.

Projects

The project is the container for your estimate and contains the estimate information such as Client, Location and Title. Within a project, the direct costs are built up from Sections, Items and Resources to form the total Project Direct Cost. When starting a new Estimate, you need to create a new Project.

There are different ways to start a new Project:

- Create a new Project from scratch. For more information, refer to **Add a new Project** (on page 67).
- Import a Bill of Quantities (BOQ) or Schedule of Items. For more information, refer to **Importing Estimate data from a Spreadsheet** (on page 141).
- Use a pre-defined Project Template. For more information, refer to **Create a Project from a template** (on page 434).
- or copy a previous Project. For more information, refer to **Duplicate a Project** (on page 75).

Add a New Project

To add a new Project:

1. Go to the Projects panel in **My Benchmark**.
2. Select the Add New Project icon to open the **Project Details** window.
3. Depending on the status of the Allow edit of Quote Number setting in the **Administration** window, the cursor is in either the *Quote No* field or the *Title* field.
 - a. In the *Quote No* field, enter a *Quote number*, or leave it blank and press TAB to move to the *Title* field; Benchmark will allocate the next *Quote number* for you in a few steps.
 - b. In the *Title* field, enter a *title* for your Project.



Quote No. settings and options

You control *Quote number settings and options* in the **Administration** window. For more information, refer to **Quote Settings** (on page 299).

- You can set up Benchmark so that your quote numbers have a standard prefix or format, or start at a particular quote number.
- You can allow estimators to enter a value in the *Quote No* field or prevent them from editing it and populate it automatically, to ensure consistent quote numbering and also to save time.
- Benchmark offers an *Incremental Duplicate* quotation numbering system. This system is ideal if you frequently price different options of the *same Project* for the *same Client*, or if you price the *same Project* for *different Clients*. Using this function, Benchmark can number your related Quotes with a *.01, .02*, etc. suffix. For more information, refer to **Duplicate a Project** (on page 75).



Fields in Project Details window

The **Project Details** window displays or hides Project fields depending on the *Administration and Code settings* in the database that you currently have open. Typically, an *Administrator* will tailor what is displayed according to your organisation's requirements. This customisation may include making certain fields *mandatory* or adding *custom fields*. For more information, refer to **Mandatory Field settings** (see "**Mandatory Fields**" on page 315).

Enter Project Details



Mandatory Project fields

Your Administrator will use business requirements to determine which fields are mandatory for Projects and configure Benchmark to meet those requirements.

You can navigate from one field to the next using the TAB key. It is much faster than using the mouse.

1. Press TAB until you are in the *Date* field or click into the Date field. Benchmark automatically enters a starting date in the *Date* field. You can change this field later if you wish.
2. Enter in a *Closing Date* for the job if required. Completing this field enables you to see when tenders are due in the Project Browser window.
3. Type in the *Closing Time* for the Project if required.
4. Type in the *Location* of the Project.
5. Type in the *Suburb* of the Project.
6. Type in the *Postcode* of the Project.

7. Select a *State* from the drop-down box.*
8. Select a *Region* from the drop-down box.*
9. Select a *Job Category* from the drop-down box.*
10. Select the *Depot* associated with this Project from the drop-down box.*
11. Select a *Project Type* from the drop-down box.*
12. Select a *Site Type* from the drop-down box.*
13. Select an *Organisation* from the drop-down box.*

The following fields marked with the * are all user-definable fields. You can set up user-definable fields to customise Benchmark for your company. If there are no options set up for these drop-down fields then they will not be displayed on the window. For more information, refer to **Set up Codes** (on page 284)



Cascading Selections

Region, Job Category, and Depot can be set up to allow cascading selections. System Administrators can set up *Depots* based on a selected *Job Category* that is based on a selected *Region*. With this function set up, the user can select a *Region* and only the nominated *Job Categories* for that *Region* are available. When the user selects one of the *Job Categories*, only the nominated *Depots* are available. For more information, refer to the section **Set up related Regions, Job Categories and Depots** (see "**Region Relationship**" on page 328).



Job No field

You can activate a *Job No* field which appears below the *Quote No* field. The purpose of the *Job No* field is to enter a job number for projects that you win. Your organisation may use a separate business system to allocate this number, making it useful for cross-referencing. For more information, refer to **Customise options in the Administration window** (on page 288).

Incremental Job Numbers

Benchmark can control job number allocation if you wish, by automatically allocating incremental job numbers when you mark a project as *Won*.



Project Region

Corporate version users have the *Region* field set by default when they add a Project, according to the *Region* assigned to them in the [Estimator Library](#).

Users must be granted permission in the [Estimator Library](#) to change this *Region* in a Project. The selected *Region* dictates the *Resource Rates* used and other data available to the Estimator when creating the estimate.

Selecting a different *Region* for a Project will also automatically set some of the default parameters, such as *Quote Defaults*, *Logos* and default *Profit percentages*. For more information, refer to [Set up Regionalisation](#) (on page 422).



Custom Project Fields

In the [Administration](#) window, users can set up *custom fields* that will appear on the Project Details for each project. These fields allow the user to enter *company specific data for each project*. For more information, refer to [Custom Fields](#) (on page 260)

Edit Your Project

To edit your Project:

1. From the [Project Details](#) window
 - click on the Edit toolbar icon or
 - press CTRL+E or
 - right-click and select Edit.
2. Select the *fields* you would like to edit and make your changes.
3. Select OK on the toolbar.



This principle applies across Benchmark, to change any record, i.e. Project, Section, Item and or Resource.

Select the Client and/or Principal

The client is the organisation or person to whom this project/quote will be submitted. If your *Client* has a *Client* of their own, then this is the *Principal*. You should always enter the *Client* for each Project as this information appears on your Quote reports..



Client Library

All your clients will be stored in Benchmark's **Client Library**. For more information, refer to **Set up Your Client Library** (on page 378)



Global and Regional Clients

Corporate version users can only see *Clients* who have been set as *Global Clients* or who are based in the *Project's Region*. For more information, refer to **Set up Regionalisation** (on page 422).

Clients and *Principals* are stored in the **Client Library**.

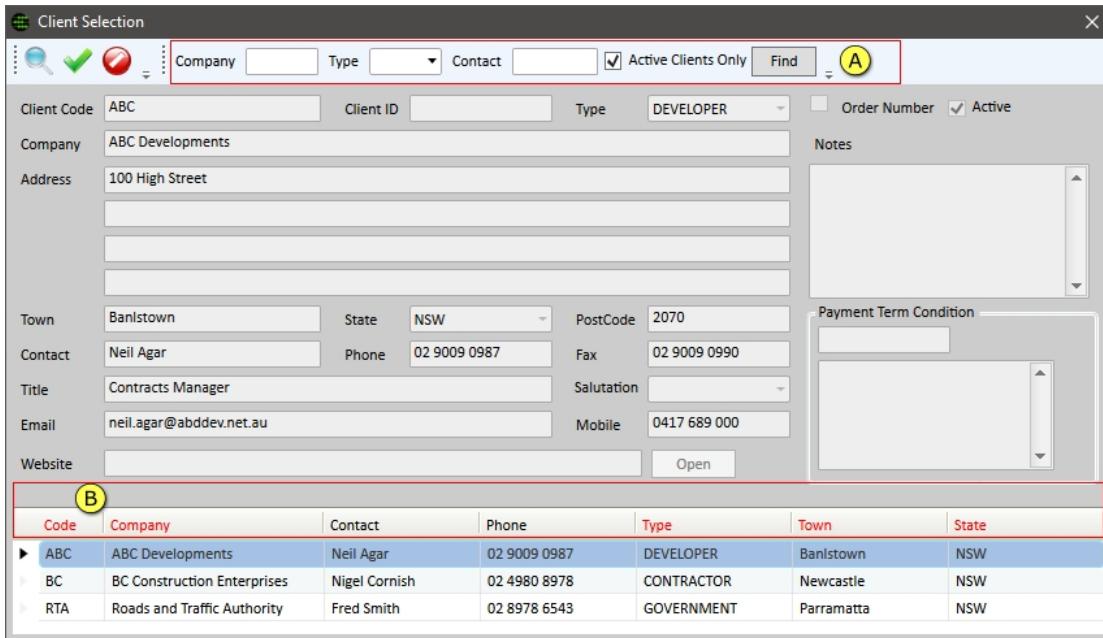
1. Click on the information icons next to the *Client* and *Principal* fields to select the *Client/Principal* from your **Client Library**.
2. After the **Client Selection** Window appears, double-click on the *Client/Principal* to add it to your Project.

Sort and Search

To find a Client in a long Client list:

- Go to the Find fields at the top of the **Client Selection** window (A) and enter either the *Client Company description* or the *Client Contact Name*. (Note: only part of the company description or the client contact needs to be typed in to give you a filtered list of clients).
- By default, only *Active Clients* are shown in this window. However, un-checking the *Active Clients Only* check box will display all clients. For more information, refer to **Active and Inactive Clients**. (see "**Active and Inactive Clients**" on page 379)

- Click on the red (B) column heading to *sort*, then press the key on your keyboard that relates to the first character of the contact name or company (whichever column you have sorted).



The screenshot shows the 'Client Selection' window with various search and filter options at the top. Below this, there are fields for Client Code ('ABC'), Company ('ABC Developments'), Address ('100 High Street'), Town ('Bankstown'), State ('NSW'), PostCode ('2070'), Contact ('Neil Agar'), Phone ('02 9009 0987'), Fax ('02 9009 0990'), Title ('Contracts Manager'), Email ('neil.agar@abddev.net.au'), Mobile ('0417 689 000'), and Website (''). On the right side, there are sections for 'Notes' and 'Payment Term Condition'. At the bottom, there is a table with columns: Code, Company, Contact, Phone, Type, Town, and State. The 'Code' column is highlighted with a yellow circle labeled 'B', and the 'Type' column is highlighted with a yellow circle labeled 'A'.

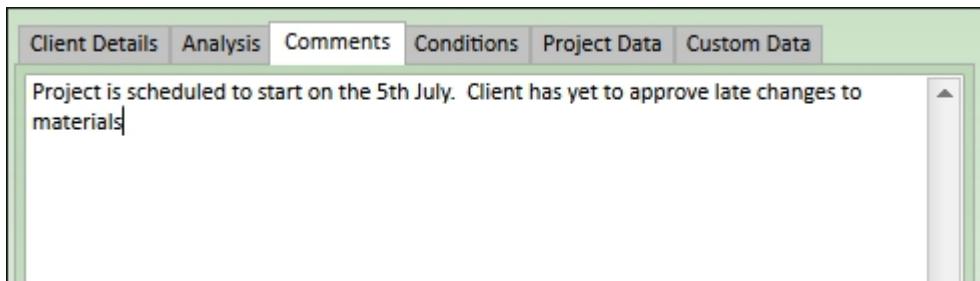
Code	Company	Contact	Phone	Type	Town	State
▶ ABC	ABC Developments	Neil Agar	02 9009 0987	DEVELOPER	Bankstown	NSW
▶ BC	BC Construction Enterprises	Nigel Cornish	02 4980 8978	CONTRACTOR	Newcastle	NSW
▶ RTA	Roads and Traffic Authority	Fred Smith	02 8978 6543	GOVERNMENT	Parramatta	NSW

Figure 47: Project Client Selection Window

Add Comments to Projects

If you wish, you can type in *comments* about a Project. These comments can be anything you like and are a useful way of entering and sharing comments about a Project. The information you enter in the comments is printed out on the Project Details report but is not included on quote reports.

To insert *Project Comments*, click on the Comments tab and type in your Project comments.



The screenshot shows the 'Comments' tab of the 'Project Details' window. The tab bar includes Client Details, Analysis, Comments, Conditions, Project Data, and Custom Data. The 'Comments' tab is active and contains a text area with the following content: 'Project is scheduled to start on the 5th July. Client has yet to approve late changes to materials'.

Figure 48: Project Details - Comments Tab

Standard and Project Specific Conditions

Often there are *standard* and/or *specific conditions* that apply to your Estimate.

To add conditions to your Project, you can add either *Standard* and/or *Project Specific Conditions* in the **Project Details** window. These conditions will automatically appear on Benchmark's Quotation reports.



Conditions Library

The *Standard Conditions and Project Specific Conditions* are all stored in Benchmark's **Conditions Library**. For more information, refer to ***Set up Your Condition Library*** (on page 382).

Edit Standard and Project Specific Conditions

To insert *All Standard Conditions*:

1. Click on the Conditions tab in the **Project Details** window.

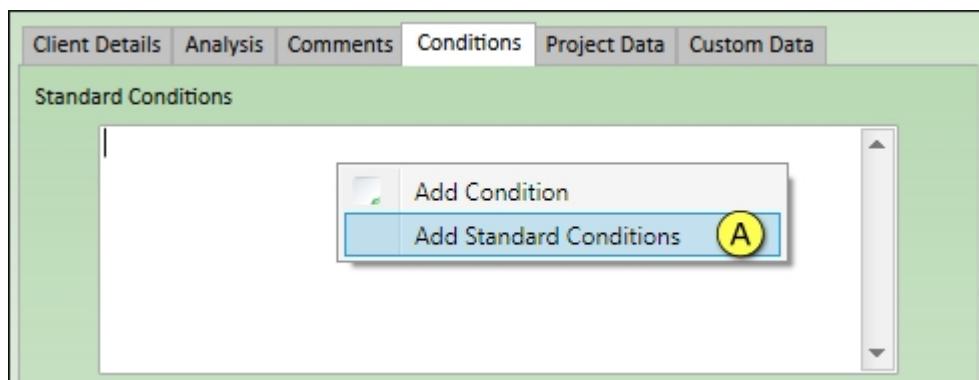


Figure 49: Project Conditions - Add Standard Conditions

2. Right-click and select **Add Standard Conditions (A)**. This inserts all *Standard Conditions* that are in your **Condition Library** into the Project.

To insert a specific *Standard Conditions*:

1. Click on the Conditions tab in the **Project Details** window.
2. With the cursor inside the *Standard Conditions area*, right-click and select **Add Conditions**. This displays the **Select Conditions** window.

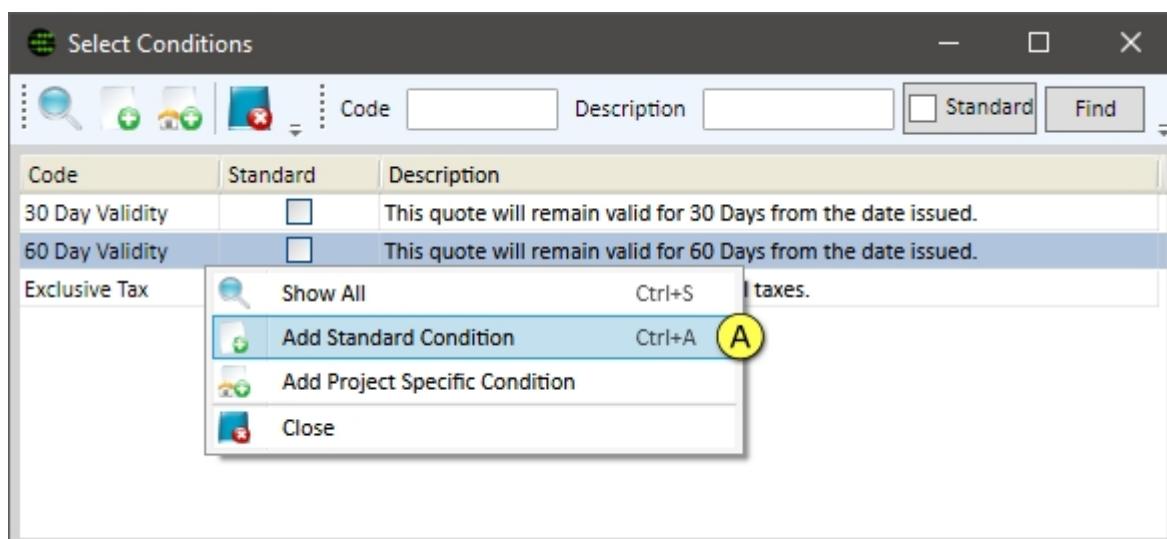


Figure 50: Select Conditions Window

3. Highlight either one or more *Conditions* you want to add to this Project.
4. Right-click and select Add Standard Condition (A). This inserts the selected *Condition* from your **Condition Library** into the Project.

To insert *Project Specific Conditions*:

1. With the cursor inside the *Project Specific Conditions area*, right-click and select Add Conditions. This displays the **Select Conditions** window.
2. Highlight either one or more *Conditions* you want to add to this Project.
3. Right-click and select Add Project Specific Condition.

Alternatively, You can add or edit *Standard* and *Project Specific Conditions* by typing directly into either of the *Condition* fields.



Mandatory Standard Conditions

You can configure *Benchmark* so that all Standard Conditions are *automatically* inserted into each Project and so that users cannot edit or delete them in the Project.

Configure *Standard Conditions* in the **Administration** window. For more information, refer to **Quote Settings** (on page 299).



Corporate Version users and Conditions

You can set up the **Conditions Library** to include Conditions that are available for *all Regions* or for a *particular Region*.

Corporate Users can select from *Global or Regional Conditions*. *Regional Conditions* are applicable only to the *Region* defined for the Project.

For more information, refer to **Set up Your Condition Library** (on page 382).

Saving Your New Project

Now that you have created a new project, selected a Client, entered Comments and setup your Project Conditions, it's time to save the Project. You can Save your Project by clicking the OK button on the toolbar. This green tick will save the Project with the details you have entered and exit Edit mode.



Forecast Quantities

When Forecast Quantities is enabled for the current user, *Benchmark* will prompt the user asking if they wish to enable Forecast Quantities for the new Project. For more information, refer to **Forecast Quantities overview** (on page 193) and **Use Forecast Quantities** (on page 209).

Using Sections from the Section Library

When saving your Project the first time Benchmark will ask the user if they would like to use the default sections from the [Section Library](#).

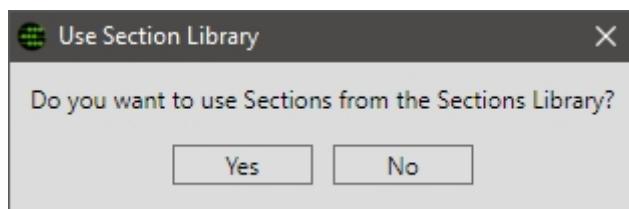


Figure 51: Use Section Library prompt

- Select Yes if you are preparing your own *Schedule of Items* for the Estimate.
- Select No if you are planning to import a *Bill of Quantities* or a *Schedule of Items* provided by your Client or running a *Project Routine*. In both these cases, you will not use Sections from the *Section Library*.



Disable question: Use Sections from Section Library?

You can turn off this question in the [Estimator Library](#), on a user-by-user basis. You would do this if, in the majority of situations, you (1) import a client's schedule or (2) run a Project Routine. For more information, refer to [Run a routine in your Project](#) (on page 184), [Importing Estimate data from a Spreadsheet](#) (on page 141)

Duplicate a Project

Benchmark enables you to duplicate an entire Project at the click of a button. This provides you with a very powerful tool. You can use this for various situations including:

- When you have submitted a quote and now need to make small changes as requested by your Client during tender negotiations. Duplicating the Project retains your original quote for your record.
- After you have won a job, you may wish to duplicate a Project if a Variation is introduced. You can duplicate the job, make your Variation adjustment and then save your amended Project.
- If you create template Projects for jobs you repeat over and over again. For each new job of that type (e.g. a dam construction), duplicate the template Project and edit it.
- Or if you need to price the exact same project to different clients, you can duplicate it and change the Client.



Help with Project Duplication options

Hover the mouse over the Help icon to display helpful information about each setting.

Market Share

Check the Market Share checkbox if you will use an estimate for future reference in market share analysis. This facility is particularly useful if there are multiple estimates for the same project.

Use the Market Share checkbox to identify which estimate(s) to use for market share analysis. Estimates that don't have this checkbox checked are not included in market share analysis. For more information, refer to ***Market Share Analysis*** (on page 243).

To duplicate a Project:

1. In the Project Browser or Project Details window, right-click and select Duplicate, to display the Duplicate Project window.

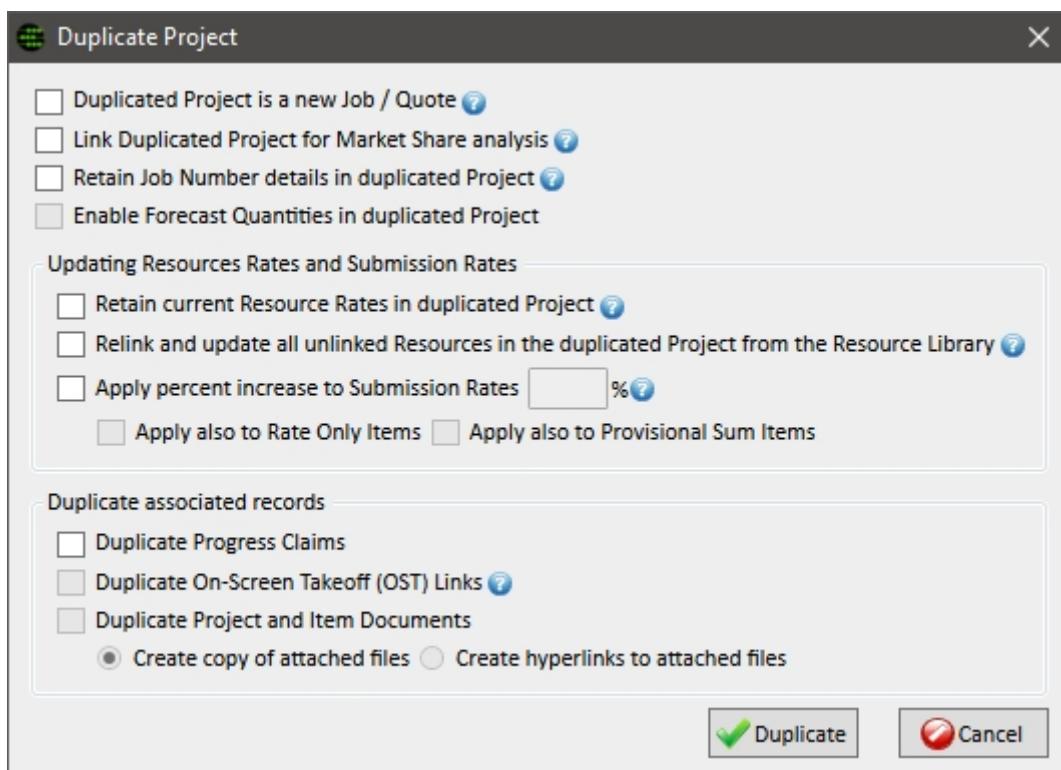


Figure 52: Project Duplication Window

2. Check the various check boxes depending on your reason for duplicating the Project.
3. Select Duplicate.
4. You will now be in edit mode in the Project Details window (for the new Project); make any changes (for example to the description or client) and select OK.
5. Your Project will now be duplicated.

The Duplicate Project window provides explanatory text about the purpose and effect of each checkbox.



Changing the Region during duplication

For Corporate version users, changing a Project Region will automatically change the Project Cost to reflect the new Region Cost.

Only users with permission can change a Project's Region. For more information, refer to **Set up Users** (see "**Set up Estimators for Regionalisation**" on page 424).

Authorise a Project

Benchmark provides an Authorisation feature to finalise your projects and limit further changes to your Costs and Submission prices. Benchmark can be setup so that only managers or suitable estimators have the privileges to authorise a project. This creates a workflow for estimators to get their work authorised before the estimate is submitted to a client.

Estimators can be setup with a minimum margin and a maximum submission price under which they have permission to authorise estimates. When projects fall outside these parameters, estimators must request authorisation from a suitable manager. These requests are generated by Benchmark and can be emailed to the estimators assigned manager.

To Authorise a Project:

1. In the **Project Details** window, click the Authorise button.
 - If you have not completed your Project, you will be asked to complete the Project, Sections and Items. For more information, refer to **Using Complete in Projects** (on page 139).
2. If you have the necessary authority, the following prompt will appear:
 - Select Yes. The Authorised checkbox will now be checked.
3. If you do not have the necessary authority, the following prompt will appear.

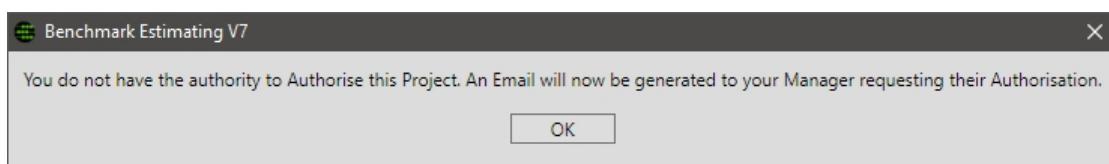


Figure 53: Project Authorisation - No Access

4. Select OK.

- a. If you do not have an assigned Manager in the Estimator Library, a prompt will appear stating that no manager is assigned and to contact the Administrator.

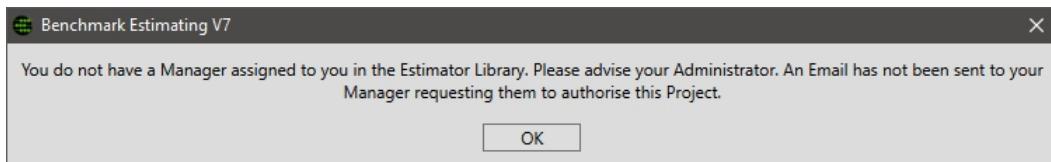


Figure 54: Project Authorisation Prompt

- b. If you do have an assigned Manager then the **Email** window will appear with the following details filled in by default.

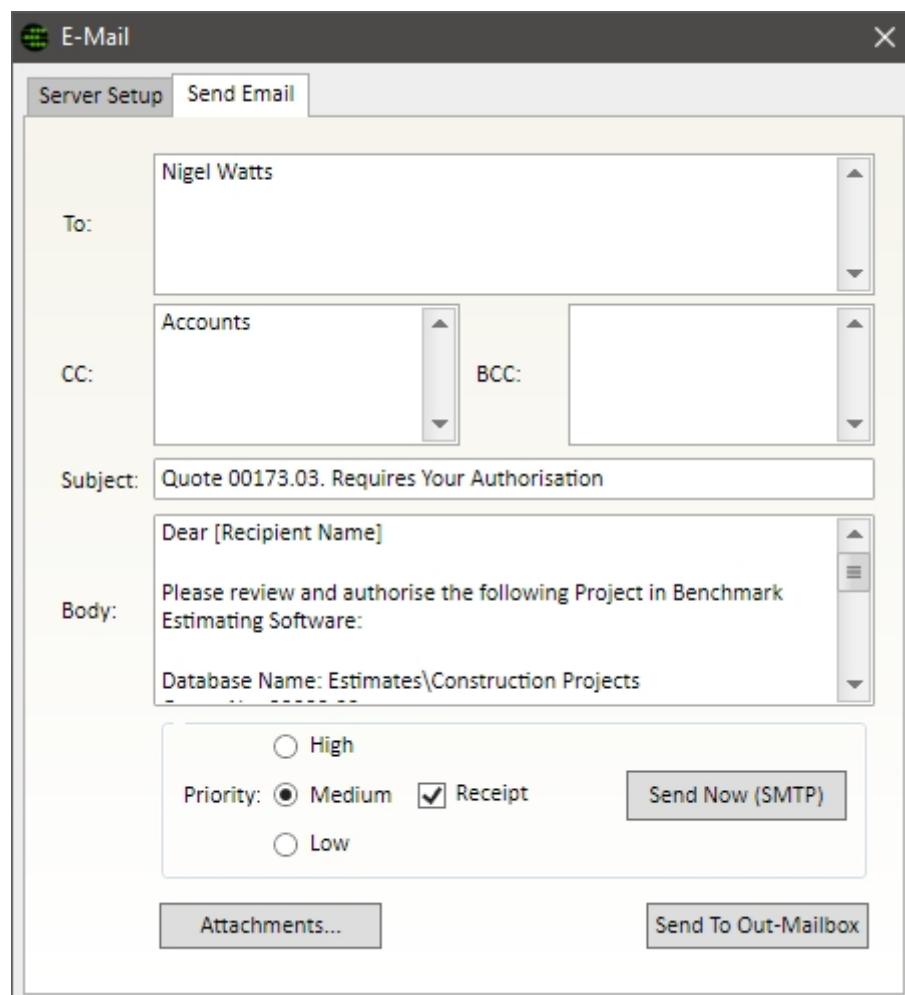


Figure 55: Request for Authorisation

5. Select **Send Now (SMTP)** or **Send To Out-Mailbox**.

Note that the **Send To Out-Mailbox** button may be disabled depending on your company's settings in the **Administration** window.

An email will now be issued to your Manager asking them to Authorise the project in Benchmark.

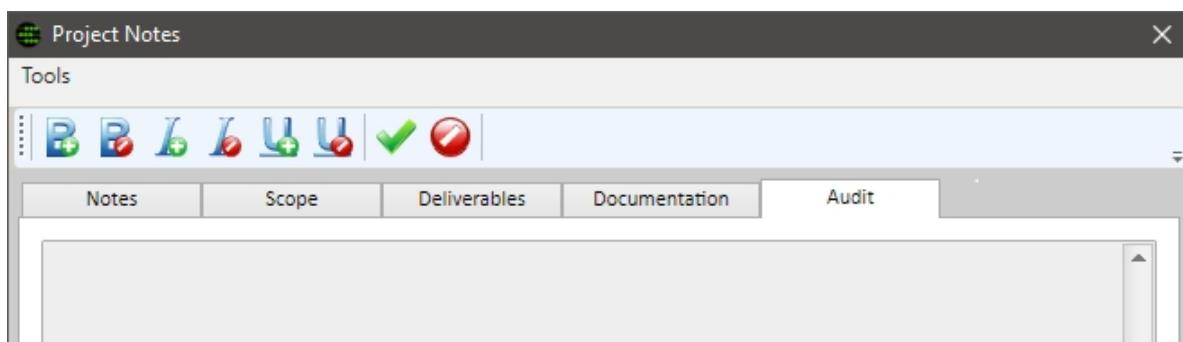


Authorisation Notification

When a Manager authorises a Project, an email is sent to the Estimator assigned to the Project letting them know the Project has been authorised. This will not occur if the manager is the same Estimator assigned to the Project in the *Prepared by* field.

Project Auditing

When Auditing is enabled, Benchmark will audit some of the key events that occur during the estimation process. Once enabled, any of the following changes made to the project are recorded in the **Project Notes** window under the Audit tab.



The audit feature currently records the following changes:

- Deletion of Project Items.
- Deletion of Project Sections.
- When Projects are duplicated.
- When Item or Resource calculations are removed.
- When Resource rates are changed.
- Resource currencies are changed.
- When the Project is completed or uncompleted.
- When Projects are marked as won or lost.
- When Projects are authorised.

The Audit information for a Project can be viewed in the Project Notes. To view the Audit Information:

1. In the **Project Details** window, click the Notes button.
2. Select the Audit Tab.

All the record Audit events will be listed.

To Enable this feature, please refer to **System Security Audit** (on page 269)

Searching For Projects

Benchmark has some powerful search functions that allow you to easily and quickly find previous Estimates. These search functions are accessed in the **Project Browser** window. The Project Browser can be opened by right-clicking and selecting **Browser**.

When you first open the **Project Browser** you will see only your Projects. If you wish to see all projects that you have been granted access to, right-click and select **Show All**.

Use the Find Function

The Find function is located at the top section of the **Project Browser** window.

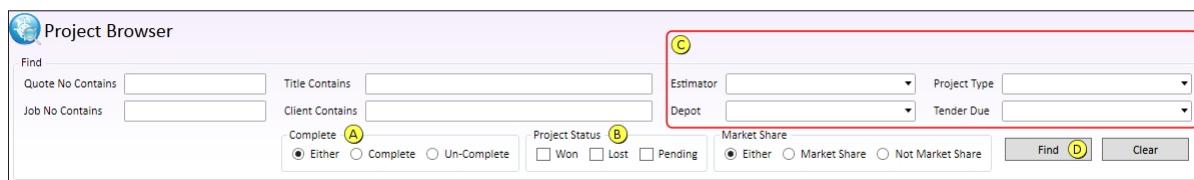


Figure 56: Project Browser - Find options

To search for a project(s) using the *Find* function, enter the search criteria you require. You can

1. Enter text into either the *Quote No contains*, *Job No contains*, *Title contains* or *Client contains* fields.
2. Select the Complete, Un-Complete or Either radio button (A).
3. Check the Won, Lost and/or Pending checkbox (B).
4. Select the Estimator, Depot, Project Type or Tenders Due from the drop-down box (C).
5. Then click the Find button (D).

The Find operates as an AND operation. For example, if you checked the *Pending* checkbox and then selected "FRED" from the Estimator drop-down menu, the search would return those projects assigned to "FRED" and which are also PENDING.



Searching By Region

Corporate version users can also search for Projects by Region in the Find feature. The Regions displayed are based on the Regions accessible by the user as set up in the Estimator Library.

Use the Find Linked Projects function

The *Find Linked Projects* function is located in the **Project Browser**. This function finds all projects that are linked to the highlighted Project by Market Share. This link is created when you duplicate a Project and select Yes to link them for Market Share purposes. Note that this link can only be created by using the duplicate feature.

To search for a project(s) using the *Find Linked Projects* function:

1. Select a project in the **Project Browser**, right-click and select Find Linked Projects.
2. The original and all linked projects are now displayed.

Use the Advanced Find Function

For a more detailed search you can use the Advanced Find function, accessed in the **Project Browser** and **My Benchmark** windows.

To search using the Advanced Find function:

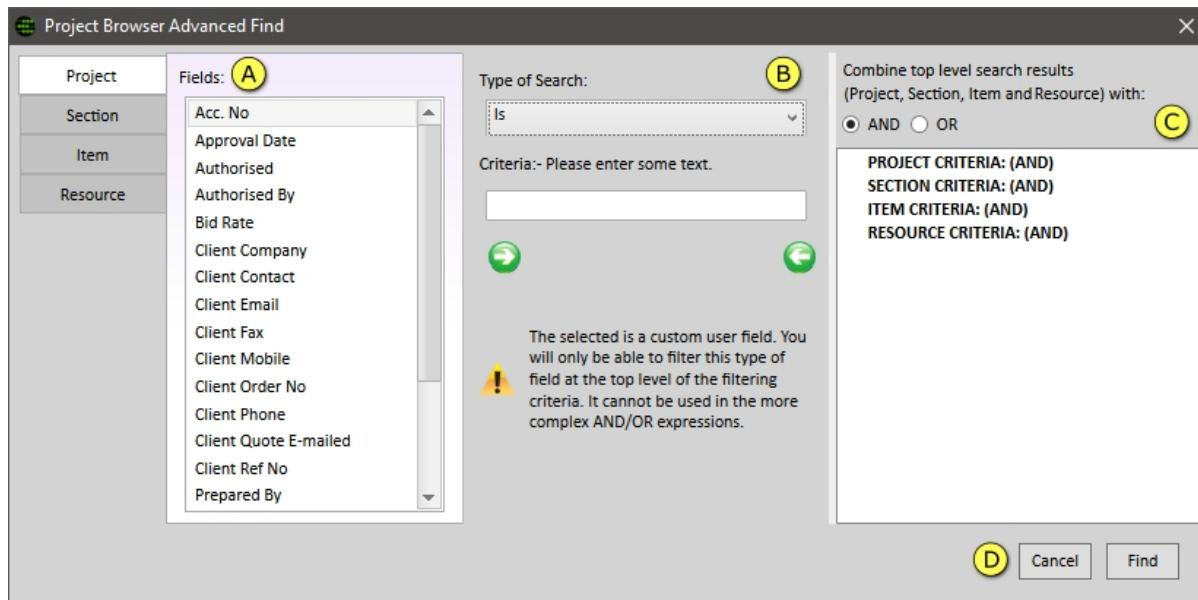


Figure 57: Project Browser - Advanced Find window

1. From the **Project Browser** select Advanced Find in the toolbar.
2. Complete your search criteria as required:
 - a. Select the Field you wish to search on from the list of fields (A).
 - b. Select the Type of Search from the drop-down box (B).
 - c. Enter your criteria in the Criteria field or select from the provided options.
3. Select AND or OR if you wish to search on multiple criteria (C);
4. Repeat Steps 2 and 3 for additional criteria.
5. Select Find when you have finished entering your search criteria (D).

Perform a Reality Check

After you have finished estimating your job, Benchmark allows you to perform a Reality Check. This allows you to get a very quick *feel* for the accuracy of the price you have prepared.

To perform a Reality Check:

- In the Project Details window, click on the Project Data tab. The following window is displayed:

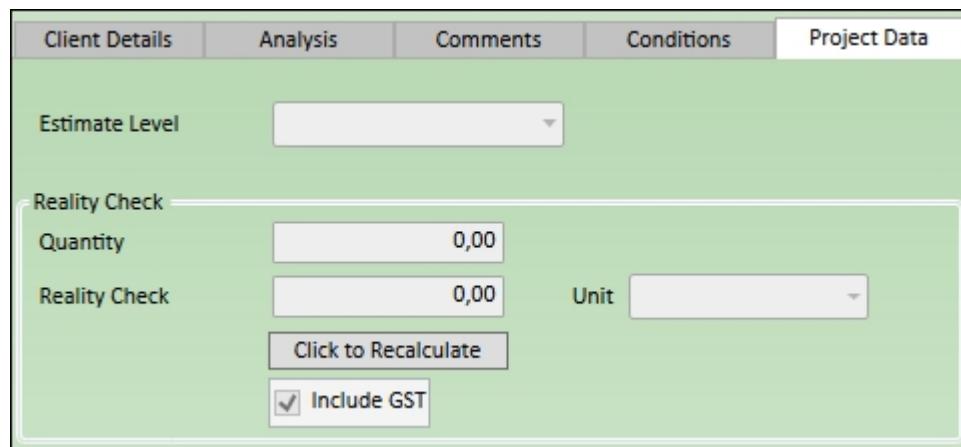


Figure 58: Project Data - Reality Check

- Right-click and select Edit.
- Type in the Quantity for the job. This could be the total square metres for a timber floor, the total square metres for paving, the total tonnes of asphalt, or something similar.
- Select a Unit for the Reality Check.
- Select OK.
- Select Click to Recalculate in the Reality Check group box.

A rate is then generated based on the Project Submission Price and the entered quantity.

Link Documents to Your Project

Benchmark has a feature which allows you to Link documents to your Project or to a specific Item within a project. This is useful for linking designs, drawings, photographs or relevant web pages.

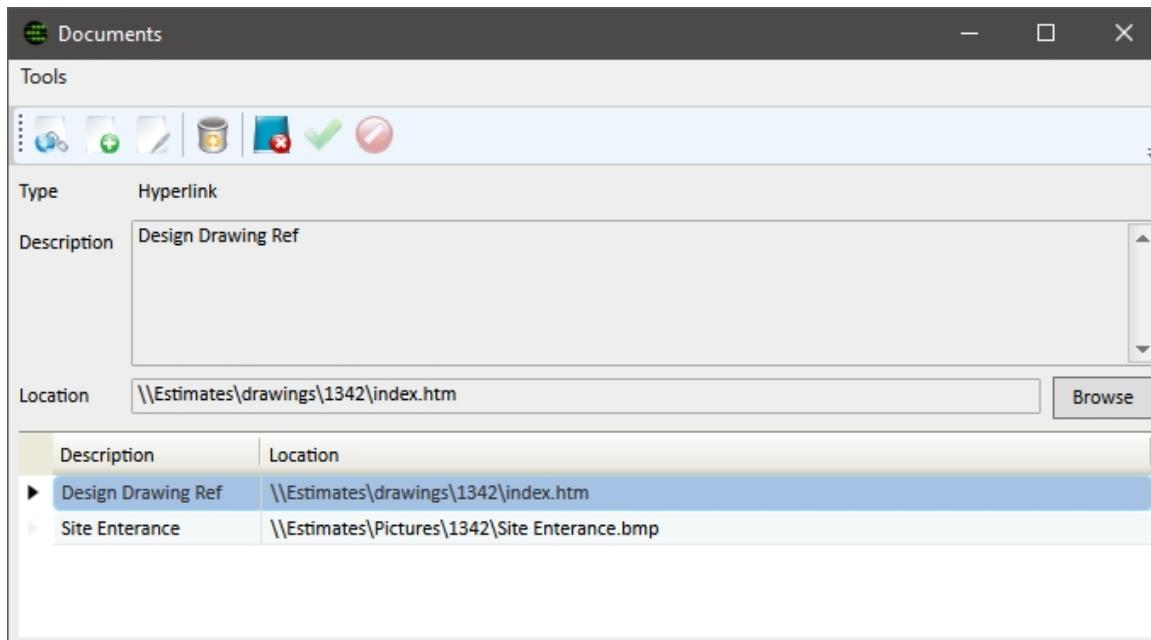


Figure 59: Document Window

To **link** a document:

1. In the **Project Details** click on the Documents button or,
in the **Project Items** window, select an Item and click on the Documents button.
2. In the **Documents** window, right-click and select Add Link.
3. The cursor will be flashing in the *Description* field. Type in a **description** of the document.
4. In the *Location* field either:
 - a. Enter a location for your link, for example, a website address, or
 - b. Click on Browse and find the document or image on your computer/server.-
5. Right-click and select OK.

To **attach** a document:

1. In the **Project Details** click on the Documents button or
in the **Project Items** window, select an Item and click on the Documents button.
2. In the **Documents** window, right-click and select Attach Document.
3. The cursor will be flashing in the *Description* field. Type in the **description** of the document.
4. Click on the **Attach** button and browse to the file location on your local machine or the server.
5. Right-click and select OK.



Attached Documents and Project Specific folders

Documents that are attached to a project get copied to the specified folder as per the setting in the **Administration** window. In the **Administration** window, Documents can be set up to be copied into Project Specific folders. For more information, refer to **Customise options in the Administration window** (on page 288)



Linking documents in Benchmark does not embed that document into Benchmark's database; rather it creates a hyperlink to the file stored in a different location. Therefore if the file is deleted or renamed in its original location, the link in Benchmark will no longer refer to the document.

Name and Location of Links

When adding hyperlinks to documents in Benchmark, it is strongly recommended that the documents are located in a central location on the file server and the files and folder structures are named appropriately. This is for ease finding the link at a later time if required.

It is also recommended, that when browsing for the document in the **Documents** window, you browse through the Network rather than through My Computer to ensure the file path translates across different user's computers.

Project Resource Margin Summary

Resource Margin Summary is a feature that allows the project to be viewed based on a resource group per unit or measure. This means that the project can be viewed based on the Labour hours in a project. For manufacturing companies it is an important feature allowing them to work out their cost per labour hour and their overall submission rate per labour hour.

In the figure below, the Total direct cost for Resource group labour is shown; the total number of hours for labour in the project is also shown. This allows the user to get an overview of the rate per hour for the project, with the project margin applied.

Total Direct Cost	75 223,57 \$
Total Direct Cost Quantity	1 475,32 hour
Average Direct Cost Rate	50,99 \$ / hour
Total Project Markup	51 822,23 \$ Margin
Markup Rate	35,13 \$ / hour
Average Rate including Markup	86,11 \$ / hour
Margin %	40,79

Figure 60: Resource Margin Summary Popup

To **view** margin summary information:

1. In the [Project Details](#) window, hover the mouse cursor over the Resource Margin Summary text.
2. A pop-up will appear with the Margin Summary Details.

Alternatively, the Resource Margin Summary is also shown in the [Project Extras](#) window.

To **setup** a Project Specific Margin summary:

1. Open the [Project Extras](#) window.
2. In the lower right corner, select Settings.

The Resource Margin Summary Settings window will appear.

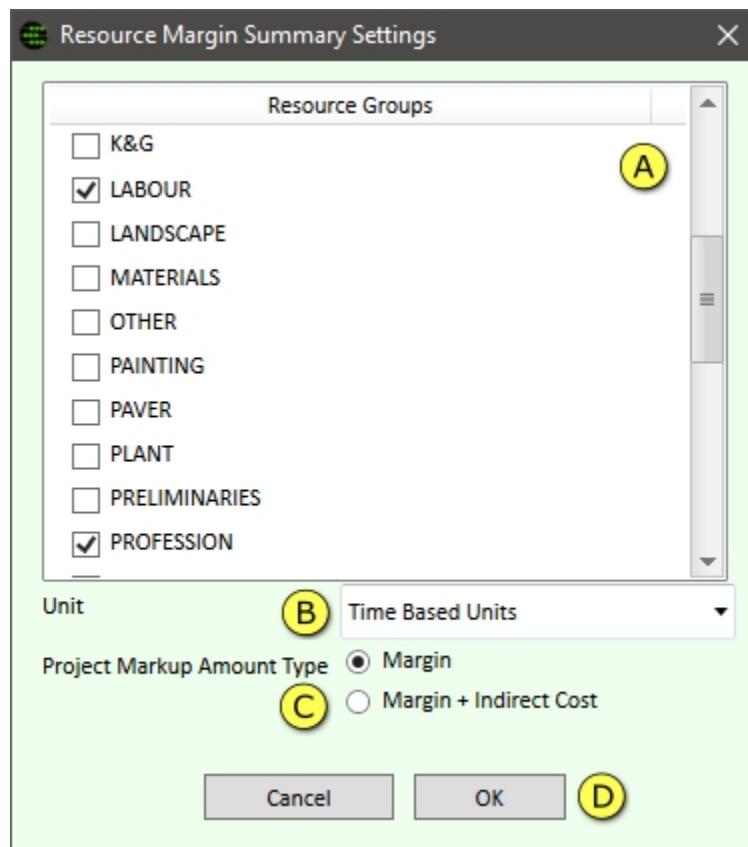


Figure 61: Resource Margin Summary Settings Window

3. Select the Resource Groups you would like to include in the summary (A).
4. Select a Unit (B).
5. Select the Markup Amount Type (C).
6. Click OK (D)

The Project Details and Project Extras windows will now display the updated Resource Margin Summary information.

Project Sections

Sections divide a Project into the *main areas of work* (for example, these may be *Survey and Design, Earthworks, Electrical, Water*, etc., or they could be *Separable Portion 1* and *Separable Portion 2*, etc.). *Project Sections* also act as headings when you produce a construction program. If a client provides you with a *Bill of Quantities* (or *Schedule of Items*) to bid, the *Sections* you create in your Project should match what your client has provided.

There are different Section types that can be used in a Project, these include:

➤ **Direct Cost Sections**

DC Sections include all the items that contribute to your Direct Cost

➤ **Overhead Sections**

Overhead Sections are sections where the Item Costs are added to the Indirect Costs of the Project. For more information, refer to **Profit, Indirect Costs and adjusting your Spread** (on page 195)

➤ Variation Sections

Variation Sections contains Items/activities that have changed after the Estimate was submitted. These sections are used in Progress Claims. For more information, refer to **Pricing Variations and Progress Claims** (on page 233)

Benchmark includes a **Section Library**, whereby Sections can be predefined and can then be added to Projects when they are created.

To view the Project Sections:

1. Right-click from the **Project Details** window and select **Section**

The **Project Sections** window will be displayed. Here you can see the *Sections* in your Project.

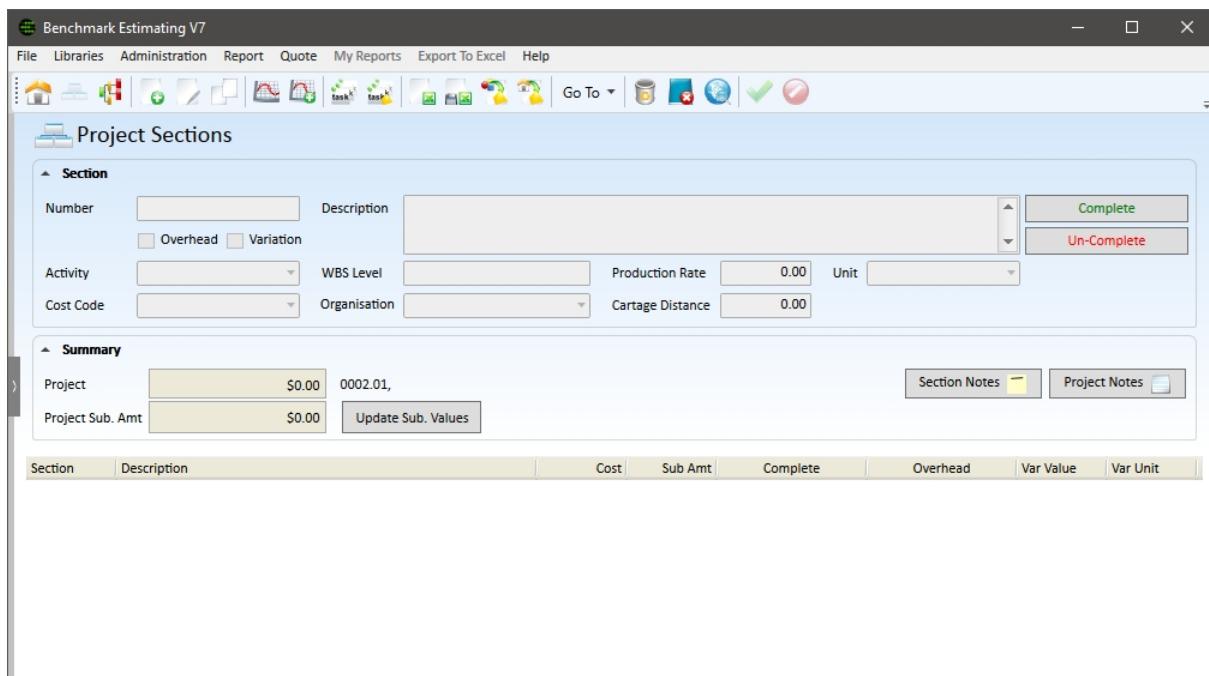


Figure 62: Project Section Window

Add a New Section

1. From the **Project Sections** window, press **CTRL+A**.

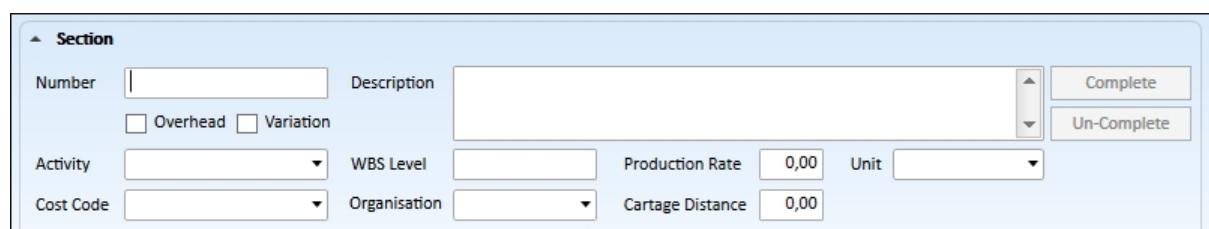


Figure 63: Project Section Fields

2. Enter in a *Section No*, up to 10 characters.
3. If the Section is an *Overhead*, check the Overhead checkbox. For more information, refer to **Profit, Indirect Costs and adjusting your Spread** (on page 195).
4. If the Section is a *Variation*, check the Variation checkbox. This flags the *Section* and its *Items* as a *Variation* which is important when using Progress Claims.
5. Type in the *Description*, up to 255 characters.
6. Right-click and select OK.



The *Activity* and *WBS Level* fields are only used for the export to other business systems.

Refer to **Use Production Rates** (on page 164) for instructions on the use of the *Production Rate* at the *Section Level*.

The *Cost Code* field is only displayed in this window if you have enabled this feature in your **Administration** window.

Edit a Section

1. From the **Project Sections** window, highlight the *Section* you wish to edit and press CTRL+E (you can also select the Edit option on the toolbar or right-click and select Edit).



2. *Edit* the required fields.
3. Select OK.

Delete a Section

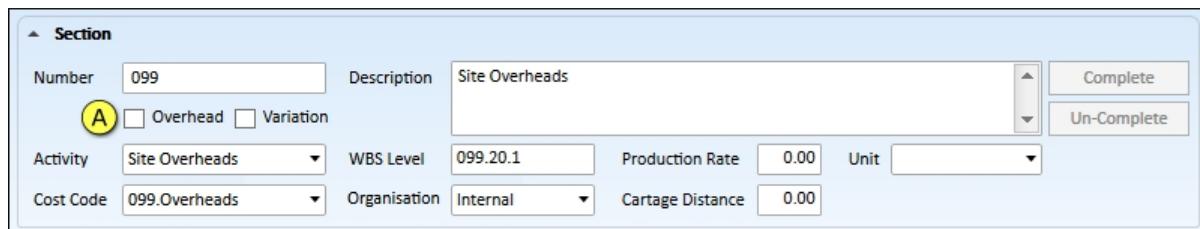
1. From the **Project Sections** window, highlight the *Section(s)* you want to delete and click on the Delete toolbar icon.



2. Click Yes to the confirmation message.

Adding an Overhead Section

Benchmark has the power to generate Overheads in as much detail as you may require. To do this, you set up a Section(s) as an Overheads, and allocate your Overhead Items and Resources to these Sections. Items in Overhead Sections are not displayed on the Quote to your client and any costs associated with Overhead Sections are added to the total Indirect Cost of the Project which is spread across your Direct Cost Items.



The screenshot shows the 'Section' dialog box. At the top left is a triangle icon followed by the word 'Section'. Below it are fields for 'Number' (099), 'Description' (Site Overheads), and 'Complete' (with 'Un-Complete' below it). A yellow circle highlights the 'Overhead' checkbox, labeled '(A)'. Other fields include 'Activity' (Site Overheads), 'WBS Level' (099.20.1), 'Production Rate' (0.00), 'Unit' (dropdown), 'Cost Code' (099.Overheads), 'Organisation' (Internal), and 'Cartage Distance' (0.00). There are also up and down arrows on the right side of the dialog.

Figure 64: Overhead Section Sample

To add a *Section Overhead* to a Project:

1. In the **Project Sections** window, right-click and select Add.
2. Type in a *Section No.*
3. Check the *Overhead* checkbox (A).
4. Type in a *Description* (this could be *Overheads* or a more precise description of what the *Overhead* is, such as *Establishment*).
5. Right-click and select OK.
6. Go to the **Project Items** window.
7. You can now *add Items* from your **Item Library**, or create *new Items* to estimate the cost of your *Overhead Section*.

You can also edit an existing *Section* in a Project and check the *Overhead* checkbox to turn it into an Overhead Section.

Assign Cost Codes to Sections

Cost Codes can be defined as an additional code, that can be applied, to Sections, Items and Resources. This additional code can then be used in conjunction with costing software to produce detailed cost information.

If you assign a Cost Code in the **Project Sections** window, Items and Resources in that Section can then automatically be assigned the same Cost Code.

To assign a Cost Code to a Section:

1. Select the Section that you wish to assign a Cost Code to.
2. Right-click and select Edit.
3. Navigate to the Cost Code field and select a Cost Code for the Section.
4. Right-click and select OK.
5. Answer Yes to the confirmation prompt.



Cost Codes

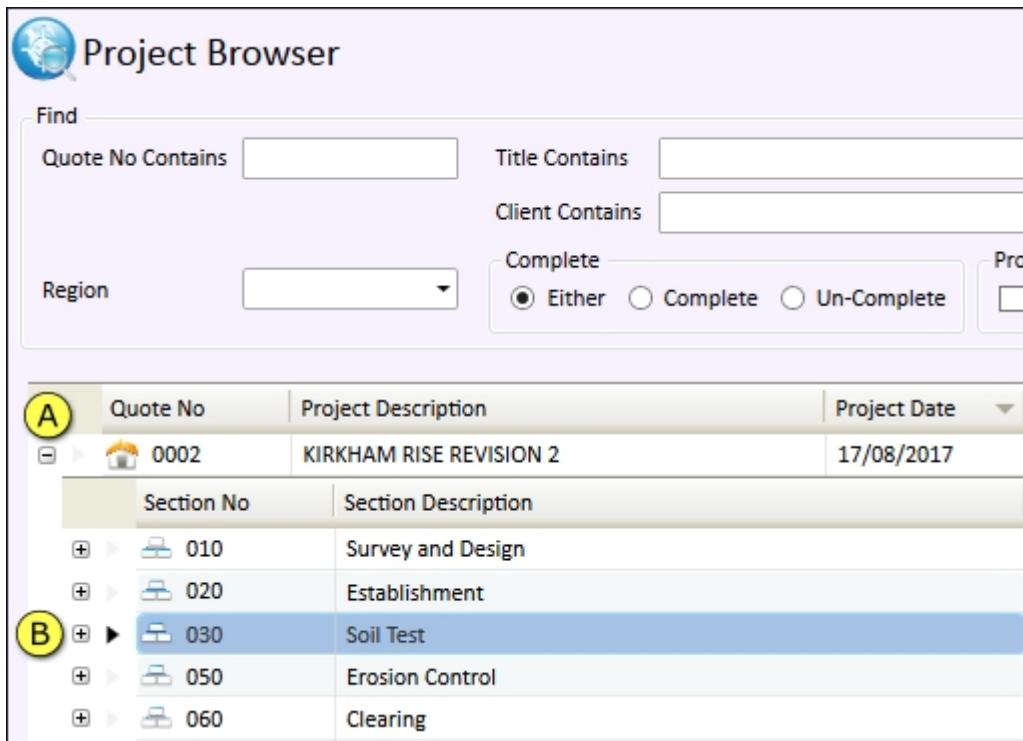
Cost Codes must be turned on in the **Administration** window to be displayed in the **Project Sections** windows.

Duplicate Sections Between Projects

You can duplicate *Sections* from one *Project* to another in Benchmark's **Project Browser** window. This is useful if you have priced similar Sections in a previous estimate and you wish to use this work in your current estimate.

To duplicate *Sections* from one *Project* to another:

1. Open the **Project Browser** window (right-click and select the Browser icon).
2. Locate the *Project* that you want to copy the *Section* from.
3. When you have located the *Project*, use the *expand icon* (A) (plus sign - +) to locate the *Section* to copy, as shown below.



Quote No	Project Description	Project Date
0002	KIRKHAM RISE REVISION 2	17/08/2017
Section No	Section Description	
010	Survey and Design	
020	Establishment	
030	Soil Test	
050	Erosion Control	
060	Clearing	

4. Right-click on the *Section* (B) and select Copy.
5. Locate the *Project* that you want to *duplicate* the *Section* too.
6. When you have located the Project, select the Project.
7. Right-click and select Paste.

You can only copy *one Section at a time*. Please note, you cannot copy a *Section* into a *Project* if the *Section number* already exists in the Project. *Section numbers* must be unique within a Project.



Copying Project Items

While you are able to copy Project Items in the **Project Browser** window it is recommended that you use the *Add Items from existing Projects* feature instead. This allows you to add multiple Items at once and presents the Items in greater detail. For more information, refer to **Add Items from existing Projects** (on page 101)

About Composite Totals

The Composite Totals feature is useful to understand when setting up Project Sections. A *Composite Total* is like another total, or some may say a *sub-Section*.

For example, if you have a Project with two main *Sections* like *SEPARABLE PORTION ONE* and *SEPARABLE PORTION TWO*, you can create *Composite Totals* beneath each section in the **Project Items** window for the main headings like *EARTHWORKS* and *ROADWORKS* etc. For more information on *Composite Totals* please refer to **Use Composite Totals** (see "**Add Composite Totals**" on page 96).

Project Items

Project Items are units of work or activities that are expected to take place or are allowed for in your scope of works. Items will contain the resources to perform that work stated in the Item description. The Item cost will, therefore, be the sum of the resources within the Item.

There are different Item types that can be used in a Project, these include:

➤ **Composite Totals**

Composite Totals are like sub-Sections. They allow you to group Items together and provide a total for these grouped Items. Composite Totals will appear on your Quote reports.

➤ **Composite Items**

Composite Items allow you to break down your activities / Items into smaller activities / units of work. Items can be grouped under Composite Items, however only the top level Composite Item will appear on the Quote reports.

➤ **Items**

Standard Items are the containers for your resources such as Labour, Materials, Subcontract and Plant.

➤ **Rate Only Items**

Rate only Items are Items that are shown on quote reports with a rate and no cost. Rate only Items, therefore, do not contribute to the Projects Direct Costs.

➤ **Provisional Sum Items**

Provisional Sum Items are Items of work that might occur in the future. Costs associated with provisional sums are not included in the Section or Project Direct Costs.

➤ **Text Items**

Text Items provide additional comments for your activities/units of work. These will appear on your Quote reports.

There are different ways to add Items to your Project; these include:

- Create a new Item from scratch. For more information, refer to **Add New Items** (on page 91).
- Import a Bill of Quantities (BOQ) or Schedule of Items. For more information, refer to **Importing Estimate data from a Spreadsheet** (on page 141).
- Add predefined Items from the Item Library. For more information, refer to **Add Items from the Item Library** (on page 98).
- Add an Item previously used in existing Projects. For more information, refer to **Add Items from existing Projects** (on page 101).
- Create Items based on predefined Routines. For more information, refer to **Run a Routine in your Project** (on page 184).

Add New Items

If you wish to use *Items* in your Estimate that are not available in your **Item Library**, you will need to create them.

Similarly, if you are bidding a *Schedule of Items* supplied by a client, you should use your client's *Item description, code, quantity and unit*. In this case, you will have to type your client's *Item* details into the estimate manually.



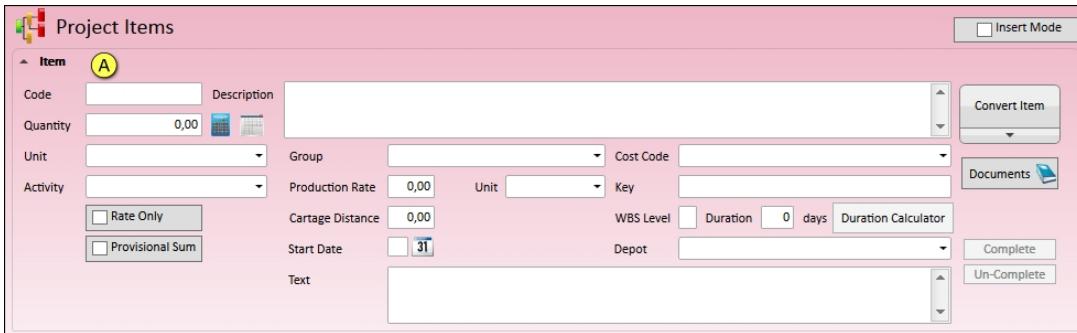
If your client has provided you with a *Schedule of Items*, you can import it into Benchmark from Microsoft Excel, saving you from retying the information. For more information, refer to **Importing Estimate data from a Spreadsheet** (on page 141)

Add a New Item

To add a new *Item*:

1. From the **Project Items** window.

2. Right-click and select Add New Item from the drop-down box. The cursor will now be flashing in the *Code Field (A)* at the top of your window.



The screenshot shows the 'Project Items' window with the 'Item' tab selected. A yellow circle highlights the 'Code' field, which is currently empty. Other fields visible include 'Description', 'Quantity' (set to 0,00), 'Unit', 'Activity', 'Group', 'Cost Code', 'Production Rate', 'Unit', 'Key', 'Cartage Distance', 'WBS Level', 'Duration', 'Start Date' (set to 31), 'Depot', and 'Text'. On the right side of the window, there are buttons for 'Insert Mode', 'Convert Item', 'Documents', 'Complete', and 'Un-Complete'.

Figure 65: Creating a New Project Item

3. Type in an Item *Code* if you require it (note that this *Code* field is not mandatory– the Item *Code* field is presented on the final Quote to your client, so we generally recommend you use Codes like 1,2,3 or 1.1, 1.2 etc. Some of the Benchmark Quote reports do, however, auto number the Item Codes for you).
4. Type in the Item *Description*
5. Type in the Item *Quantity*.
6. Select the *Unit* from the drop-down box.

Note: You can also type the first letter of the Unit (e.g. **m** for Metre) and that *Unit* is displayed.

7. Select OK on the toolbar.

The new *Item* you have created will not have a cost associated with it yet.



Calculating Item Quantities

Two powerful functions are available to calculate Item Quantities. These are the Calculator and Quantity Takeoff Sheets.



The Calculator function allows you to type in a calculation for an Item. For more information, refer to **[Use the Calculator to calculate an Item Quantity](#)** (on page 105).



The Quantity Takeoff Sheet function allows you to work out the quantity of your Item using a spreadsheet. For more information, refer to **[Use a Quantity Takeoff Sheet to Calculate an Item Quantity](#)** (on page 106).

Other fields in the Project Items window

Field Name	Description
Group	The <i>Group</i> field is mainly used with the Subcontractor Manager and it can also be used in various <i>Reports</i> .
Cost Code	You can assign a <i>Cost Code</i> to an Item and this <i>Cost Code</i> can be assigned to the <i>Resources</i> contained in the <i>Item</i> . You must have this option turned on in the Administration window to see the <i>Cost Code</i> field.
Activity	You can assign an <i>Activity</i> to an Item; this field can be used in various exports to other business systems.
Key	This field is only required if you use the Excel Items by Key report in the Project Browser , which can be used for detailed market share analysis.
Production Rate / Unit	You can nominate a <i>Production Rate</i> for an <i>Item</i> and then use this <i>Production Rate</i> to quickly calculate the <i>Quantities</i> of the <i>Resources</i> you add to your <i>Item</i> . For more information, refer to Use Production Rates (on page 164)
Depot	You can assign a <i>Depot</i> to an Item. <i>Depots</i> can be used for <i>Items</i> which come from different sites. This <i>Depot</i> field can be turned on or off in the Administration window.
Text	Here you can type in additional information about the <i>Item</i> , such as any assumptions.
Cartage Distance	When you enter a <i>Cartage Distance</i> , that distance will flow through to all the resources that use cartage within the item. For more information, refer to Use Cartage in a Project (on page 191)
Start Date	Here you can select a date when the <i>Item</i> is to begin.

Table 14: Additional Project Items fields

To generate an Item Cost, you can now:

- Allocate a *Library Item* to your new Item if you have a similar *Library Item* to use. For more information, refer to **Allocate Resources from Items in the Item Library** (on page 119).
- Allocate a *Project Item* from an existing Project. For more information, refer to **Allocate Resources from Items in a Project** (on page 121)
- Or, if you do not have a *Library Item* or an existing *Project Item* that is similar to your *Project Item*, you can add *Resources* to your new *Item* to estimate it from first principles. For more information, refer to **Add Resources to an Item** (on page 113)

Add Item Text Headings

You may want to add *Item Text Headings* to make your Estimate more readable, or you may have to add *Item Text Headings* to match the way your client has set up their *Schedule*.



Figure 66: Adding a New Text Item

To add an *Item Text Heading*:

1. In the **Project Items** window, press CTRL+A or right click and select Add New Item.
2. Because, this is a regular Item, select the Convert drop down on the far right and select Text. This will convert the Item to a Text Item.
3. Type in the *Text Heading* in the *Description* field.
4. Right-click and select OK.

As a shortcut, you can also right-click and select Add → Add Text or press CTRL+T.

Add Rate Only Items

Rate Only Items allow you to nominate an *Item* that may go ahead in the future. Benchmark allows you to provide a rate, without an associated cost, therefore the *Item cost* for any *Rate Only Items* are *not included* in the direct costs of the Project. The rate that is used in a Rate Only Item can either be entered manually, or generated based on the Resources within the Rate Only Item.

To add a *Rate Only Item* in a Project:

1. In the **Project Items** window, press CTRL+A to add a new *Item*.
2. Enter a description for the *Item* in the *Description* field.
3. Enter a Quantity in the *Quantity* field.
4. Select a Unit from the *Unit* drop-down field.
5. Check the *Rate Only* checkbox.
6. Type your *Rate* into the field as shown below.

Rate Only	
-----------	--

You can also edit a *normal Item* and turn it into a *Rate Only Item*. You may wish to do this if you first want to estimate what the *Rate* will be. When you do this any *Resources* contained within the *Item* are retained, however, they are *discarded from any direct cost and profit/submission price calculations*.

To edit an Item and make it *Rate Only*:

1. Select the *Item* you wish to mark as *Rate Only*.
2. Press CTRL+E to enter edit mode.
3. Check the *Rate Only* checkbox. **Note:** Initially the value of the *Rate* field is the *Direct Cost Rate* for the *Item* based on the current Item cost. You can leave this as is or override it if you wish.
4. Right-click and select OK.



Markup Rate Only Items in Quotes

You can automatically include the *Markup* in the rate calculation for *Rate Only Items* on quotation reports. For more information, refer to ***Customise options in the Administration window*** (on page 288).

Add Provisional Sum Items

You may be required to include in your tender a *cost of provisional or specialist work, materials or equipment to be assembled or supplied*. For these special works, Benchmark allows the user to add *Provisional Sum Item*.

To add a *Provisional Sum Item* to your Project:

1. In the **Project Items** window, right-click and select Add.
2. Type in an *Item Code* if you require one.
3. Type in the *Item Description*.
4. Type in the *Item Quantity*.
5. Select the Unit from the drop-down box.
6. Check the *Provisional Sum* checkbox.
7. Enter the value of the *Provisional Sum* in the field to the right of the checkbox.



8. Select OK on the toolbar.



How are Provisional Sums handled?

Provisional Sum Items do not attract a margin and are fixed in the **Project Spread** window. For more information, refer to **Manipulate your Submission Price Using Spread** (see "Use Spread to Manipulate your Submission Price" on page 200).

The total value of *Provisional Sum Items* in your Project is displayed in the bottom-right corner of the **Project Details** window. This value is included in your *Project Submission Price*.

You can add *Resources* to *Provisional Sum Items* and they will **not** be included in the *Direct Cost* calculations. If the checkbox is already checked, the value of the *Resources* will **not** be added to the *Provisional Sum* figure.

Add Composite Totals

Composite Totals offer more levels in an estimate, meaning you can produce quotes with clearer, more logical formatting. The additional levels also make estimating major projects far easier and enable more flexible integration with Work Breakdown Structure (WBS) reporting and analysis.

A *Composite Total* is an ideal choice when you would like to highlight and subtotal a section of your estimate.

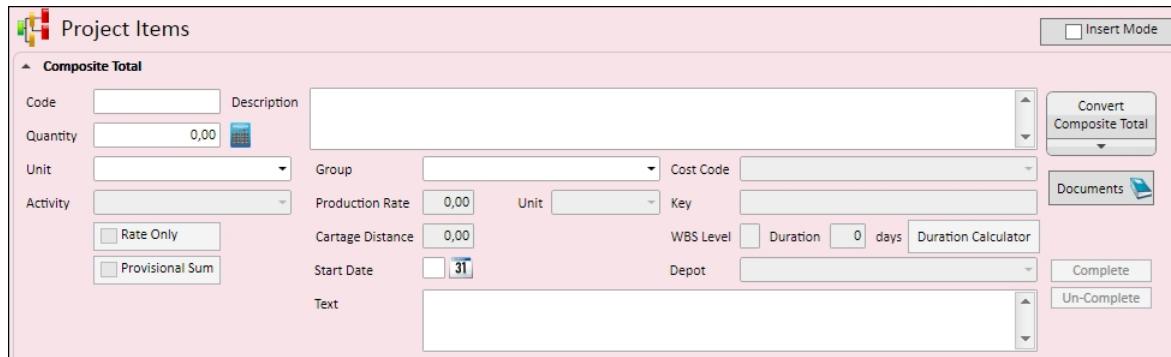


Figure 67: New Composite Item

To add a *Composite Total*:

1. Navigate to the **Project Items** window
2. Select Add Composite Item from the toolbar.
3. Enter the details for your total.

Note: *Composite Totals* do not need a *quantity*.

4. Click OK.

Use the Indent icon to add Items to a Composite Total or right click and select Indent on a selected Item.



Composite Item/Total calculations using variables

If you Edit a *Project Variable* or *Section Variable* that is used in the *Quantity calculation* for a *Composite Total* or *Composite Item*, Benchmark will re-factor the *Quantity* of *all child Items* of the *Composite*.

For more information, refer to ***Use Variables in Your Project*** (on page 167)



Multiple Levels of Total

You can use *Composite Totals* within other *Composite Totals* - up to seven levels.

Composite Items

You cannot use *Composite Totals* in *Composite Items*.

Quote Reports

Composite Totals appear on *Quote reports* and include *the total line*, *the lines within the total* and *a subtotal line*.

Add Composite Items

Composite Items allow you to build up rates for *Items* with greater flexibility regardless of how your client specifies their schedule. This means you can price estimates to meet different client's needs much faster and with greater detail and accuracy.

In the example below, *Kerb and Guttering* is a *Composite Item* that contains four *Items*. The sum of the costs of these four *Items* is the cost of the *Composite Item*.

Line	Code	Description	Quantity	Unit	Rate	Cost	Complete
1	10.01	Kerb and Guttering	300.00	Metres	\$139.13	\$41,740.24	<input checked="" type="checkbox"/>
2		Pour K&G By Boards Includes Finishing - Layback Profile (RTA RT)	300.00	Metres	\$45.93	\$13,778.15	<input checked="" type="checkbox"/>
3		Prepare For K&G In OTR, 100mm Cover, For Machine Pour	250.00	Metres	\$37.74	\$9,435.95	<input checked="" type="checkbox"/>
4		Prepare For K&G In OTR, 150mm Cover, For Machine Pour	50.00	Metres	\$54.12	\$2,705.79	<input checked="" type="checkbox"/>
5		Pour K&G	300.00	Metres	\$52.73	\$15,820.35	<input checked="" type="checkbox"/>

Figure 68: Kerb and Guttering Composite Item

To add *Composite Items* to a project:

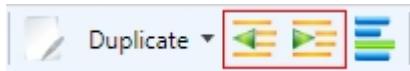
1. In the **Project Items** window, right-click and select Add → Add Composite Item.
2. Enter a *Code*, *Description*, *Quantity*, *Unit* and *Group*, just like adding a regular item.
3. Click OK on the toolbar.

Once you have created a *Composite Item* you can add *regular Items* from the **Item Library** or from an existing *Project*, *Text Items*, or another *Composite Item*.

To add lines into *Composite Items*:

1. Select the *Item* to add to the *Composite Item*.

2. Right-click and select Composite → Indent.



3. The line will then be indented to the *Composite Item* above the currently selected line.

If a *Composite Item* already contains *Items*, *Items* can be *dragged and dropped* into the *Composite Item*.



Composite Items and Quotes

Only *first level of Composite Items* appear on quote reports. The *Items* within the *Composite Items* are not displayed on Quote reports and any *Composite Items* within another *Composite Item* are not displayed on Quote reports.

Composite Items levels

Benchmark allows users to include *fifteen (15) levels of Composite Items*. This means that the user can have *Composite Items* within *Composite Items* up to fifteen (15) times.

Composite Totals

Benchmark allows users to add *Composite Totals* to provide *Sub Totals* of *Items* within a Project. Composite Totals, however, cannot be added to *Composite Items*.

For more information, refer to ***Use Composite Totals*** (see "**Add Composite Totals**" on page 96).

Composite Item/Total calculations using variables

If you Edit a *Project Variable* or *Section Variable* that is used in the *Quantity calculation* for a *Composite Total* or *Composite Item*, Benchmark will re-factor the *Quantity* of all child *Items* of the *Composite*.

For more information, refer to ***Use Variables in Your Project*** (on page 167)

Add Items from the Item Library

Using *Items* from your **Item Library** saves you time, and makes your estimates more accurate and consistent. It is best to use this method if you have not been provided with a *Bill of Quantities (BOQ)* or a *Schedule of Items* from a client. If you have been provided with a schedule you can import schedules from Microsoft Excel. For more information, refer to ***Importing Estimate data from a Spreadsheet*** (on page 141)

To add *Items* from the **Item Library**:

1. Select the *Section* of your Project you wish to add the Item in the **Project Sections** window.

2. Right-click and select Item, or double-click on the Section to display the Project Items window.

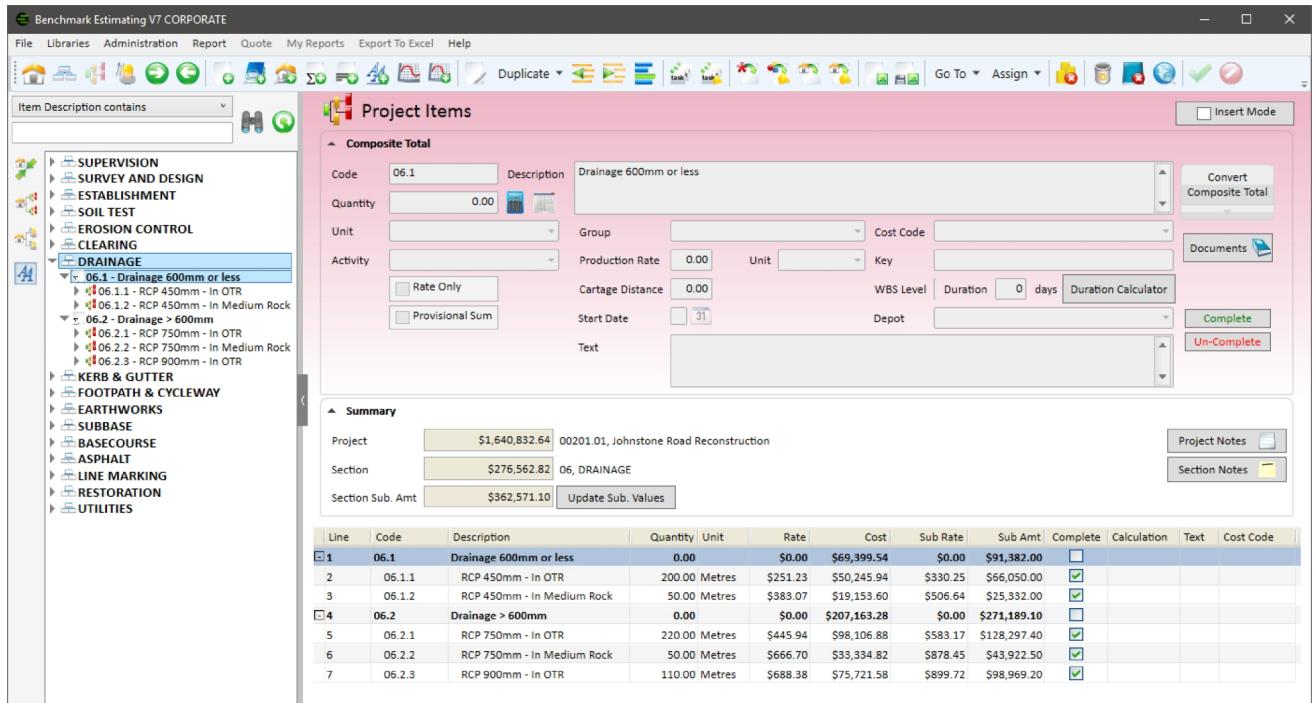


Figure 69: Project Items window

3. Right-click and select Add Item From Library to display the Select Library Items window.

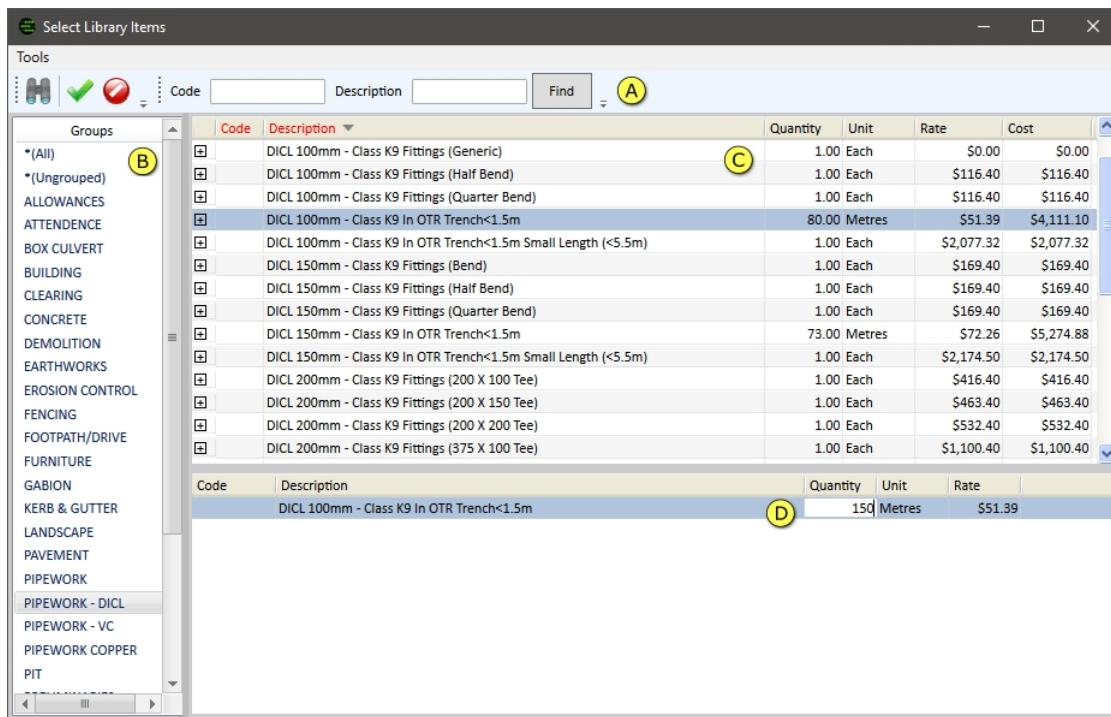


Figure 70: Select Library Items Window

In this window you can select one or more *Items* from the **Item Library** to add to your Project. There are two *Groups* listed at the top of the Group column, being

- *(All) displays *all Items in your Item Library*.
- *(Ungrouped) displays those *Items which have not been assigned an Item Group*.

You can perform multiple FIND functions and add in *more than one Item at any one time*.

4. *Find and select the Items to add:*

Step 1 – To *Find* the Item(s) you want to add:

- a. Enter data into the *Find* fields and select *Find* (A), or
- b. Select the *Group* column on the left (B) and then search within that *Group*, or
- c. Select the Advanced Find icon to do a more detailed search.

Step 2 – *Double-click* on the *Item(s)* you wish to add (C).

5. Now enter *quantities* for each of the *Items* you have selected in the *Quantity* column in the lower part of this window (D).
6. Right-click and select *OK*, or press *ENTER*.

You will now have some *Item(s)* in your Project. Each *Item* will have a *Rate* associated with it.

Where Does the Item Rate Come From?

The Item rate is a function of the *quantities* and *cost* of all the *Resources contained in the Item*. From the **Project Items** window, double-click on any *Item*. Here you will see all the *Resources* that make up the selected *Item*. The Item Rate is derived from the *sum of the cost of each Resource in the Item, divided by the Item Quantity*. Resources are covered in more detail later in this section.



Viewing the Item Makeup

When adding items from the **Select Library Items** window, you can view the Item Resource makeup by clicking the + symbol to the left of the Item Code.



Corporate Version users – Adding Items from the Library

When Corporate version users add *Items* from the **Item Library**, the *Items* are added to the Project and the *price* for the *Item* is based on the *Region* that Project is being constructed in.

Also when searching for *Items* to add to a Project from the **Item Library**, Corporate users can see *Global Items* as well as *Items* that are *specific to the Region* that the current Project is being constructed in.

Add Items from existing Projects

Adding Items from Projects is another time-saving option Benchmark provides. This feature is similar to how copy/paste would work – it allows you to effectively copy and paste *Items within a Project*, and also to *copy Items from another Project into your current Project*.

To add Items from a Project, follow these steps:

1. Select the *Section* of your Project you wish to estimate in the **Project Sections** window.
2. Right-click and select **Item**, or double-click on the *Section*, to open the **Project Items** window.
3. Right-click and select **Add Item From Project** to open the **Project Selection** window.

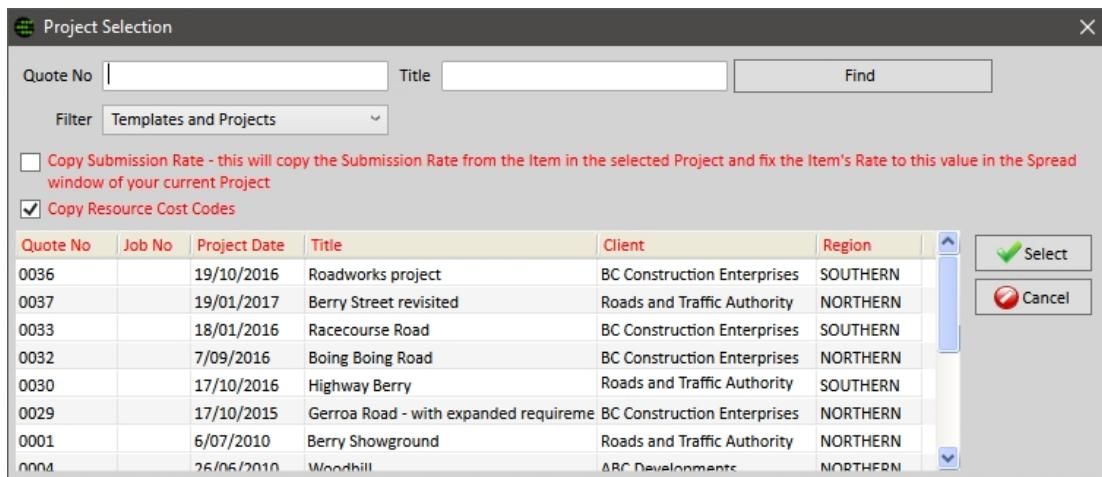


Figure 71: Project Selection Window

4. Double-click the *Project* you wish to add Items from.
 - **Note:** that you can select your *current Project* if you wish. For example, if you want to copy some *Items* from a *different Section* in the *same Project*.

The **Select Project Items** window will open and display all the Items from the selected Project.

Select Project Items						
Section	Code	Description	Quantity	Unit	Rate	Cost
ALL SECTIONS						
Survey and Design	DESENG	Design Engineer	5.00	Days	\$0.00	\$0.00
Establishment	CARAVAN	Site Camp - Caravan	15.00	Days	\$78.74	\$1,181.08
Soil Test	TOILET	Site Camp - Toilet	15.00	Days	\$49.38	\$740.72
Erosion Control	COVER	Soil Test - Cover	4.00	Each	\$456.67	\$1,826.68
Clearing	DENSITY	Soil Test - Density	8.00	Each	\$195.72	\$1,565.73
Drainage 600mm Dia or less	ERCTSMJOB	Erosion Control - Small Job	2.00	Each	\$1,130.77	\$2,261.55
Drainage over 600mm Dia	6.1	Clear Light Vegetation and Cart Within 15 km	6,000.00	M2	\$0.52	\$3,110.70
Kerb and Gutter	6.02	Clear Heavy Vegetation and Cart Within 15 km	8,000.00	M2	\$0.83	\$6,605.46
Footpaths and Cycleways	4500TR2	RCP 450mm - Class 2 In OTR Trench<1.5m	200.00	Metres	\$170.87	\$34,173.69
Subgrade	450ROCK2	RCP 450mm - Class 2 In Medium Rock Trench<1.5m	50.00	Metres	\$400.78	\$20,039.12
Basecourse	750ROCK2	RCP 750mm - Class 2 In Medium Rock Trench<1.5m	50.00	Metres	\$794.33	\$39,716.62
Restoration	7500TR2	RCP 750mm - Class 2 In OTR Trench<1.5m	220.00	Metres	\$363.93	\$80,064.55
Excavation	750SWMP2	RCP 750mm - Class 2 In Water Charged Ground Trench<1.5m	110.00	Metres	\$581.95	\$64,014.47
Paving						
Concrete						
Flooring						
External Wall Sheeting						
	Code	Description	Quantity	Unit	Rate	
	4500TR2	RCP 450mm - Class 2 In OTR Trench<1.5m	780.00	Metres	\$170.87	
	7500TR2	RCP 750mm - Class 2 In OTR Trench<1.5m	820.00	Metres	\$363.93	

Figure 72: Project Item Selection Window

5. Find and select the Items you wish to add using the following steps:

Step 1 – To *Find* the Item(s) you want to add:

- Select the **Section** column on the left and then search within that **Section**, or
- Enter data into the **Find** fields and select **Find**, or
- Select the Advanced Find icon to do a more detailed search.

Step 2 – Double-click on the *Item(s)* you wish to add.

Now enter *quantities* for each of the Items you have selected in the lower part of this window.

6. Right-click and select **OK**, or press **ENTER**.

You will now have some *Item(s)* in your Project.



Template Projects

If you have purchased the **Template Projects Add-on**, you can also filter on and select from **Project Templates**:



Submission Rates and the Copy Submission Rate option

When adding *Items from another Project*, you have the option to keep the *submission rate* from the original Project.

The Copy Submission Rate option on the toolbar is highlighted so that it stands out. When the Copy Submission Rate checkbox is ticked, each Item with a *Submission Rate* is highlighted in yellow in the *Select Project Items* list.

Items that are added with the *same submission rate as the source Project* are marked as *Not Spread* in the **Spread** window and fixed with the *Submission rate* from the *source Project*. You can reset these *Items* in the **Spread** window if you want to recalculate their *submission price*.

For more information, refer to **Manipulate your Submission Price Using Spread** (see "**Use Spread to Manipulate your Submission Price**" on page 200).

When you add an *Item* where its *Submit Rate* column is *not highlighted*, it will become part of the **Spread**, as it does yet not have a calculated *Submission Rate*.



Forecast Quantities

When *Forecast Quantities* is enabled in a Project, the selected *Item's quantity* entered in the **Item Library Selection** window is added to both the *Contract Qty* and the *Forecast Qty* fields. You can adjust the *Contract Quantity* and the *Forecast Quantity* using the normal editing function, once an *Item* has been added to a Project.



Add Composite Items and Composite Totals

You can add *Composite Items and Composite Totals* from previous projects. You select them from the **Select Project Items** window.

Benchmark calculates the *Composite Item Submission Rate value* based on the *Items within that Composite Item*. This means that when you add *Composite Items from previous Projects*, their rates are included and highlighted in the **Spread**.



Corporate Version – Adding Items from existing Projects

When you add *Items* from other Projects, the *cost of the Item* is recalculated based on the *Region Rates* in your *current Project*.

Adding Items with Routines

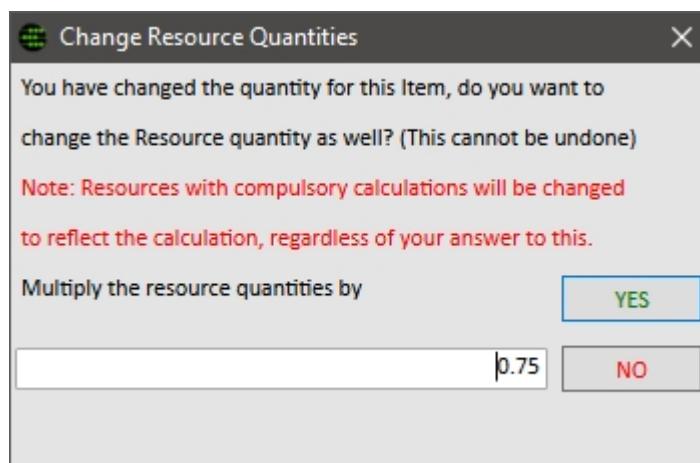
Items can also be generated using Routines. For more information, refer to ***Run a Routine in your Project*** (on page 184).

Edit Item Quantities

To edit an *Item Quantity*:

1. In the **Project Items** window, select the *Item* you wish to edit.
2. Right-click and select **Edit**, or press **CTRL+E** to enter **Edit mode**.
3. Type in the new *Quantity* and press **ENTER**.

The **Change Resource Quantities** window will appear. This window allows the user to override the refactoring of *Resource* quantities.:



- Click **Yes** if you want to recalculate the Resource quantities. This will multiply the resources quantities by the value shown in the input field.
- Click **No** if you do not want to recalculate the Resource quantities. This will leave the resource quantities as they currently are.

Note: Whether you answer **Yes** or **No**, Resources with the **Always base quantity on calculation** checkbox checked in the **Calculator** will always have their Resource quantity dictated by the calculation.



Compulsory Calculations

In the prompt above, *Compulsory calculations* refer to *Resources* that have the **Always base quantity on calculation** checkbox checked in the **Calculator** window. If you use the more advanced *Calculation* functions within Benchmark, it is possible that if you enter **Yes** to the above prompt, your Item Cost may not change. For more information, refer to ***Use the Calculator to calculate an Item Quantity*** (on page 105).

Calculate Item Quantities

Two functions in Benchmark help you to calculate the quantity of your Items. These are the Calculator and Quantity Takeoff Sheets.

- The Calculator function allows you to type in a *calculation* for an *Item*. For more information, refer to ***Use the Calculator to calculate an Item Quantity*** (on page 105).



- The Quantity Takeoff Sheet function allows you to work out the *quantity* of your *Item* using a *linked spreadsheet*. For more information, refer to ***Use a Quantity Takeoff Sheet to Calculate an Item Quantity*** (on page 106).



When you perform a calculation using either of these functions, Benchmark retains the calculation with the Project. This is a useful way of storing the logic with which your Item quantities were generated for later review or reuse. When reviewing an estimate, this function allows you to easily see how you derived the Item quantity.

When viewing your Items within the **Project Items** window you can click on an Item and view the state of the calculator as shown in the table below.



Calculator icon states

The Calculator icon has one of three different states, as explained below:



There is *no calculation*.



There is a calculation and this calculation has the *Always base quantity on calculation* checkbox checked, and so is *linked to the Quantity*.



The calculation does not have the *Always base quantity on calculation* checkbox checked, and so is *not linked to the Quantity*.

Use the Calculator to calculate an Item Quantity

To calculate an *Item Quantity* using the *Calculator* function:

1. Highlight the *Item* and click on the Calculator icon next to the Quantity field to display the **Calculator** window.



2. Enter your calculation; you can *type in data or use the buttons provided (A)*.

Note: You can enter in *text* such as *descriptions or dimensions* and Benchmark will ignore this when it evaluates the calculation. For example, you could type in **10m wide * 340m long**.

- Other math functions and built in variables can be used to create more advanced calculations. For more information, refer to **Using the Calculator in Your Project** (on page 171)

3. Check to see that your *calculation is valid*. This is indicated by a green *Result* field (B).
4. Check the checkbox *Always base quantity on calculation* if you want the calculation for your Item to **ALWAYS** be based on this calculation (C).
5. Click on OK (D) to return to the **Project Items** window.

You will see that the *calculated quantity* is now returned in the *Quantity* field.

6. Click OK or press ENTER to save the changes to your Item.

The calculator **SAVE** feature saves the current calculation, closes the **Calculator** window and saves the *Item* or *Resource* you are currently editing. This saves an extra mouse click every time you open the **Calculator**.

Use a Quantity Takeoff Sheet to Calculate an Item Quantity

The Quantity Takeoff Sheet function enables estimators to use a spreadsheet to do a more detailed calculation of an Item Quantity, which provides them with flexibility as well as the power of a spreadsheet.

The Quantity Takeoff Sheet function uses Takeoff Sheet Templates which can be stored in the **Takeoff Sheet Library**. Any Takeoff calculations performed within a Project are saved within the Project so they can be easily reviewed.

You must enable this function in the [Administration](#) window before it can be used. For more information, refer to [Customise Administration Settings](#) (on page 288).

To use this function in a Project, first, create some *Templates* in the [Takeoff Sheet Library](#). For more information, refer to [Set up Quantity Takeoff Templates](#) (on page 401).

Once Takeoff Sheets have been set up in the [Takeoff Sheet Library](#), they can be assigned to Items in the [Item Library](#); you would do this if you regularly use a Takeoff Sheet for a certain Item(s). In this scenario, and if you add this Item to a Project from the [Item Library](#), the Takeoff Sheet will automatically be brought into your Project; ready for you to edit within the Project.

Assign a Takeoff Sheet to an Item in a Project

To associate a Quantity Takeoff Sheet with an Item in your Project:

1. In the [Project Items](#) window, highlight the Item and select Edit from the toolbar.
2. Click on the Takeoff Sheet icon.



3. In the [Select Takeoff Sheet](#) window, double-click on a *template* to suit the Item.
(If there are no sheets to select, you need to create some. For more information, refer to [Set up Quantity Takeoff Templates](#) (on page 401)).
4. The [Item Takeoff Edit](#) window is now displayed and you are ready to complete your quantity takeoff. Complete the *Takeoff sheet* as required.
5. Select OK.
6. The data in cell A1 is copied to the Item Quantity field.
7. You will now be back in the [Project Items](#) window.



Editing Takeoff Sheet formulas within a Project

If your Benchmark Administrator has not locked down the *Takeoff Sheet*, you can modify a *Takeoff Sheet* in a Project and it will be *project specific*. This includes modifying the formula and adding new input cells.

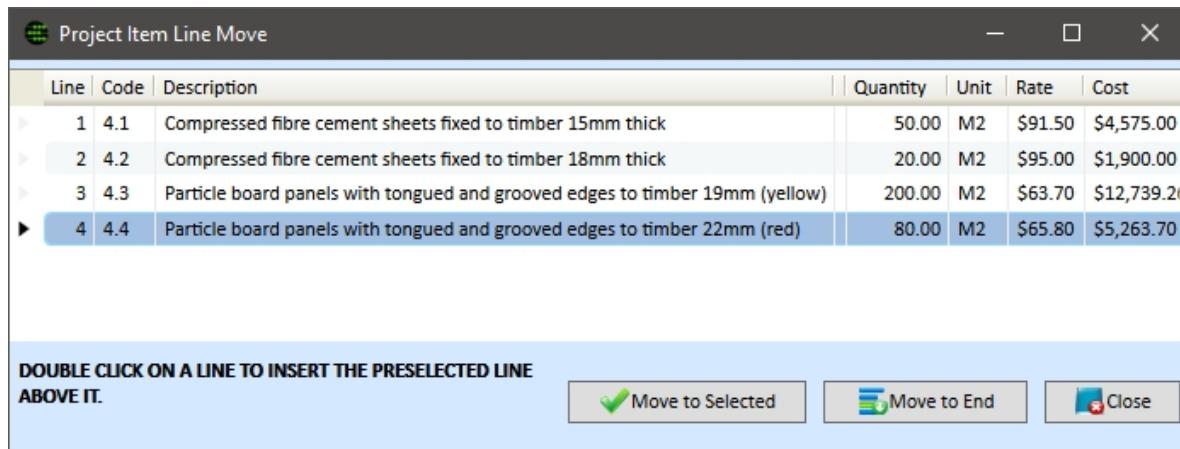
Moving Project Items

The Move function gives you the power to move individual or groups of *Items* or *Resources*.

To use the Move function:

1. Select an Item or group of Items you wish to move.

2. Right click and Select Move or press CTRL+M to display the Project Item Line Move window.



Line	Code	Description	Quantity	Unit	Rate	Cost
1	4.1	Compressed fibre cement sheets fixed to timber 15mm thick	50.00	M2	\$91.50	\$4,575.00
2	4.2	Compressed fibre cement sheets fixed to timber 18mm thick	20.00	M2	\$95.00	\$1,900.00
3	4.3	Particle board panels with tongued and grooved edges to timber 19mm (yellow)	200.00	M2	\$63.70	\$12,739.20
4	4.4	Particle board panels with tongued and grooved edges to timber 22mm (red)	80.00	M2	\$65.80	\$5,263.70

DOUBLE CLICK ON A LINE TO INSERT THE PRESELECTED LINE ABOVE IT.

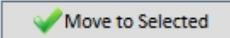
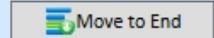
  

Figure 73: Project Item Move Window

- Click on a line to move the selected *Items* above that line and select Move to Selected (or you can just double-click on the line) or
- Click on Move to End if you want to move the selected *Items* to the end of the list.

Drag and Drop Items

In the Project Items window, you can use the drag and drop to move one or more *Items*, and click and drag them to a different position in the *Item* list

To drag and drop an item:

1. In the Project Items window, highlight one or more *Items* (A).
2. With the cursor positioned on top of one or more of these highlighted *Items*:
 - a. Click and hold the left mouse button.
 - b. Move your mouse up or down in the direction you want to move the *Item(s)*

- c. After you start to move your mouse, you will notice the cursor icon has changed and you will also see a red line (B) appear as shown below:

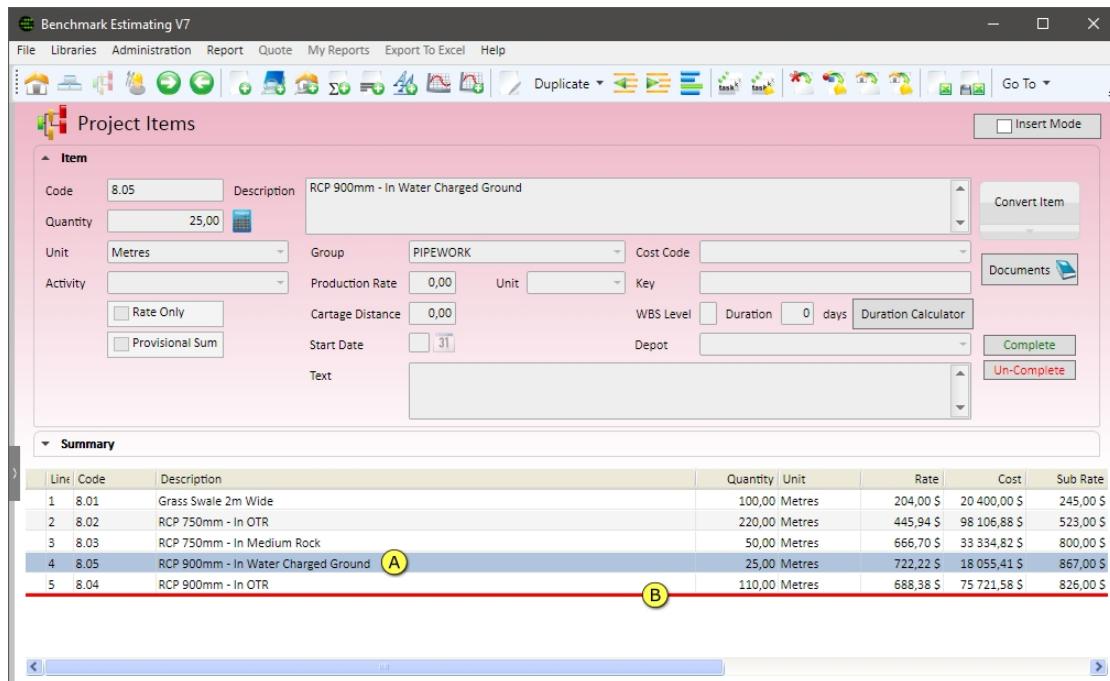


Figure 74: Move Items by using Drag and Drop

3. When the red line has reached the position where you wish to move your Items, let go of your left mouse button.



Note: If you are using *Composite Items or Totals* some important rules and functionality apply as follows:

- If you use drag and drop to move *Items* directly underneath a *Composite Item or Composite Total*, the *Items* will automatically be indented and allocated under the *Composite Item/Total*.
- If one or more of the Items you are moving is itself a *Composite Item or Composite Total*, this feature will move the *Composite Item/Total* and all its member *Items* automatically (i.e. if you want to move an entire *Composite Item* you can simply select the *Composite Item* (and none of its member *Items*) and this click and drag move feature will move all member items as well).

Duplicating Items

You can duplicate *Project Items* to:

- the *Item Library*, or
- within the *Project*.

Duplicate a Project Item to the Item Library

You will use this function if you have created a *Project Specific Item*, and you think that you will use this *Item* over and over again in future estimates.

To *duplicate a Project Item to the Item Library*:

1. Go to the **Project Items** window
2. Select the *Item* to duplicate
3. Right-click and select **Duplicate** → **Duplicate to Library**.
4. Select **Yes** to confirm you want this *Item* in your **Item Library**.

This *Item* is now in your **Item Library** and can be used over and over again for future estimates.

If, when you select **Duplicate to Library**, you get a prompt similar to the following...

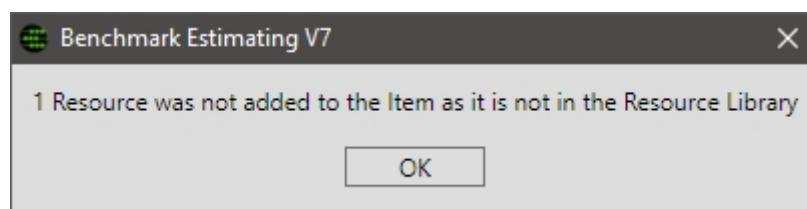


Figure 75: Duplication Warning Prompt for Unlinked Resources

...this means that some of the Resources you have within your Project Item are not linked to the Resource Library. Check each Resource in this Item and see which one(s) are not linked to the Resource Library. When you duplicate an Item to the Item Library, all of the Resources in the Item must be linked and therefore exist in the Resource Library.



Estimator Access Levels

Duplicating Items to Library requires Estimator Access to the Item Library. For more information, refer to **Set up User Accounts** (see "**Set up Estimator Accounts**" on page 335).



Duplicating Items to the Item Library

When duplicating *Items* from a *Project* in the *Corporate Edition*, *Items* are added to the **Item Library** as *Region-Specific Items* with the same *Region* as the *Project* the *Item* was duplicated from.

Duplicate a Project Item within the Project

Duplicating an Item within a Project is useful if you have similar Items in a Section or in different Sections. To duplicate a *Project Item* within a *Project*:

1. Go to the **Project Items** window.
2. Select the *Item* you wish to duplicate (copy).

3. Right click and select Duplicate → Duplicate, or press the shortcut for Duplicate - CTRL+D.

A duplication prompt will appear where the user can continue with OK, Cancel or Duplicate to a different Section which allows the user to select an alternative Section for the duplicated Item.



Figure 76: Duplicating a Project Item

4. You can duplicate an *Item* to the *Section* you are in, or you can *duplicate it to another Section*:

- a. To duplicate the *Item* in the current Section.
 - i. Select OK.

The cursor will be flashing in the *Code* field.

- b. To duplicate the *Item* to another Section.
 - i. click on the Duplicate to a different Section button,
 - ii. Select the *Section* you wish to duplicate the *Item* to and click OK.

You will now be in the **Project Items** window of this *Section* with the cursor flashing in the *Code* field.

5. Make any required changes and then select OK.

Assign Groups, Cost Codes and Activities to Items

Assigning a Group is important. In the Item Library, this helps your estimators easily find the Items when adding items to your estimate. In your Projects, Item Groups are important when using the Subcontractor Manager, and other features. Cost Code and Activity data are used only in exporting to Job Costing/Accounting systems.

This data can be assigned for each and every Item individually using edit, however, there is also an Assign feature which allows you to assign values to many Items in one operation.

To assign values to many Items in one operation:

1. Highlight the *Items* that you wish to assign data to.
2. Right-click and select either:
 - Assign Group
 - Assign Cost Code
 - Assign Activity

3. You will then be presented with a window showing you the Group/Cost Code/Activity values respectively that you can select from.
4. Double-click on the selected Group/Cost Code or activity to assign the selected value.
5. Select Yes when the confirmation prompt appears to complete the assignment.



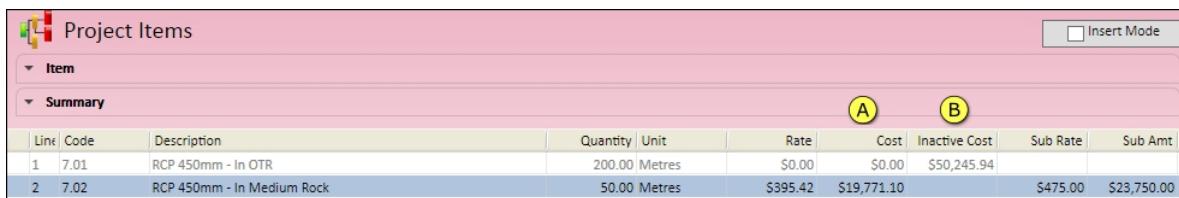
Cost Codes

Cost Codes must be turned on in the **Administration** window to be displayed in the **Project Items** and **Item Library** windows.

Inactive Project Items

You can mark Items as *inactive* to exclude them from your project. This powerful feature has many uses; for example, if you want to model different construction methods for an Item, you can have two alternative methods for completing an activity/unit of work but with only one active. Alternatively, If an Item is no longer required due to a variation in your estimate, instead of deleting the item, you can mark it as *inactive*.

When an *Item* is marked as *inactive* it will no longer be part of the section or project cost, the Item line is dimmed and the cost is shown as zero (A). A new column called *Inactive Cost* (B) is displayed showing the item cost for inactive Items.



Line	Code	Description	Quantity	Unit	Rate	Cost	Inactive Cost	Sub Rate	Sub Amt
1	7.01	RCP 450mm - In OTR	200.00	Metres	\$0.00	\$0.00	\$50,245.94		
2	7.02	RCP 450mm - In Medium Rock	50.00	Metres	\$395.42	\$19,771.10		\$475.00	\$23,750.00

Figure 77: Inactive Project Item

To mark an item as *inactive*:

1. Select the *Item(s)*
2. Right-click and select **Make Item(s) Inactive**.

You can *reactivate* inactive *Items or Resources* at any time by highlighting them and selecting **Make Items Active**.



Inactive Resources

Just like Items, Resources can be marked as *inactive*. When there are inactive Resources within an Item, the **Inactive Cost** column will be displayed in the **Project Items** window with the total cost of all the inactive Resources in the Item.

Inactive Items combined with Composite Items

You can combine Inactive Items and Composite Items to offer a very powerful solution to a common estimating challenge.

The screen shot below shows a Composite Item with two child Items. You will see one of these child Items is inactive and the cost of the Composite Item is, therefore, the cost of the remaining active Item. This method allows an Estimator to model different construction methods for an Item and see the difference in costs very quickly. It also allows the estimator to quickly switch between methods and Items.

Project Items									<input type="checkbox"/> Insert Mode
Composite Item									
Summary									
Line	Code	Description	Quantity	Unit	Rate	Cost	Inactive Cost	Sub Rate	Sub Amt
1	6.00	Clear Vegetation and Cart within 15 km	8,000.00	m2	\$0.60	\$4,801.60	\$3,190.40	\$1.20	\$9,600.00
2	6.01	Clear Light Vegetation and Cart Within 15 km	8,000.00	m2	\$0.00	\$0.00	\$3,190.40	-	-
3	6.02	Clear Heavy Vegetation and Cart Within 15 km	8,000.00	m2	\$0.60	\$4,801.60	-	-	-

Figure 78: Inactive Item within a composite Item

Inactive Items and Reports

Inactive Resources are not printed on any estimate reports.

To show Items that contain Inactive Resources, use the **Inactive Resources in Project report**.

Project Resources

Resources are the building blocks of a First Principle Estimate and as such Resources are the basis for all Project Direct Costs. This section provides information on how Resources can be used in a Project.

Add Resources to an Item

If you do not have an *Item* that you can use from your **Item Library**, you must build your Item from first principles. In other words, you need to create a new empty *Item*.

To build an Item from first principles, you first need to enter the details of the new Item (e.g. *description, unit and quantity*). To do this, follow the steps in **Add a New Item** (on page 91).

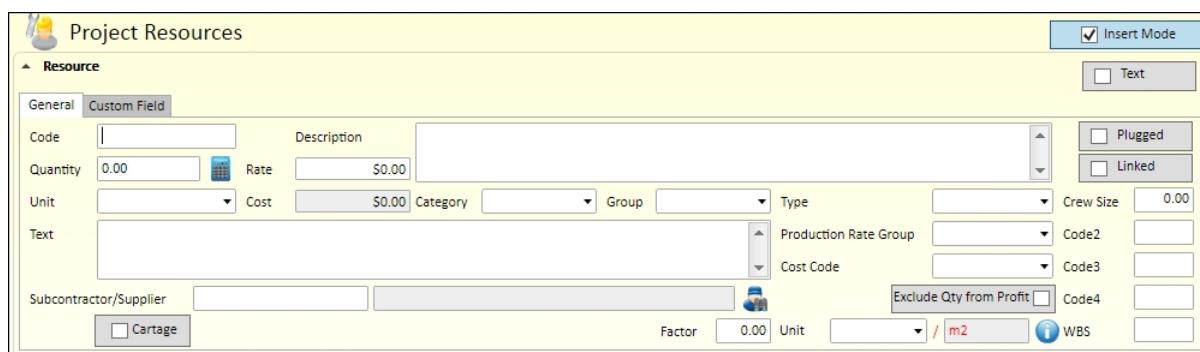
To continue building the Item from first principles you need to add *Resources* to this Item. There are two ways to do this:

- Add *Resources* from your **Resource Library**; or
- Copy and Paste resources from Projects.
- If you do not have a suitable *Resource* in your **Resource Library**, you can add a new *Resource* in the **Project**.

The Resources you add to your Item should consist of all the *Labour, Plant, Material and Subcontract Resources* required to complete the *Item of work* for the specified *Item quantity*.

Add new Resources

To add a new Resource in your Project; Please note that the following fields are mandatory for a new Resource.



The screenshot shows the 'Project Resources' window with the 'Resource' category selected. The 'General' tab is active. The main area contains fields for 'Code' (with a required field indicator), 'Description', 'Quantity' (0.00), 'Rate' (\$0.00), 'Unit', 'Cost' (\$0.00), 'Category', 'Group', 'Type', 'Production Rate Group', 'Cost Code', 'Factor' (0.00), 'Unit' (m2), and 'Exclude Qty from Profit'. On the right side, there are checkboxes for 'Text', 'Plugged', 'Linked', 'Crew Size' (0.00), 'Code2', 'Code3', 'Code4', and 'WBS'. A 'Cartage' checkbox is also present. The top right corner has a 'Insert Mode' checkbox checked and a 'Text' button.

Figure 79: New Project Resource fields

1. In the **Project Resources** window, right click and select Add New Resource.
2. Type in a unique Resource *Code*.
3. Type in the Resource *Description*.
4. Type in the *Quantity* of the Resource.
5. Type in the Resource *Rate*.
6. Select a *Unit* from the drop-down menu.
7. Select a *Category* from the drop-down menu.
8. Select a *Group* from the drop-down menu.
9. Press ENTER or click OK.

There are other fields you can fill in for a Resource if needed; a description of each of these fields is contained below:

- **Type** – Type allows you to further classify your Resources. You must have Types set up in your **Codes** window to be able to select these for a Resource.
- **Text** – Here you can enter text about your Resource (for example assumptions or even quote numbers from suppliers); this text can be printed out on various reports to assist in estimate review and project management.
- **Production Rate Group** – This field can be used to assign this Resource with a Production Rate Group. For more information, refer to **Add a Production Rate Group** (see "**Add a Resource Production Rate**" on page 166).
- **Crew Size** – Here you can enter a crew size for this Resource; this can be used in quantity calculations and also printed out on reports.
- **Cost Code** – Cost Codes are used for the various exports to accounting or job costing systems. You must have Cost Codes set up in your **Codes** window to be able to select these for a Resource.
- **WBS** – The Work Breakdown Structure field can be used in some of the exports to other systems.
- **Subcontractor/Supplier** – You can select a Subcontractor/Supplier for a Resource; this Subcontractor/Supplier is sourced from the Subcontractor/Supplier Library.

- **Code 2,3,4** – These Code fields can be used for reporting purposes, and also to represent coding systems in other business systems for cross referencing purposes.
 - **Factor** provides another unit of measure per unit of Resource. For example, STEEL may be purchased per Lineal Metre and as an Estimator, you want to know the total kgs of STEEL used in the Project. You can do this by specifying a Factor for the Resource that (in this case) represents the number of kgs of STEEL per Lineal Metre. Benchmark can then print out a report on the total kgs of STEEL in the Project.
 - **Cartage** – If this function is enabled in the **Administration** window, Benchmark will display a Cartage checkbox and *Cartage* fields. For more information, refer to **General Settings** (see "**General Options**" on page 290).
-



Shortcut to the Resource Library

If you wish to view the highlighted Resource in the Resource Library, highlight the Resource in the **Project Resources** window and select *Libraries > Resource*. Assuming you have access, the **Resource Library** window will appear with this Resource highlighted.



Restricting new Resources from being added to the Resource Library

You can restrict the ability for new Resources added in a Project, to be copied automatically into the Resource Library. You may wish to do this to keep your Resource Library to a manageable level; something that is highly recommended!

There is a checkbox in the **Administration** window to do this, called *Don't add Project Resources to Library*. For more information, refer to **General Settings** (see "**General Options**" on page 290).

If your Resources created in your Projects are not being added to the Resource Library then this administration option is turned on.



Project Resource Custom Fields

To complement the existing fields, Benchmark also allows for user defined custom fields. For more information, refer to **Custom Fields** (on page 260)



In the Corporate version, adding a new Resource will add the Resource to the Resource Library as a Local Resource for the Project's current Region. Note that Resources will only be added to the Resource Library in this case if *Don't Add Project Resources to Library* is disabled in the **Administration** window. For more information, refer to **General tab options** (see "**General Options**" on page 290).

Add Resources from the Resource Library

To add *Resources* from the **Resource Library** to an *Item*:

1. From the **Project Items** window, double-click on the *Item* you wish to add *Resources* to. The **Project Resources** window displays.
2. Right-click and select Add from Resource Library. The **Resource Selection List** window displays.

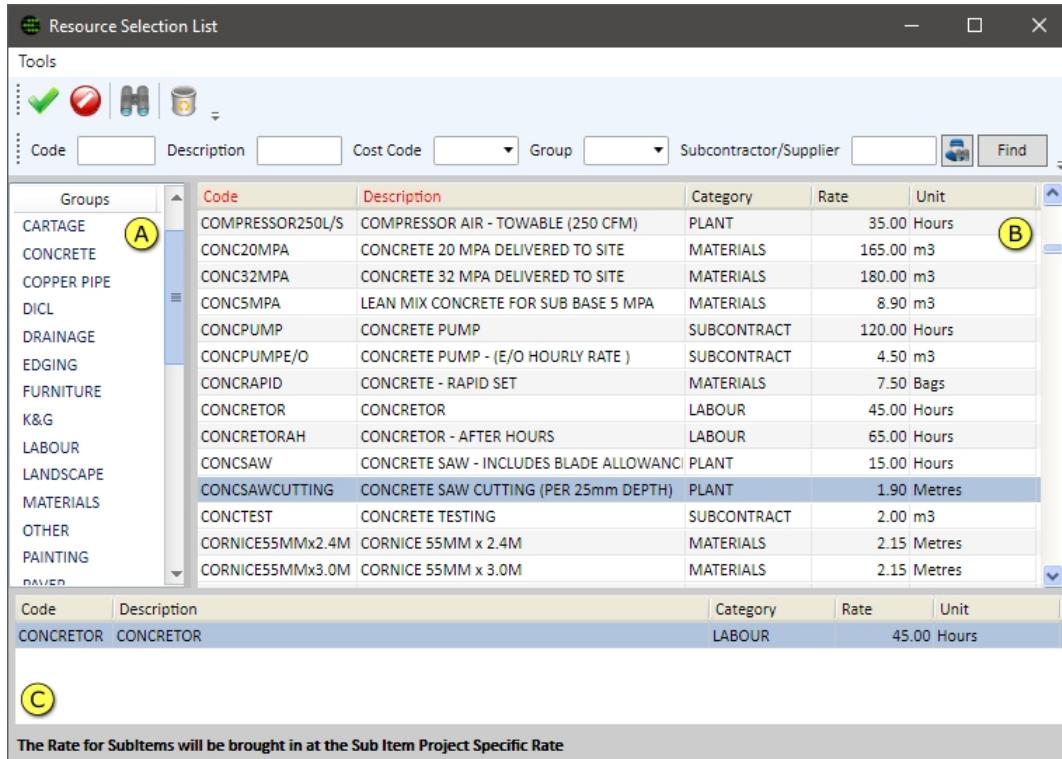


Figure 80: Resource Selection Window

3. Find the *Resource(s)* you are looking for by one of the following methods, whichever you find easiest:
 - a. Select a Group from the left-hand column (A). The *Resources* within that group are now displayed in the right part of this window;
 - b. Click on the Advanced Find toolbar icon, enter the *text* you wish to search for, and select OK; or
 - c. Enter data into one of the *Find* fields and press ENTER or click on the *Find* button.
4. For each *Resource* (B) you wish to add, double-click on it; it will then appear in the bottom section of the window (C) as you can see above. You can select as many *Resources* as you wish. Right-click and select OK to add the *Resource(s)* you just selected to the *Item* in your Project. You will now be back in the **Project Resources** window.



Project Resource Rates

Corporate version users should note that, where the *Resource* has *different Rates in different Regions*, they will see the *Resource Rate* corresponding to the *Project Region*.



Remove a selected Resource

If you select a *Resource* and then decide that you do not wish to add this *Resource* (e.g. you may have selected the wrong *Resource* by mistake), *highlight this Resource in this Section, right-click and select Delete.*



-
5. You now have to enter the *Quantity* of each *Resource* you added.
 6. If you have added one *Resource* only, the cursor is active in the *Quantity* field in the top section of the window. Enter in a *Quantity* and press ENTER or
 7. If you have added more than one *Resource* at once:
 - a. You can enter your *Resource quantities* quickly by double-clicking in the *Quantity* column in the bottom half of the window and typing in the *Quantity* for each *Resource*.
 - i. Press TAB to move from one *Resource* to the next.
 - ii. Press ENTER when you have finished entering the *Quantity* values.
 8. Or you can *edit each Resource individually* and enter a value in each *Quantity* field. Right-click and select Item to return to the **Project Items** window.

Your *Item* will now have a *Rate* and a *Cost*, which has been derived from the *Resources* you allocated.



Use the Calculator

There is a powerful Calculator function which you can use to calculate *Resource Quantities*. To use this Calculator, select your *Resource* and then click on the Calculator icon next to the *Quantity* field. For more information, refer to **Calculate Resource Quantities** (on page 131).



Add Resources from Library by entering their Code

You can also *add Resources* from the **Resource Library** by typing in the **Resource Code**. To do this:

- From the **Project Resources** window, press **CTRL+A**. The cursor will be flashing in the *Code* field.
- Type in the Resource *Code* and press **TAB**. The following prompt displays:

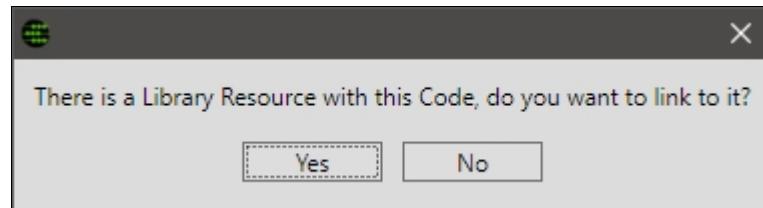


Figure 81: Linking a new resource to an existing code

- Select Yes.
- Enter a quantity in the *Quantity* field.
- Select OK.

Drag and drop Resources

In the **Resource Selection List** window, you can use *drag and drop functionality* when you add *Resources* from the **Resource Library** to a *Project Item*, *Library Item* or *Routine*.

Key elements of the drag and drop feature:

- You can drag and drop *individual Resources* or *multiple Resources*.
- You can keep the **Resource Selection List** window open while moving between *Items* in your estimate, and
- You have the flexibility to drag *Resources* from different sections of the **Resource Selection List** window.

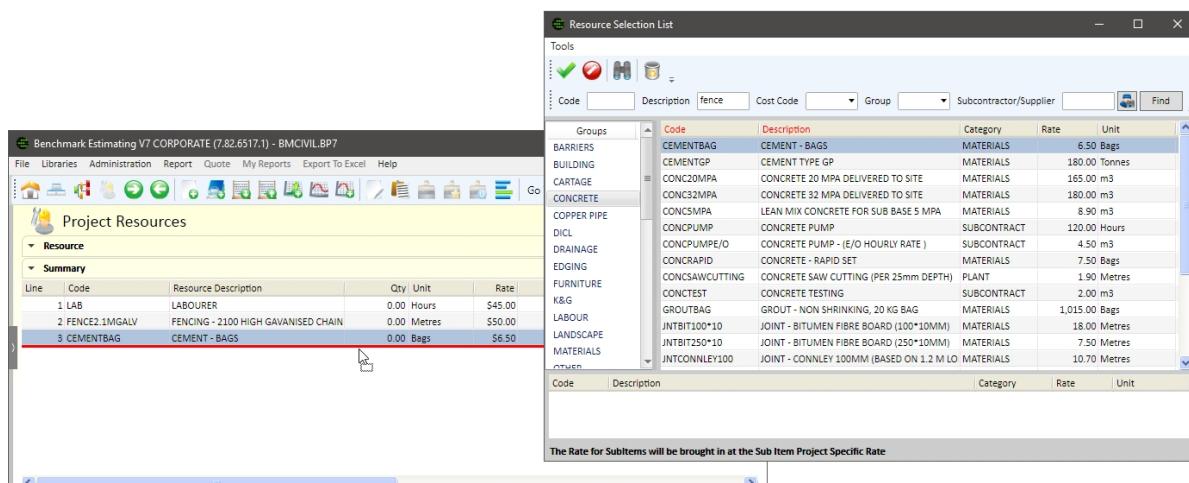


Figure 82: Drag and Drop Resources

Allocate Resources from the Item Library and other Projects

Allocating Resources is a powerful estimating tool, involving the process of copying Resources from one Item into another. Therefore allocating resources from a Project Item or from a Library Item, copies the resources from the Item into your existing Project Item. This means that you can use your *existing Items* in different combinations to suit the exact requirements of the *Project Item* you are working on. This can be helpful when your client has multiple Activities within one Item description. Each sub process can be allocated into the Project Item.

Where possible, Benchmark uses standard *Items*, to make your work easier and quicker. So when you are bidding a client's Item, it is best to use your *Library Items* or *Items from existing Projects* if applicable *Items* exist.



Composite Items as alternative to Allocating Multiple Items

Please, note that now with Composite items, you may want to consider your clients Item description as a composite Item and then add your sub processes as individual items under the composite.

Allocate Resources from Items in the Item Library

To allocate an Item from your **Item Library** to your *Project Item*, use the Allocate Resources from Item Library function.

A Project Item must already exist to allocate *Resources* to. If you do not have a suitable Project Item, then please follow the steps in **Add a New Item** (on page 91) to create one.

To allocate a Library Item to your Project Item:

1. In the **Project Items** window, select the *Item* you want to price.

2. Right-click and select Allocate Resources from Item Library, to display the **Select Library Items** window.

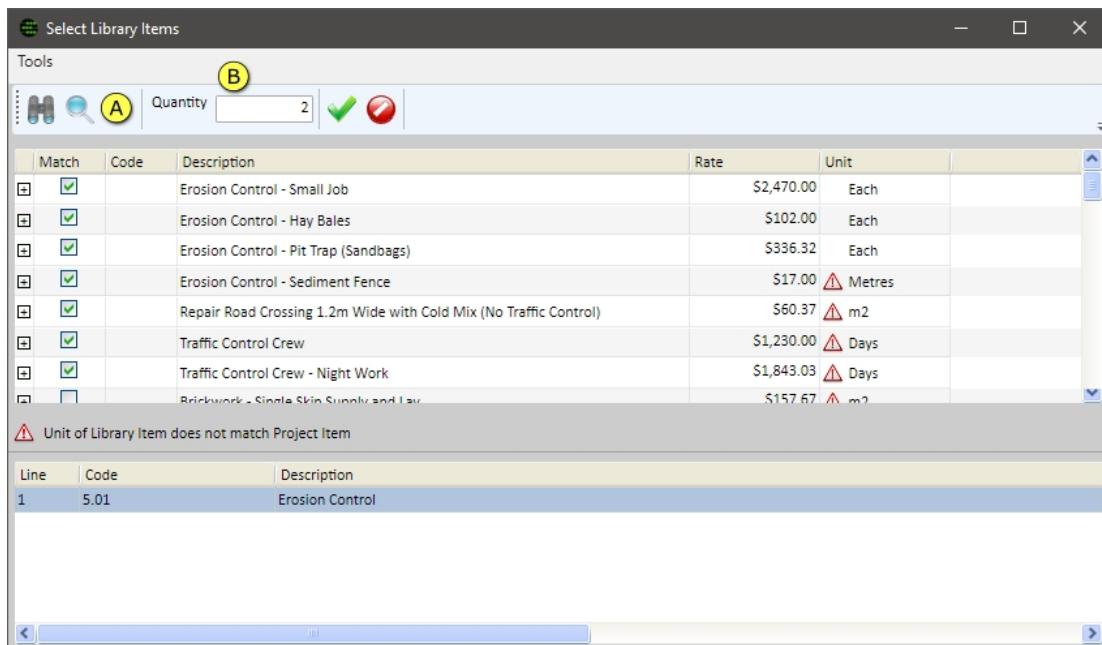


Figure 83: Select Library Items window

Benchmark displays the Items that are the closest match for your Project Item at the top of the **Select Library Items** window. If the Library Item you want to use is not listed here, you can scroll down to find the Item you want to use, or you can use the FIND function (A) to search for a different Item.

3. Check the *Quantity* (B) is correct and select OK.

Benchmark allocates all the Resources from your *Library Item* to your *Project Item* for the entered *quantity*.



Unit mismatch warning

In the **Select Library Items** and **Select Project Items** windows, the warning icon (left) is displayed next to Items that have *Units* that do not match the Project Item they are being allocated to.

This helps estimators to ensure they are selecting the correct Item.



Regional Resource Rates

Corporate version users should note that, where the *Resource* has different *Rates* in different *Regions*, they will see the *Resource Rate* corresponding to the *Project Region*.

When you have done this, right-click and select **Resource** to open the **Project Resources** window. Here you will see the *Resources* allocated to the *Item*. It is important to note that the *Resource detail* you see here can be edited if required to suit the specific needs of the Project – this is covered later in this manual.

Allocate multiple Library Items to your Project Item

The process described above can be repeated more than once in any particular Project Item. You can bring in as many Library Items as you like into the one Project Item. The example below takes the user through the Allocate process twice for the same Item.

Allocate Resources from Items in a Project

You can also Allocate Resources from Items in other Projects. This feature works in a very similar way to allocating Resources from the Item Library.

To allocate Resources from an Item in a different Project to an Item in your current Project:

1. In the **Project Items** window, select the Item you want to price.
2. Right-click and select Allocate Resource from Project or Template Project Item, to display the **Project Selection** window.

You will only see the Template Project option if you have purchased the Template Projects Add-On.

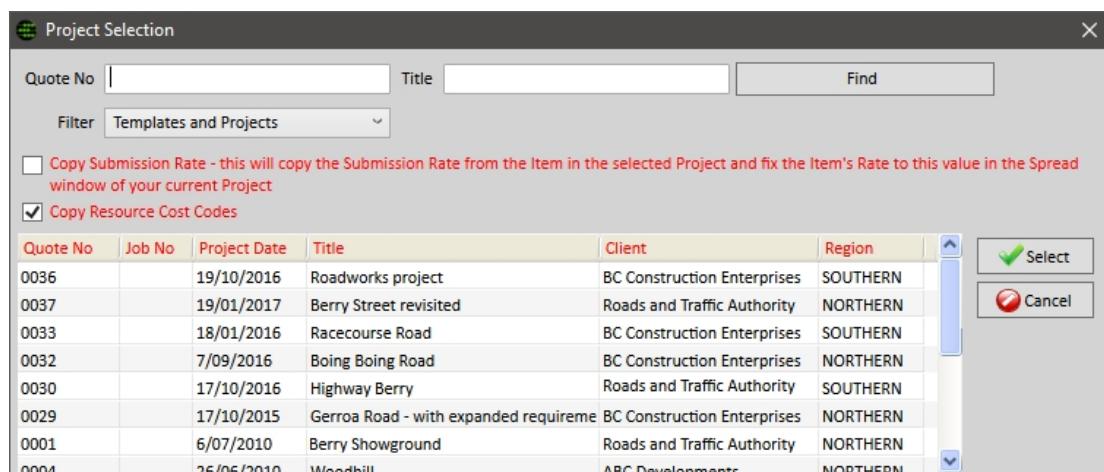


Figure 84: Project Selection Window

3. Select the Project (or Template Project) to Allocate Resources from, to display the **Select Project Items** window.

Screenshot of the 'Select Project Items' window:

The window title is 'Select Project Items - Quote No: 0001 Title: KIRKHAM RISE'. It shows a list of items with columns: Match, Code, Description, Rate, Unit, Rate Only, Provisional. A search bar and tools are at the top. A message at the bottom says '⚠️ Unit of Allocatable Item does not match Project Item'.

Line	Code	Description	Quantity	Unit
1	5.1	Fibre Cement flexible sheeting fixed to timber frame 4.5mm thick (exterior)	5	M2
2	5.2	Fibre Cement flexible sheeting fixed to timber frame 9.0 mm thick (exterior)	5	M2

Benchmark will display the Items that are the closest match with your Project Item at the top of the **Select Project Items** window. If the Project Item you want to use is not listed here, you can scroll down to find the Item you want to use, or you can use the FIND function to search for a different Item.

4. Check the Quantity is correct and select OK.

Benchmark will now allocate all the Resources from the selected Project Item to the current Project Item.



Unit mismatch warning

In the **Select Library Items** and **Select Project Items** windows, the warning icon (left) is displayed next to Items that have *Units* that *do not match* the Project Item they are being allocated to.

This helps estimators to ensure they are selecting the correct Item.

When you have done this, right-click and select **Resource** to open the **Project Resources** window. Here you will see the Resources allocated to the Item. It is important to note that the Resource detail you see here can then be completely edited if required to suit the specific needs of the Project – this is covered later in this manual.



Auto Allocate

If you find that you use the Allocate feature a lot, you should consider the Auto Allocate function. For more information, refer to ***Auto-Allocate from Project*** (see "***Using Auto Allocate with an Existing Project***" on page 161).

Advanced handling of Item Text field contents

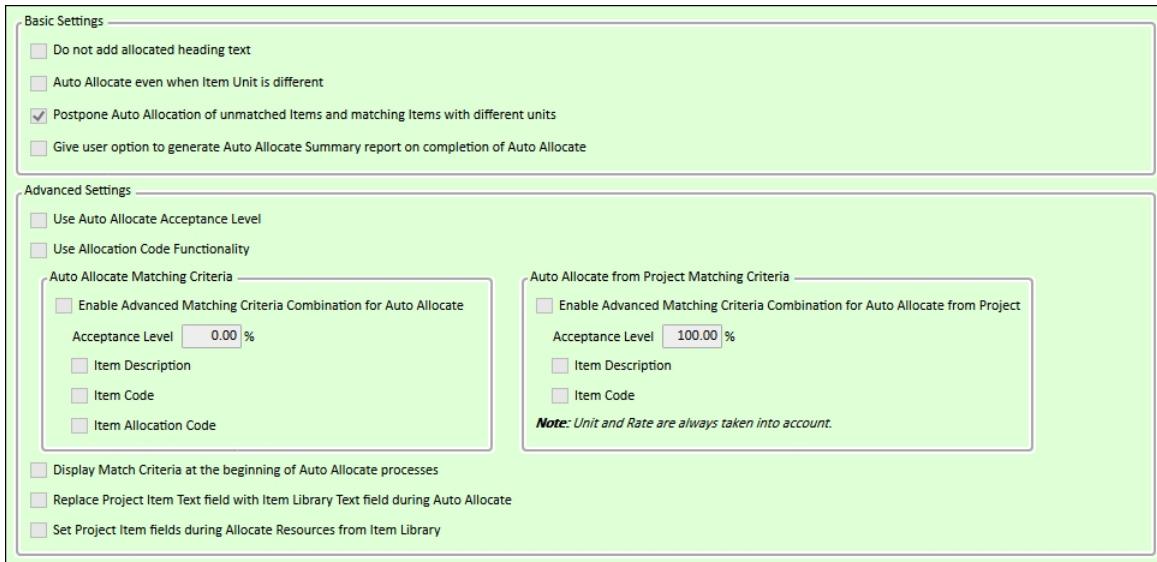
You can choose to allocate the contents of the *Item Text* field during Auto Allocate and Allocate Resources from Item Library.

To use these features you must turn them on in the **Administration** window, in the Allocate tab. The options include:

- Replace Project Item Text field with Item Library Text Field during Auto Allocate
- Set Project Item fields during Allocate Resources from Item Library

If this option is enabled, you must choose one of the following options:

- Replace Project Item Text with Library Item Text during Allocate Resources from Library
- Concatenate Item Library Text onto Project Item Text during Allocate Resources from Library



The screenshot shows the 'Allocation Options' tab in the Administration window. It is divided into several sections:

- Basic Settings** (light green background):
 - Do not add allocated heading text
 - Auto Allocate even when Item Unit is different
 - Postpone Auto Allocation of unmatched Items and matching Items with different units
 - Give user option to generate Auto Allocate Summary report on completion of Auto Allocate
- Advanced Settings** (light green background):
 - Use Auto Allocate Acceptance Level
 - Use Allocation Code Functionality
 - Auto Allocate Matching Criteria** (light blue box):
 - Enable Advanced Matching Criteria Combination for Auto Allocate
 - Acceptance Level: %
 - Item Description
 - Item Code
 - Item Allocation Code
 - Auto Allocate from Project Matching Criteria** (light blue box):
 - Enable Advanced Matching Criteria Combination for Auto Allocate from Project
 - Acceptance Level: %
 - Item Description
 - Item Code

Note: Unit and Rate are always taken into account.
 - Display Match Criteria at the beginning of Auto Allocate processes
 - Replace Project Item Text field with Item Library Text field during Auto Allocate
 - Set Project Item fields during Allocate Resources from Item Library

Figure 85: Administration Allocation Options

Add Resource Group Totals

Resource Group Totals help provide a clear layout and summary of a group of Resources within an Item. Group Totals provide the user with a total sum for all Resources below the Group Total, up until the next Group Total and they exclude Sub Totals.

To add Resource Group Totals:

1. In the **Project Resources** Window, click the **Insert Mode** checkbox.
2. Select the Line above which you wish to add your *Resource Group Total*.
3. Right-click and select **Add → Group Total**.



The screenshot shows the 'Project Resources' window with the 'Insert Mode' checkbox checked. The 'Total' section is expanded, displaying fields for Description, Quantity, Unit, and Text. Below the 'Total' section, there are fields for Rate, Cost, Cost Code, and Production Rate Group.

Figure 86: New Project Resource Group Total and Sub Total

4. Type in the description for the *Group Total* in the *Description* field.
5. Type in a *Quantity*.
6. Type in a *Unit*.
7. Press ENTER or click OK on the toolbar.
8. Click the *Insert Mode* checkbox to turn off *Insert Mode*.

A blank Text line is automatically inserted *above a Group Total* to improve the visual appearance of the estimate and to save time.



Item Library Resources

You can include *Group Totals* in your *Items* in the **Item Library**, so they are brought into each Project automatically.



Calculator function

There is a **Calculator** function next to the *Quantity* field for *Group Total* lines. This *Calculator* is the same as the *Calculator* for a normal *Resource*.

For more information, refer to ***Using the Calculator in Your Project*** (on page 171)

Add Resource Subtotals

Resource Subtotals help to improve the appearance of an Estimate and also help you and others review and check an Estimate.

For example, an Item may be made up of different work activities such as *Supplying Materials*, *Excavating Trench*, etc. You can add Subtotals for each of these activities to give you a more detailed internal cost break up for your Estimate.

To add Resource Subtotals:

1. In the **Project Resources** Window, click the **Insert Mode** checkbox.
2. Select the Line above which you wish to add your *Resource Subtotal*.
3. Right-click and select Add → Add Subtotal.
4. Type in the description into the *Description* field.
5. Type in a *Quantity*.
6. Select a *Unit*.
7. Press ENTER or click OK on the toolbar.
8. Click the **Insert Mode** checkbox to turn off Insert Mode.

The *Subtotal* will sum all *Resources* above the subtotal until the top of the item or another *Subtotal* is reached.



Item Library

You can include *Subtotals* in your *Items* in the **Item Library**, so they are brought into a Project automatically when adding or allocating an Item.



Calculator function

There is a Calculator function next to the *Quantity* field for *Sub Total* lines. This *Calculator* is the same as the *Calculator* for a normal *Resource*.

For more information, refer to **Using the Calculator in Your Project** (on page 171).

Add Resource Text

You can use *Resource Text Lines* to break up an *Item* that involves *sub-activities* (for example, *Design, Supply, Install*, etc.), or divide your *Item* into the different Resource categories (*Material, Labour, Plant and Subcontract*).

You can add two different levels of *Resource Text Lines*:

- *TEXT* Lines will appear in blue.
- ***BOLD TEXT*** Lines will appear in red

To add a *Resource Text Line*:

1. In the **Project Resources** window, check the **Insert Mode** checkbox.
2. Highlight the Resource above which you wish to add your Resource Text Line.
3. Select the Add New Resource toolbar icon.
4. Check the **Text** checkbox on the far right of the window.
5. Type a description into the *Description* field.
6. Select the Category drop-down box and select either **TEXT** or **BOLD TEXT**.
7. Press ENTER.
8. Clear the **Insert Mode** checkbox to turn off Insert Mode.

Edit Resources

Project Resources can be edited just like Projects, Sections and Items. However, if Resources are synchronised with the Resource Library, then only some Resource fields will be editable. For more information, refer to *Edit and unlink a Resource* (on page 126).

Edit Resources in your Project

To edit the details of a *Resource* in your Project:

1. In the **Project Resources** window, select the *Resource* you wish to edit
2. Right-click and select **Edit**, or press **CTRL+E**.
3. If you want to edit any of the dimmed fields in a *Linked Resource*, click on the *Linked* checkbox to clear it.
4. Select the *field(s)* you wish to edit and make your changes.
5. Select **OK** on the toolbar.

Edit and unlink a Resource

After you have added a Resource from the Resource Library, you can edit it and make changes to it. Initially, you can only edit some fields. To edit the remainder of the fields you need to *unlink* the Resource first.

You would unlink a Resource if you need to change the price or to edit the Resource description. For example, you may have a Resource in your Library called 'Gravel'; you add this to your Project from the Library and you wish to edit the *Description* field to read 'Gravel 100mm from a Subcontractor'.

To *edit* and *unlink* a Resource that has been added from the Resource Library:

1. In the **Project Resources** window, highlight the *Resource* you wish to edit.
2. Select the **Edit** toolbar icon.
3. You can edit some fields for this *Resource* (but not all). To *edit them all*, clear the *Linked* checkbox to unlink this *Resource* from the *Resource Library*.



Figure 87: Editing a Project Resource

4. After clearing the *Linked* checkbox, you can edit any field for this *Resource*.
5. Select **OK** to save your changes.

By following the process above, the Resource becomes completely *project-specific*.

Update Project Resource Rates

If you edited the *Rate* field for this Resource, a prompt will appear, asking you if you wish to change the Rate for all of these Resources used throughout this Project.

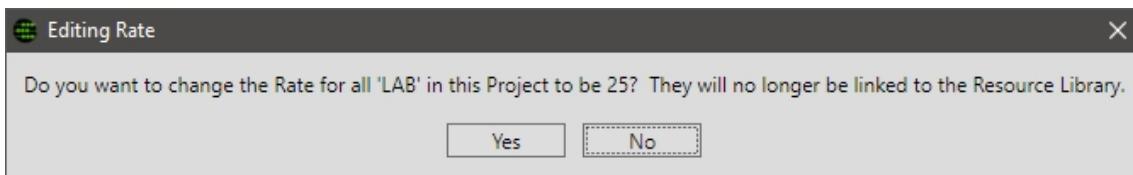


Figure 88: Project Resource Rate Changed

Selecting Yes will:

- update the *Resource Rate* for every occasion where this Resource is used throughout the Project,
- unlink each of these *Resources* from the **Resource Library**, and
- automatically recalculate the Project cost.

Selecting No will only unlink and update the selected *Resource*.



Unlinked Resources

When a Resource is unlinked from the Resource Library, it is considered Project Specific. Once unlinked, any changes to the resource in the Resource Library will not be reflected in the Project. For more information, refer to **Edit and unlink a Resource** (on page 126).

This is the same functionality as if the Project Item was completed. For more information, refer to **Using Complete in Projects** (on page 139).

Want a faster way to edit your Resource Rates in a Project?

You can view all *Resources* used in your Project in the **Resource Rate Change** window, and make project specific price changes quickly and easily. For more information, refer to **Change Resource Rates in a Project** (see "**Change all Resource Rates in a Project**" on page 134)

Exclude Resources from Profit

Sometimes you may need to include a *Resource(s)* in your Project but do not want to apply profit to the Resource. In such a case, the Resource can be excluded from incurring a profit markup.

To exclude a *Resource* from markup:

1. Navigate to the **Project Resources** window.
2. Select the *Resource* you wish to exclude.
3. Right-click and select Edit.
4. Toggle the checkbox **Exclude Qty from Profit** until it is checked.
5. Click OK.

You have now excluded the selected *Resource* from incurring any profit markup.

Resources that will always be excluded from profit markup can be set up in the [Resource Library](#) so that they are *excluded by default* when added to a Project.

If you do exclude *Resources* from markup, the [**Project Summary Report**](#) (see "[Project Profit and Indirect Cost Summary](#)" on page 200) provides you with a clear breakdown of your markup calculations.



Resources excluded from Profit

When a resource is excluded from profit markup, the cost of the *Resource* will still be included in the calculation of Project Indirect Costs. For more information, refer to [**Profit, Indirect Costs and adjusting your Spread**](#) (on page 195)

Edit Resource Custom Fields in your Project

When you add a Resource that has Custom Field data into a Project, you can see the Custom Field tab. Within this custom field tab are the custom fields that have been setup for this Resource.

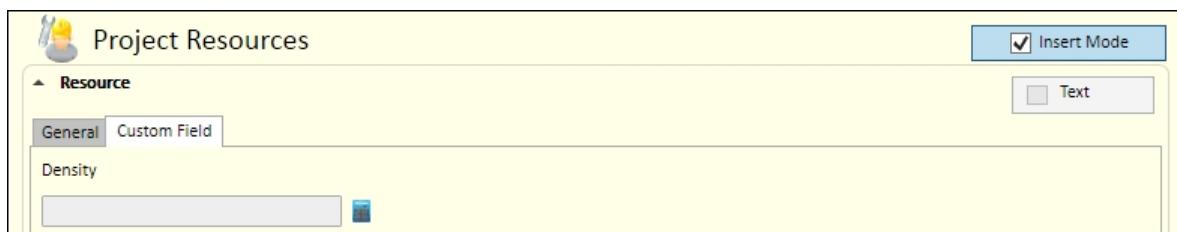


Figure 89: Project Resource Custom Field Tab

Editing custom field data is just like editing a Resource, however, if your custom fields are linked to the Library, you may need to unlink the Resource before you can edit these fields.



Regionalised Custom fields

When using Regionalisation, you nominate a Resource Custom Field as being *Regionalised* which allows you to provide a value per region in the [Resource Library](#) window.

Copy and Paste Resources

Benchmark also provide a Copy and Paste feature for Project Resources. This allows Resources to be copied from any Project to another Project Item within any Project. This means you can *copy and paste Resources between Items, Sections and Projects*.

Once the Resource has been copied, you can paste the *Resources* with:

- Existing information
- Selected information

- Zero quantities.

Copying Resources

To select and *copy Resources* within the **Project Resources** window

1. Select the *Resource(s)* to copy
2. Right click and select Copy.

The Resources have been copied into memory ready to paste

Pasting Resources

Pasting Resources can only be done in the **Project Resources** window or the **Item Library Resources** window.

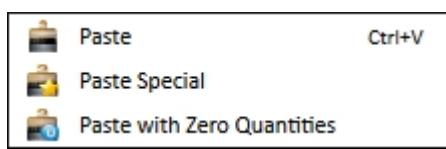


Figure 90: Right Click Paste Resources

There are three Paste functions as listed below:

1. Paste

When you use the **Paste** option to *paste Resources*, the settings defined below apply.

- Resource Cost Codes are updated based on following rules:
 - If a Resource has a Cost Code this is pasted with the Resource
 - If you are using Item Cost Codes and the target Item has a Cost Code, the Resource(s) being pasted uses the target Item's Cost Code.
- Resource Cartage distances are updated with the destination Item's Cartage distance.
- Linked Resource(s) are updated with the Resource Rates from the Resource Library.
- Resource(s) with linked quantity calculations are re-calculated and updated based on the destination Item's parameters (Item Quantity, Production Rate, etc).
- Resource Text is copied.
- Resource Notes are copied.

2. Paste Special (only available in *Projects*)

When you use **Paste Special** the following *options can be turned on and off*:

- Update Resource Cost Code with target Item's Cost Code. (*un-check this option to keep the source Item's Resource Cost Codes.*)
- Update Resource Cartage value with target Item's Cartage value. (*un-check this option to keep the source Item's Resource Cartage distance.*)
- Update Linked Resource rates. (*un-check this option to keep the source Resource Rates.*)

- Re-validate calculations based on target Project Item. (*un-check this option to keep the current Resource(s) quantity. Any Resource quantity calculations are cleared.*)
- Copy Resource Text. (Uncheck this option if you don't want to copy the Resource Text information.)
- Copy Resource Notes. (You can disable this option if you don't want to copy the Resource Notes information.)

3. Paste with Zero Quantities

When you use the Paste with Zero Quantities function, it pastes *Resources* with the following settings:

- Quantities are set to zero and any calculations are cleared.
- Cost Codes are updated with the target Item's Cost Code.
- Cartage distances are updated with the target Item's Cartage distance.
- Linked Resource(s) are updated with the Resource rates from the Resource Library.
- Resource Text is copied.
- Resource Notes are copied.



Default Paste option

The default operation when you use CTRL+V is just the Paste option.



Project and Item Library differences

The guidelines below are appropriate for the Paste features within a *Project*. You can also use the Paste and Paste with Zero Quantities features within the **Item Library**, however, the behaviours are slightly different.

In the **Item Library**, *Cartage distances* are updated with the *destination Item's Cartage distance*.

Calculate Resource Quantities

Benchmark provides a powerful estimating Calculator to help you calculate the quantity of your Resources.

- The Calculator function allows you to type in a *calculation* for a Resource, Subtotal or Group Total.

When you perform a calculation, Benchmark retains this calculation within the Project Resource. This is a useful way of storing the logic behind Resource quantities for review of estimates. When reviewing an estimate, this function allows you to easily see how you derived the Resource quantity.

When viewing a Resource in the **Project Resources** window, the calculator icon highlights the state of the Resource calculation. The calculation states are shown below:



Calculator icon states

The Calculator icon has one of three different states, as explained below:



There is *no calculation*.



There is a calculation and this calculation has the *Always base quantity on calculation* checkbox checked, and so is *linked to the Quantity*.



The calculation does not have the *Always base quantity on calculation* checkbox checked, and so is *not linked to the Quantity*.

When reviewing an estimate, this function allows you to see how you derived the quantity. Benchmark's various Resources by Item reports also print out details of these Resource calculations.

Calculate Resource Quantities

To calculate the Quantity of a Resource using the Calculator function:

1. Highlight the *Resource* and click on the Calculator icon next to the *Quantity* field.
2. The **Calculator** window displays.

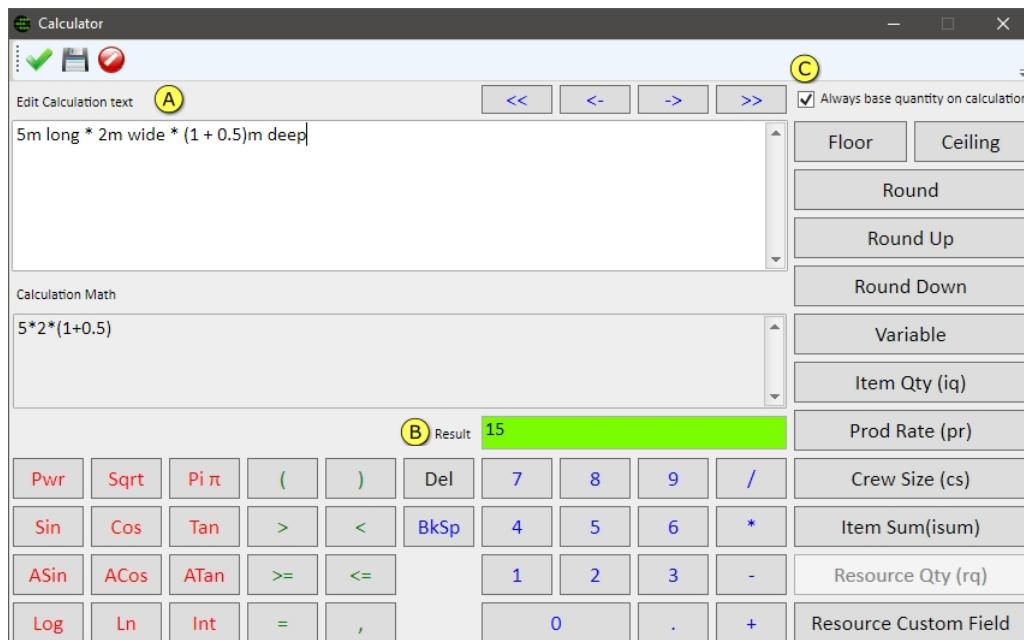


Figure 91: Project Resource Calculator

3. Enter your calculation (A); you can type in data or use the buttons provided.

Note: You can enter in *text* such as *descriptions or dimensions* and Benchmark will ignore this when it evaluates the calculation.

- For example, you could type in **5m long*2m wide*1.5m deep.**
 - You can also use brackets () in your calculations. For example, you can type in **5m long*2m wide*(1+0.5) m deep.**
 - Other math functions and built in variables can be used to create more advanced calculations. For more information, refer to **Calculator Core Functions** (see "**Core Calculator Functions**" on page 172) and **Built In Variables** (on page 173)
 - Variables can also be used in Project. For more information, refer to **Use Variables in Your Project** (on page 167).
4. Check to see that your *calculation is valid*. This is indicated by a green *Result* field (B).
 5. Check the check-box Always base quantity on calculation (C) if you want the calculation for your *Item* or *Resource* to *ALWAYS* be based on this calculation.
 6. Click on OK.
 7. You will now be in the **Project Resources** window; click on OK again or press ENTER.

Assign Cost Codes to Resources

To assign Cost Codes to Resources.

1. Go to the **Project Resources** window.
2. Highlight the Resource.
3. Right-click and select Edit.
4. Select a Cost Code from the drop-down box.
5. Click on OK.

To assign Cost Codes to a group of Resources:

1. Go to the **Project Resources** window.
2. Highlight the Resources.
3. Right-click and select Assign Cost Codes.
4. Double-click on a Cost Code from the list.

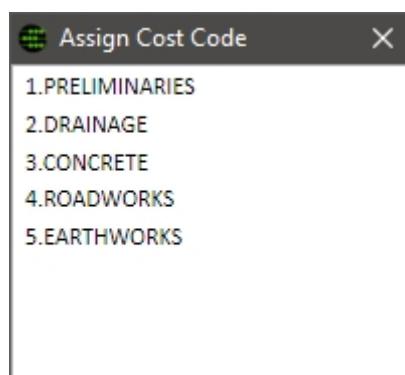


Figure 92: Cost Code Selection Window (Assigning Resource Cost Codes)

5. Click on Yes.

Inactive Project Resources

You can mark Resources as inactive to remove the Resource cost from the Project Cost. This provides flexibility within an Item to have multiple Resources that can be enabled and disabled as required. This is useful if you want to include an alternative make-up or alternative materials then they can be included as *inactive* until needed.

Project Resources								<input checked="" type="checkbox"/> Insert Mode
Resource								
Summary								
Line	Code	Resource Description	Qty	Unit	Rate	Cost	Crew	Category
1		CUTTING, LOADING AND HAULING TO STOCKPILE (NO FEES)						TEXT
2	VEGMASSH	Vegetation mass. Typical is 150 Tonnes per hectare (ref State Forest).	150.00					VARIABLE
3		Load vegetation at 15 Tonnes/Hr	15.00	Tonnes/Hr				PRODUCTION
4	EXCAV30T&OP	EXCAVATOR 30T - HIRED WITH OPERATOR	8.00	Hours	\$130.00	\$1,040.00	0	SUBCONTRACT
5	LHAND	LEADING HAND	8.00	Hours	\$60.00	\$480.00	0	LABOUR
6	LAB	LABOURER	8.00	Hours	\$45.00	\$360.00	0	LABOUR
7	CHAINSAW	CHAINSAW	8.00	Hours	\$5.00	\$40.00	0	PLANT
8	TRUCK12TTIP	TRUCK 12 TON TIPPER	16.80	Hours	\$62.00	\$1,041.60	0	SUBCONTRACT

Figure 93: Inactive Resource

To mark a *Resource* as *inactive*:

1. Select the *Resource(s)* within an *Item*.
2. Right-click and select Make Resource(s) Inactive.

When a *Resource* is marked as *inactive*, it is dimmed to indicate that it is not contributing to the *Item* or *Project cost*. Inactive Resource costs will also be shown in the Project Item

You can reactivate Resources at any time by highlighting them and selecting Make Resources Active.



Inactive Resources

Just like Items, Resources can be marked as *inactive*. When there are inactive Resources within an Item, the *Inactive Cost* column will be displayed in the [Project Items](#) window with the total cost of all the inactive Resources in the Item.

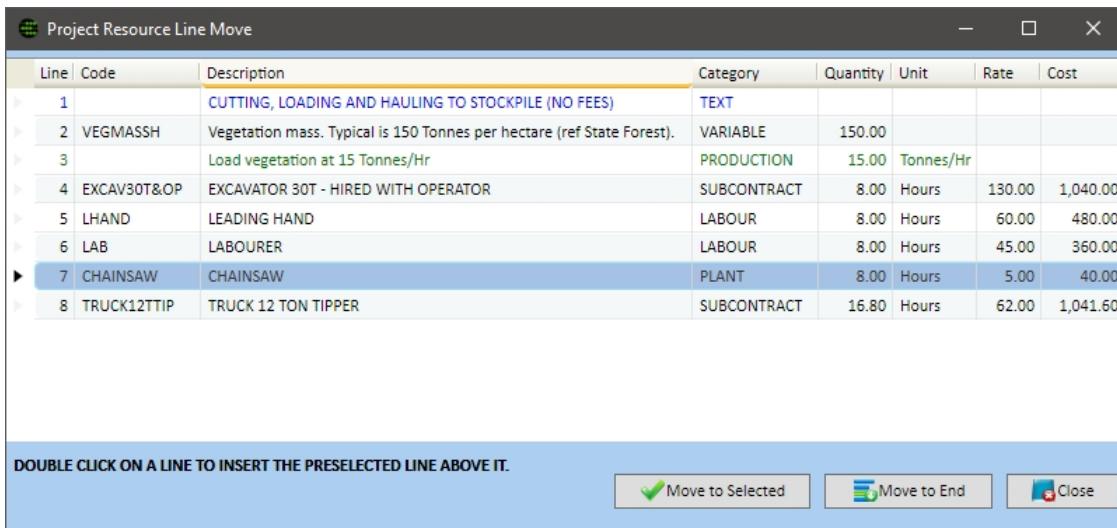
Use the Move Function

The Move function gives you the power to move individual Resources or groups of Resources.

To use the Move function:

1. Highlight the Resource or group of Resources you wish to move.

2. Press CTRL+M to display the **Project Resource Line Move** window.



Line	Code	Description	Category	Quantity	Unit	Rate	Cost
1		CUTTING, LOADING AND HAULING TO STOCKPILE (NO FEES)	TEXT				
2	VEGMASSH	Vegetation mass. Typical is 150 Tonnes per hectare (ref State Forest).	VARIABLE	150.00			
3		Load vegetation at 15 Tonnes/Hr	PRODUCTION	15.00	Tonnes/Hr		
4	EXCAV30T&OP	EXCAVATOR 30T - HIRED WITH OPERATOR	SUBCONTRACT	8.00	Hours	130.00	1,040.00
5	LHAND	LEADING HAND	LABOUR	8.00	Hours	60.00	480.00
6	LAB	LABOURER	LABOUR	8.00	Hours	45.00	360.00
7	CHAINSAW	CHAINSAW	PLANT	8.00	Hours	5.00	40.00
8	TRUCK12TTIP	TRUCK 12 TON TIPPER	SUBCONTRACT	16.80	Hours	62.00	1,041.60

DOUBLE CLICK ON A LINE TO INSERT THE PRESELECTED LINE ABOVE IT.

Figure 94: Project Resource Move window

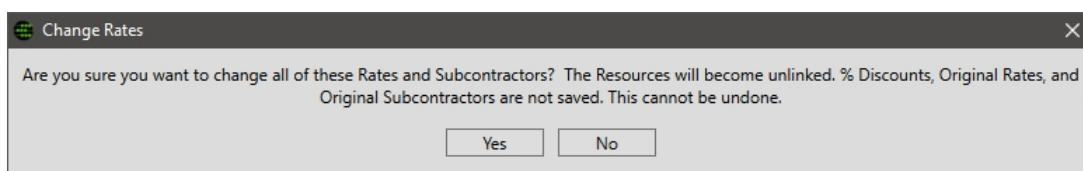
- Click on a line to move the selected *Resources* above that line and select **Move to Selected** (or you can just double-click on the line) or
- Click on **Move to End** if you want to move the selected *Resources* to the end of the list.

Change all Resource Rates in a Project

Benchmark allows you to review and change the rates for *all Resources in your Project* from one convenient window.

To review and edit the Resource Rates for your entire Project:

- In the **Project Details** window, right click and select **Resource Rate Change**. For more information, refer to **Resource Rate Change** (on page 267).
- If you have Sub-Items in your Project, a prompt appears asking '*Do you want to display all the Resources contained in the Sub-Items*'. Select **Yes** if you want to list the Resources contained within Sub-Items as well.
- In the **Project Resource Rate Change** window, to make project specific price changes:
 - Type in your *project specific rate* in the **New Rate** column for the *Resources* that you want to update; or
 - Type in a *Discount* in the **% Discount** column.
- Press **ENTER** or right-click and select **OK**.
- Click **Yes** when the confirmation prompt appears.





Percentage Discount and Percentage Change

In the **Administration** window, you can change the **% Discount** column to a **% Change** column, using the **Use % Change for Resource Rate Changes** checkbox.

If you select:

- **% Discount** – The % entered is taken away from the *Rate*.
- **% Change** – The % entered is added or removed from the *Rate* depending on whether the user enters positive or negative %.

For more information, refer to **Customise options in the Administration window** (on page 288)

Project Sub Items

Use a Sub Item (or Crew) to group Resources commonly used together under one Resource. This enables you to use multiple Resources in an Item as one single Resource (or Sub Item).

Use Sub Items where you have groups of Resources that work together in crews and for other applications such as material assemblies. This gives you an extra level of detail for additional accuracy.

The added power of Sub Items is that, if you want to make a project-specific change to a Sub Item used in a Project, you only have to make this change in one of the Sub Items and the change flows through to every place you have used that Sub Item in the Project.

If you are using Sub Items, your Project structure can be represented as shown below (note the difference at the Resource level to the illustration below).

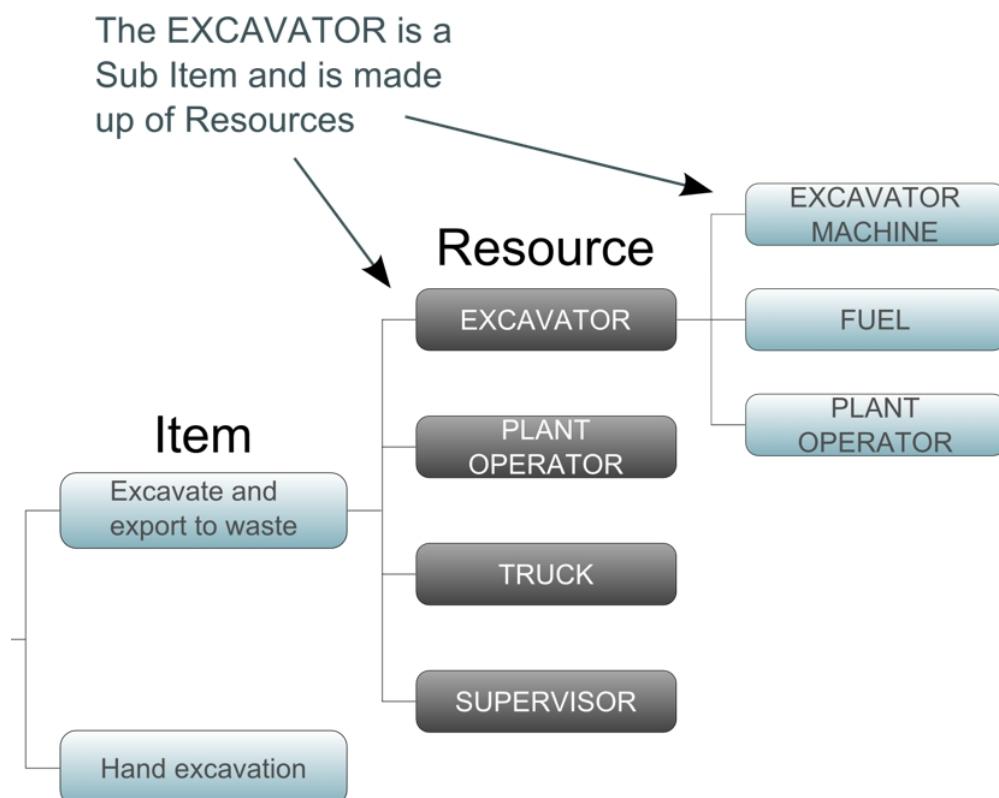


Figure 95: Project Structure - Sub Item

You can set up *Sub Items* in your **Item** and **Routine Libraries**. When you add/allocate Items to a Project or run the Routine, you can automatically add the Sub Items to your Project.

To use *Sub Items*, you must check the **Use Sub Items** check box in the **Administration** window.



Sub Items in the Item Library and in Projects

You initially create *Sub Items* in the **Item Library**. Once you add a *Sub Item* to a Project, *it becomes part of the Project*.

If you change that *Sub Item* in the **Item Library**, this will *not* change the *Sub Item* in the **Project**.

Add a Sub Item to a Project

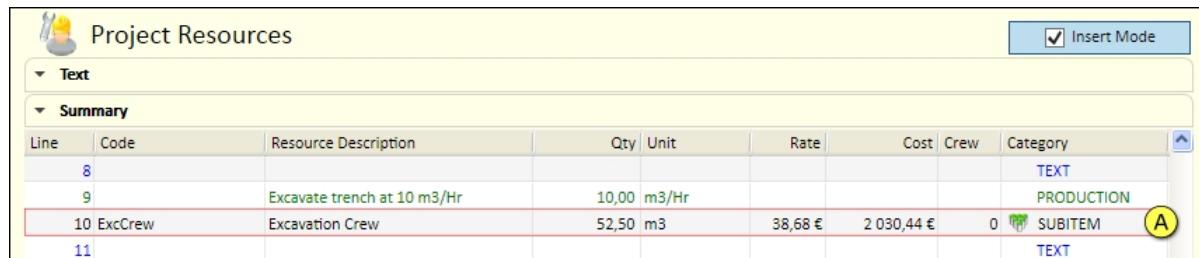
You can add Sub Items to a Project the same way you add a Resource from the **Resource Library**.

To add a Sub Item in your Project:

1. Go to the **Project** Resource window of the Item you would like to add the sub item to.

2. Press CTRL+R to Add from Resource Library and display the **Resource Selection List** window.
3. To find your Sub Item, either:
 - a. Select the SUBITEM Group from the left-hand column to display the Sub Items available in your **Resource Library** in the Description column; or
 - b. Click on the Advanced Find toolbar icon, enter the text you wish to search for, and select OK; or
 - c. Use the Find function to quickly find the Sub Item(s) you are looking for.
4. Double-click on the Sub Item to add.
5. Select OK on the toolbar.
6. Enter a Quantity for the Sub Item.
7. Press ENTER.

The image below shows how a Sub Item appears in your **Project Resources** window. **Note:** Sub Items have the Sub Item icon next to them (A).



The screenshot shows the 'Project Resources' window with the 'Summary' tab selected. The table has columns for Line, Code, Resource Description, Qty, Unit, Rate, Cost, Crew, and Category. Row 9 shows 'Excavate trench at 10 m3/Hr' with a quantity of 10,00 and a unit of m3/Hr. Row 10 shows 'Excavation Crew' with a quantity of 52,50 and a unit of m3. A yellow circle labeled 'A' highlights the 'SUBITEM' icon in the Category column of row 10, indicating it is a sub-item of the main resource in row 9.

Line	Code	Resource Description	Qty	Unit	Rate	Cost	Crew	Category
8								TEXT
9		Excavate trench at 10 m3/Hr	10,00	m3/Hr				PRODUCTION
10	ExcCrew	Excavation Crew	52,50	m3	38,68 €	2 030,44 €	0	SUBITEM (A)
11								TEXT

Figure 96: Sub Item Resource

Change a Sub Item in a Project

Changing a Sub Item to be project-specific allows you to fine tune your estimate to suit the conditions/requirements of your Project. You must add the Sub Item to your Project first, then change it in the **Project Sub Item** window.

To change a Sub Item in a Project:

- Double-click on the *Sub Item* in the **Project Resources** window, to open the **Project Sub Item** window. An example of this is shown in the image below.

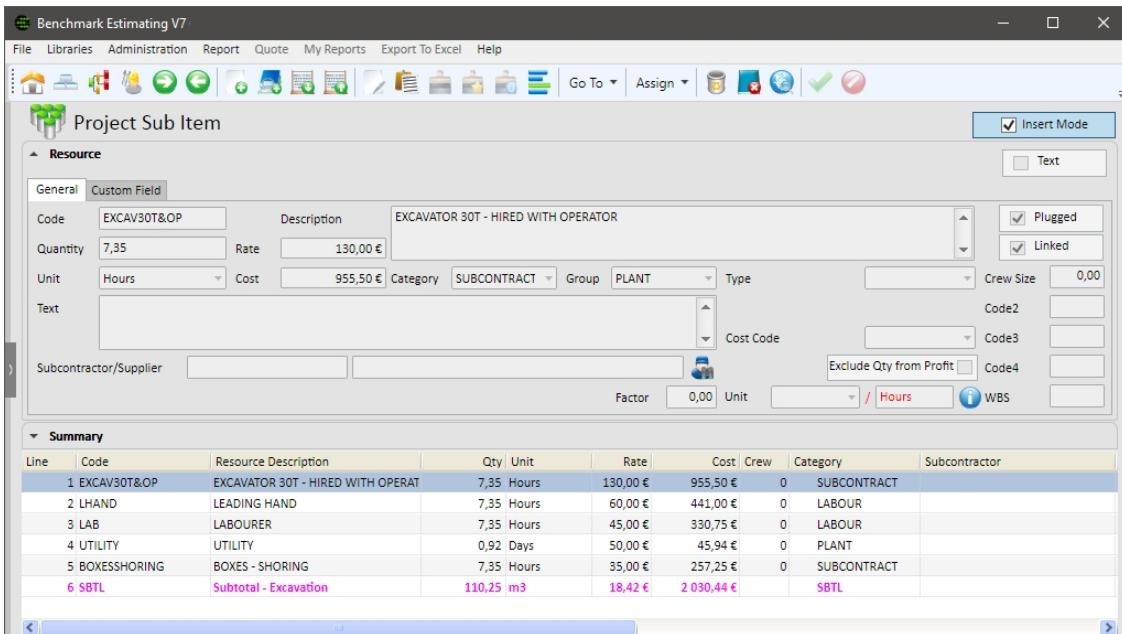


Figure 97: Project Sub Item window

- Edit, delete or add Resources within the Sub Item.

Sub Item changes are synchronised throughout the Project – wherever this Sub Item is used.

Add a Resource to a Sub Item

To add another Resource to the Sub Item for this Project:

- Right-click and select Add from Resource Library.
- Double-click on the *Resource(s)* you wish to add and select OK from the toolbar.

For more information, refer to **Add Resources from the Resource Library** (on page 115).

To add brand new Resources to your Sub Item in a Project:

- Right-click and select Add New Resource and fill in the necessary information.

Edit a Resource in a Sub Item

To edit a Project Sub Item:

- Select the Resource to edit, right-click and select Edit.
- Type in the new *Quantity*, or if you want to edit more information about the *Resource*, uncheck the *Linked* checkbox and then *edit* the additional information.
- Right-click and select OK.

If the Linked checkbox is cleared and you change the Resource rate, the following prompt displays:

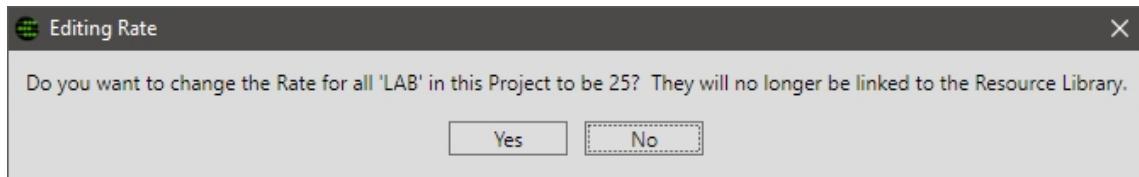


Figure 98: Project Resource Rate Changed

- If you select Yes, this updates the rate for this particular *Resource* in the *entire Project*.
- If you select No, this updates only this one *Resource* in this *Sub Item*.

If you use this Sub Item in other Items in the same Project, Benchmark notifies you that this change will be synchronised throughout the Project.

Delete a Resource from a Sub Item

To delete a Resource from the Sub Item for this Project:

1. Right-click on the *Resource* you wish to delete and select Delete.
2. Select Yes to the confirmation prompt.



Sub Item changes and Project Cost

After you make changes to a *Sub Item* in the **Project Sub Item** window, these changes will automatically update the *Sub Item cost* in all areas of the Project where you have used that *Sub Item*, and automatically update the *Project cost*.

Using Complete in Projects



Complete is very important!

The Complete function is one of the most important functions in Benchmark. The main purpose of the Complete function is to lock in your price when you have finished. If you do not use Complete, then you run the risk of your Project price being changed by the system when a Resource is updated in the Resource Library. When you Complete a Project Benchmark *automatically recalculates* the *Submission Price*.

Uncomplete

Uncomplete does not automatically update a Project with updated Resource pricing from the Library; it purely marks the Project/Section/Item as uncomplete.

The Complete function is available within a Project at the [Project Details](#) window, [Project Sections](#) window and [Project Items](#) window; so you can complete a Project, Section or Item respectively. The availability of the Complete function at the Section and Item level introduces the second purpose of Complete; to allow you to record where you are up to in an estimate (especially a large estimate). Imagine you were pricing a Project with hundreds of Items; by completing each Item as you finish, it allows you to record where you are up to, as well as locking in its price.

Completing a Project/Section/Item does not prohibit you from editing or adding to it afterwards; however, if you do try to add or edit, Benchmark will warn you that the Project/Section or Item has been completed.

Complete an Item

Completing Project Items provides the user with a mechanism to mark a project as Estimated.

To complete an *Item* of a Project:

1. Select the *Item* to complete, and
2. Click on the Complete button.



Completed Items

When an Item is completed, the *linked* Project Resource rates will not be adjusted when the rates change in the Resource Library.

For more information, refer to [Using Complete in Projects](#) (on page 139)

Complete a Section

To complete a *Section* of a Project:

1. Select the *Section* to complete, and
2. Click on the Complete button.
3. If your Section contains uncompleted Items, answer Yes to the confirmation prompt to complete all Items within the Section.

Complete a Project

To complete a *Project*:

1. In the [Project Details](#) window, click on the Complete button.
2. Select Yes to the confirmation prompt.

If you have *Mandatory fields* enabled in the [Administration](#) window, then when you *Complete* the Project these *Mandatory fields may be checked*. If there are some mandatory fields that are not complete you are prompted to fill in the required fields.

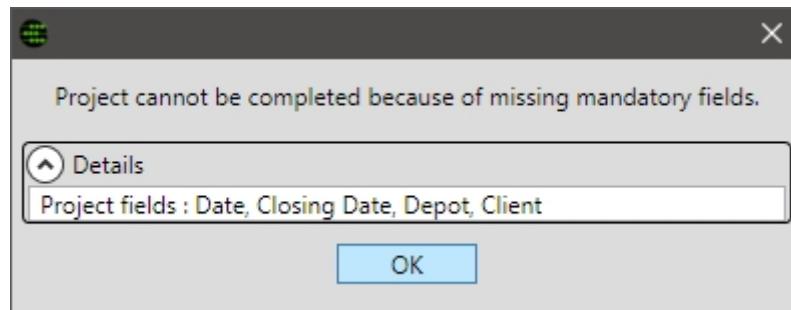


Figure 99: Incomplete Mandatory Fields

Complete Many Projects in One Operation

To complete a number of Projects at once:

1. In the [Project Browser](#) window, highlight the projects you wish to Complete.
2. Right-click and select Complete Selected.
3. Select Yes.

Importing Estimate Data from a Spreadsheet

Benchmark allows you to import a Bill of Quantities; Schedule of Works; Schedule of Items into your Estimate using the various Load features. In addition to Sections, and Items Benchmark can also import and create Project Resources.

This has various business applications:

- You may wish to import Rate Book or Cost Guide information into a source Project and then use this data as a Library of Items, or
- You may simply have an estimate done in a spreadsheet and you wish to import the estimate into a Benchmark Project or Template Project.

To load estimate data, Benchmark provides the following features:

➤ **Load New Project**

This allows Project fields to be loaded along with Section, Items.

➤ **Load Spreadsheet**

When run from the [Project Details](#) windows, Section, Items and Resources can be loaded.

When run from the [Project Sections](#) windows, Section, Items can be loaded.

When run from the [Project Items](#) Window, Items and Resources can be loaded. This allows users to load items into one section only.

➤ **Load Revision**

This allows revised Sections and Items to be loaded and compared with an existing project.

➤ Save Spreadsheet

This allows completed Item Submission Rates to be saved back to the sheet that was used to load the data

All of these features use a similar user interface to allow you to map the columns of your spreadsheet to the fields in Benchmark.

Loading a New Project

Benchmark allows you to load Project information from a spreadsheet.

Setting up your Spreadsheet for Load New Project.

When loading a new project, you will need to have your Project fields in separate columns.

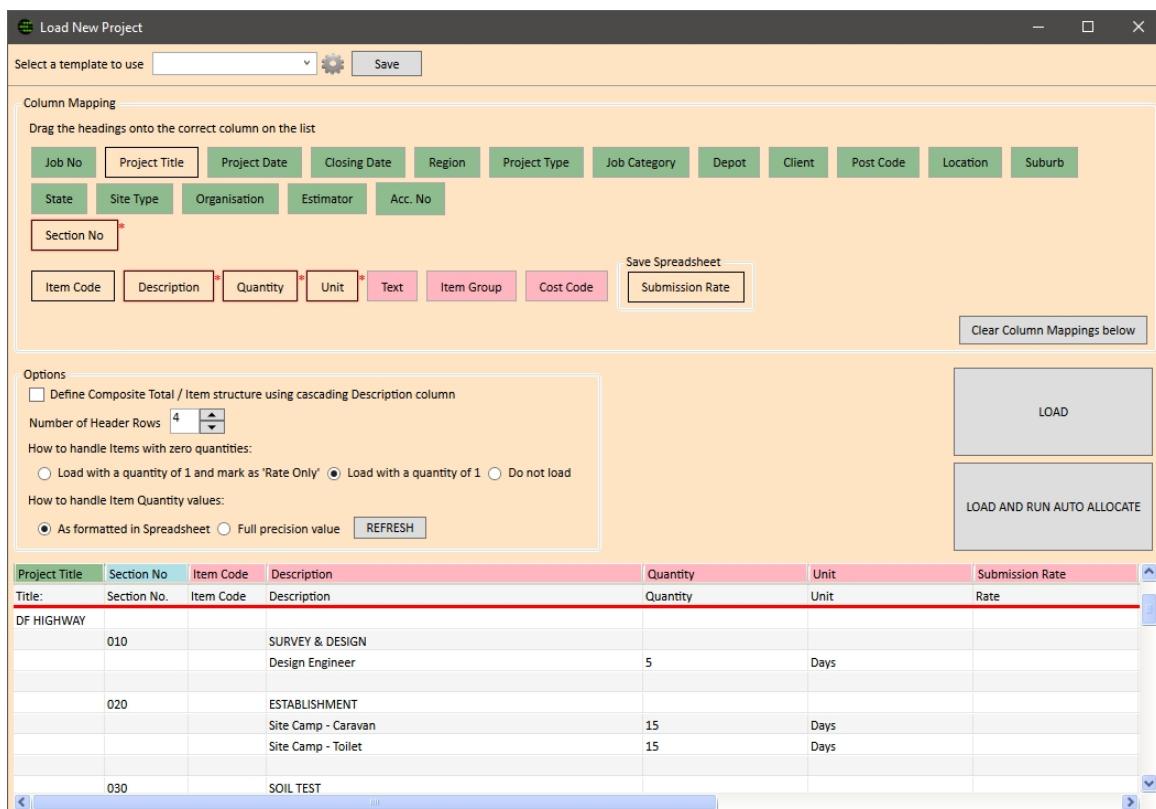


Figure 100: Load Project Windows

To load a New Project:

1. In the **Project Browser** window, right-click and select Load New Project.

Alternatively, you can select Load New Project from the **My Benchmark** window.

2. Select the spreadsheet to Import and click Open.
3. When the **Select Worksheet to Import** window appears, if you would like to create units when importing, select the option at the bottom of the window.
4. Double-click to select the sheet containing your data or click Select.
5. When the confirmation prompt appears, you can either:
 - Click Yes to load the entire spreadsheet or

- Click No to select an area on the spreadsheet or cancel the operation.
- A prompt with another message will appear to either open the **Excel Viewer** by clicking Yes or cancel the operation by clicking No.
- When the **Excel Viewer** window opens, select the cells you would like to load and then close the window by clicking the 'X' in the top right.

The **Load New Project** window will open and contain the details of your spreadsheet.

At the top of the window, you will see the Column mappings; these are the available fields that can be assigned to your spreadsheet columns.

If you have predefined Load Templates, you can select your Load Templates.

Selecting a Load Template:

1. Start the process for Load New Project, Load Revision or Load Spreadsheet.
2. When the **Load New Project**, **Load Revision** or **Load Spreadsheet** window appears
3. Select the desired template from the '*Select a template to use*' field.



Benchmark will apply the *settings saved for that Template* to the window.

Load New Project Column Mappings

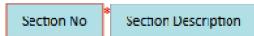
Project Fields

- The Project fields are green and located at the top of the column mapping section.
- These fields include the standard Project Details Fields such as Job No, Title, Project Date, etc
- These fields are only present when using *Load New Project* and *Load Revision* features.



Section Fields

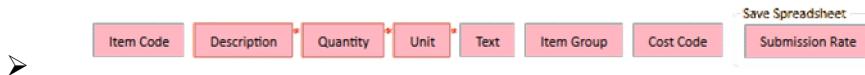
- The Section fields are blue and are listed under the Project Fields
- These fields include Section No and may also contain Section Description depending on your administration settings. For more information, refer to ***Customise options in the Administration window*** (on page 288).
- If Section Description is not present, then the Section description and Item description will share the Item Description field



Item Fields

- The Item fields are pink and located under the Section fields.
- These fields include Code, Description, Unit, Quantity, Text, Group and Submission Rate.
- Allocation code is an additional column that can be loaded and used with Auto Allocate. This field will be matched with the Allocation code in the Item Library.

- **Submission Rate** is only required if you intend to use the Save Spreadsheet feature to export your estimated submission amounts. In that case, this column will be used as the target for saving Item submission rates.



Assigning column headings:

1. Identify the field and the column that represents the field; such as Description.
 2. Click and drag the field down onto the header bar of the spreadsheet in the appropriate column.
- When a column has been assigned, you will see the colour and the text appear in the column heading bar.
3. Continue to drag and drop all the fields you require.

Section No	Item Code	Description	Quantity	Unit	Submission Rate	
Section No.	Item Code	Description	Quantity	Unit	Rate	Cost
010		SURVEY & DESIGN				
		Design Engineer	5	Days		

Figure 101: Assigning Columns in Load Spreadsheet

* Fields marked with the red asterisk are mandatory and must be assigned to a column.

Load New Project Options

Options

Define Composite Total / Item structure using cascading Description column

Number of Header Rows

How to handle Items with zero quantities:

Load with a quantity of 1 and mark as 'Rate Only' Load with a quantity of 1 Do not load

How to handle Item Quantity values:

As formatted in Spreadsheet Full precision value

Figure 102: Load Project / Revision options

Define Composite Total / Item structure using cascading Description Column.

When this option is **checked**, Benchmark will load Item hierarchies using cascading columns.

- Composite Total, Composite Items and general Items can be imported and generated in Benchmark using cascading columns.
 - Cascading columns are defined as one column right and one row down. Therefore a top level Composite Item description would be in the first column, and the Item descriptions of any Item within the Composite Item would be in the *next column to the right and on the next row down*.
 - For each additional level of hierarchy, you must have the description column in the right adjacent column and one row down the sheet.
 - All other Item fields remain in their existing columns on the row associated with the Item description.

- There can be up to 14 levels of cascading Composite Totals, Composite Items and Items.
- Composite Totals *cannot* be included in Composite Items.
- Composite Items and Composite Totals *cannot* be included within Items.

When this option is **unchecked**, Benchmark will load Item hierarchies and resource hierarchies using Spreadsheet groups.

Number of Header Rows

- This indicates that number of rows to exclude before processing the Spreadsheet.
- Increase the Number and you'll see a red line appear in the spreadsheet to indicate position.

How to handle Items with zero quantities

- Do Not Load
 - Items with a zero quantity will not be created in Benchmark.
- Load with a quantity of 1
 - Items with a zero quantity will be created in Benchmark with a quantity of 1.00.
- Load with a quantity of 1 and mark as 'Rate Only'
 - Items with a zero quantity will be created in Benchmark with a quantity of 1.00, they will also be marked as Rate Only.
- For more information, refer to **Add Rate Only Items** (on page 94)

How to handle Item Quantity Values

- As formatted in Spreadsheet.
 - Item quantities as displayed in the sheet will be loaded into Benchmark. i.e. to 2 decimal places.
- Full precision value.
 - The item quantity will be loaded with all the decimal places provided by the spreadsheet. i.e. 10 decimal places.

Loading your Data

When all your columns have been mapped, you can either

1. Click the LOAD button or,
2. Click LOAD AND RUN AUTO ALLOCATE.
 - This will load the data, and then run Benchmark's auto allocate feature. For more information, refer to **Use Auto Allocate to price a BOQ** (see "**Use Auto Allocate to Build Your Estimate**" on page 159)



Allocation Code

When using Auto Allocate from Item Library, Benchmark has an additional field called Allocation Code that can be used for matching. This additional field, when enabled, can be assigned to each Item in the Item Library.

When loading and allocating via Benchmark's Load Spreadsheet, Load Project or Load revision features, the allocation code can be loaded and used in conjunction with Auto Allocate. Items from the Item Library will then be matched with the loaded Item's Allocation Code.

Validation Errors

When Loading your data into Benchmark, any inconsistencies in the data will generate a validation error. This can be caused if you are loading Resource units that are not present in the Benchmark Codes.

When a validation error occurs, the user will be prompted with:

The spreadsheet contains invalid data, do you wish to generate a copy of the spreadsheet with invalid cells highlighted?

- Select Yes to generate the copy of the spreadsheet.
 - Select No to cancel the process.
 - Select Continue anyway if you would like to attempt to load the data. Rows with invalid data will be skipped.
-



Continuing with Validation Errors

When you continue anyway, there is a risk that some of your Sections, Items and or Resources will be skipped.

Load a Project Revision

Load Revision creates and prices a revision to a Project automatically, saving you time and ensuring that you don't miss a thing when a bill of quantities changes.

This Benchmark feature creates a duplicate project, loads the revised item quantities and then allows the user to review the revision before loading the new item quantities or load the new quantities and auto allocate.

Loading a revision is very similar to loading a spreadsheet with some additional features that allow the user to compare those changes between the revision and original the project.

To load a Project revision:

1. Open your existing project, right-click and select Load Revision.

Alternatively, you can select the Project in the Project Browser and right-click and select Load Revision to Highlighted Project.

2. Select the spreadsheet to Import and click Open.
3. When the **Select Worksheet to Import** window appears, if you would like to create units when importing, select the option at the bottom of the window.
4. Double-click to select the sheet containing your data or click Select.
5. When the confirmation prompt appears, you can either:
 - Click Yes to load the entire spreadsheet or
 - Click No to select an area on the spreadsheet or cancel the operation.
 A prompt with another message will appear to either open the **Excel Viewer** by clicking Yes, or cancel the operation by clicking No.
 - When the **Excel Viewer** window opens, select the cells you would like to load and then close the window by clicking the 'X' in the top right.

The **Load Revision** window will open and contain the details of your spreadsheet.

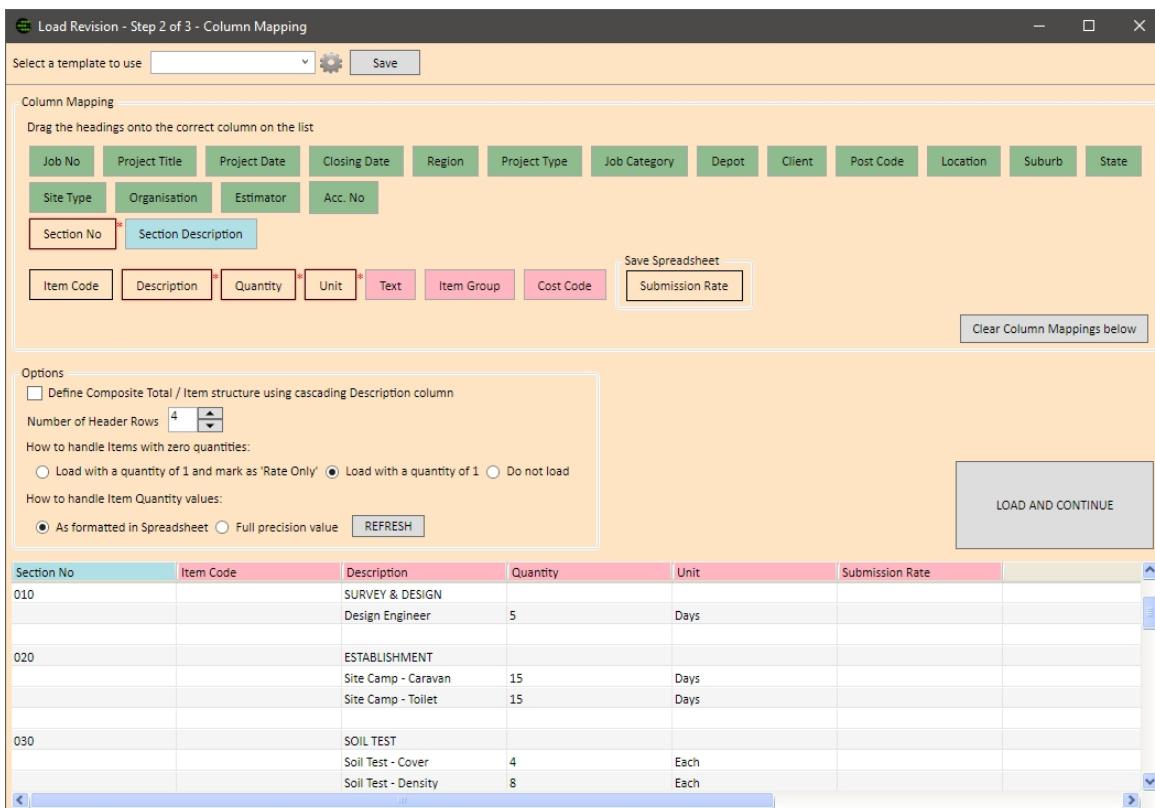


Figure 103: Load Revision Window

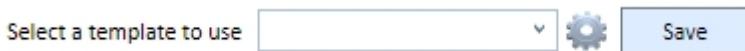
At the top of the window, you will see the Column mappings; these are the available fields that can be assigned to your spreadsheet columns.

If you have predefined Load Templates, you can select your Load Templates

Selecting a Load Template:

1. Start the process for Load New Project, Load Revision or Load Spreadsheet.
2. When the **Load New Project**, **Load Revision** or **Load Spreadsheet** window appears

3. Select the desired template from the 'Select a template to use' field.



Benchmark will apply the *settings saved for that Template* to the window.

Load New Revision Column Mappings

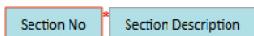
Project Fields

- The Project fields are green and located at the top of the column mapping section.
- These fields include the standard Project Details Fields such as Job No, Title, Project Date, etc
- These fields are only present when using *Load New Project* and *Load Revision* features.



Section Fields

- The Section fields are blue and are listed under the Project Fields
- These fields include Section No and may also contain Section Description depending on your administration settings. For more information, refer to ***Customise options in the Administration window*** (on page 288).
- If Section Description is not present, then the Section description and Item description will share the Item Description field



Item Fields

- The Item fields are pink and located under the Section fields.
- These fields include Code, Description, Unit, Quantity, Text, Group and Submission Rate.
- Allocation code is an additional column that can be loaded and used with Auto Allocate. This field will be matched with the Allocation code in the Item Library.
- **Submission Rate** is only required if you intend to use the Save Spreadsheet feature to export your estimated submission amounts. In that case, this column will be used as the target for saving Item submission rates.



Load Options

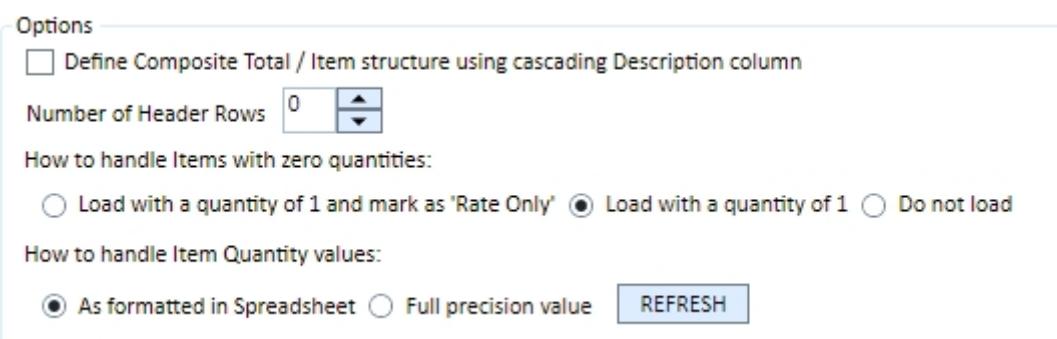


Figure 104: Load Project / Revision options

Define Composite Total / Item structure using cascading Description Column.

When this option is **checked**, Benchmark will load Item hierarchies using cascading columns.

- Composite Total, Composite Items and general Items can be imported and generated in Benchmark using cascading columns.
 - Cascading columns are defined as one column right and one row down. Therefore a top level Composite Item description would be in the first column, and the Item descriptions of any Item within the Composite Item would be in the *next column to the right and on the next row down*.
 - For each additional level of hierarchy, you must have the description column in the right adjacent column and one row down the sheet.
 - All other Item fields remain in their existing columns on the row associated with the Item description.
 - There can be up to 14 levels of cascading Composite Totals, Composite Items and Items.
 - Composite Totals *cannot* be included in Composite Items.
 - Composite Items and Composite Totals *cannot* be included within Items.

When this option is **unchecked**, Benchmark will load Item hierarchies and resource hierarchies using Spreadsheet groups.

Number of Header Rows

- This indicates that number of rows to exclude before processing the Spreadsheet.
- Increase the Number and you'll see a red line appear in the spreadsheet to indicate position.

How to handle Items with zero quantities

- Do Not Load
 - Items with a zero quantity will not be created in Benchmark.
- Load with a quantity of 1
 - Items with a zero quantity will be created in Benchmark with a quantity of 1.00.
- Load with a quantity of 1 and mark as 'Rate Only'
 - Items with a zero quantity will be created in Benchmark with a quantity of 1.00, they will also be marked as Rate Only.
- For more information, refer to **Add Rate Only Items** (on page 94)

How to handle Item Quantity Values

- As formatted in Spreadsheet.
 - Item quantities as displayed in the sheet will be loaded into Benchmark. i.e. to 2 decimal places.
- Full precision value.

The item quantity will be loaded with all the decimal places provided by the spreadsheet. i.e. 10 decimal places.

Assigning column headings:

1. Identify the field and the column that represents the field; such as Description.
 2. Click and drag the field down onto the header bar of the spreadsheet in the appropriate column.
- When a column has been assigned, you will see the colour and the text appear in the column heading bar.
3. Continue to drag and drop all the fields you require.

Section No	Item Code	Description	Quantity	Unit	Submission Rate	
Section No.	Item Code	Description	Quantity	Unit	Rate	Cost
010		SURVEY & DESIGN				
		Design Engineer	5	Days		

Figure 105: Assigning Columns in Load Spreadsheet

* Fields marked with the red asterisk are mandatory and must be assigned to a column.

Loading your Revision

When the **Load Revision** window displays:

- Assign all the relevant columns and click Load and Continue

Once the sheet has been loaded Benchmark will present a **Comparison and Preview** window.

The **Comparison and Preview** window displays a comparison between your existing project and the loaded revision. For each item, there is a colour code represented to indicate the state of each item.

Load Revision - Step 3 of 3 - Revision Comparison and Preview						
Comparison Options				Filter		
Item Matching Criteria				<input checked="" type="checkbox"/> Show Items that exist in original project but no longer exist in revision <input checked="" type="checkbox"/> Show Items that do not exist in original project and will be created <input checked="" type="checkbox"/> Show Items that exist and will be updated <input checked="" type="checkbox"/> Show Items that exist and have not changed <input checked="" type="checkbox"/> Show Items that exist, have been priced and have had their Unit changed		
<input type="checkbox"/> Delete Items that do not exist in the		Refresh		Filter		
1	AB	C	D	E	F	
1		SECTION NO	SECTION DESCRIPTION			
2	010					
3		CODE	DESCRIPTION	QTY	UNIT	
4			Design Engineer		8 Days	
5	020					
6		CODE	DESCRIPTION	QTY	UNIT	
7			Site Camp - Caravan		20 Days	
8			Site Camp - Toilet		20 Days	

Figure 106: Load Revision - Revision Comparison and Preview

Comparison Options

Item Matching Criteria

These are the criteria that are used to match the existing items with the revised items being loaded. The available options are:

- Code
- Description
- Code and Description
- Code Description and Unit

Delete Items that do not exist in the Revision

Check this option if you would like to delete existing items that are no longer present in the revised data being loaded.

Filter Options

The Load Revision filter allows you to only see the information that is important to you.

To apply a filter:

1. Select the Filter options that you would like to be displayed in the grid.
2. Click the Filter button.

The grid in the **Load Revision** window will be updated to show only the items that match the selected filter

Finalising your Revision

1. When you have reviewed the comparison.
 - Select either Continue to load the *Project Item changes* or
(Continue will add new Items, but will not assign any resources to these items)
 - Continue and run Auto Allocate to load the *Items* and *auto allocate from the Item Library*.
(Continue and run Auto Allocate will add new Items and run auto allocate on any new Items)
2. The duplicate *Project* will then open the **Project Details** window.
3. You can then make any changes to the Project Details fields and then click OK.

You have completed loading a revision.



Allocation Code

When using Auto Allocate from Item Library, Benchmark has an additional field called Allocation Code that can be used for matching. This additional field, when enabled, can be assigned to each Item in the Item Library.

When loading and allocating via Benchmark's Load Spreadsheet, Load Project or Load revision features, the allocation code can be loaded and used in conjunction with Auto Allocate. Items from the Item Library will then be matched with the loaded Item's Allocation Code.

Loading a Spreadsheet from Within a Project

Benchmark allows you to load information from a spreadsheet.

When you load from the **Project Details** window, you can load

- Project Sections,
- Project Items and
- Project Resources.

When you load from the **Project Sections** or **Project Items** window, you can load

- Project Sections,
- Project Items

When you are loading a spreadsheet, you need to have the following columns at a minimum:

- Section No (*not required when using Load Spreadsheet from the Project Items window*),
- Description (will contain *Section* and *Item* descriptions),
- Quantity,
- Unit.

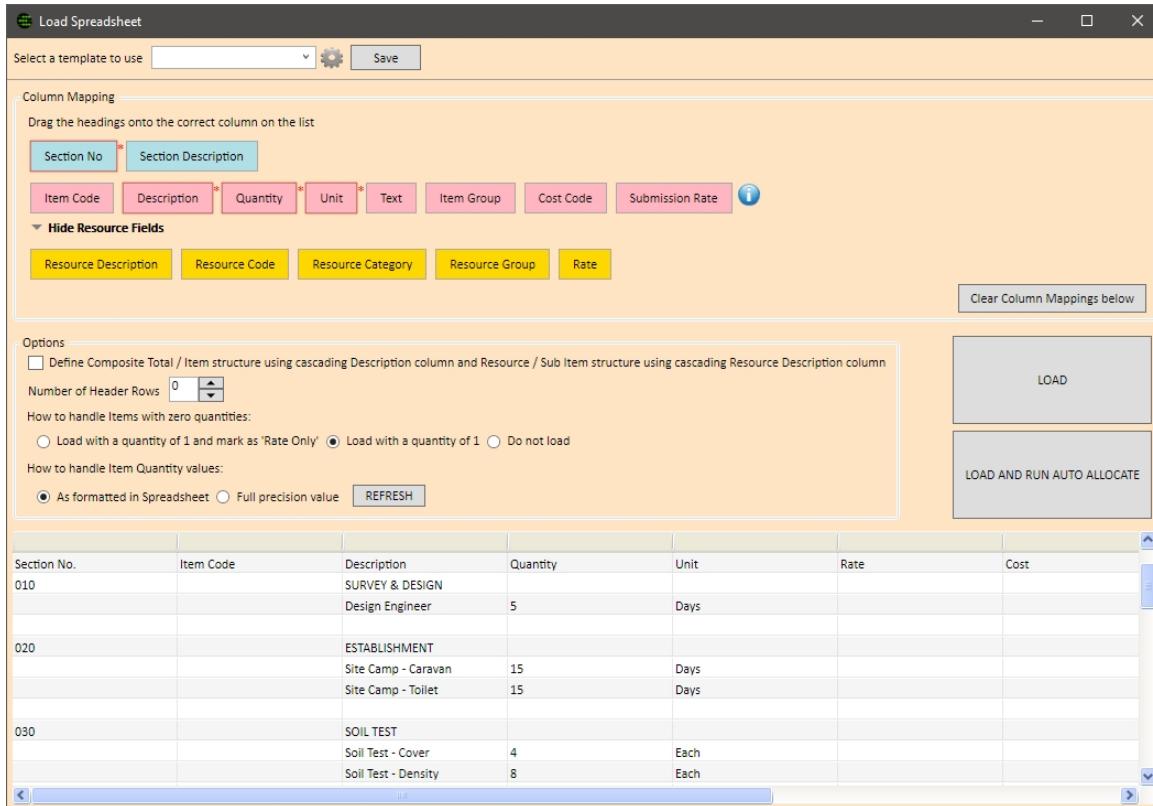
To load a Spreadsheet

1. From either the **Project Details**, **Project Sections** or **Project Items** windows, right-click and select Load Spreadsheet.
2. Select the spreadsheet to Import and click Open
3. When the **Select Worksheet to Import** window appears, if you would like to create units when importing, select the option at the bottom of the window.
4. Double-click to select the sheet containing your data or click Select.
5. When the confirmation prompt appears, you can either:
 - Click Yes to load the entire spreadsheet or
 - Click No to select an area on the spreadsheet or cancel the operation.

A prompt with another message will appear to either open the **Excel Viewer** by clicking Yes or cancel the operation by clicking No.

- When the **Excel Viewer** window open, select the cells you would like to load and then close the window by clicking the 'X' in the top right.

The **Load Spreadsheet** window will open and contain the details of your spreadsheet.



The screenshot shows the 'Load Spreadsheet' window with the following interface elements:

- Top Bar:** Contains a dropdown for 'Select a template to use', a gear icon, and a 'Save' button.
- Column Mapping:** A section titled 'Column Mapping' with the instruction 'Drag the headings onto the correct column on the list'. It lists fields: Section No, Section Description, Item Code, Description, Quantity, Unit, Text, Item Group, Cost Code, Submission Rate, Resource Description, Resource Code, Resource Category, Resource Group, and Rate.
- Options:** Includes checkboxes for 'Define Composite Total / Item structure using cascading Description column and Resource / Sub Item structure using cascading Resource Description column' and 'Number of Header Rows' (set to 0). It also specifies how to handle items with zero quantities (radio buttons for 'Load with a quantity of 1 and mark as "Rate Only"', 'Load with a quantity of 1', and 'Do not load').
- Buttons:** 'REFRESH' and 'Clear Column Mappings below'.
- Buttons on the right:** 'LOAD' and 'LOAD AND RUN AUTO ALLOCATE'.
- Preview Grid:** A table showing data from a spreadsheet. The columns are Section No., Item Code, Description, Quantity, Unit, Rate, and Cost. The data includes:

Section No.	Item Code	Description	Quantity	Unit	Rate	Cost
010		SURVEY & DESIGN				
		Design Engineer	5	Days		
020		ESTABLISHMENT				
		Site Camp - Caravan	15	Days		
		Site Camp - Toilet	15	Days		
030		SOIL TEST				
		Soil Test - Cover	4	Each		
		Soil Test - Density	8	Each		

Figure 107: Load Spreadsheet Window

At the top of the window, you will see the Column mappings; these are the available fields that can be assigned to your spreadsheet columns.

If you have pre-defined Load Templates, you can select your Load Templates

Selecting a Load Template:

1. Start the process for Load New Project, Load Revision or Load Spreadsheet.
2. When the **Load New Project**, **Load Revision** or **Load Spreadsheet** window appears
3. Select the desired template from the 'Select a template to use' field.



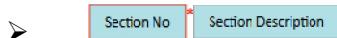
Benchmark will apply the *settings saved for that Template* to the window.

Load Spreadsheet Column Mappings

Section Fields

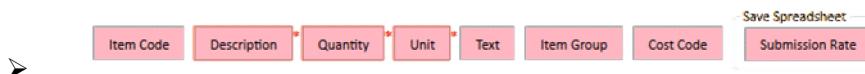
- The Section fields are blue and are listed under the Project Fields
- These fields include Section No and may also contain Section Description depending on your administration settings. For more information, refer to **Customise options in the Administration window** (on page 288).

- If Section Description is not present, then the Section description and Item description will share the Item Description field



Item Fields

- The Item fields are pink and located under the Section fields.
- These fields include Code, Description, Unit, Quantity, Text, Group and Submission Rate.
- Allocation code is an additional column that can be loaded and used with Auto Allocate. This field will be matched with the Allocation code in the Item Library.
- **Submission Rate** is only required if you intend to use the Save Spreadsheet feature to export your estimated submission amounts. In that case, this column will be used as the target for saving Item submission rates.



Resource Fields

- The Resource fields are orange and located under the Item fields.
- These fields include Code, Description, Category, Group, Rate and Cost code if enabled.
- The Resource Unit and Quantity are shared with the Item and should be located in the same column as the Item Unit and Quantity.



Project Resources

Project resources can only be loaded when Load Spreadsheet is used from the **Project Details** window.

Load Options

Options	
<input type="checkbox"/> Define Composite Total / Item structure using cascading Description column and Resource / Sub Item structure using cascading Resource Description column	
Number of Header Rows <input type="text" value="0"/>	
How to handle Items with zero quantities:	
<input type="radio"/> Load with a quantity of 1 and mark as 'Rate Only' <input checked="" type="radio"/> Load with a quantity of 1 <input type="radio"/> Do not load	
How to handle Item Quantity values:	
<input checked="" type="radio"/> As formatted in Spreadsheet <input type="radio"/> Full precision value <input type="button" value="REFRESH"/>	

Define Composite Total / Item structure using cascading Description Column and Resource / Sub Item structure using cascading Resource Description Column

When this option is **checked**, Benchmark will load Item hierarchies and resources hierarchies using cascading columns.

1. Composite Total, Composite Items and general Items can be imported and generated in Benchmark using cascading columns.

- Cascading columns are defined as one column right and one row down. Therefore a top level Composite Item description would be in the first column, and the Item descriptions of any Item within the Composite Item would be in the *next column to the right and on the next row down*.
- For each additional level of hierarchy you must have the description column in the right adjacent column and one row down the sheet.
- All other Item fields remain in their existing columns on the row associated with the Item description.
- There can be up to 14 levels of cascading Composite Totals, Composite Items and Items.
- Composite Totals *cannot* be included in Composite Items.
- Composite Items and Composite Totals *cannot* be included within Items.

2. *Resource and Sub Items* can be imported and generated in Benchmark using cascading columns.

- As above, a cascading column is *one column right and one row down*.
- Adding a level of cascading resources creates a Sub Item.
- The top level Resource becomes a Sub Item (**A**) and the cascaded resources become the resources within the Sub Item.
- *There can only be one level of cascading resources.*

Section No	Item Code	Description	Resource Code	Resource Description	Resources beneath Subitem	Resource Category	Resource Group	Text	Quantity	Unit	Resource Rate
1		ITEMS WITH RESOURCES									
	1.1	Supply and maintain Site Shed	SHED	SITE SHED		PLANT	PRELIMINARIES	100.00 DAYS			
								ALLOW 0.5 HOURS PER DAY TO MAINTAIN	100.00 DAY		55.00
			LAB	LABOURER		LABOUR	LABOUR		50.00 HOUR		32.50
	1.2	Base course - 175mm of compacted base							1150.00 m ²		
				Materials		TEXT					
			RBASE	ROAD BASE		MATERIALS	LITRE	481.00 TONNE			26.50
				Labour and equipment		TEXT					
			LHAND	LEADING HAND		LABOUR	DAY LABOUR	8.00 HOUR			45.00
			PLOP	PLANT OPERATOR		LABOUR	DAY LABOUR	8.00 HOUR			42.00
			LAB	LABOURER		LABOUR	DAY LABOUR	16.00 HOUR			32.50
			UTE	UTILITY		PLANT	PLANT	1.00 DAY			55.00
			ROLL12	ROLLER - 12T SMOOTH DRUM		PLANT	PLANT	8.00 HOUR			47.00
			WCART	WATER CART WITH OPERATOR		SUBCONTRACT	PLANT	1.00 DAY			800.00
	A	GRAD	GRADER		SUBITEM	SUBITEM		8.00 HOUR			
		GRADDH	GRADER DRY HIRE		PLANT	PLANT		8.00 HOUR			57.50
		FUEL	FUEL		MATERIALS	PLANT		45.00 HOUR			1.55
		PLOP	PLANT OPERATOR		LABOUR	DAY LABOUR		8.00 HOUR			42.00

Figure 108: Load Spreadsheet with SubItems

When this option is **unchecked**, Benchmark will load Item hierarchies and resources hierarchies using Spreadsheet groups.

Number of Header Rows

- This indicates that number of rows to exclude before processing the Spreadsheet.
- Increase the Number and you'll see a red line appear in the spreadsheet to indicate position.

How to handle Items with zero quantities

- Do Not Load

Items with a zero quantity will not be created in Benchmark.

- Load with a quantity of 1
Items with a zero quantity will be created in Benchmark with a quantity of 1.00.
- Load with a quantity of 1 and mark as 'Rate Only'
Items with a zero quantity will be created in Benchmark with a quantity of 1.00, they will also be marked as Rate Only.
- For more information, refer to **Add Rate Only Items** (on page 94)

How to handle Item Quantity Values

- As formatted in Spreadsheet.
Item quantities as displayed in the sheet will be loaded into Benchmark. i.e. to 2 decimal places.
- Full precision value.
The item quantity will be loaded with all the decimal places provided by the spreadsheet. i.e. 10 decimal places.

Assigning column headings:

1. Identify the field and the column that represents the field; such as Description.
2. Click and drag the field down onto the header bar of the spreadsheet in the appropriate column.
When a column has been assigned, you will see the colour and the text appear in the column heading bar.
3. Continue to drag and drop all the fields you require.

Section No	Item Code	Description	Quantity	Unit	Submission Rate	
Section No.	Item Code	Description	Quantity	Unit	Rate	Cost
010		SURVEY & DESIGN				
		Design Engineer	5	Days		

Figure 109: Assigning Columns in Load Spreadsheet

* Fields marked with the red asterisk are mandatory and must be assigned to a column.

Loading your Data

1. When all your columns have been mapped,
 - You can then click the LOAD button or
 - alternatively, you can click LOAD AND RUN AUTO ALLOCATE.
 - This will load the estimate data, and then run Benchmark's auto allocate feature.
- For more information, refer to **Use Auto Allocate to price a BOQ** (see "**Use Auto Allocate to Build Your Estimate**" on page 159)



Allocation Code

When using Auto Allocate from Item Library, Benchmark has an additional field called Allocation Code that can be used for matching. This additional field, when enabled, can be assigned to each Item in the Item Library.

When loading and allocating via Benchmark's Load Spreadsheet, Load Project or Load revision features, the allocation code can be loaded and used in conjunction with Auto Allocate. Items from the Item Library will then be matched with the loaded Item's Allocation Code.

Validation Errors

When Loading your data into Benchmark, any inconsistencies in the data will generate a validation error. This can be caused if you are loading Resource units that are not present in the Benchmark Codes.

When a validation error occurs, the user will be prompted with:

The spreadsheet contains invalid data, do you wish to generate a copy of the spreadsheet with invalid cells highlighted?

- Select Yes to generate the copy of the spreadsheet.
 - Select No to cancel the process.
 - Select Continue anyway if you would like to attempt to load the data. Rows with invalid data will be skipped.
-



Continuing with Validation Errors

When you continue anyway, there is a risk that some of your Sections, Items and or Resources will be skipped.

Save Estimate Data to a Spreadsheet

Saving your Item Submission Rates back to a spreadsheet can be done after using one of these features Load New Project, Load Revision or Load Spreadsheet and typically you would perform this function if your *Client* asks for your *Quotation in their spreadsheet format*.

To save an estimated *Schedule of Items* in Excel, you **must** have first imported your estimate data using one of these features Load New Project, Load Revision or Load Spreadsheet features and then bid the job.

As explained in this section, **it is critical** that you also mapped the Submission Rate column (when importing your data), otherwise, Benchmark does not know where to save your Submission Rates.

To save an estimated *Schedule of Items* in Excel:

1. In the **Project Details**, **Project Sections** or **Project Items** window, right-click and select Save Spreadsheet.

2. A window will open that will allow you to select your spreadsheet. Browse to select the spreadsheet then click on the Open button.
3. When the **Select Worksheet to Export** window appears.
4. Double click the sheet containing your data or select the sheet and click Select.

Benchmark will export the data in the current window to your spreadsheet.

➤ **Project Items** Window

Only active items in the current Project Section will be exported to the spreadsheet.

Project Sections and **Project Details** windows

All active project items will be exported to the spreadsheet.

Your spreadsheet should now be open for you to view and save your spreadsheet.

Creating and Managing Load Templates

When using the Load New Project, Load Revision or Load Spreadsheet features the Column Mappings and options can be saved in a Load Spreadsheet Template. This template can then be used to quickly assign the column mappings in future uses of these features.

To create a new Template:

1. Log into your database as an estimator with *administrator privileges*.
2. Start one of the following features Load New Project, Load Revision or Load Spreadsheet.

(You do *not* need to complete these functions in order to keep the created templates.)
3. When the **Load New Project**, **Load Revision** or **Load Spreadsheet** window appears
 - a. Assign the *Column Mappings* and
 - b. Set the *Load Options*.
4. Once you have completed the column mappings and set the load options, click in the 'Select a template to use' field at the top of the window.
5. Type the *name of the Template* and click Save.

This Template will now be available for all users.

To edit a Template name:

1. Click on the Settings icon between the *combo box* and the Save button.
2. Select the *template* to edit.
3. Right-click and select Edit Name.
4. Change the *name* of the template.
5. Press ENTER.
6. Right-click and select Close or select the (top right) Close button to close the window.

To delete a Template:

1. Start the process for Load New Project, Load Revision or Load Spreadsheet.

2. When the [Load New Project](#), [Load Revision](#) or [Load Spreadsheet](#) window appears
3. Click on the Settings icon between the *combo box* and the **Save** button.
4. Select *one or more templates* to delete from the list.
5. Press **DELETE** or right-click and select **Delete**.
6. Select **Yes** to the question *Are you sure you want to delete each selected template?*
7. Right-click and select **Close** or select the (top right) **Close** button to close the window.

Use Auto Allocate to Build Your Estimate

The Auto Allocate function allows you to price your Items consistently, accurately and with great speed. You can use Auto Allocate if your clients regularly issue you with a Schedule of Items to price.

There are two Auto Allocate features available to the user. These are:

1. The standard **Auto Allocate** feature which searches for *matching Items* in your [Item Library](#).
2. The **Auto Allocate from Project** feature which searches for matching Items in a previous Project that the user nominates.

You can run Auto Allocate at different levels in the Project as follows:

➤ [Project Details](#) or [Project Sections](#) window

When run at this level it will go through all Items **in the entire project**, moving from one Section to the next automatically. In this window, you right-click and select Auto Allocate.

➤ [Project Items](#) window

When run at this level it will go through all Items **in the current Section only**. In this window, you right-click and select Auto Allocate.

The Auto Allocate feature will:

1. Start at the first *un-priced Item* in your estimate (i.e. the first item with a zero cost).
2. Find the closest matching Item in your Library (or nominated Project if using the **Auto Allocate from Project** feature) by comparing the Description of the Item in your current Project to the Items in your Library (*or nominated Project if using the Auto Allocate from Project feature*):
 - a. If Auto Allocate finds a 100% match on the *Item Description* it will price it automatically;
 - b. If Auto Allocate does **not** find a 100% match with the *Description* field, it will pause and offer the Estimator the choice as to which Item they wish to use (*with an option to skip any Item and come back to it later*).
3. Move to the very next *un-priced Item* in the estimate.
4. Repeat steps 2-3 until finished or until the user elects to stop the process.

Auto-Allocate prices an Item by allocating Resources to the Item in your Project. The Resources allocated are based on those that exist in the Library Item that is used (or the Project Item if using Auto Allocate from Project) and their quantities and therefore cost is also based on the Quantity of the Item in your schedule. Before you can run Auto Allocate, your Project must contain some Project Items. For more information, refer to ***Project Items*** (on page 90).

Using Auto Allocate with the Item Library

To run Auto Allocate on your Project:

1. Open either the **Project Details** window, **Project Sections** window, or **Project Items** window.
2. Right-click and select Auto Allocate.

Auto Allocate will start at the first Item that is not yet priced (i.e. the Item has a cost of zero). If there is a 100% match on the Item description, Auto Allocate will price the Item for you and move on to the next Item.

If there is not a 100% match the **Select Library Items** window displays the closest matching Items at the top of the window. This matching is based on the Project Item Description and the Item Library Item description.

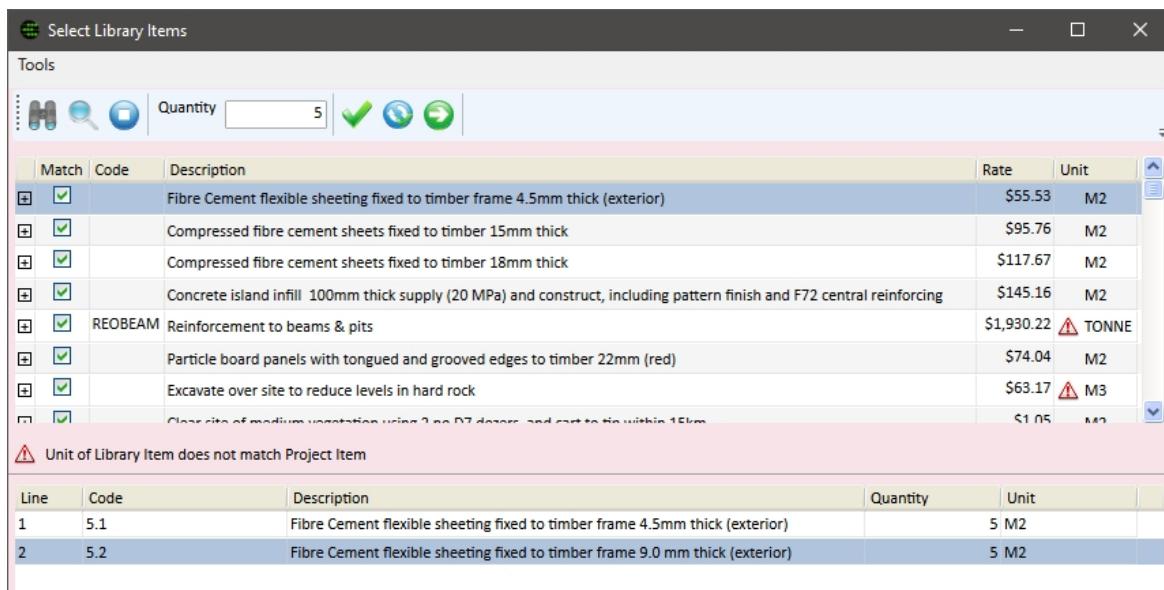


Figure 110: Allocating From a Library Item - Select Library Items Window

3. When the Select Library Items window appears, you have several options on what to do:
 - a. Highlight the most suitable Item and Select OK or press ENTER.
 - This will then copy the resources from the Library Item to the specific Project Item using the current Items quantity when refactoring the Resource quantities.
 - b. Change the Allocation Quantity, highlight the most suitable Item and Select OK.
 - This will then copy the resources from the Library Item to the specific Project Item using the new allocation quantity when refactoring the Resource quantities.

- c. Use the **OK** & use for repeat occurrences
 - o When clicked instead of OK, Benchmark will use this selected item for any reoccurring Project Item Description that matches the current Project Item description and unit.
- d. Use the **Skip** button to Skip this item and proceed to the next
- e. Use the **Find** function to find a particular Library Item.
- f. Use the **Stop** button to stop the Auto Allocate Process.

When all the Items have been processed or the process is stopped, Benchmark will return back to the initial project window.

Using Auto Allocate with an Existing Project

Users can also use Auto Allocate and select a *previous Project* as the source of the *Items* used, as opposed to the **Item Library** in the standard Auto Allocate feature.

This effectively allows you to use a previous Project as a *Library*. You can apply this feature to various scenarios, however, it is ideal for the situation where:

- You previously priced a *Maintenance Contract* in Benchmark and have been awarded this job.
- Then, during execution of the *Contract*, your *Client* issues you with a *Schedule of Items* (i.e. like a *work package*) to price and you wish to use the *same Items* from your *original Project*.

This feature also provides an option to copy and lock the *Submission Rate of Items* from your *previous Project* into your *current Project*.

To Auto Allocate from *another Project*:

1. Open either the **Project Details** window, **Project Sections** window, or **Project Items** window.
2. Right-click and select **Auto Allocate From Project** or **Template Project**.

3. The Project Selection window will appear, select the Project you wish to use as the source for your Items.

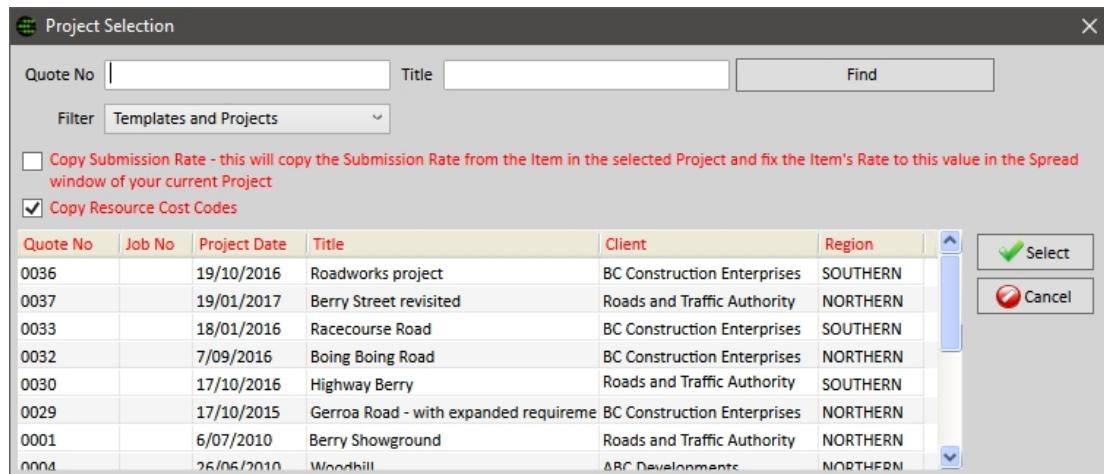


Figure 111: Project Selection Window

There are also some additional options when allocating from a Project, these are:

a. **Copy Submission Rate**

When checked, Benchmark will copy the submission price from the source Project, and lock this submission Rate in for the current Project Item. This means that regardless of the resource changes made to this Item it will have a fixed submission rate.

b. **Copy Resource Cost Codes**

When checked, Benchmark will copy the assigned Resource cost codes from the source project to your current Project Item.

4. When you have selected your Project, double-click the Project or click Select.

5. Benchmark will then start the Allocate From Project Process.

This will start at the first Item that is not yet priced (i.e. the Item has a cost of zero).

If there is a 100% match on the *Item description*, Auto Allocate will price the *Item* for you and move on to the next *Item*.

If there is not a 100% match the **Select Project Items** window displays the closest matching Items at the top of the window. This matching is based on the current Projects Item Description and the source Projects Item description and unit.

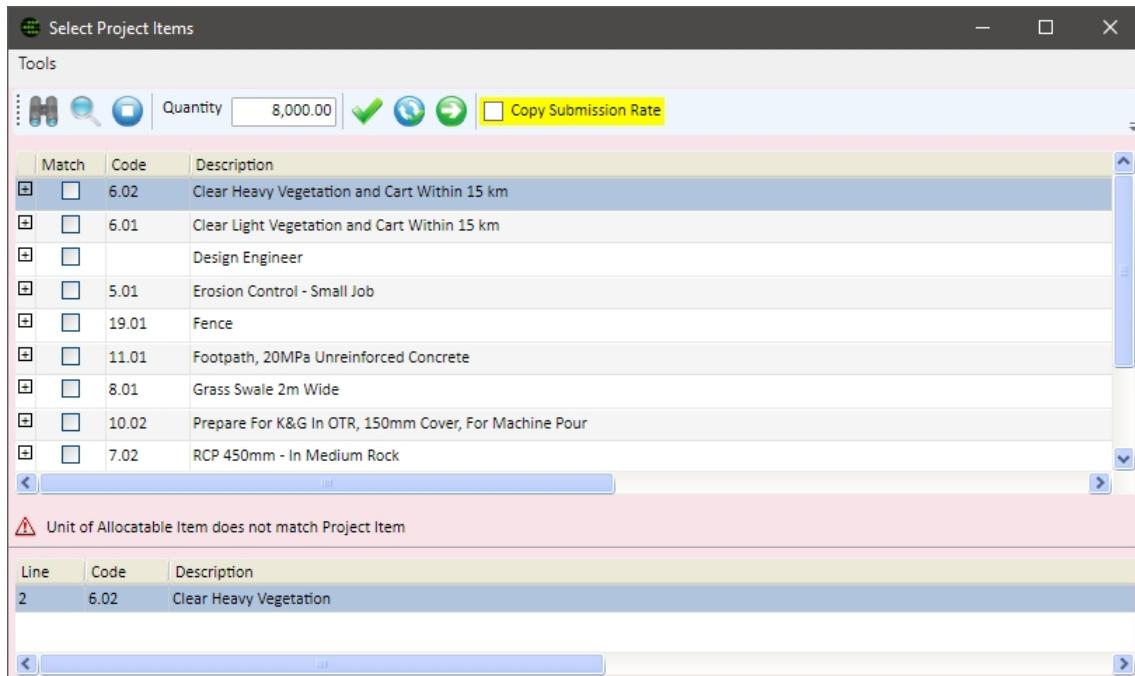


Figure 112: Select Project Items Window

6. When the **Select Project Items** window appears, you have several options on what to do:

- Highlight the most suitable *Item* and Select OK or press ENTER.

This will then copy the resources from the source Project Item to the current Project Item using the current Item quantity when refactoring the Resource quantities.

- Change the Allocation Quantity, highlight the most suitable Item and Select OK.

This will then copy the resources from the source Project Item to the specific Project Item using the new allocation quantity when refactoring the Resource quantities.

- Copy Submission Rate

When checked, Benchmark will copy the submission price from the source Project, and lock this submission Rate in for the current Project Item. This means that regardless of the resource changes made to this item it will have a fixed submission rate.

- Use the OK & use for repeat occurrences

When clicked instead of OK, Benchmark will use this selected item for any reoccurring Project Item Description that matches the current Project Item description.

- Use the Skip button to Skip this item and proceed to the next
- Use the Find function to find a particular source Project Item.
- Use the Stop button, to stop the Auto Allocate Process.

When all the Items have been processed or the process is stopped, Benchmark will return back to the initial project window.

Auto Allocate Summary Report

After the **Auto Allocate** process is complete, Benchmark asks users if they wish to run an **Auto Allocate Summary** report. This prompt can be disabled in the [Administration](#) window. For more information, refer to [*Customise Administration Settings*](#) (on page 288).

Use Production Rates

For an *Item* or group of *Resources*, Benchmark allows you to specify a *Production Rate*. This *Production Rate* may change from project to project depending on the site conditions. When you change this *Production Rate* in a Project, Benchmark will automatically recalculate your *time-based Resources* and update your *Estimated Cost*.

Your default *Production Rates* can also be stored with *Items* and *Resources* in the [Item Library](#) (and with *Routines* in the [Routine Library](#)); that way you can add your *standard Items* from the [Item Library](#) to a Project (or run a *Routine*), and then change it in the Project to quickly reflect the conditions on site, giving you a more accurate price.

This function works by factoring all *time-based Resource quantities* by the ratio of the *old Production Rate* divided by the *new Production Rate*. The exception to this is when a Resource always uses the result of a calculation. As such, production rates can be used in Resource Calculations. For more information, refer to [*Calculate Resource Quantities*](#) (on page 131).

Time-based Resources

Time based Resources are assigned one of the following Units:

- **Hour Based** - H, HR, HRS, HOUR, HOURS, HOURLY
- **Day Based** - D, DY, DYS, DAY, DAYS, DAILY, SHIFT, NIGHT
- **Week Based** - W, WK, WKS, WEEK, WEEKS, WEEKLY
- **Month Based** - MTH, MTHS, MONTH, MONTHS, MONTHLY
- **Year Based** - YR, YRS, YEAR, YEARS, YEARLY

Using Item Production Rates

To edit an Item Production Rate:

1. In the [Project Item](#) window, select an Item to assign a production rate.
2. Press CTRL+E and navigate to the Production Rate field.
3. Enter or overwrite the existing Production Rate.
4. Press ENTER.
5. Where the Production Rate was zero before editing, Benchmark will assume that you are assigning the production rate based on the current Resource values.

- Please note, that Resources that use Production Rates in their calculations will be adjusted.
6. For an existing Production Rate. Benchmark will display a confirmation prompt to confirm the change to *time-based Resources*.

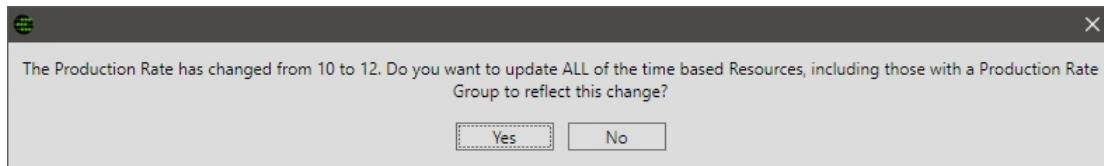


Figure 113: Changing an Item Production Rate

- At this point your answer would normally be Yes. Answering yes will then factor the *time based Resources*, and you will notice your *Item cost* is automatically adjusted.
- If you select No then these *Resource quantities* will not change and the Item's total cost will be unaffected.

Use Resource Production Rates

Item Production Rates are ideal for *simple Items* that involve one operation. When you have more detailed Items with multiple operations and productivities, *Item Production Rates* don't provide the flexibility to include multiple production rates within an Item. In this scenario, you need to use *Resource Production Rates*.

Resource Production Rates exist in the Project Resource window and are shown as *Resource Production Rate* lines. These Resource Production Rates are then *linked to Resources* by assigning them a *Production Rate Group*.

If you decide to change the *Production Rate* later, you can edit the *Resource Production Rate* line and this will update the *Resources* that have the *same Production Rate Group* within that *Item*.



Enable Resource Production Rates

To use *Resource Production Rates*, you must check the *Use Resource Production Rate* checkbox in the [Administration](#) window.

Here is an example of how to set up an *Item* with *Resource Production Rate groups*:

Project Resources									<input checked="" type="checkbox"/> Insert Mode
Text			Summary						
Line	Code	Resource Description	Qty	Unit	Rate	Cost	Crew	Category	PR Group
10		Break Rock at 3 m3/Hr	3,00	m3/Hr				PRODUCTION	BREAK
11	EXCAV30T&OP&HMMR	EXCAVATOR 30T - HIRED WITH OPERATOR AND ROCK	22,50	Hours	140,00 €	3 150,00 €	0	SUBCONTRACT	BREAK
12	LHAND	LEADING HAND	22,50	Hours	60,00 €	1 350,00 €	0	LABOUR	BREAK
13	LAB	LABOURER	22,50	Hours	45,00 €	1 012,50 €	0	LABOUR	BREAK
14	UTILITY	UTILITY	2,81	Days	50,00 €	140,63 €	0	PLANT	BREAK
15								TEXT	
16		Excavate broken rock from trench at 10 m3/Hr	10,00	m3/Hr				PRODUCTION	EXCAVATE
17	EXCAV20T&OP	EXCAVATOR 20T - HIRED WITH OPERATOR	6,75	Hours	95,00 €	641,25 €	0	SUBCONTRACT	EXCAVATE
18	LHAND	LEADING HAND	6,75	Hours	60,00 €	405,00 €	0	LABOUR	EXCAVATE
19	LAB	LABOURER	6,75	Hours	45,00 €	303,75 €	0	LABOUR	EXCAVATE
20	UTILITY	UTILITY	0,84	Days	50,00 €	42,19 €	0	PLANT	EXCAVATE
21	SBTL	Subtotal - Excavation	67,50	m3	104,38 €	7 045,31 €		SBTL	

Figure 114: Resource Production Rates

In the example above you can see *Line 10* is a *Production Rate* for the *Break Rock* operation (A), and *Line 16* is a *Production Rate* for the *Excavate broken rock* (B); so there are two *Production Rates* within the one *Item*.

The column *PR Group* (C) stands for *Production Rate Group*; this links the *Production Rate* line and the *Resources* that belong to it.

Add a Resource Production Rate

1. In the **Project Resources** window, right-click and select Add → Add Production Rate.
2. Type in the *Description* of the work (e.g. *Spread and Compact*).
3. Enter the *Production Rate*.
4. Select the *Unit* for the *Production Rate* from the drop-down menu (e.g. m^2/hr).
 - If the *Unit* you want to use is not present in the drop-down box that appears, you can add it by going to **Administration** → **Codes**. For more information, refer to **Set up Codes** (on page 284).
 - **Note:** You can proceed without having the exact Unit, but you should fix the unit for reference purposes at some point.
5. Select or enter a *Production Rate Group*.
6. Press ENTER.

Edit a Resource Production Rate

To edit a Resource Production Rate

1. In the **Project Resources** window, Highlight the *Resource Production Rate*.
2. Right-click and select **Edit**.
3. Type the new *Production Rate*.
4. Press ENTER.
5. Benchmark will display a confirmation prompt asking if you want to change all of the *time-based Resources* with the same *Production Rate Group* in the *Item*.

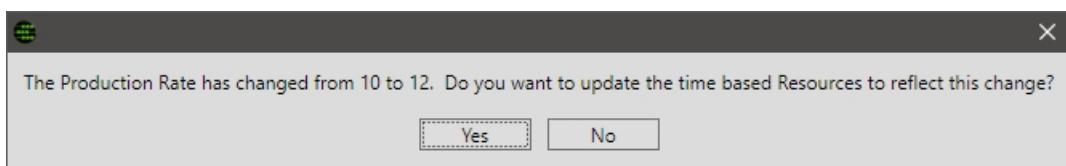


Figure 115: Changing a Resource Production Rate

- At this point your answer would normally be Yes. Answering Yes factors the *time-based Resources* accordingly, and you will notice your *time-based Resource Quantities* and *Costs*, and your *Item Cost* and *Rate*, are automatically adjusted for you.
- If you select No then these *Resources*, and thus the *Item's total cost*, are unaffected.

Delete a Resource Production Rate

To delete a Resource Production Rate

1. In the **Project Resources** window, Highlight the *Resource Production Rate*.
2. Right-click and select **Delete**.
3. Answer Yes to the confirmation prompt, or answer No to stop the deletion process.

If the Production Rate is being used, Benchmark will display another confirmation asking:

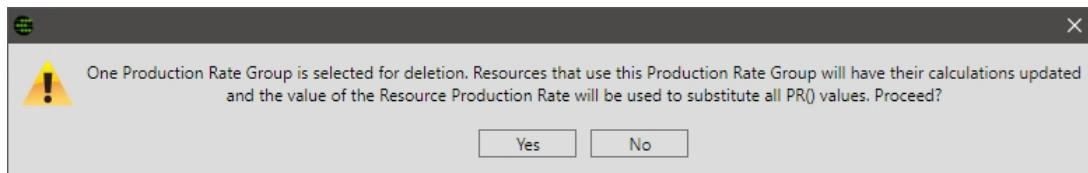


Figure 116: Deleting Production rates used in Calculations

This will change any Resources that are assigned the Production Rate that is being deleted. Any calculations that use the variable 'pr()' will have their calculation changed, replacing pr() with the rate of the Resource Production rate being deleted.

Group Resources by Production Rate

1. Highlight all of the *Resources* that you wish to be assigned that *Production Rate*.
2. Right-click and select **Assign** → **Assign Production Rate Group**.
3. When the **Assign Production Rate Group** window appears, double click the Production Rate Group.
 - If there are no Resource Production Rate Groups shown, please add a Resource Production Rate first before attempting to assign a Production Rate Group to a Resource. For more information, refer to **Add a Resource Production Rate** (on page 166).

Benchmark will then assign the Production Rate Group to the selected Resources.

Use Variables in Your Project

Benchmark allows you to set up user-defined Variables for parameters that change on a project by project basis. An example of a Variable could be Wastage or Density of Asphalt or even Length of Road.

To use Variables, you must have the *Use Variables in Calculations* checkbox active in the **Administration** window.

Benchmark's Variable functionality consists of various aspects:

1. You can set up Standard Variables in a Variable Library.
2. You can set up Variables within Items in your Item Library so that you can adjust them after you add your Items to a Project;

3. And you can create new Variables in a Project.

When you adjust the value of a Variable in a Project, then any calculations that use that Variable are also updated for you automatically.

There are three different levels of Variables within a project in Benchmark and these levels distinguish the scope of the variable within the project.

1. **Project Level Variables** – Are added and edited in the **Project Sections** window, and available to Item and Resource quantity calculations in any section within the project.
2. **Section Level Variables** – Are added and edited in the **Project Items** window, and are available to Item and Resource quantity calculations in the section in which they are located.
3. **Item Level Variables** – Are added and edited in the **Project Resources** window, and are available to Resource quantity calculations in the Item in which they are located.

If you have Items set up in your Item Library and these Items contain Variables, then Benchmark will automatically bring these Variables into your Project.



Variables are Project Specific

Once a Variable has been added to a Project it becomes Project specific and any changes made to the Variable Library will not be updated in the Project.

Before you can use a Variable in a calculation, it must be added to the Project. Variables can be added from the Variable Library or new ones can be added into each project.

Adding New Variables to a Project

Adding variables in the different Project windows will affect the scope of the variables.

1. To add a *Project* wide Variable:
 - Right-click and select Add Project Variable in the **Project Sections** Window.
 - To add a *Section* specific variable:
 - Right-click and select Add Section Variable in the **Project Items** Window.
 - To add an *Item* specific variable:
 - Right-click and select Add Item Variable in the **Project Resources** Window.
2. Enter a *Code* for the Variable.
 3. Enter a *Description*.
 4. Enter a *Value*.
 5. Enter a *Unit*.
 6. Click OK to add the new *Variable*.

Edit Variables in a Project

You edit *Variables* in a project the same way, no matter what level of the variable you are editing.

To make a *Project-specific* change to a *Variable value*:

1. Select the *Variable* to edit.
2. Right-click and select Edit.
3. Change the *Quantity* of the Variable.
4. Click OK to accept the changes.
5. This updates any *quantity calculations* that use the *Variable*, and automatically recalculates the *Project cost*.



Editing Variable Codes

Benchmark recommends that you do not change the *Code* for Variables you add from the Library. If you change the *Code* and then added more *Items* from the Library that use this *Variable*, *these new Items will not be linked to this Variable in the Project*.

In the **Project Sections** or **Project Resources** window you can edit variable directly in the grid.

To edit multiple variable values:

1. Double-click the Variable value.
2. When Benchmark enters the Grid Edit mode.
3. Click in the cell or use the TAB key to navigate between cells.
4. Change your values.
5. Press ENTER or right-click and select OK to accept the changes, to update your variables and recalculate your project calculations.

Add Variables from the Library

As mentioned previously, adding variables in the different Project windows, will affect the scope of the variables.

1. To add a *Project* wide Variable:
 - Right-click and select Add Project Variable from Library in the **Project Sections** Window.

To add a *Section* specific variable:

- Right-click and select Add Section Variable from Library in the **Project Items** Window.

To add an *Item* specific variable:

- Right-click and select Add Item Variable from Library in the **Project Resources** Window.

2. Select a *Variable* from the variable list and select OK.
3. You can edit the *Value* if you wish to enter a project specific value.
4. Click OK to add the Variable.

Use Variables in Item Quantity Calculations

1. Go to the **Project Items** window.
2. Select an *Item* to add a calculation to.
3. Click the Calculator icon to the right of the *Quantity* field.
4. Click the Variable button to display the **Select Variable** window.

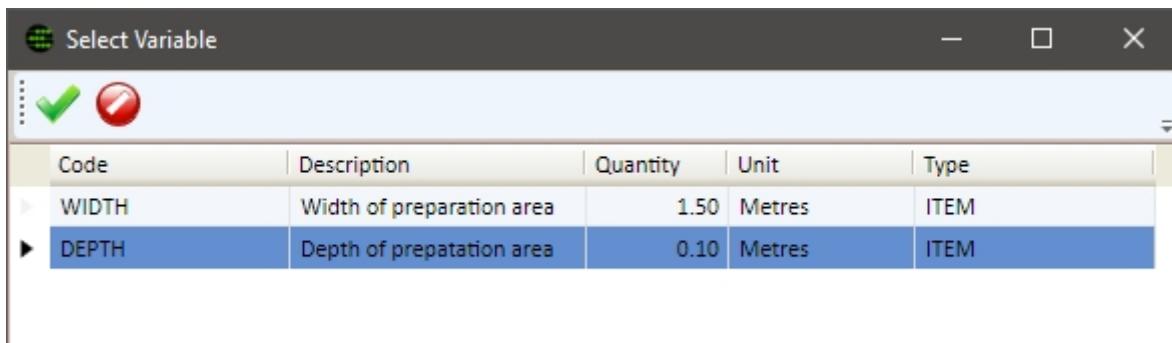


Figure 117: Select Variable Window

5. Select a *Variable(s)* from the list and click OK.
- For an *Item*, you select from:
- *Project Variables*, or
 - *Section Specific Variables* (i.e. Section Variables in the current Section).
6. Ensure that the Always base quantity on calculation check box is checked.
 7. Click OK to accept the calculation.
 8. Click OK again or press ENTER to save the Item.

For more information, refer to [Using the Calculator in Your Project](#) (on page 171).

Use Variables in Resource Quantity Calculations

Enter *Resource Quantity calculations* the same way that you enter *Item Quantity calculations*.

1. Go to the **Project Resources** window.
 2. Select a *Resource* to add a calculation to.
 3. Click the Calculator icon to the right of the *Quantity* field.
 4. Click the Variable button to display the **Select Variable** window.
 5. Select a *Variable(s)* from the list and click OK.
- For a *Resource*, you select from:
- *Project Variables*, or
 - *Section Variables* (i.e. Section Variables in the current Section), or
 - *Item Variables* (i.e. Item Variables in the current Item).
6. You can now continue to develop the calculation using other functions including the **Built In Variables** (on page 173) or **Core Calculator Functions** (on page 172).
 7. Ensure that the Always base quantity on calculation check box is checked.

8. Click OK to accept the calculation.
9. Click OK again or press ENTER to save the Resource.

Using the Calculator in Your Project

Benchmark provides a Calculator feature that can be used to calculate Item and Resource Quantities. This can greatly enhance your Estimating, increasing the flexibility of your items, allowing the use of area, volumetric and trigonometric calculations.

For example, Items can be built with the help of variables to calculate the volume of soil, the number of post requires. In addition to calculating quantities, the Calculator can be used to adjust your quantities using round, floor and ceiling functions.

In fact, the calculator contains most of the standard mathematical functions that we have come to depend on.

Calculator Window

The **Calculator** window, as shown below, has a number of math functions and built in variables that make it easier to use.

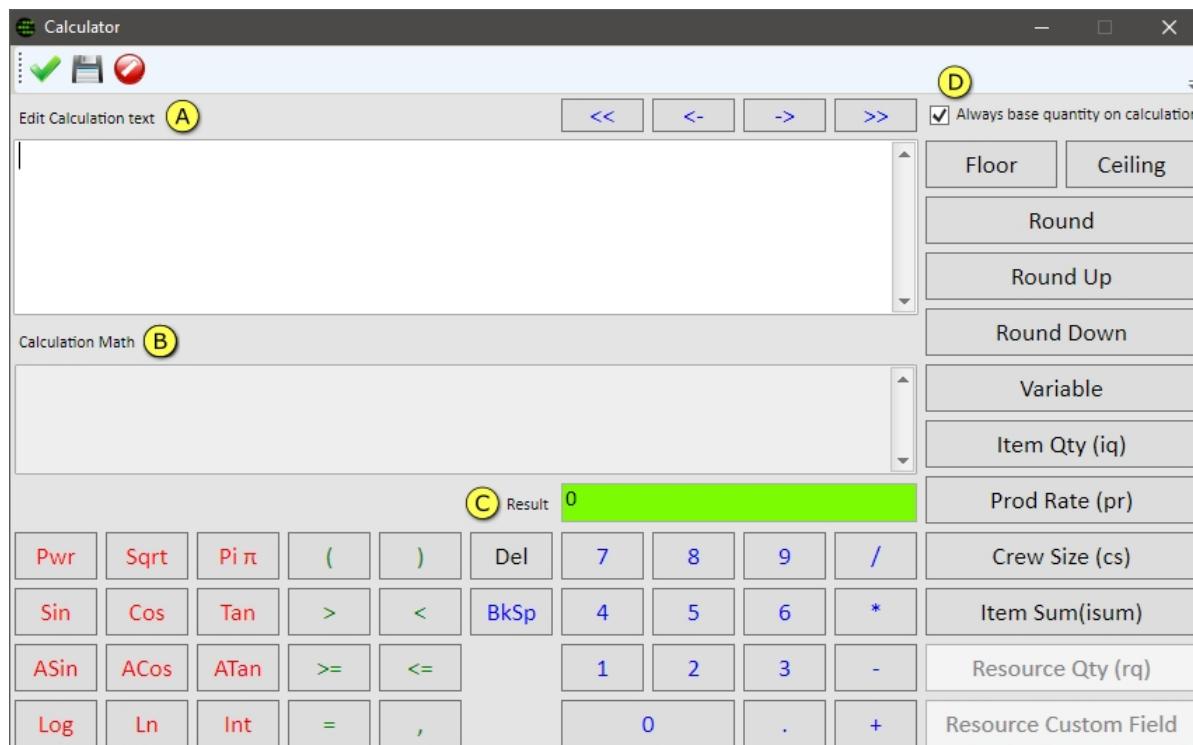


Figure 118: Calculator Window

➤ **Edit Calculation text (A)**

This is where you enter the calculation for Benchmark to evaluate and calculate.

➤ **Calculation Math (B)**

Benchmark will populate this field with the parsed calculation. For example, the built in variables will be replaced with their numerical value.

➤ **Result (C)**

The result will be either:

- *Green*, which indicates the calculation could be resolved and evaluated correctly, or
- *Red*, which indicates there was an error evaluating the calculation.

➤ **Always base quantity on calculation (D)**

When checked, the Item or Resource quantity will always equal the result of the calculation.

For more information, refer to ***Calculator Core Functions*** (see "***Core Calculator Functions***" on page 172) and ***Built In Variables*** (on page 173).

Core Calculator Functions

The calculator in Benchmark maintains the rules of Order of Operation. As such, using parentheses to enclose your calculation will ensure that the order of operation you intend is maintained.

Function	Explanation
+, -, *, /	Addition, Subtraction, Multiplication, Division
#PI	Pi (8 decimal places).
pwr(x,y)	x raised to the power of y
int(val)	Returns the integer part of a number. int(23.786) returns 23.
rnd(val,dp)	Rounds a value to the number of decimal places (dp). e.g. rnd(34.675, 1) returns 34.7
rndup(val)	Rounds up to the nearest whole number.
rnddown(val)	Rounds down to the nearest whole number.
sqrt(val)	Returns the square root of the value.
cos(val)	Returns the cosine of the value in degrees.
sin(val)	Returns the sine of the value in degrees.
tan(val)	Returns the tangent of the value in degrees.
ASin(val)	Returns the Inverse of sine of the value.
ACos(val)	Returns the Inverse of cosine of the value.
ATan(val)	Returns the Inverse Tangent of the value.

Function	Explanation
Log(val)	Returns the Logarithm Base 10 of val.
Ln(val)	Returns Natural Logarithm of val.
exp(val)	Return the exponent of val.
min(val,val,n..)	Returns the minimum of the values within the parentheses.
max(val,val,n..)	Returns the maximum of the values within the parentheses.
ceiling(val, sig)	Returns value rounded up, away from zero, to the nearest multiple of significance. i.e. ceiling(4.42, 0.05) rounds prices up to the nearest 0.05 being 4.45.
floor(val, sig)	Rounds number down, toward zero, to the nearest multiple of significance. i.e. floor(4.37,0.05) rounds prices down to the nearest five cents being 4.35.

Built In Variables

Benchmark also defines some specific built in variables for use in Resource calculations.

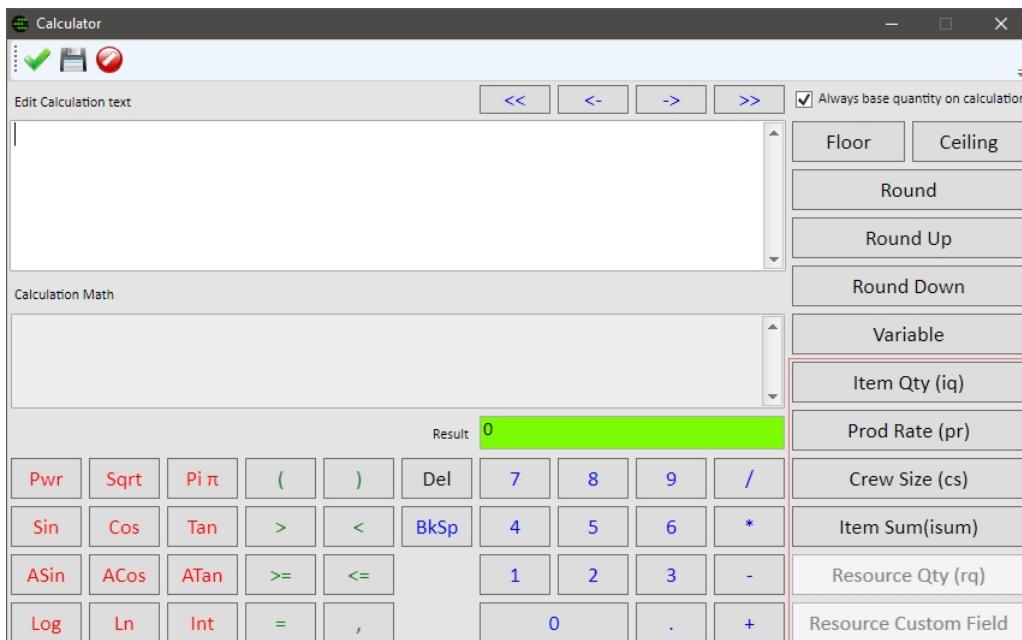


Figure 119: Built in Benchmark Variables

Item Quantity iq()

Defines the *Item Quantity*. This will be updated when the Item Quantity that this resource is contained within changes.

- iq() does not contain any value within the parentheses.
- example: iq()

Production Rate pr()

Defines either the *Item Production Rate* or the *Resource Production Rate* assigned to the Resource. This will be updated when either the Item Production Rate changes or the Resource Production Rate changes. If a Resource Production Rate is assigned, then this will be used instead of the Item Production Rate.

- pr() does not contain any value within the parentheses.
- A common use is iq() / pr() where the item quantity is divided by the production rate.

Crew Size cs()

Defines the *Crew Size* assigned to the current *Resource*. This will be updated when the crew size field is changed on the current *Resource*.

- cs() does not contain any value within the parentheses.

Resource Custom Field rcf("custom field name")

Defines the resource custom field. This will be updated when the custom field is changed on the current Resource or on the Resources included in the Item Sum.

- custom field name is the name of the field as defined in the [Administration](#) window.
- A common use is for assigning a density to a resource that can then be used in the calculator to get the weight or inversely the volume, i.e. rcf("Density") * volume.

Item Sum isum(val)

Defines the sum of all Resources above the current Resource.

- The value can be any calculation however it is most likely used with rq() and or rcf(). Resource Quantity can only be used with Item Sum.
- This can be used to get the total quantity of a group of resources.
- **Resource Quantity rq()**

Defines the *resource quantity*. This will be updated when the quantity is changed on resources included in the Item Sum.

- rq() does not contain any value within the parentheses.

Using isum(), rq() and *Resource Custom Fields* together offers a powerful tool. A good example of the use of these features is to automatically calculate the *painting cost for items of steel in a fabrication item*.

Example: Item Resources with a Resource Custom Field for *Surface Area*

Steel Circular Handrail

Steel Grate

Steel Square tube

Painting Steel

- Calculation = isum(rq()) * rcf("Surface Area")

- This calculation will sum all the resources above for Painting Steel by multiplying their quantity (`rq()`) with their custom field called surface area (`rcf("Surface Area")`).
- The result will be the total surface area to be painted.

Common Calculation Examples

1. Calculating the hours of Labour based on the Item Quantity and a Resource Production Rate.

Hours of Labour = Item Quantity (m^3) / Production Rate (m^3/hr)

Therefore, the calculation in Benchmark - *Labour Hours* = `iq() / pr()`

2. Calculating the tonnes based on the Item Quantity, a depth of 1.25 metres and a custom field ("density") with a value.

*Volume of Material (m^3) = Item Quantity (m^2) * depth (metres).*

*tonnes = Volume of Material * Density*

Therefore, the calculation in Benchmark - *tonnes* = `iq() * 1.25 depth * rcf("density")`

3. Calculating the No of Bags required based on the Item Quantity and the Amount per Bag 25kg.

No of Bags = Item Quantity (m^3) / Amount per Bag (m^3)

No of Whole Bags = round up (No of Bags)

Therefore, the calculation in Benchmark - *No whole bags* = `rndup(iq() / 25 kg)`

Use Resource Custom Fields in the Calculator

In the Resource Quantity **Calculator** window, you can use custom fields that have been enabled for calculations. These custom fields can then be added to calculations, including Item Sum. For more information, refer to **Built In Variables** (on page 173).

When Custom Fields are available for use, the Resource Custom Field button will be available in the **Calculator** window. Note: This button is only enabled when you satisfy these three conditions:

1. You have enabled *Resource Custom Fields* in **Administration**.
2. You have configured *at least one Resource Custom Field* for use in quantity calculations.
3. There is a value for the *Resource Custom Field* which is not zero, for the Resource you are editing (in the Project or Item Library).

When you select the Resource Custom Field button, Benchmark will display the Custom Fields available in the **Custom Field Selection** window.

To add a Resource Custom Field to a calculation:

1. Select the Resource and enter Edit mode by right-clicking and selecting Edit.
2. Click the Calculator button.
3. The **Calculation** window appears.

If you have a pre-existing calculation, move the cursor to the location to insert the Resource Custom field.

4. Click the Resource Custom Field button.
- a. If you have more than one custom field, the Custom Field Selection window will appear.
- b. Double-click a custom field to insert it into the calculation.

Benchmark inserts the syntax `rcf("CustomFieldName")` into your Calculation Text field and substitutes the value of the custom field into the Calculation Math field.

5. Click OK to close the **Calculator** window.
6. Click OK to finalise your Resource Edit operation.

Localised Calculator

When using regional settings, the calculator can be setup to use a comma instead of a decimal point for separating whole numbers from fractional numbers. For more information, refer to **Regional Settings and Calculations** (on page 305). When this feature is enabled there will be changes to the formatting of the functions within the calculator.



Figure 120: Localised Calculator

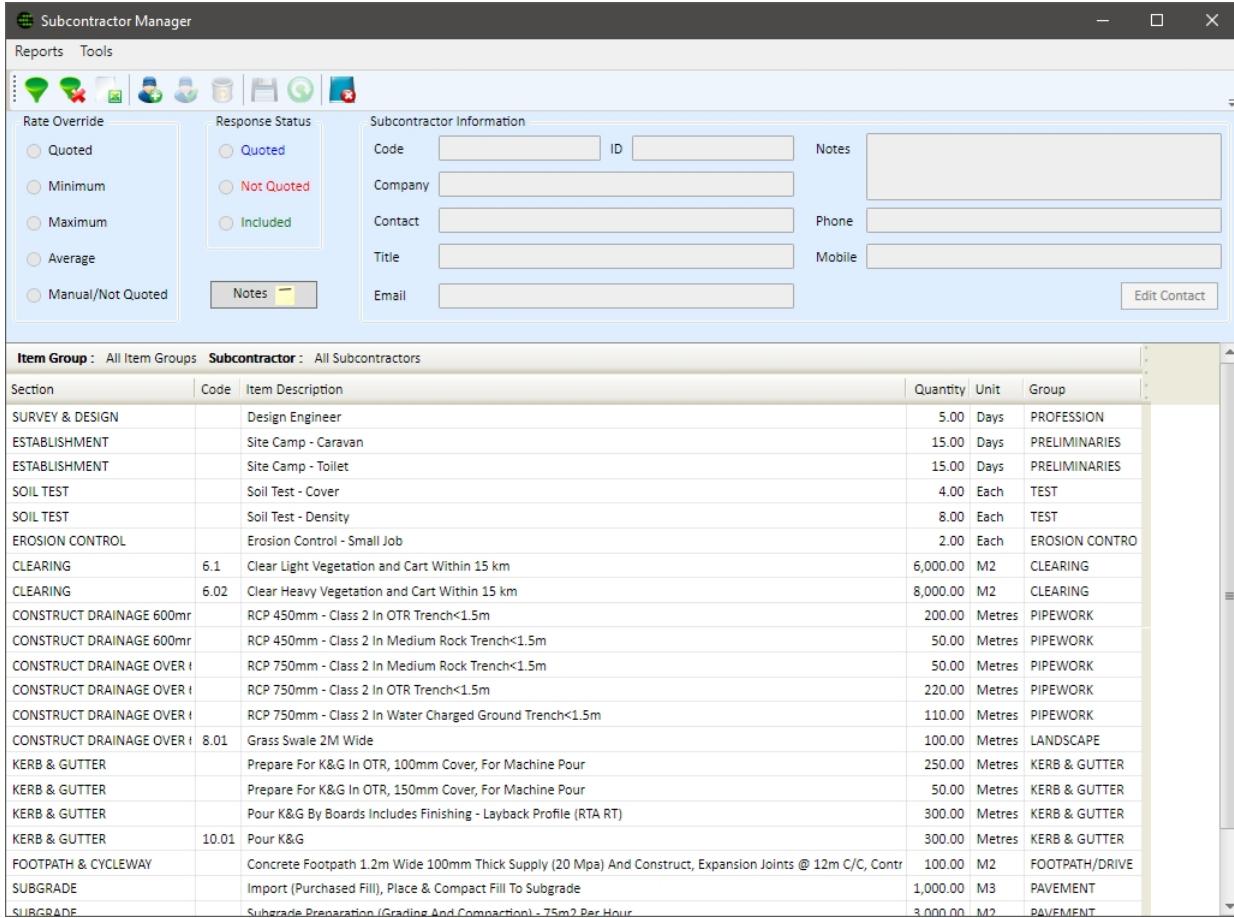
Modified syntax for functions

The syntax for several common calculator functions also changes when the localised calculation is enabled. The following are some examples of the impacted functions in the calculator and how they are now displayed and need to be entered when the localised calculation is enabled.

Function	Example of normal syntax	Equivalent localised syntax
Ceiling	ceiling(X.X,Y)	ceiling(X,X;Y)
Floor	floor(X.X,Y)	floor(X,X;Y)
IF	IF(A>X.X,B,C)	IF(A>X,X;B;C)
Power	pwr(X.X,Y)	pwr(X,X;Y)
Round	rnd(X.X,0)	rnd(X,X;0)
Round down	rndup(X.X,0)	rndup(X,X;0)
Round up	rntdown(X.X,0)	rntdown(X,X;0)

Use Subcontractor Manager to Import Contractor's Quotes

The Subcontractor Manager along with the Subcontractor Library allows you to compare and import subcontractors rates for your Project Items. When the Subcontractor Manager is first opened, all the Project Items from the Project are displayed. You can then filter your items, and export them to Excel for your Subcontractors to populate.



The screenshot shows the Subcontractor Manager interface. At the top, there are tabs for 'Reports' and 'Tools'. Below the tabs are several icons: a green checkmark, a red X, a blue square, a green triangle, a blue circle, a blue square with a checkmark, a magnifying glass, and a red X. On the left, there is a sidebar titled 'Rate Override' with options: Quoted (selected), Minimum, Maximum, Average, and Manual/Not Quoted. To the right of this is a 'Response Status' section with 'Quoted' (selected) and 'Not Quoted' (highlighted in red). Further right is the 'Subcontractor Information' section, which includes fields for Code, ID, Notes, Company, Contact, Phone, Title, Mobile, and Email, with an 'Edit Contact' button. Below these sections is a table titled 'Item Group : All Item Groups Subcontractor : All Subcontractors'. The table has columns for Section, Code, Item Description, Quantity, Unit, and Group. The data in the table is as follows:

Section	Code	Item Description	Quantity	Unit	Group
SURVEY & DESIGN		Design Engineer	5.00	Days	PROFESSION
ESTABLISHMENT		Site Camp - Caravan	15.00	Days	PRELIMINARIES
ESTABLISHMENT		Site Camp - Toilet	15.00	Days	PRELIMINARIES
SOIL TEST		Soil Test - Cover	4.00	Each	TEST
SOIL TEST		Soil Test - Density	8.00	Each	TEST
EROSION CONTROL		Erosion Control - Small Job	2.00	Each	EROSION CONTROL
CLEARING	6.1	Clear Light Vegetation and Cart Within 15 km	6,000.00	M2	CLEARING
CLEARING	6.02	Clear Heavy Vegetation and Cart Within 15 km	8,000.00	M2	CLEARING
CONSTRUCT DRAINAGE 600mr		RCP 450mm - Class 2 In OTR Trench<1.5m	200.00	Metres	PIPEWORK
CONSTRUCT DRAINAGE 600mr		RCP 450mm - Class 2 In Medium Rock Trench<1.5m	50.00	Metres	PIPEWORK
CONSTRUCT DRAINAGE OVER 1		RCP 750mm - Class 2 In Medium Rock Trench<1.5m	50.00	Metres	PIPEWORK
CONSTRUCT DRAINAGE OVER 1		RCP 750mm - Class 2 In OTR Trench<1.5m	220.00	Metres	PIPEWORK
CONSTRUCT DRAINAGE OVER 1		RCP 750mm - Class 2 In Water Charged Ground Trench<1.5m	110.00	Metres	PIPEWORK
CONSTRUCT DRAINAGE OVER 1	8.01	Grass Swale 2M Wide	100.00	Metres	LANDSCAPE
KERB & GUTTER		Prepare For K&G In OTR, 100mm Cover, For Machine Pour	250.00	Metres	KERB & GUTTER
KERB & GUTTER		Prepare For K&G In OTR, 150mm Cover, For Machine Pour	50.00	Metres	KERB & GUTTER
KERB & GUTTER		Pour K&G By Boards Includes Finishing - Layback Profile (RTA RT)	300.00	Metres	KERB & GUTTER
KERB & GUTTER	10.01	Pour K&G	300.00	Metres	KERB & GUTTER
FOOTPATH & CYCLEWAY		Concrete Footpath 1.2m Wide 100mm Thick Supply (20 Mpa) And Construct, Expansion Joints @ 12m C/C, Contr	100.00	M2	FOOTPATH/DRIVE
SUBGRADE		Import (Purchased Fill), Place & Compact Fill To Subgrade	1,000.00	M3	PAVEMENT
SUBGRADE		Subgrade Preparation (Grading And Compaction) - 75m ² Per Hour	3,000.00	M2	PAVEMENT

Figure 121: Subcontractor Manager Window

Filtering Your Subcontractor Items

The Subcontractor Manager allows you to filter your Project Items, for viewing and exporting.

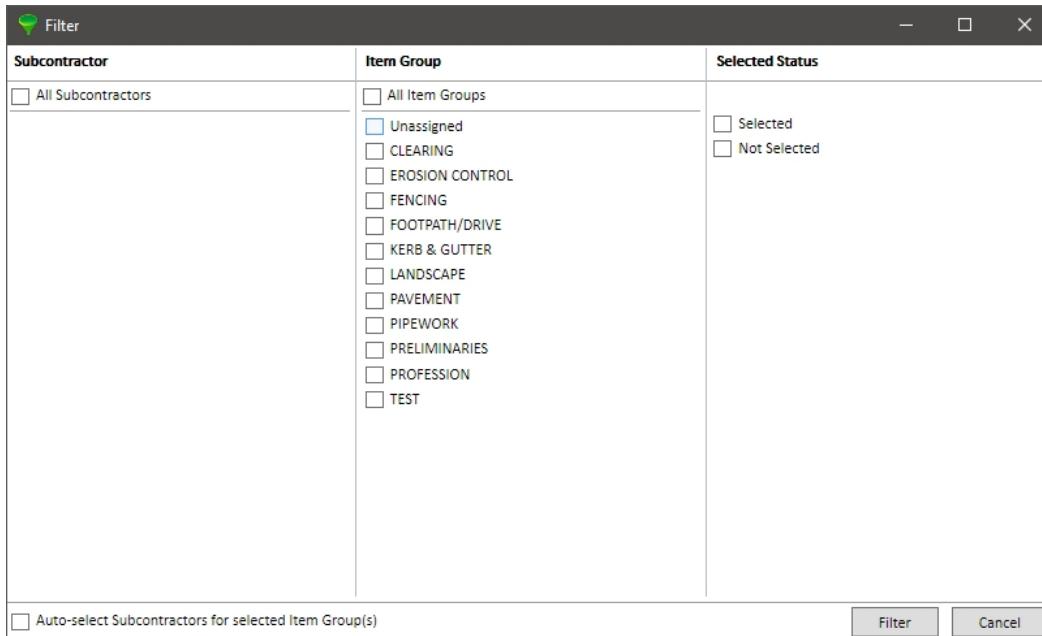


Figure 122: Subcontractor Filter Options

To apply a Filter:

1. In the **Subcontractor Manager** window, right-click and select Filter.
2. When the **Filter** window appears, you will be presented with the filter options
 - **Subcontractor**
Use this filter option to select individual Subcontractors, or select all Subcontractors.
 - **Item Group**
Use this filter option to select one or more Item Groups or select all Item Groups.
 - **Selected Status**
This filter allows you to select Select or Not Selected Subcontractor Item Rates. If both are unselected all will be shown.
 - **Auto-select Subcontractors for selected Item Groups**
This option will automatically select Subcontractors where the Subcontractor Rate is selected for the Groups set in the Item Group filter.
3. Click Filter to apply your change or Cancel to cancel the filter.

Assign Groups in the Subcontractor Manager

To Assign Group in the **Subcontractor Manager** window:

1. Select the *Item(s)* that you wish to assign a *Group* to.
2. Right-click and select Assign Group.

3. Double-click on the *Group* you wish to assign to these *Items*.



Figure 123: Assigning a Group in the Subcontractor Manager

4. Select Yes to confirm this operation.



Assigning Item Groups

Assigning an Item group in the Subcontractor Manager is the same as assigning a group in the [Project Items](#) Window. The Item group will be changed in the project and not just the [Subcontractor Manager](#) window.

Generate a Contractor's Estimate Worksheet

When you need to request Subcontractor quotes, Benchmark's Subcontractor Manager can export your Project Items into a formatted worksheet. You can then easily attach this spreadsheet when requesting the Subcontractors to provide a quote for Project works.

To export a Contractors Estimate Worksheet:

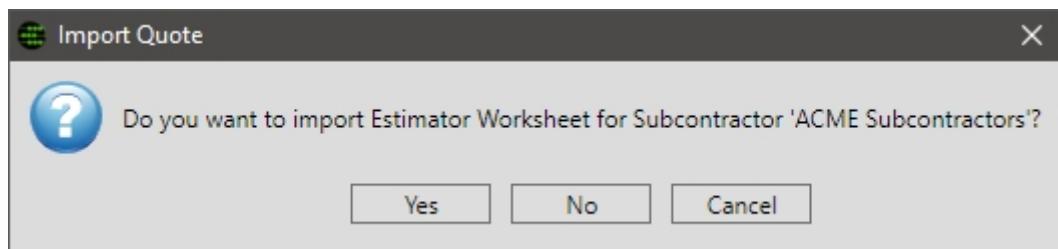
1. In the [Subcontractor Manager](#) window, apply the required filter.
2. Right-click and select Export Items to Excel.
3. Enter a **filename** and click Save.
4. Benchmark will then generate the spreadsheet based on the visible Items in the Subcontractor Manager.
5. The Spreadsheet will then open for review.

Import a Contractor Estimate Worksheet

Once your *Subcontractors* have emailed you their completed Contractor's Worksheet, the Subcontractor Manager can import the Item rates.

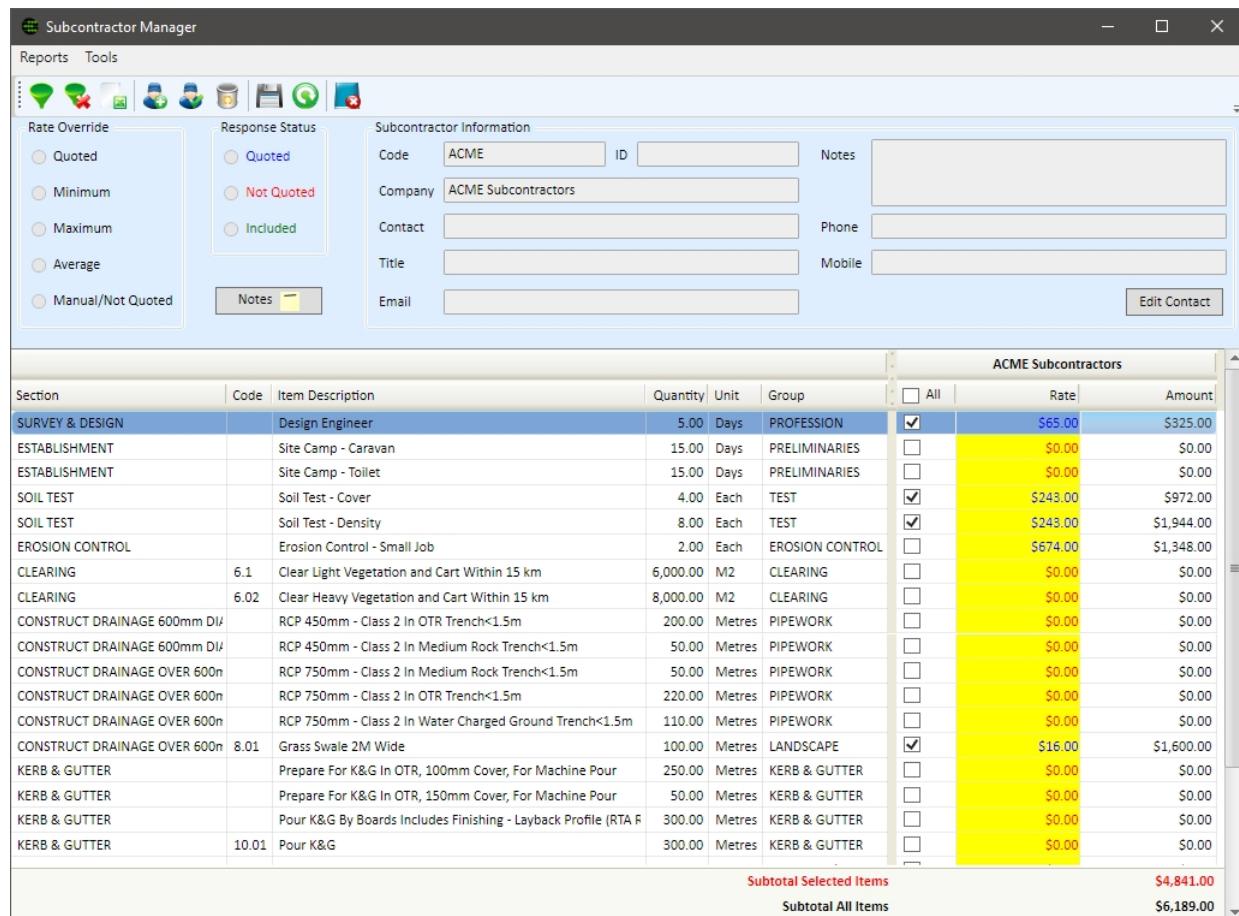
To import a Subcontractor's worksheet:

1. From within your Project, right-click and select Go To drop down and then select Subcontractor Manager.
2. Right-click and select Add Subcontractor.
3. In the **Subcontractor/Supplier Select** window, find and double click the *Contractor* you wish to use.
 - For Corporate version users, *Subcontractors* from the **Subcontractor/Supplier Library** are only available for selection if the *Subcontractor* is *available to all Regions (Global)* or if they are in the same Project Region.
4. Answer Yes to the confirmation prompt.



5. Select the *Subcontractor's worksheet* that this Subcontractor provided.
6. Repeat steps two to five until you have entered all the returned quotes into Benchmark.

You have loaded your Subcontractors' worksheets into the Subcontractor Manager



The screenshot shows the "Subcontractor Manager" application window. On the left, there are toolbars for Reports and Tools, and a toolbar with various icons. The main area has sections for "Rate Override" (Quoted, Minimum, Maximum, Average, Manual/Not Quoted) and "Response Status" (Quoted, Not Quoted, Included). To the right, "Subcontractor Information" fields include Code (ACME), ID, Notes, Company (ACME Subcontractors), Contact, Phone, Title, Mobile, and Email. A "Notes" button is also present. Below this is a large table titled "ACME Subcontractors" with columns for Section, Code, Item Description, Quantity, Unit, Group, All, Rate, and Amount. The table lists various construction tasks and their rates. At the bottom, there are subtotals for "Subtotal Selected Items" (\$4,841.00) and "Subtotal All Items" (\$6,189.00).

ACME Subcontractors						
Section	Code	Item Description	Quantity	Unit	Group	
SURVEY & DESIGN		Design Engineer	5.00	Days	PROFESSION	<input checked="" type="checkbox"/> \$65.00 \$325.00
ESTABLISHMENT		Site Camp - Caravan	15.00	Days	PRELIMINARIES	<input type="checkbox"/> \$0.00 \$0.00
ESTABLISHMENT		Site Camp - Toilet	15.00	Days	PRELIMINARIES	<input type="checkbox"/> \$0.00 \$0.00
SOIL TEST		Soil Test - Cover	4.00	Each	TEST	<input checked="" type="checkbox"/> \$243.00 \$972.00
SOIL TEST		Soil Test - Density	8.00	Each	TEST	<input checked="" type="checkbox"/> \$243.00 \$1,944.00
EROSION CONTROL		Erosion Control - Small Job	2.00	Each	EROSION CONTROL	<input type="checkbox"/> \$674.00 \$1,348.00
CLEARING	6.1	Clear Light Vegetation and Cart Within 15 km	6,000.00	M2	CLEARING	<input type="checkbox"/> \$0.00 \$0.00
CLEARING	6.02	Clear Heavy Vegetation and Cart Within 15 km	8,000.00	M2	CLEARING	<input type="checkbox"/> \$0.00 \$0.00
CONSTRUCT DRAINAGE 600mm Dia		RCP 450mm - Class 2 In OTR Trench<1.5m	200.00	Metres	PIPEWORK	<input type="checkbox"/> \$0.00 \$0.00
CONSTRUCT DRAINAGE 600mm Dia		RCP 450mm - Class 2 In Medium Rock Trench<1.5m	50.00	Metres	PIPEWORK	<input type="checkbox"/> \$0.00 \$0.00
CONSTRUCT DRAINAGE OVER 600n		RCP 750mm - Class 2 In Medium Rock Trench<1.5m	50.00	Metres	PIPEWORK	<input type="checkbox"/> \$0.00 \$0.00
CONSTRUCT DRAINAGE OVER 600n		RCP 750mm - Class 2 In OTR Trench<1.5m	220.00	Metres	PIPEWORK	<input type="checkbox"/> \$0.00 \$0.00
CONSTRUCT DRAINAGE OVER 600n		RCP 750mm - Class 2 In Water Charged Ground Trench<1.5m	110.00	Metres	PIPEWORK	<input type="checkbox"/> \$0.00 \$0.00
CONSTRUCT DRAINAGE OVER 600n	8.01	Grass Swale 2M Wide	100.00	Metres	LANDSCAPE	<input checked="" type="checkbox"/> \$16.00 \$1,600.00
KERB & GUTTER		Prepare For K&G In OTR, 100mm Cover, For Machine Pour	250.00	Metres	KERB & GUTTER	<input type="checkbox"/> \$0.00 \$0.00
KERB & GUTTER		Prepare For K&G In OTR, 150mm Cover, For Machine Pour	50.00	Metres	KERB & GUTTER	<input type="checkbox"/> \$0.00 \$0.00
KERB & GUTTER		Pour K&G By Boards Includes Finishing - Layback Profile (RTA F	300.00	Metres	KERB & GUTTER	<input type="checkbox"/> \$0.00 \$0.00
KERB & GUTTER	10.01	Pour K&G	300.00	Metres	KERB & GUTTER	<input type="checkbox"/> \$0.00 \$0.00

Figure 124: Subcontractor Assigned in the Subcontractor Manager

Managing Subcontractor Rate Overrides and Statuses

The Subcontractor Manager also includes some additional tools for managing your Subcontractor Rates. These include:

➤ **Rate Override**

The Rate Override works on the currently selected Subcontractors and the selected rows.

With these options you can change the currently selected subcontractors' rates to :

- **Quoted** - which is the value that was imported if you loaded a Contractor's worksheet.
- **Minimum** - which is the minimum value across all subcontractors for the currently selected row.
- **Maximum** - which is the maximum value across all subcontractors for the currently selected row.
- **Average** - which is the average value across all subcontractors for the currently selected row.
- **Manual / Not Quoted** - which is an indicator showing the rate for the currently selected subcontractor has been manually entered.

➤ **Response Status**

- **Quoted** - this visual indicator, means the rate was quoted by the Subcontractor. This is automatically set when a Contractor's worksheet is loaded.
- **Not Quoted** - this visual indicator, means the rate has not been quoted by a subcontractor. This value is assigned if the rate is typed in manually.
- **Included** - this visual indicator means the current item is included in another Quoted Item. This can only be set manually.

Selecting Subcontractor Rates

In the **Subcontractor Manager** window, you can *select* quoted rates in the following ways:

- Individually marking each check box.
- Clicking the All check box at the top for the Subcontractors' Rates.
- Right-clicking and selecting Select All Priced Items.

Alternatively, you can clear the selected rates for a Subcontractor by:

- Right-clicking and selecting Clear All Items.
- Clicking the All check box to select all the rates, then clicking the All check box again to clear all rates.

In the lower part of the **Subcontractor Manager** window, you will see the Total Selected Items for each Subcontractor.

Accept a Subcontractor's Quote

Accepting a *Subcontractor's Quote* will automatically incorporate the *Subcontractor's quote* into your estimate. The Subcontractor Manager does this by adding a *Resource* to each *Item* that you have accepted.

To accept a *Subcontractor's quotation*:

1. Select the *Subcontractor*; the subcontractor information at the top of the window indicates the selected Subcontractor.
2. There are two ways you can accept a quote.
 - You can right-click and select Accept (Contractor's Name) Quote.

This will accept the currently selected item rates greater than zero and process these into the project.

- You can right-click and select Select all Priced Items and Accept (Contractor's Name) Quote

This will mark all Item rates greater than zero and accept the Subcontractor quote.

The *Contractor's Name* is the name you have defined for your selected contractor in the **Subcontractor/Supplier Library**.

3. The **Subcontractor Acceptance Options** window will be shown, select your desired options.

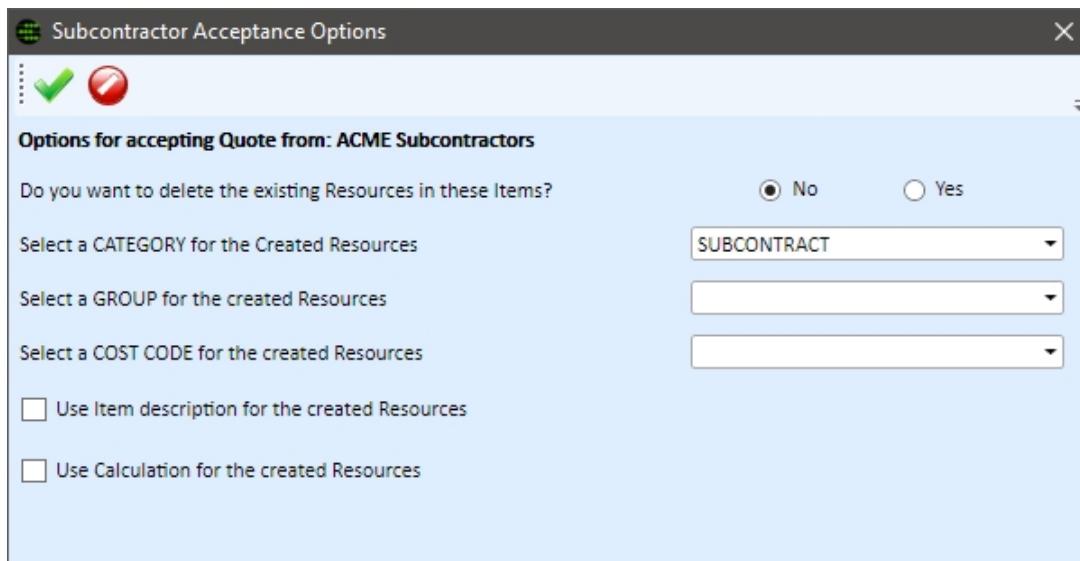


Figure 125: Accept Subcontractor Options

- **Do you want to delete the existing Resources in these Items?**
 - If you select No, the Resources that exist in these Items are retained, and a Resource for this Subcontractor's quote is appended.
 - If you select Yes, all Resources will be deleted within the Items and replaced with one Resource for this Subcontractor's quote.
- **Select a CATEGORY for the created Resources**

- *This is mandatory.* If you are getting quotes for Materials (e.g. Pipes) you would select MATERIALS. If you were getting quotes from Subcontractors to conduct the Supply and Installation, for example, you could select SUBCONTRACT.
 - **Select a GROUP for the created Resources**
 - Select a GROUP (e.g. PIPEWORK or LANDSCAPING). This is not mandatory however it is recommended. Selecting this will give the Resources a GROUP and result in better reporting.
 - **Select a COST CODE for the created Resources**
 - Select a COST CODE. This is not mandatory and only required if you export your Resources by Cost Code or wish to use Cost Codes in exports to other business systems.
 - **Use Item description for the Resources created**
 - *No is recommended.* If you select No, every Resource in each Item will have the same description (e.g. Quoted by "Contractor's Name").
 - If you select Yes, the Resource that is created within each Item will have the same description as the Item.
 - **Use Calculation for the created Resources**
 - If you check this option, then all Resources created by the Subcontractor Manager will have a default Resource quantity calculation assigned.
 - To edit the calculation, select the Edit Calculation button.
 - If you use the same calculation over and over again, you can set up a default calculation in the Estimator Library.
 - Advanced users can use Project Variables in the default calculation and in the project specific calculations. The Project Variables you use in a Project can be contained in the Project, or come from the Variable Library.
4. Select OK.
 5. If you would like to accept other Subcontractor Quotes, you will need to repeat steps one to four for each Subcontractor.

Run a Routine in your Project

Routines are expressions that allow the user to input *Quantities* relevant to the particular bid, and the *Routine* can generate *Sections*, *Items* and/or *Resources*. There is no longer a one to one relationship – you can work on *one Routine* and generate *many Items*. You can also run *many Routines* within the *one Project* and use them in combination with any other Benchmark function.

There are three different levels of Routines:

- **Project Routines** create *Sections*, *Items* and *Resources*. To run a *Project Routine*, you must first create a *Project*. You can only run *Project Routines* from the **Project Details** window.

- **Section Routines** create *Items* and *Resources*. To run a *Section Routine*, you must first create a *Section* in a Project. You can only run *Section Routines* from the **Project Sections** window.
- **Item Routines** create *Resources*. To run an *Item Routine*, you must first create an *Item* in a **Project Section**. You can only run *Item Routines* from the **Project Items** window.

To run a Routine:

1. From the **Project Details/Section/Item** window, right-click and select Routine to display the *available Routines for this level*. For example, you select Routine from the **Project Sections** window to display the *Section level Routines*.

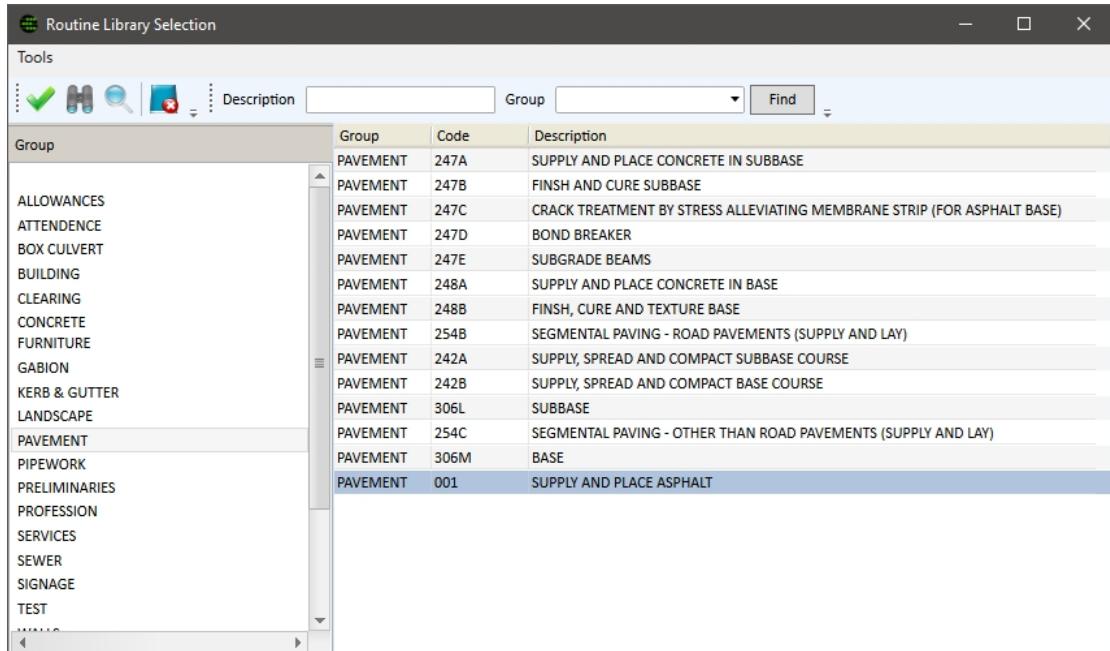
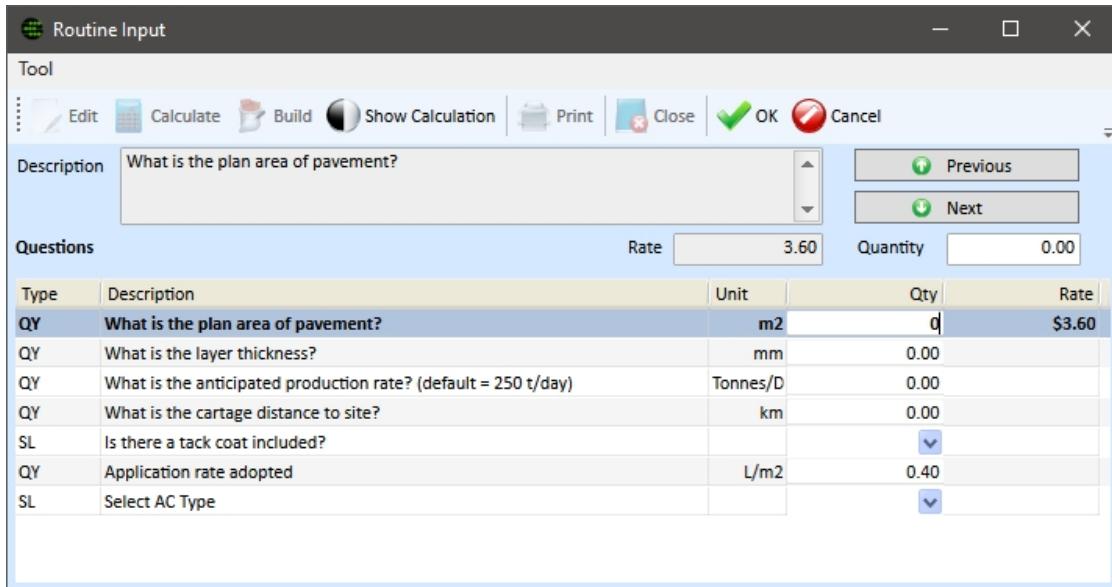


Figure 126: Routine Library Selection Window

2. Double-click on the *Routine* you want to run to display the **Routine Input** window, with the cursor in the first *Quantity* field.



The screenshot shows the 'Routine Input' dialog box. At the top, there's a toolbar with buttons for Edit, Calculate, Build, Show Calculation, Print, Close, OK, and Cancel. Below the toolbar, the 'Description' field contains the text 'What is the plan area of pavement?'. To the right of this field are 'Previous' and 'Next' buttons. The main area is titled 'Questions' and contains a table with columns for Type, Description, Unit, Qty, and Rate. The first question, 'What is the plan area of pavement?', is selected and has 'm2' in the Unit column, '0.0' in the Qty column, and '\$3.60' in the Rate column. Other questions listed include 'What is the layer thickness?' (mm), 'What is the anticipated production rate? (default = 250 t/day)' (Tonnes/D), 'What is the cartage distance to site?' (km), 'Is there a tack coat included?' (dropdown), 'Application rate adopted' (L/m2), and 'Select AC Type' (dropdown). There are also buttons for 'Rate' and 'Quantity' at the top of the table.

Figure 127: Routine Input Window

3. Type in the answer to each question (TAB or the Next button will move to the next question).
4. When you have completed answering all the questions, select OK.
5. Select Build.
 - When the Routine is built, if a Section already exists you will be prompted on how this should be handled:
 - Yes, Yes to All; will add the new items to the existing items.
 - No, No to All; will replace the current items with the new items.
6. Benchmark adds *Sections and/or Items and/or Resources* to your Project. Press CTRL+1 to go to the next level down in your Project and see what the *Routine* has added to your Project. You can now edit the details of your estimate if you need to make any Project specific changes.



Only Create Sections when Items are created

By default, routines will generate Sections even when there are no Items generated in the Section. You can change this default behaviour in the **Administration** window. For more information, refer to **Customise Administration Settings** (on page 288)



Routines and Regionalisation

You can only select a *Routine* from the **Routine Library** if it belongs to the *same Region as the Project* or is a *Global Routine* (and therefore available to *all Regions*).



Calculations

If you select Calculate before you select Build, Benchmark will perform the *calculations* in the *Routine*. Then you can review these calculation results *before building the Routine*. You can use the Show/Hide Calculations feature to hide or show the calculations.

Run a Power Routine in a Project

The Power Routine function is ideal for tenders where there are *many Items* and where *each Item is very similar*. The Power Routine function runs the *same Routine multiple times - once for each Item*. You use rows of data in a spreadsheet to provide the answers to the questions from the *Routine*.

You can run a *Power Routine* from the *Project, Section or Item* level of a Project. It can create *Sections and Items, or Items only* in an existing *Section*. The Power Routine will allocate Resources to each Item it creates based on the parameters in the spreadsheet.

To run a Power Routine, you need to:

1. Create an *Item Level Routine*.
2. Create a *spreadsheet template*.

You must construct the spreadsheet template to contain answers to the questions in the *Routine*.

Create Input for Power Routines that Create Sections and Items

The Routine Input spreadsheet requires the following columns to be setup to create Sections and Items.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF		
1	Section/Item		Description		Unit	Area to be sealed (m ²)																												
2	1	Code				Production Rate																												
3		Berry				Unit for Production Rate																												
4	1.1	Bong Bong Road	M2	5000		Item Key																												
5	1.2	Queen Street	M2	2000		Item Activity																												
6	1.3	Alfred Street	M2	6000			Item Group																											
7	1.4	Victoria Street	M2	10000			Item Depot																											
8	1.5	North Street	M2	500				Area to be sealed (m ²)	Aggregate Size - Treatment #1																									
9		Nowra						Application Rate - Treatment #1																										
10									Area to be sealed per visit?																									
11									Distance to site (km)																									
12									What size crew is required? (10, 11 or 12 man crew)																									
13									Hours per day?																									
										Accommodation - Number of nights required?																								
										Forrmaine Life																								
										Sign / Broom Truck																								
										Sprayer																								
										Tractor Broom																								
										Trailers																								
										Prime Mover																								
										Aggregate Loader																								
										Multi Tyred Roller																								
										Bitumen Bulkier																								
										Koro Bulkier																								
										Hire Tippers																								
										Hire Rollers																								
										Suction Sweeper																								

Figure 128: Power Routine Sheet Setup Example

The columns shown in the image above refer to the following table:

COLUMN	NAME	COMMENTS
Column A	Section Code	Designates creation of a Section. A value creates a Section; an empty cell assumes an Item is to be created.
Column B	Item Code	The Item code that is created for that Item in the Project Items window.
Column C	Description	The Section or Item Description that is to appear in the Benchmark Project.
Column D	Unit	The Unit for the Item that is being created.
Column E	Quantity	The Quantity for the Item that is being created.
Column F	Production Rate	The Production Rate for the Item that is being created. This column must be in the spreadsheet but may be empty.
Column G	Unit for Production Rate	The Unit for the Production Rate for the Item that is being created. This column must be in the spreadsheet but may be empty.
Column H	Item Key	The Key field for the Item that is being created. This column must be in the spreadsheet but may be empty.

COLUMN	NAME	COMMENTS
Column I	Item Activity	The Activity field for the Item that is being created. This column must be in the spreadsheet but may be empty.
Column J	Item Group	The Item Group for the Item that is being created. This column must be in the spreadsheet but may be empty.
Column K	Item Depot	The Item Depot for the Item that is being created. This column must be in the spreadsheet but may be empty.
Column L	Question 1	Answers to the first question in the Routine. Note that if the first question in the Routine is the Item quantity, then the Item quantity column must be duplicated in the spreadsheet.
Column M to IV	Remaining Questions	Answers to the second question onwards in the Routine used.

Table 15: Column Descriptions for Power Routines Layout Spreadsheet

Create Input for Power Routines that Create Items only

If a *Power Routine* is to create *Items only* (that is, you already have a *Section* in your Project), then the *Section Code* column and *Section rows* should *not* be included in the spreadsheet.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
1	Code	Description	Unit	Area to be sealed (m ²)	Production Rate	Unit for Production Rate	Item Key	Item Activity	Item Group	Item Depot	Area to be sealed (m ²)	Aggregate Size - Treatment #1	Application Rate - Treatment #1	Area to be sealed per visit?	Distance to site (km)	What size crew is required? (10, 11 or 12 man crew)	Hours per day?	Accommodation - Number of nights required?	Foreman's Lite	Sign / Broom Truck	Sprayer	Tractor Broom	Trailers	Prime Mover	Aggregate Loader	Multi Tyred Roller	Blumen Bulker	Kero Bulker	Hire Tippers	Hire Rollers	Suction Sweeper
2	1.1	Bong Bong Road	M2	5000					SPRAY SEALING		5000	10	1.6	5000	40	11	8	0	1	1	1	1	1	2	1	1	4	0	0		
3	1.2	Queen Street	M2	2000					SPRAY SEALING		2000	7	1.6	2000	40	10	8	0	0	1	1	1	1	1	2	1	1	4	0	0	
4	1.3	Alfred Street	M2	6000					SPRAY SEALING		6000	14	1.6	6000	40	12	8	0	1	1	1	1	1	1	2	1	1	4	0	0	
5	1.4	Victoria Street	M2	10000					SPRAY SEALING		10000	14	1.6	5000	40	12	8	0	0	1	1	1	1	1	2	1	1	4	0	0	
6	1.5	North Street	M2	500					SPRAY SEALING		500	7	1.6	500	40	10	8	0	0	1	1	1	1	1	2	1	1	4	0	0	

Figure 129: Example Power Routine Import Sheet

Run a Power Routine to create Sections and Items

To run a *Power Routine* from a spreadsheet that contains *Sections*:

1. Open the [Project Details](#) or [Project Sections](#) window.
2. Right-click and select Power Routine, to open the [Open Excel Spreadsheet](#) window.
3. Select the *spreadsheet* to import.
4. Select the *worksheet* that contains your data.

5. Double-click the *Routine* to run, to display the mapping window.
6. Click the drop-down field next to any columns that don't match the corresponding Power Routine question, then select the correct Question.

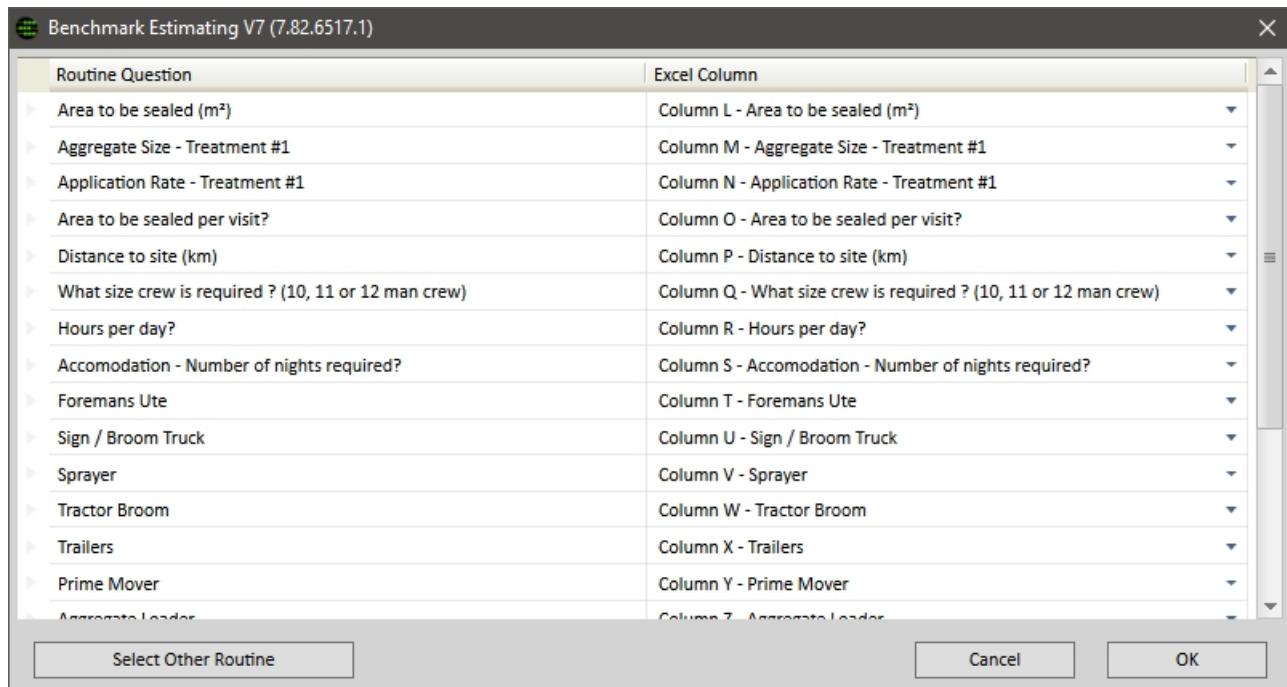


Figure 130: Power Routine Question Mapping Window

7. Select OK to run the *Power Routine*.
8. The *Power Routine* adds the *Sections*, *Items* and *Resources* to your Project.

Run a Power Routine that creates Items only

To run a *Power Routine* from a spreadsheet that *only contains Items*:

1. Open the **Project Items** window.
2. Right-click and select **Power Routine**, to open the **Open Excel Spreadsheet** window.
3. Select the *spreadsheet* to import.
4. Select the *worksheet* that contains your data.
5. Double-click the *Routine* to run, to display the mapping window

6. Click the drop-down field next to any columns that don't match the corresponding *Power Routine* question, then select the correct *Question*.

Routine Question	Excel Column
Area to be sealed (m ²)	Column L - Area to be sealed (m ²)
Aggregate Size - Treatment #1	Column M - Aggregate Size - Treatment #1
Application Rate - Treatment #1	Column N - Application Rate - Treatment #1
Area to be sealed per visit?	Column O - Area to be sealed per visit?
Distance to site (km)	Column P - Distance to site (km)
What size crew is required ? (10, 11 or 12 man crew)	Column Q - What size crew is required ? (10, 11 or 12 man crew)
Hours per day?	Column R - Hours per day?
Accomodation - Number of nights required?	Column S - Accomodation - Number of nights required?
Foremans Ute	Column T - Foremans Ute
Sign / Broom Truck	Column U - Sign / Broom Truck
Sprayer	Column V - Sprayer
Tractor Broom	Column W - Tractor Broom
Trailers	Column X - Trailers
Prime Mover	Column Y - Prime Mover
Aggregate Loader	Column Z - Aggregate Loader

Figure 131: Power Routine Question Mapping Window

7. Select OK to run the *Power Routine*.
 8. The *Power Routine* adds the *Items* and *Resources* to your Project.

Use Cartage in a Project

In Benchmark there is a special form of *Resource* called *Cartage*. The *Cartage Resource* is often used to describe the transport of material from a stockpile or depot, to a work site. The value of this *Resource* can vary according to the *quantity* and *distance* to be transported. Consequently, this *Resource* is often not just given a *rate per unit*, but often a *rate per unit per unit*. For example, you may describe Cartage as a *price per tonne per km*.

Typically, material costs vary depending on the distance they need to be delivered to a site. This is particularly relevant to the cost of *material Resources* such as *asphaltic concrete, road base and gravels*. These *Resources* have a base cost for the material, *ex-bin*, and in addition, the cost of *Cartage* is added.

To use the Cartage feature, you must check the *Use Cartage* checkbox in the **Administration** window. For more information, refer to **Customise Administration Settings** (on page 288).

Enter a Cartage Distance

If the *Cartage distance* in a project is the same *throughout all the Sections* of the project, then you can enter the *Cartage distance* in the **Project Details** window. Then when you open up any lower level such as *Section*, *Item*, or *Resource*, the *Cartage distance* will automatically be inserted into the appropriate field. Alternatively, Cartage distance can be assigned to specific Items or Sections.

Cartage Distance can be entered at either the:

- **Project Details** Window; the cartage distance will apply to the entire project.
- **Project Sections** Window; the cartage distance can be specific to each Section.
- **Project Items** Window; the cartage distance can be specific to each Item.

If any *Section* or *Item* in this Project contains a *Cartage-based Resource*, then the *cost* of the *Resource* is automatically calculated (as described later), for the *Cartage distance* nominated at the Project level.

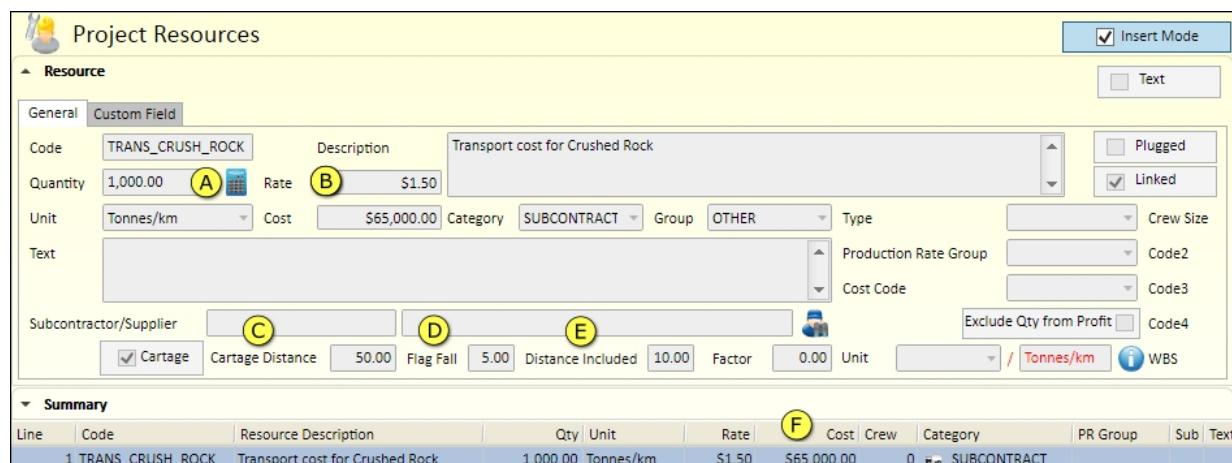
How the Cartage Cost is Calculated

Cartage is often calculated as a *rate per unit per unit*, for example *per tonne per kilometre (R)*. Sometimes there is a *flag fall* or *base price per tonne*, that is not related to the distance to be travelled (**F**). You can think of this as a *minimum fee per tonne* (for example, for *Cartage*). Often this flag fall includes a certain *Cartage distance*, known as the *Distance Included (DI)* before the further *Cartage rate (R)* applies. If the quantity of the *Resource* to be transported is **Q**, and the *distance* to be carted is **D**, then the *cost of the Cartage Resource* can be calculated as:

Cost

$$= [\text{Quantity in tonnes} \times \text{Rate per tonne-km} \times (\text{Cartage Distance} - \text{Distance Included})] + [\text{Quantity in tonnes} \times \text{Flag Fall}]$$

The example above uses *tonne-km*, however, the unit can be different if required, and the formula remains the same.



Line	Code	Resource Description	Qty	Unit	Rate	F	Cost	Crew	Category	PR Group	Sub	Text
1	TRANS_CRUSH_ROCK	Transport cost for Crushed Rock	1,000.00	Tonnes/km	\$1.50	\$65,000.00	0		SUBCONTRACT			

Figure 132: Example Cartage Resource

The screen shot above shows you an example of a *cartage-based Resource*. **Note:** The *Cost* here is not just *Quantity * Rate*; it uses the calculation above which equates to:

- (A) Quantity in tonnes = 1000 t
- (B) Rate per tonne-km = \$ 1.5
- (C) Cartage Distance = 50 km
- (D) Flag Fall = \$5
- (E) Distance Included = 10 km

Cost

$$\begin{aligned}
 &= (1000 * 1.5 * (50 - 10)) + (1000 * 5) \\
 &= 60000 + 5000 \\
 &= 65000 (\text{F})
 \end{aligned}$$

Add Cartage Based Resources to a Project

When you add a *Resource* to a Project, Benchmark will read the *Cartage Distance* for the *Item* the *Resource* is in and use this distance to work out the *cost of the Cartage Resource*. If the *Item* does not have a *Cartage distance*, the user can type one in for the *Resource* they are adding.

To enter the *Cartage data* for a Resource:

1. Create a new Resource for Cartage.
2. Enter a *Code* and *Description*.
3. The *Quantity* should be the total quantity of the material to transport.
4. The *Rate* should be the cost per one unit of the quantity per one unit distance (i.e. the cost per tonne per km).
5. Select a *Category* and *Group*.
6. Check the *Cartage* checkbox to display the additional cartage fields.
7. Enter a *Cartage Distance*.
8. Enter a *Flag Fall* and the included distance for the flag fall.
9. Right-click and select OK.

Forecast Quantities overview

The Forecast Quantities feature is only for advanced users, for specific Projects.

Forecast Quantities are very useful for projects where you need to price a Client's *Bill of Quantities*, and you believe that some of the *Item Quantities* are incorrect. Estimators can use Forecast Quantities to model what they think will *really* happen on a Project, thus obtaining more accurate *Item Submission Rates* and helping the business achieve greater profits.



Enable Forecast Quantities

Before you can use Forecast Quantities in a Project, you must enable the feature for each user in the [Estimator Library](#).

For more information, refer to [**Enter Access and Project Authorisation Levels**](#) (see "[Library and Feature Permissions](#)" on page 337).

When an Estimator, who has access to Forecast Quantities, starts a Project, Benchmark prompts them to use Forecast Quantities for that Project. If they answer Yes, the *Forecast Quantity* checkbox in the **Project Details** window → Project Data tab is checked, and Forecast Quantities is enabled for the Project.

When you estimate Projects based on Forecast Quantities, this results in the following functionality and user interface changes within a Project:

- First and foremost, each *Direct Cost Item* in the estimate will have *two Quantity fields*, one for *Forecast Qty* and one for *Contract Qty*. Both of these fields are mandatory. If the user thinks the *Contract Quantity* value is incorrect they would enter the *different quantity value* into the *Forecast Qty* field.
- All *Direct Cost* calculations and reports (excluding *Quote* and *Progress Claim* reports) are based on the *Forecast Quantity* values.
- The **Spread** window changes significantly to display more data about the *Contract and Forecast Quantity scenarios*, offering the advanced user significant data to help them make decisions on their *Submission Rates*.
- The *Spread calculations* use the *Forecast Quantity values* to calculate the *Item Submission Rates*.
- All *Quotes* display the *Contract Quantity values* as this is what is conveyed to your *Client*. On the *Quotes*, the *Submission Amounts* for each *Item* are calculated based on the *Contract Quantity values*, and the *Item Submission Rates* which are based on the *Forecast Quantity values*. This means that the *Submission Price* you submit to your *Client* for a Project based on *Contract Quantities* may not equal the *Submission Price* you see on the **Project Details** window (which is based on *Forecast Quantities*).
- A checkbox called *Forecast* is activated on both the **Project Sections** and **Project Items** windows.
 - Any Section or Item marked as *Forecast* are included in the Project calculations and therefore *Submission Rate calculations*, however, these Sections/Items **are not** displayed on any *Quotes* or *Progress Claim* reports.

This allows the Contractor to effectively include additional Items that they think their Client may have missed. The result of this is that these *additional* Items can contribute towards the resultant *Submission Rates* calculated by the system.



Forecast Qty and Contract Qty values

When using Forecast Quantities, Benchmark features such as Load Spreadsheet and Add Item from Library and Routines will automatically populate the *Forecast Qty* and *Contract Qty* fields with the same initial values as entered by the user, or loaded from the spreadsheet.

Profit, Indirect Costs and adjusting your Spread

This chapter describes how to setup Profit and Indirect Costs (Contingencies and Overheads). It also explains how to manipulate the spread of your Profit and Indirect Costs over Direct Cost Items.

- *Profit (Margin)* refers to the money you will make on your Project.
- *Indirect Costs* refer to your *Overheads* and *Contingencies*.

Benchmark calculates your *Profit and Indirect Costs* and spreads these calculated amounts across the *Direct Costs* of a Project on an *Item by Item* basis. This is how Benchmark calculates the *Submission Price* for each *Item* and for the *Project*.

Using the Project Extras

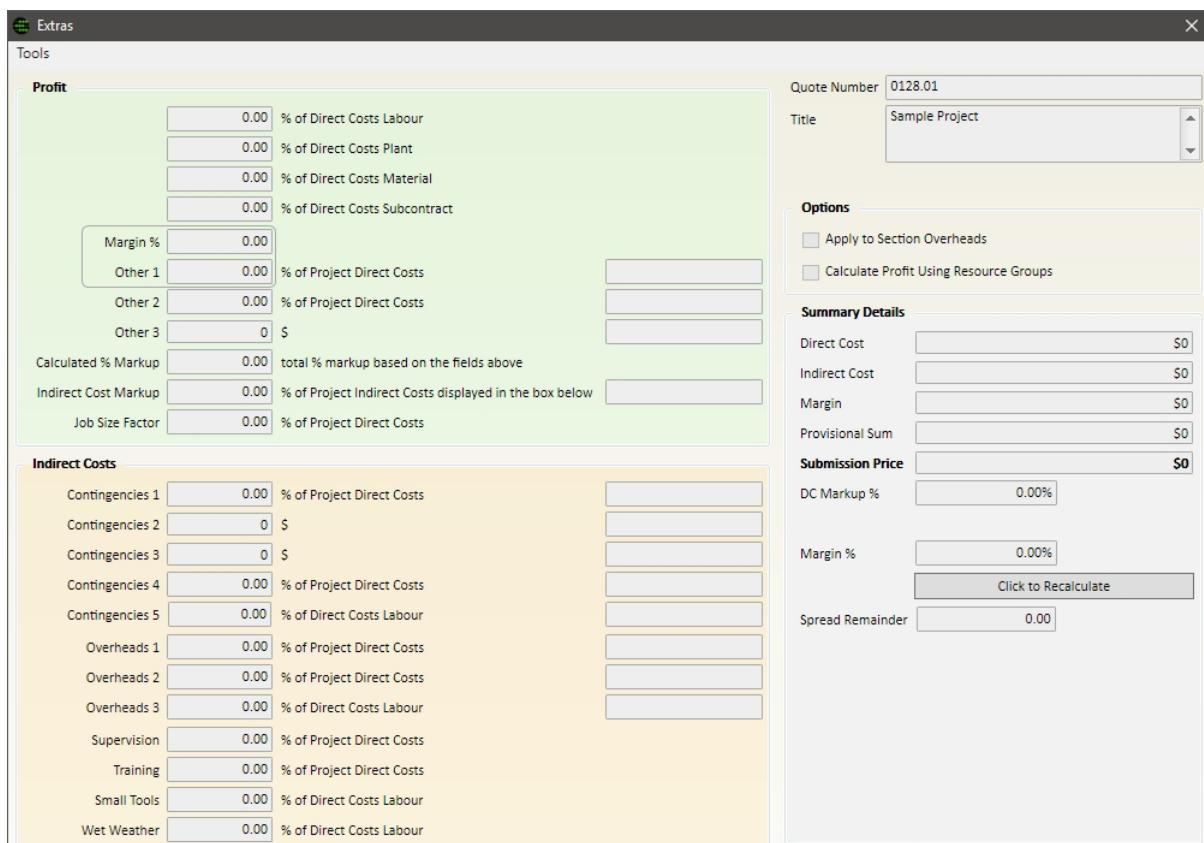


Figure 133: Project Extras Window

Add Profit

Profit (Margin) refers to the money you will make on your Project.

The Benchmark system allows you to allocate *Profit* in a variety of different ways to suit your business and to help you produce a more competitive tender:

- You can allocate an overall *Project Profit* as a *percentage*.

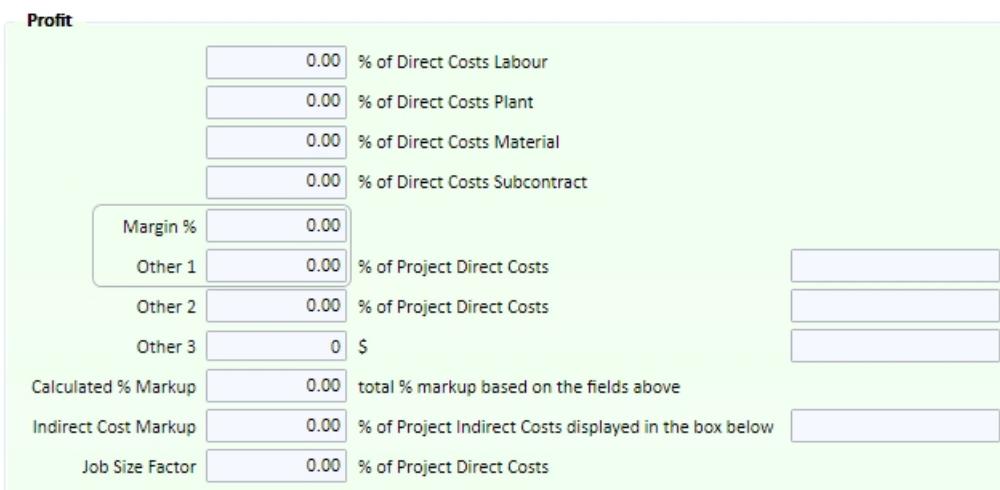
- You can allocate an overall *Project Profit* as a *monetary amount*.
- You can allocate a *separate percentage Profit* for your *Labour, Plant, Material* and *Subcontract* components, or you can allocate a *separate percentage Profit* for the different *Resource Groups* in your Project (for example, *Concrete, Pipes, Internal Plant, External Plant, Electrical, Sand*, etc).

You may ask "Why would you vary the Profit percentage according to the type of Expenditure?" The answer is, to make your estimate more competitive.

If you were bidding a Project containing a very high percentage of *Materials* that you do not have much work associated with, you may allow only a very *small percentage of Profit* on *Materials*. If your contract has a *large Subcontract component*, and you have *good Subcontractors* who require *minimal attendance* by your staff, you could allow a *very low figure for Profit* in the *Subcontract* field.

To allow for *Profit*:

1. In the **Project Details** window, right-click and select **Extras**, to display the **Extras** window.
2. Right-click and select **Edit**.



Profit		
0.00	% of Direct Costs Labour	
0.00	% of Direct Costs Plant	
0.00	% of Direct Costs Material	
0.00	% of Direct Costs Subcontract	
Margin %	0.00	
Other 1	0.00	% of Project Direct Costs
Other 2	0.00	% of Project Direct Costs
Other 3	0	\$
Calculated % Markup	0.00	total % markup based on the fields above
Indirect Cost Markup	0.00	% of Project Indirect Costs displayed in the box below
Job Size Factor	0.00	% of Project Direct Costs

Figure 134: Project Extras Profit Fields

3. Select the *Profit* field you wish to edit and type in your *Profit figure(s)*. For some fields, you can also enter *Comments*.
4. Press <ENTER> and Benchmark will calculate your *Profit and Submission Price*.



Extras default values

You can set up defaults for all Extras fields in the [Administration](#) window.

Job Size Factor

In the *Profit* section of the [Extras](#) window is a field for *Job Size Factor*. If the *Job Size Factor* is set up (in the [Administration](#) window), users cannot edit this % in a Project and the system automatically applies the *Job Size Factor %* depending on the Project's Direct Cost value.

Spread Remainder

The *Spread Remainder* field contains the *left-over* costs that cannot be allocated to the Project due to rounding. If this value is high, it can be minimised by manipulating the decimal place fields in the [Spread](#) window. For more information, refer to [**Use Spread to Manipulate your Submission Price**](#) (on page 200).



Set default Extras fields per Region

Corporate version users can set different Extras field default percentages for each Region. For more information, refer to [**Set up Regionalisation**](#) (on page 422).

Enter a Margin %

If you wish to achieve a particular *Margin* for a project, you can enter this margin into the *Margin %* field shown above, and Benchmark will automatically calculate the corresponding *Markup %* for you, and enter it in the *Other 1* field.

If you have already entered figures into other *Profit* fields in the [Extras](#) window, you are asked if you wish to remove these. If you choose **not** to remove other *Profit* values, these are added to this *Margin* for the project.

Calculate Profit by Resource Groups

As shown in the [Extras](#) window, you can apply *Profit by Resource Category* (*Labour, Plant, Materials, Subcontract*) - you may do this to increase the competitiveness of your estimate.

If you wish to break up the allocation of *Profit* further, you can do this by *Resource Group*.

To enable *Profit by Resource Group*:

1. From within a Project, right-click and select [Extras](#).
2. When the [Extras](#) window opens, right-click and select [Edit](#).
3. Check the Calculate profit by Resource Groups.

You can then enter a *Markup %* (*Profit %*) for each of the Resource Groups in your Project.

4. Right-click and Select OK.

Group	Markup Percent	Cost	Cost Attracting Profit	Markup Amount
DAY LABOUR	0.00	0.00	0.00	
DGB	0.00	0.00	0.00	
DRAINAGE	0.00	0.00	0.00	
EARTH	0.00	0.00	0.00	
FORMWORK	0.00	0.00	0.00	
LANDSCAPE	0.00	0.00	0.00	
MATERIALS	0.00	0.00	0.00	
PLANT	0.00	0.00	0.00	
PROFESSIONAL	0.00	0.00	0.00	
QUARRY	0.00	0.00	0.00	

Total Markup Amount

Margin % <input type="text" value="0.00"/>	0.00	
Other 1 <input type="text" value="0.00"/>	% of Project Direct Costs	
Other 2 <input type="text" value="0.00"/>	% of Project Direct Costs	
Other 3 <input type="text" value="0"/>	\$	
Calculated % Markup <input type="text" value="0.00"/>	total % markup based on the fields above	
Indirect Cost Markup <input type="text" value="0.00"/>	% of Project Indirect Costs displayed in the box below	
Job Size Factor <input type="text" value="0.00"/>	% of Project Direct Costs	

Figure 135: Extras - Profit By Group

In this list above, Benchmark will also display the *Direct Cost* for each *Resource Group* and the calculated *Markup Amount* (which is the *Markup %* multiplied by the *Direct Cost* for each *Resource Group*).

You can set up these *Markup %* figures for each *Resource Group* as defaults in the **Extras Defaults** window in the **Administration** window. For more information, refer to **Customise options in the Administration window** (on page 288).



Resources with Exclude Qty from Profit

Resources that have been marked as *Exclude Qty from Profit* will *not* be included in the profit calculations.

For more information, refer to **Exclude Resources from Profit** (on page 127)

Add Indirect Costs

Benchmark provides two ways you can allow for *Indirect Costs* in a Project.

- Firstly, by using the **Extras** window and
- Secondly, by creating an *Overhead Section* in your Project. For more information, refer to **Adding an Overhead Section** (on page 88).

Add Indirect Costs in the Project Extras

Benchmark's **Extras** window allows the allocation of *Indirect Costs* for *Supervision, Training, Small Tools and Wet Weather*, and also % and \$ *Contingencies* and *Overheads* for the project.

Indirect Costs		
Contingencies 1	0.00	% of Project Direct Costs
Contingencies 2	0	\$
Contingencies 3	0	\$
Contingencies 4	0.00	% of Project Direct Costs
Contingencies 5	0.00	% of Direct Costs Labour
Overheads 1	0.00	% of Project Direct Costs
Overheads 2	0.00	% of Project Direct Costs
Overheads 3	0.00	% of Direct Costs Labour
Supervision	0.00	% of Project Direct Costs
Training	0.00	% of Project Direct Costs
Small Tools	0.00	% of Direct Costs Labour
Wet Weather	0.00	% of Direct Costs Labour

Figure 136: Project Extras Indirect Cost Fields

To add these *Indirect Costs*:

1. In the **Project Details** window, right-click and select **Extras**, to display the **Extras** window.
2. Right-click and select **Edit**.
3. Select the *Indirect Cost* field you wish to edit and type in your *Indirect Cost* figure(s).
4. Press **ENTER** AND Benchmark will calculate your *Indirect Costs and Submission price* for the Project.
5. Close the **Extras** window.



Prevent editing of Indirect Costs

Benchmark offers control to system administrators to *prevent estimators from editing indirect costs*. The system administrator sets the access levels for each estimator in the **Estimator Library**, including the option to restrict them from editing the *Indirect Cost* percentages.

Apply Profit to your Indirect Costs

By Default, the *Profit* in the **Extras** window is applied to your *Direct Costs*. You can also apply *Profit* to your *Indirect Costs*.

You can allow for profit on your *Indirect Costs* in two ways.

To apply *Profit* to the **Indirect Costs**:

1. From within the Project, right-click and select Extras.
2. In Edit mode, enter a percentage in the *Indirect Costs Markup* field

Indirect Cost Markup % of Project Indirect Costs displayed in the box below

3. Right-click and select OK.

This % is then applied to the *total of the \$ value* calculated in the *Indirect Costs* section of the **Extras** window.

To apply *Profit* to your **Overhead Sections**:

1. From within the Project, right-click and select Extras.
2. In Edit mode, check the **Apply to Section Overheads** checkbox
3. Right-click and select OK.

Project Profit and Indirect Cost Summary

To see a summary breakdown of the Profit and Indirect Costs for your project you can run the Project Summary Report. The Project Summary report provides an overview of the *Costs, Indirect Costs and Profit* for your Project.

To run this report:

1. From the **Project Details** window,
2. Select Report → Summary from the menu bar.
3. Select a destination and click OK

For more information, refer to **Produce Reports for your Estimate** (on page 212).

Use Spread to Manipulate your Submission Price

The Spread function allows you to control the way your Profit and Indirect Costs are distributed over the Direct Cost Items in your estimate.

Sometimes you wish to put more money into Items that occur early in a Project to improve cash flow. You may also wish to increase the Rate for Items which you think may be subject to variations. If you wish to do this, you can nominate Submission Rates or Submission Amounts for these Items in the **Spread** window, so that they contain a higher proportion of Profit and Indirect Costs than they would with an even spread.

If you modify the Submission Rate of an Item in the Spread, it effectively receives more (or less) Profit/Indirect Costs than it would in an even Spread scenario; in this case the Spread function will *re-distribute* the remaining Profit/Indirect Costs across the remaining Items.

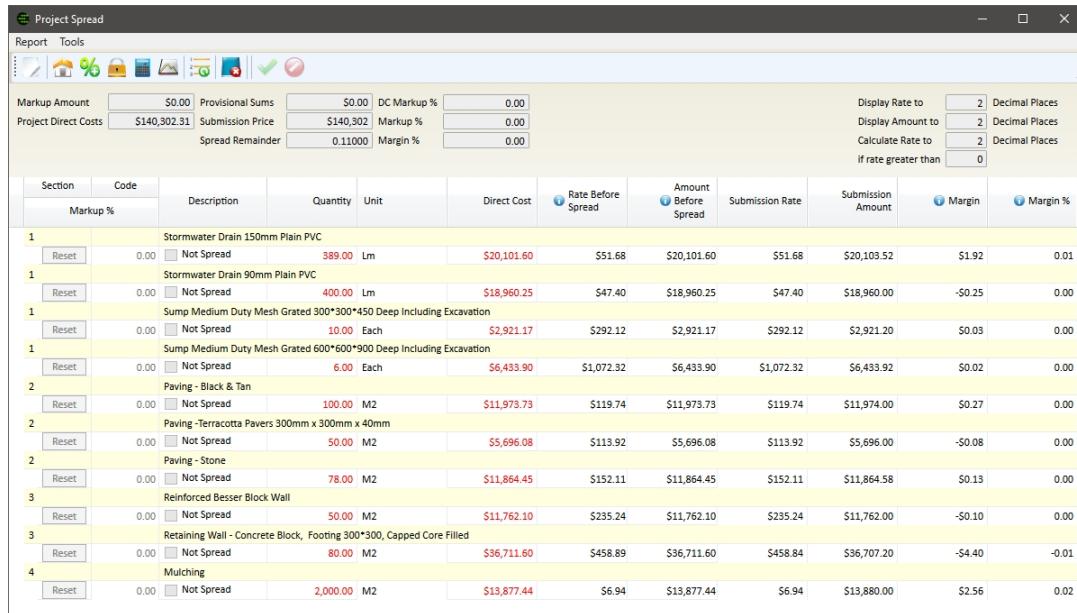
The **Spread** window also gives you the ability to edit the number of decimal points used in Spread calculations. Note that the Submission Rates and Amounts displayed on your Benchmark Quotation reports are those calculated by the Spread function.

If you wish to maintain an even Spread, there is no requirement to use the Spread function or make any changes in the **Spread** window. Benchmark will Spread the Profit/ Indirect Costs across your Direct Costs Items based on each Item cost to Project cost ratio.

To manipulate your Submission Price using the Spread function:

- From within the Project, right-click and select Spread.

The **Project Spread** window appears.



The screenshot shows the 'Project Spread' window with a grid of items. At the top, there are summary fields for Markup Amount (\$0.00), Provisional Sums (\$0.00), DC Markup % (0.00), Project Direct Costs (\$140,302.31), Submission Price (\$140,302), Markup % (0.00), and Spread Remainder (0.11000). On the right, there are settings for Display Rate to 2 Decimal Places, Display Amount to 2 Decimal Places, Calculate Rate to 2 Decimal Places, and If rate greater than 0. Below the grid, there are buttons for Report and Tools, and icons for Undo, Redo, Save, Print, and Exit.

Section	Code	Description	Quantity	Unit	Direct Cost	Rate Before Spread	Amount Before Spread	Submission Rate	Submission Amount	Margin	Margin %
Markup %											
1		Stormwater Drain 150mm Plain PVC									
	Reset	0.00	Not Spread	389.00 Lm	\$20,101.60	\$51.68	\$20,101.60	\$51.68	\$20,103.52	\$1.92	0.01
1	Reset	0.00	Not Spread	400.00 Lm	\$18,960.25	\$47.40	\$18,960.25	\$47.40	\$18,960.00	-\$0.25	0.00
1	Reset	0.00	Not Spread	10.00 Each	\$2,921.17	\$292.12	\$2,921.17	\$292.12	\$2,921.20	\$0.03	0.00
1	Reset	0.00	Not Spread	6.00 Each	\$6,433.90	\$1,072.32	\$6,433.90	\$1,072.32	\$6,433.92	\$0.02	0.00
2	Reset	0.00	Not Spread	100.00 M2	\$11,973.73	\$119.74	\$11,973.73	\$119.74	\$11,974.00	\$0.27	0.00
2	Reset	0.00	Not Spread	50.00 M2	\$5,696.08	\$113.92	\$5,696.08	\$113.92	\$5,696.00	-\$0.08	0.00
2	Reset	0.00	Not Spread	78.00 M2	\$11,864.45	\$152.11	\$11,864.45	\$152.11	\$11,864.58	\$0.13	0.00
3	Reset	0.00	Not Spread	50.00 M2	\$11,762.10	\$235.24	\$11,762.10	\$235.24	\$11,762.00	-\$0.10	0.00
3	Reset	0.00	Not Spread	80.00 M2	\$36,711.60	\$458.89	\$36,711.60	\$458.84	\$36,707.20	-\$4.40	-0.01
4	Reset	0.00	Not Spread	2,000.00 M2	\$13,877.44	\$6.94	\$13,877.44	\$6.94	\$13,880.00	\$2.56	0.02

Figure 137: Project Spread Window Example

This window will display all of the Items in your Project, for each Item the following is shown in the grid:

- Section Number
- Item Code, Item Description
- Quantity, Unit
- Direct Cost
- Rate Before Spread,
- Amount Before Spread
- Submission Rate
- Submission Amount
- Margin
- Margin percentage

At the top of the window are some summary cost and percentage fields. The *Markup Amount* is the sum of the Profit and Indirect Cost values.

You can now undertake various tasks including:

- Mark an Item as Not Spread,
- Apply a specific Markup % to an Item,
- Manually enter in a Submission Rate or Submission Amount for an Item,

- Fix all of your Item Submission Rates, and
- Edit the decimal point accuracy and display characteristics of your Submission Schedule.
- Apply a percentage increase

Spread Balancing

Benchmark's Spread feature, uses the calculated Markup Amount as the total expected to be Spread across all the Project Items. The spread feature looks at each Items Direct Cost compared with the Projects Direct Cost. If the Item's Cost is ten percent of the Project Cost, then the Item will get a markup value of 10% of the calculated Markup Amount.

The *Markup Amount* is the sum of:

- Profit generated from Other 1,2, or 3.
- Profit generate from Indirect Cost markups or Profit from Overhead Sections.
- The calculated Indirect Costs of the Project.
- The cost of any Overhead Sections.

Essentially, the markup assigned to an *Item* is thus:

- The profit for the Item based on the Extras markup percentages for Resources Categories or Resource groups.
- The profit assigned from the Markup Amount based on the Items Cost to Project Cost Ratio.

Spread Balancing Adjusted Items

The Item submission price generated by the spread is the expected price based on the markup associated with the Item. If however, an Item is manually changed in the Spread window, the result difference between the expected Item Price and the actual Item is either subtracted or added to the markup amount and spread across the remaining automatically calculated Items in the project.



Manually Adjusted Items

When manually adjusting items, the other Item Submission Rates will be effected unless all the Project Items rates are fixed. For more information, refer to ***Fix All Item Submission Rates*** (see "***Fixing All Item Submission Rates***" on page 204).

When Items are manually adjusted, if the variation between actual Submission Price and Expected Submission price cannot be spread across the remaining project items then it will appear in the Spread Remainder.



Spread Remainder

When Benchmark calculates the Project Item Rates, Item rates will be rounded.

As such, the amount each item is rounded is combined and shown as an amount in the Spread Remainder.

Adjusting the number of Decimal places used in the Spread will increase or decrease the value. For more information, refer to **Edit Accuracy and Appearance of Submission Rates and Amounts** (on page 206).

Changing your Project Direct Costs

The spread will also recalculate the Markup Amount and the Item Submission prices whenever the Project Direct Cost changes. This is because changes to the Direct Cost of the Project will directly affect profit and indirect cost calculations and the ratio of Item cost to Project Cost for each Item.



Adjusting Project Direct Costs may alter Project Item Submission Rates

When changes or variations are made to the Project Benchmark will recalculate the Item Submission rates based on any change to the Profit and Indirect cost calculations.

If you have already submitted your prices to your client, you may need to Fix your existing Submission Rates before making changes to your Project. For more information, refer to **Fix All Item Submission Rates** (see "**Fixing All Item Submission Rates**" on page 204).

Mark an Item as Not Spread

To remove the Spread amounts from an Item in the Spread:

1. In the **Project Spread** window, enter Edit Mode.
2. Check the Not Spread checkbox next to the Item, and right-click and select OK.

The Submission Rate for this Item is now the same as the Direct Cost Rate of the Item. The costs that were spread across this Item will now be spread across the remaining Items in your Project, and the Submission Rate and Amount for *every other Item* are automatically recalculated for you. For more information, refer to **Spread Balancing** (on page 202).

Apply a Markup % to an Item

To specify a Markup % on an Item by Item basis:

1. In the **Project Spread** window, enter Edit mode.
2. Click the *Item Markup %* field for the Item you are interested in.

3. Type in a *Markup* as a percentage (A).

Section	Code	Description	Quantity	Unit	Direct Cost	Rate Before Spread	Amount Before Spread	Submission Rate	Submission Amount
Markup %									
1		Stormwater Drain 150mm Plain PVC							
			Reset	10 <input checked="" type="checkbox"/> Not Spread	389.00 Lm	\$20,101.60	\$51.68	\$20,101.60	\$51.68 \$20,103.52

4. The *Not Spread* checkbox will automatically be checked after clicking OK.

The Item *Amount Before Spread* will have a yellow background to show it has been adjusted. Benchmark recalculates the Submission Rates/Amounts for all other Items based on this change. For more information, refer to **Spread Balancing** (on page 202).

Manually Enter a Submission Rate or Amount

To bid an Item at a given rate (or amount) and spread the remaining profit and indirect costs proportionally:

1. In the **Project Spread** window, enter Edit mode.
2. Click in the *Rate Before Spread* or *Amount Before Spread* field for the Item you are interested in.
3. Type in the new *Rate* or *Amount*.
4. Right-click and select OK.

The altered value will have a yellow background to show that it has been fixed and adjusted. The Item Submission Rate and Amount will then be varied in line with the change. Benchmark recalculates the Submission Rates/Amounts for all other Items based on this change. For more information, refer to **Spread Balancing** (on page 202).

Fixing All Item Submission Rates

If you want the Submission Rates of all of the Items currently in your Project to be locked, you can use the Fix All Rates function in the **Project Spread** window. You may wish to use this feature:

- Before adding a Variation to your Project, so that all of your accepted Submission Rates are locked and not changed by Benchmark when you add Variations.
- If you want to achieve a particular Submission Price for the Project. This is because, by default, the Spread calculations will always **re-distribute** Profit/Indirect costs to other Items when Items are manually changed in the Spread or when the Project Direct Costs change.

To Fix all the Item Submission Rates:

1. In the **Project Spread** window, right-click and select Fix All Rates.

The Items are checked as *Not Spread* (A).

The *Rate Before Spread* will change to yellow and the value shown for the *Submission Rate* (B).

Section	Code	Description	Quantity	Unit	Direct Cost	Rate Before Spread	Amount Before Spread	Submission Rate	Submission Amount
Markup %									
1		Stormwater Drain 150mm Plain PVC							
			Reset	0.00 <input checked="" type="checkbox"/> Not Spread (A)	389.00 Lm	\$20,101.60	\$51.68 (B)	\$20,103.52	\$51.68 \$20,103.52



Fixed Submission Rates

Once Fixed, Item Submission Prices will not change, regardless of changes to the Project Item Direct Cost.

This means that changing the Direct Costs for an Item would either increase or decrease the Project margin.

Resetting Item Submission Rates

If you have been editing the Spread manually or have Fixed all your Submission rates you may want to reset your project to the default Spread state.

To reset all spread Items:

1. In the **Spread** window, right-click and select Reset All Lines.
2. Answer Yes, to the confirmation prompt.

All your items will be marked for Spread and will have any manually entered values reset.

To reset an Individual Item:

1. In the **Spread** window, enter Edit mode.
2. Find the item you wish to reset.
3. Click the Reset button on the left of the Item (A).

Section	Code	Description	Quantity	Unit
Markup %				
1	A	Stormwater Drain 150mm Plain PVC		
	Reset	0.00 <input type="checkbox"/> Not Spread	389.00	Lm

4. Right-click and select OK.

The Item is reset to its default state.

Use the Total Markup Calculator

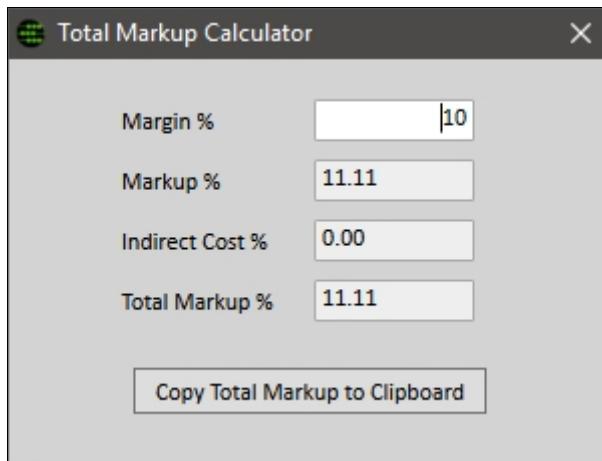
Some clients will use the Spread function to apply Markup to their Items (as opposed to or in conjunction with the use of the **Extras** window). A useful tool if you do this is the Total Markup Calculator.

The Total Markup Calculator allows you to work out your total markup percentage from an entered margin percentage. When a Margin is entered into this calculator, Benchmark works out the total Markup percentage required taking into account this Margin and the Indirect Costs. You can then copy and paste this markup into Items listed in the **Spread** window.

To use the calculator:

1. In the **Project Spread** window, right-click and select Total Markup Calculator.
2. In the **Total Markup Calculator** window enter a margin in the *Margin %* field.

Total Markup % is calculated.



3. Click on Copy Total Markup to Clipboard.
4. You can now paste this markup percentage into the Markup % field for an Item in the **Spread** window.

For more information, refer to *Apply a Markup % to an Item* (on page 203).

Edit Accuracy and Appearance of Submission Rates and Amounts

Sometimes you wish to bid with a Submission Rate with two decimal points, for example for Clearing where the Rate might be \$0.30/m². In this case, you could set the *Display Rate* to 2 decimal places. Even if the Rate is to 2 decimal places, you may only want the Amount to be in whole dollars.

Sometimes you may want only Items with low rates to display and calculate to 2 decimal places and those with high rates to display and calculate to 0 decimal places, to reflect the significant figures required. Benchmark will enable you to change the number of decimal places to be used over a predefined value for the Rate.

Display Rate to	<input type="text" value="2"/>	Decimal Places
Display Amount to	<input type="text" value="2"/>	Decimal Places
Calculate Rate to	<input type="text" value="2"/>	Decimal Places
if rate greater than	<input type="text" value="0"/>	

To edit the number of decimal points Benchmark calculates to and displays:

1. In the **Project Spread** window, right-click and select Edit.
2. Enter the number of decimal places you want to display the Item Rate to.
3. Enter the number of decimal places you want to display the Item Amount to.
4. Enter the number of decimal places you want to calculate the Rate to.
 - Enter a rate in the *if rate greater than* field. This will then only use the *Calculate Rate to* for rates above this amount.
5. Right-click and select OK.

You will notice that depending on the values entered in these four fields. Benchmark will perform the Spread calculations and display the new Submission Rates and Submission Amounts.



Default Display Values

You can set up default values for the number of decimal places to display and calculate Rates and Amounts in the [Administration](#) window. To restrict users from editing the number of decimal places that can be edited in the [Spread](#) window, there is an Estimator Access level which can be set in the Estimator Library.

Apply a Percentage increase to Submission Rates

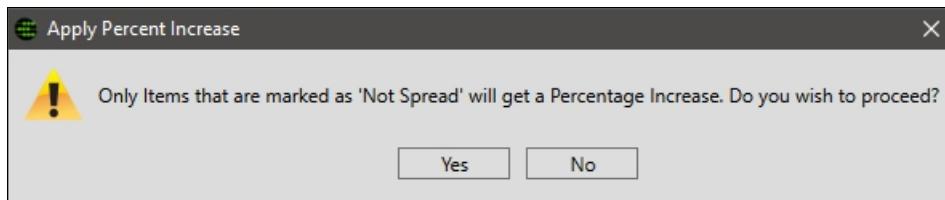
There are scenarios in estimating when you may need to increase your *Submission Rates* on a Project by a *nominated percentage*.

When pricing work packages for a long-term maintenance contract, for example, there is often the need to increase your *Rates* by a *percentage* each year that has been agreed with your *Client*. This percentage is usually equated to the *Consumer Price Index (CPI)*. You can do this in the [Spread](#) window, and you can also apply a percentage increase when you duplicate a Project. For more information, refer to [Duplicate a Project](#) (on page 75).

To increase an *Item Submission Rate* by a certain percentage in the [Spread](#) window:

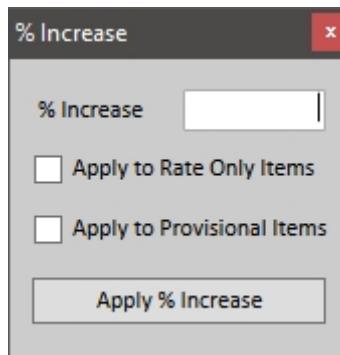
1. In the [Project Spread](#) window, select % Increase Icon.

Answer Yes to the information prompt. 'Only Items that are marked as 'Not Spread' will get a Percentage Increase. Do you wish to proceed?'



Please note that if you want to markup *all Items* you can select No and Fix all Rates before using the percentage increase feature. For more information, refer to [Fixing All Item Submission Rates](#) (on page 204).

2. Click Yes to continue and enter the *percentage* you would like to apply to the *Items*.



You can also apply a markup to Rate only or Provisional Items.

3. Click **Apply % Increase** to apply the increase.

All your fixed items will have a Rate increase applied.



Unequal Item Submission amounts due to rounding

The percentage you enter is applied to the *Item's Submission Amount*; this is then divided by the *Item Quantity* to determine a *Rate*, which is rounded to the number of decimal places as specified in the **Spread** window.

The final *Item Submission Amount* is then calculated by multiplying the *Quantity* by the *Rate*. Because of this, there may be some rounding errors, and the *Item Submission amounts* may not always be equal.

Produce a Spread Analysis Report

The Spread Analysis report provides a detailed analysis of the direct cost, profit, indirect cost and submission amount for each Item in your estimate.

To generate this report:

1. Open the **Spread** window.
2. Select Report → Spread Analysis
3. Choose a destination and click OK.

Benchmark will output the report to your destination, and you can review your Items' markup breakdowns.

Use Forecast Quantities

When estimating with Forecast Quantities, the **Spread** window contains additional summary information about the Project for both the *Forecast* and *Contract Quantity* scenarios, as shown below.

Summary		Forecast		Contract		Forecast		Contract			
Project Direct Costs	\$2,407,651.08			\$1,906,848.76		DC Markup %	9.89	Display Rate to	9.88	2	Decimal Places
Markup Amount	\$238,116.69			\$188,492.99		Markup %	9.89	Display Amount to	9.88	2	Decimal Places
Provisional Sums	\$0.00			\$0.00		Margin %	9.00	Calculate Rate to	9.00	2	Decimal Places
Spread Remainder	-1.30000			-1.64000				if rate greater than	0		
Submission Price	\$2,645,766			\$2,095,340							

There are also different columns for each Project *Item* however, you can still manipulate the data in the **Spread** window.



Contract Quantity and Submission Rates

Forecast Quantities generates the *Submission Rate* for the *Contract Quantity* used on all *Quote* and *Progress Claim* reports.

Information on Spread for Benchmark V7.7 and earlier

Up to Version 7.8, of Benchmark Estimating Software included two Spread methods,

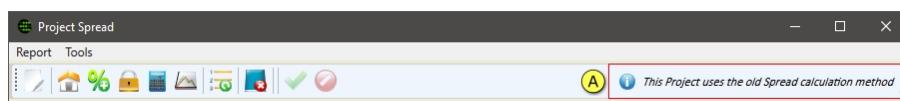
- the original Spread and
- the “Advanced Spread” method.

As of Version 7.80 the Advanced Spread became the default spread method. All new Projects, therefore, use the new Spreading method.

The original Spread method is still used in the product but only for Projects that were created using this method in Version 7.7 or before. This ensures that:

1. Old Projects maintain their current Submission Prices and values.

A visual indicator (A) has been added to the right of the Spread window to indicate if the project is using the old method.



2. Duplicating these old projects will continue to use the older spread method unless converted to the new spread during the Duplication Process. For more information, refer to **Duplicate a Project** (on page 75).

Default Submission Rate and Amount deviation

Default Submission Rates and Amounts allows estimators to view the *Default Submission Rates* in the **Spread** window, based on the *Extras Default* values from **Administration**. This provides estimators with powerful insight into how their *Item submission rates* may have changed based on any adjustments to Project profit or indirect costs.

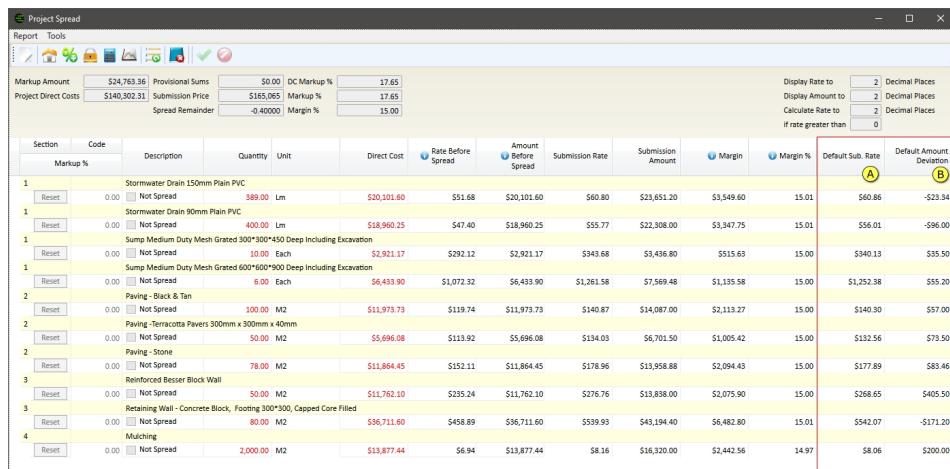
When this feature is enabled, there are additional Spread columns shown, these include:

- **Default Sub. Rate (A)**

This column shows the Item rate based on the extras defaults as set in the **Administration** window.

- **Default Amount Deviation (B)**

This column shows the difference in Submission amount between the calculated default and the current Item Submission Price.



The screenshot shows the 'Project Spread' window with various settings at the top. In the main grid, there are two new columns: 'Default Sub. Rate' (labeled A) and 'Default Amount Deviation' (labeled B). Column A displays the calculated submission rate based on extras defaults, while Column B shows the difference between this and the current submission price.

Section	Code	Description	Quantity	Unit	Direct Cost	Rate Before Spread	Amount Before Spread	Submission Rate	Submission Amount	Margin	Margin %	Default Sub. Rate (A)	Default Amount Deviation (B)
1	0.00	Stormwater Drain 150mm Plain PVC	389.00	Lm	\$20,101.60	\$51.68	\$20,101.60	\$60.80	\$23,651.20	\$3,549.60	15.01	\$60.86	-\$23.34
1	0.00	Stormwater Drain 90mm Plain PVC	400.00	Lm	\$18,960.25	\$47.40	\$18,960.25	\$55.77	\$22,300.00	\$3,347.75	15.01	\$56.01	-\$96.00
1	0.00	Sump Medium Duty Mesh Grated 300*300*450 Deep Including Excavation	10.00	Each	\$2,921.17	\$292.12	\$2,921.17	\$343.68	\$3,436.80	\$515.63	15.00	\$340.13	\$35.50
1	0.00	Sump Medium Duty Mesh Grated 600*600*900 Deep Including Excavation	6.00	Each	\$6,433.90	\$1,072.32	\$6,433.90	\$1,281.58	\$7,569.48	\$1,135.58	15.00	\$1,252.38	\$55.20
2	0.00	Paving - Block & Tan	100.00	M2	\$11,973.73	\$119.74	\$11,973.73	\$140.87	\$14,087.00	\$2,113.27	15.00	\$140.30	\$57.00
2	0.00	Paving - Terracotta Pavers 300mm x 300mm x 40mm	50.00	M2	\$5,696.08	\$113.92	\$5,696.08	\$134.03	\$6,701.50	\$1,005.42	15.00	\$132.56	\$73.50
2	0.00	Paving - Stone	78.00	M2	\$11,864.45	\$152.11	\$11,864.45	\$178.96	\$13,958.88	\$2,094.43	15.00	\$177.89	\$83.46
3	0.00	Reinforced Besler Block Wall	50.00	M2	\$11,762.10	\$235.24	\$11,762.10	\$276.76	\$13,838.00	\$2,075.90	15.00	\$268.65	\$405.50
3	0.00	Retaining Wall - Concrete Block, Facing 300*300, Capped Core Filled	80.00	M2	\$36,711.60	\$458.89	\$36,711.60	\$559.93	\$45,194.40	\$6,482.80	15.01	\$542.07	-\$171.20
4	0.00	Mulching	2,000.00	M2	\$13,877.44	\$6.94	\$13,877.44	\$8.16	\$16,320.00	\$2,442.56	14.97	\$8.06	\$200.00

Figure 138: Project Spread with Default Submission Rates enabled

To enable the Default Submission Rate and Amount Deviation feature,

1. Open the **Administration** window and select the **Extras and Spread** tab.
2. Enter Edit mode and Check the **Show Default Submission Rate and Amount Variation in Spread** checkbox.

When you open your Project and recalculate, Benchmark will now calculate the Default Submission Rate and the Submission Amount deviation.

Important considerations

There are some important considerations when using Default Submission Rate and Amount feature. The important elements of these calculations are:

- This feature effectively runs the Spread algorithm twice;
 - once using the *Project Extras* values and
 - once using the *Extras Default* values from the **Administration** window.
- If Overhead Sections are used in a Project, these are used in both Spread calculations.

- When the default spread calculation is run, the following applies:
- The default even Spread is performed (i.e. no unbalancing can obviously be done)
 - Any project specific changes to the spread, such as unbalancing, will have no impact on the default Submission Rate calculations. For more information, refer to *Spread Balancing* (on page 202).



Project Recalculation

The Default Submission Rate and Amount Deviation values are calculated whenever the Submission Price of the Project is recalculated unless the Project is Authorised.



Extras defaults per Region

When using the Allow different Extras defaults per Region feature, the default Extras values used to calculate the default Submission Rates, will be based on the Project Region.

Existing Projects

Existing Projects that have been Authorised prior to this feature being enabled will not be affected. The additional columns in the Spread window will contain a value of N/A.

Any incomplete Projects though will have the *Default Submission Rate* and *Amount Deviation* columns in *Spread* calculated and updated when the Project is recalculated.

Rate Only and Provisional Items

Provisional Items and Rate Only Items cannot have a default submission rate. The *Default Submission Rate* and *Default Amount Deviation* columns will have values of N/A in the *Spread* window for these Item types.

Default Submission Rate and Amount deviation limitations

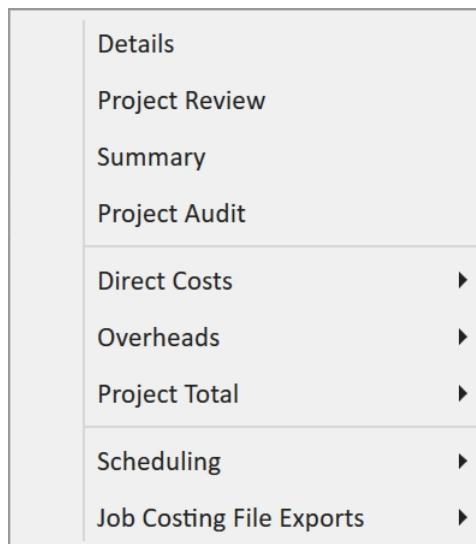
Currently the *Default Submission Rate* and *Amount deviation* data cannot be used in Projects that use Forecast Quantities. The *Spread* window will not show the additional columns associated with Default Submission Rate and Amount.

Produce Reports for your Estimate

Benchmark provides you with many powerful and very useful reports. These reports can be used for internal review purposes, project management and for submissions to clients.

Reporting Overview

Reports can be generated from a number of areas within Benchmark. Wherever the *Report* menu is shown in the menu bar at the top of the window, you can generate one or more Reports. An example of the *Report* menu is shown below:



Benchmark also contains various purpose-written Exports to Microsoft Excel, which can act as an excellent reporting tool. For more information, refer to *Export to Microsoft Excel* (on page 231).

Benchmark's Reports fall into the following main categories:

- Project Reports - which include your Budget and Quotes – refer directly below
- Multiple Project Reports – reports that show data for many Projects.

Produce Project Reports

The majority of the Project Reports are accessed from the **Project Details** window. You will also find some Reports available in the other Project window, that report on a more limited scope, such as a Section or Item.

The reports you can generate for an estimate generally fall into one of the following two categories:

- **Reports** (i.e. ones that you would not give to a client such as a list of Materials/Labour/Plant/Subcontract)
- **Quotes** (i.e. quotes/proposals/submissions that you would issue to your client)

Internal Reports

Internal reports are accessed from the menu bar in Benchmark which is located at the very top of your Benchmark window. In the Project windows, there are differing reports that report of different scopes within the project. For example:

- Reports from the **Project Details** Window have a project wide scope.
- Reports from the **Project Sections** Window have a section wide scope.
- Reports from the **Project Items** Window have item wide scope.
- Reports from the **Project Resources** window have a resource wide scope.

In most cases, you will be using Reports from the Project Details window. These reports are separated into the following sub sections:

- *Project Summary Reports*
 - These reports include, the Details Report, Project review Report and the Summary Report.
- *Direct Cost Reports*
 - The reports include various Resources, Items and Sections reports that show only Project Direct Costs.
- *Indirect Cost Reports*
 - The reports include various Resources, Items and Sections reports that show only Project Indirect Costs.
- *Project Total Cost Reports*
 - The reports include various Resources, Items and Sections reports that show all Project Costs.
- *Scheduling*
 - These exports and reports are used to transfer your Project Items and Resources to Microsoft Project.
- *Job Costing Reports / Exports*
 - These exports and reports are used to transfer your Project Cost information to 3rd Party Cost systems.

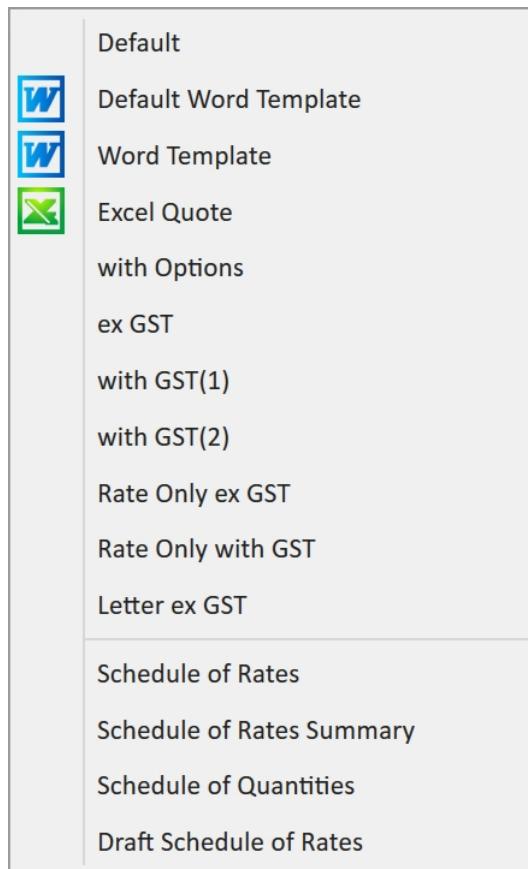
To generate a Project Report:

1. From the **Project Details** window, select Report in the menu bar.
2. Select a report from the drop-down menu.
3. When the **Report Destination** window appears, double-click a destination.
4. The selected report will then be produced to the selected destination.

We recommend that you review each of the reports to see which ones satisfy your reporting needs.

Quotes

Benchmark provides you with many different options to generate your Quotes in the format that satisfies yourself and your client.



The *Quote* options available to you consist of:

- *Word Templates* – this option will export your *Quote* to a Microsoft Word document based on a Template that you can set up to suit your business.
- *Quote With Options* – a Benchmark report which gives you control over various layout and display options.
- Various Benchmark *Quotes and Schedule of Rates* reports whose format cannot be adjusted.

We recommend that you review each of the Quote Reports to see which one(s) satisfy your needs.

A brief description of the core Quotes is detailed below.

- The **Default** option will always generate the Quote report that you nominate as your default in the **Administration** window.
- The **Default Word Template** will always generate the default Word template that you nominate in the **Administration** window.
- The **Word Templates** option will open a window which asks you to select from your list of Word Templates.

- The **Quote with Options** report presents the user with a series of options as to the layout and the data that is displayed on your Quote report. (More information on the Quote with Options report is contained in an upcoming Section).
- Other **Quote** reports available include:
 - Standard Quotes
 - Rate Only reports
 - Standard letter
 - Schedule of Rates
 - Schedule or Rates Summary
- The **Schedule of Quantities** report shows you the quantity of each Item in your project without any costs, in a professional format for submission to an external client.
- The **Draft Schedule of Rates** report is useful for companies where estimators can only print authorised quotes.
 - When quote reports are restricted to authorised projects only the estimator can print the Draft Schedule of Rates to assist in the review of the Quoted figures before authorisation.

The majority of Quote reports can print out with your Organisation's logo which can be set up in the **Administration** window (For more information, refer to **Quote logo settings** (see "**Quote Logo**" on page 299)).



Regional Quotes

Corporate version users can set up Word Templates and other quote defaults for each Region. These settings can be set up in the **Administration** window. For more information, refer to **Quote Defaults** (on page 297).

Create Quotes in Microsoft Word

You can create quotes for your Benchmark Projects in Microsoft Word giving you the ultimate flexibility in the presentation of your quotes.

You can also create a quote in Microsoft Word for an individual Section in an estimate – this is ideal for creating quotes/approval forms for Variations. For more information, refer to **Pricing Variations and Progress Claims** (on page 233)



Setting the default Word Template

A default Word Template must be set in the **Administration** window before you can use the Word Template function.

To create a quote for a *Project* in Microsoft Word:

1. In the **Project Details** window, select **Quote** then select **Word Templates**.
2. Browse for your Microsoft Word Template document and click *Open*.

3. Benchmark will now open Microsoft Word and populate your Word template with the information from your Benchmark estimate.
 - Benchmark will save the file as {quote number}.doc.

You can now edit the presentation of your Quote in Word and select *Save* when you are finished.

To create a quote for an *individual Project Section* in Microsoft Word:

1. In the **Project Sections** window, select **Quote** then select **Word Templates**.
2. Browse for your Microsoft Word Template document and click *Open*.
3. Benchmark will now open Microsoft Word and populate your Word template with the information from your Benchmark estimate.
 - Benchmark will save the file as {Quote Number}_Section Description}.doc.

You can now edit the presentation of your Quote in Word and select *Save* when you are finished.



Where are your Word Quotes saved?

The default folder where Benchmark saves your Quotes in Word is called **Benchmark Documents**, this folder is created by Benchmark at the level above the folder that you selected the template from.

After Benchmark creates your Word Quote for a Project, this document is now in Word and outside of Benchmark's control; any changes you make in the Word document to things like Conditions, for example, will **NOT** be reflected in your Benchmark estimate.

We recommend that the only changes you make in your Word document are layout adjustments and adjustments to wording so that you retain consistency between your Word Quote and your Benchmark estimate.

Use the Quote with Options Report to Produce Quotes

To run the Quote with Options report:

1. In the **Project Details** window, select **Quote** then select **with Options**.

The **Quotation Options** window will be displayed, allowing you to customise your quote.

2. Customise your report by choosing from the options on the
 - Header,
 - Body,
 - and Footer tabs.
3. Right-click and select **Print**, select the **Report Destination** and select **OK**.

A description of the function of each of the selections in the **Quotation Options** window is contained in the following table.

Table 16: Quote with Options Settings

Option	Functionality/Printed on the Report
Header Tab	
Use Logo	Your company logo - from the Administration window,Quote Logo tab, Logo Top field.
Report Title	Enter your title for the report in this field.
Company License Name	Your database license information – from the Administration window, Quote Defaults tab, License Name field.
Use Contact Facsimile	Fax field on the Project Details window, Client Details tab.
Use Quote Re	Quote Re field on the Project Details window.
Use Project Title	Title field on the Project Details window.
Use Location, Suburb, Postcode	Location, Suburb and Postcode fields on the Project Details window.
Conditions appear before the Bill of Quantities	The Standard and Project Specific Conditions will appear before the Bill of Quantities.
First Page Top Margin	Sets the top margin of the first page. Adjust this to suit your company letterhead. If you are using the logo in the Administration window, make this value the height of your logo in centimetres. The default value is 3.500 cm.
Following Pages Top Margin	Sets the top margin on all pages following the first page. Adjust this to suit your letterhead or blank paper. The default value is 0.000 cm.
Address Heading Indent	Sets the left indent for the Address information. Adjust this to suit your company envelopes' window if you use this style of envelope. The default value for a window is 2.487cm.
Body Tab	
Start each Section on a new page	Each Section in your project will start on a separate page.
Remove Lines	Lines separating the Section and Item details do not appear on the Quote report.

Option	Functionality/Printed on the Report
Remove Headings	The column headings for Code, Description, Unit, Rate, Tax, Rate inc Tax, Amount and Amount inc Tax will not appear.
ex GST/VAT or inc GST/VAT	Select to include or exclude GST/VAT.
Total GST/VAT	Display the Total Amount, Total Tax and Total Amount inc Tax at the bottom of the quote report.
Sections Only	Only Sections will appear. i.e. Item details will not appear.
Hide Rate Only Item Quantity	Quantities for Rate Only Items will not appear.
Hide Rate Only Items	Rate Only Items will not appear.
Item Code	Item Codes appear.
Normal Item Codes	Use the Item codes displayed for each Item in the Project Items window.
Sequential Item Codes	Replace the Item Codes with sequential numbers. Numbers flow right through the project. E.g. 1, 2, 3,...
Sequential Section Item Codes	Replace the Item Codes with the Section number appended by sequential numbers. Numbering restarts for each Section. E.g. If Section numbers are 010 and 020, then Item numbers are 010.1, 010.2, 010.3,...020.1, 020.2,...
Item Spacing	Adds a blank line between each different Item description
Quantity	Item Quantities appear.
Unit	Units for Items appear.
Rate	Item Rates appear.
Amount	Item Amount appears.
Section Total	Total for each Section appears.
Total Project Price	Total for the Project appears.
Font	Select the font type for the entire report.
Size	Select the font size for the entire report.
Level of Composite Totals to display	This specifies the number of Composite Total Levels to show in the quote report.
Composite Totals Font	Select the font type for Composite Totals in the report.

Option	Functionality/Printed on the Report
<i>Footer tab</i>	
Project Specific Conditions before Standard	Project Specific Conditions appear before the Standard Conditions. When this checkbox is cleared the Standard Conditions appear on the report first.
Quotation Acceptance	Quotation Acceptance information includes a place for your client to sign along with the name, phone, fax and email of the Projects Estimator as set up in the Estimator Library.
Quote Validity	Text that appears below the Quotation Acceptance information.
All Pages Bottom Margin	Sets the bottom margin on all pages. Adjust this to suit your letterhead or blank paper. The default value is 0.500 cm.
Quote Last Page Text	The text that is saved in the Administration window, Quote Defaults tab, <i>Quote Last Page Text</i> button.
Footer Logo	Your company logo - from the Administration window, Quote Logo tab, <i>Logo Bottom</i> field.
Line	A line appears above the footer.
Date	Today's date and time are printed in the footer.
Footer Text	The text that is in the Administration window, Quote Defaults tab, <i>Quote Footer</i> field.
Page No	The page number and the total number of pages are printed in the footer.
<i>Estimator Tab</i>	
Remarks	Include the Estimators Remarks as setup in the Estimator Library for current Estimator.
Close	Include the Estimators Close as setup in the Estimator Library for current Estimator.
Signature	Include the Estimators Signature image as setup in the Estimator Library for current Estimator.
Position	Include the Estimators Position as setup in the Estimator Library for current Estimator.
Address	Include the Estimators Address as setup in the Estimator Library for current Estimator.

Produce Multiple Project Reports

Benchmark can analyse all of the estimates in your database and provide you with powerful reports and graphs about your business. These can help you analyse and improve your business.

These Reports are accessed from two locations:

1. From the *Report* menu in the **Project Browser** window.
2. From the **Project Analysis** window. For more information, refer to **Produce Market Share Analysis Reports** (on page 248).

The Reports in the **Project Browser** are:

- Project List:
 - *Listed Projects* – Lists all projects displayed in the project browser with the Date of creation and Estimator Name.
 - *Approved Projects* – Lists all projects that have been authorised.
 - *Pending Projects* – Lists all projects pending within a nominated date range and lists the Project and Section Costs and Submission Prices.
 - *Won Projects* – Lists all projects won within a nominated date range and lists the Project and Section Costs and Submission Prices.
 - *Lost Projects* – Lists all projects lost within a nominated date range and lists the Project and Section Costs and Submission Prices.
 - Status and Approval Dates – Gives a list of all projects including their Submission Price, Status and Approval Date.
- *Project Details Spreadsheet* – lists all Projects listed in the **Project Browser** at the time of running the Report, including the Direct Cost and Submission Price details. This report is opened in a third-party Spreadsheet package. You can then click **Export to Excel** to manipulate the sheet in Microsoft Excel.
- *Follow Up Summary* – Selecting this report will present the user with a window to define a date range. This date range refers to the *Project Date* field. This report will display the following information for each User (Estimator):
 - **Total Projects for Follow Up** – The total number of Projects this user has followed up.
 - **Success** – The total number of follow up entries that are a Success for this user.
 - **Failure** – The total number of follow up entries that are a Failure for this user.
 - **No Contact** – The total number of follow up entries that are a No Contact for this user.
- *Projects by Estimator* – lists all Projects quoted by an Estimator (user), including Client's details, Submission Price and total Submission Price for each Estimator.
- *Projects by Estimator (Detailed)* - When this report is selected, a pop-up window is displayed allowing the user to enter a From and To date, and select which Estimator to report on. The *From* and *To* date refers to the *Project Date* field on the **Project Details** window.

Most of the information in this report is self-explanatory. The source of some of the information on this report is as follows:

- **Product Type** – Comes from the Resource Type field of the Resources in the project.
 - **Area** – Comes from the Quantity field in the Project Data tab on the [Project Details](#) window.
 - **Margin** – Margin % field on [Project Details](#) window.
 - **Submission Price** – Submission Price exclusive of tax.
- *Winner Not Registered* (60 and 30 days) – Lists all Projects where a Winner has not been registered and the Project date is greater than 60/30 days old.
- *Service Level KPI* – This report will provide Management with an indication of quotation turnaround time, from the date of receipt of a quotation request to the date the quote is sent to the Client. On this report, the Request Date comes from the *Date* field on the [Project Details](#) window. The Print Date on this report comes from the *Approval date* field in the Analysis tab of the [Project Details](#) window. This field is automatically populated with the current date when the Project is authorised.
- *Items by Market Share* – For a user-specified date range, this report will create a report in Microsoft Excel for all projects marked as Market Share. The information displayed for each project includes The Project Title, Winner and a list of all Items in the Project with their Submission Rates.
- *Progress Claim Summary* – The report provides a summary of the Progress Claims for each project listed in the Project Browser window.

Set up favourite Reports with My Reports

My Reports provide each user with the ability to select all their favourite reports with one mouse click. If you always print five reports when reviewing an estimate for example, then you can add these five reports to your My Reports list.

Set up My Reports

To setup My Reports:

1. Go to the [Project Details](#) window
2. Select My Reports from the menu bar.

3. Select Setup to enter the **My Reports Setup** window.

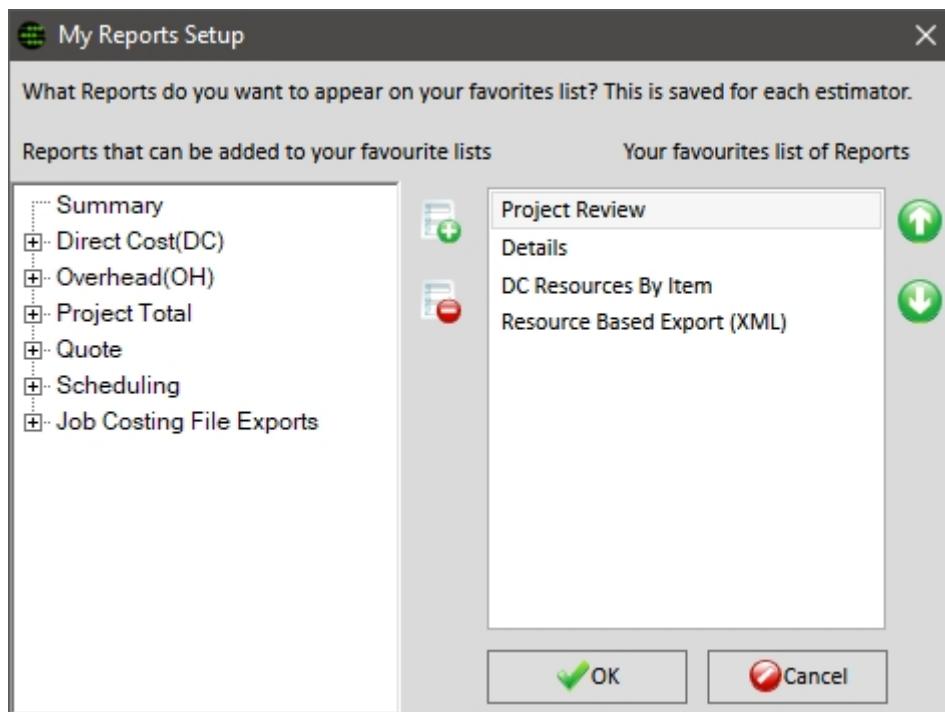


Figure 139: My Reports Setup Window

On the left-hand side of the window are all the available reports for use with My Reports.

4. Select the reports you wish to add to your favourites list by double-clicking the report.
Alternatively, you can use the icons in the middle of the window.
5. The up and down arrows at the right of the window allow you to control the order in which your favourite reports are listed.
6. Once you have added all your favourite reports, click OK.

You have now set up your favourite reports list.

Use My Reports

Using My Reports, it is possible to send all the reports directly to the screen or to the printer. It is also possible to view each report individually.

1. From the **Project Details** window.
2. Select **My Reports** from the menu at the top of the window.
3. Select one of the following options;
 - a. Print → then select a report.
 - b. Print all to Printer
 - c. Send all to Screen
4. If you select an individual report, then you are prompted for a destination for the report.

Email a Report

Any report can be emailed from Benchmark as a PDF document. You may wish to email a Quote to a client or email an internal report to a Manager for review.

1. To Email a Report, first run the Report.
2. In the **Report Destination** window, click on the Email icon.
3. The **Email** window will appear.
4. Complete the various fields as required.
5. To send the email you then have two options:
 - Via SMTP which stands for Simple Mail Transfer Protocol. To email a report using SMTP each user needs their email account settings set up in the Estimator Library. For more information, refer to **Set up User Accounts** (see "**Set up Estimator Accounts**" on page 335)
 - Via Microsoft Outlook. To email a Report via Microsoft Outlook you need Outlook installed on the same computer/server that Benchmark is installed on.



Disable Emails via Microsoft Outlook

Some companies wish to disable the sending of emails from Benchmark via Microsoft Outlook. This can be done by enabling the *Email – Don't use Outlook* option in the **Administration** window.

Use Auto Email to Email a Quotation

Benchmark's Auto Email function allows you to send a Quotation very quickly to your Client. This function uses the default Quote setup in the Administration window, or allows the user to select the Quote. The option available depends on settings in the **Administration** window Quote Defaults. For more information, refer to **Customise Administration Settings** (on page 288).

To send a Quotation using the Auto Email function:

1. Select the Email Quote button on the *Client Details* tab of the **Project Details** window.
 - a. The default quote will be generated or
 - a. A drop down of available quotes will appear, select the quote report to email.
2. To email it, click on the Send to Email icon at the top left of the **Report** window.

3. The **Email** window will now be displayed. The Auto Email function populates various fields in the **Email** window with default data. This is explained in the image below.

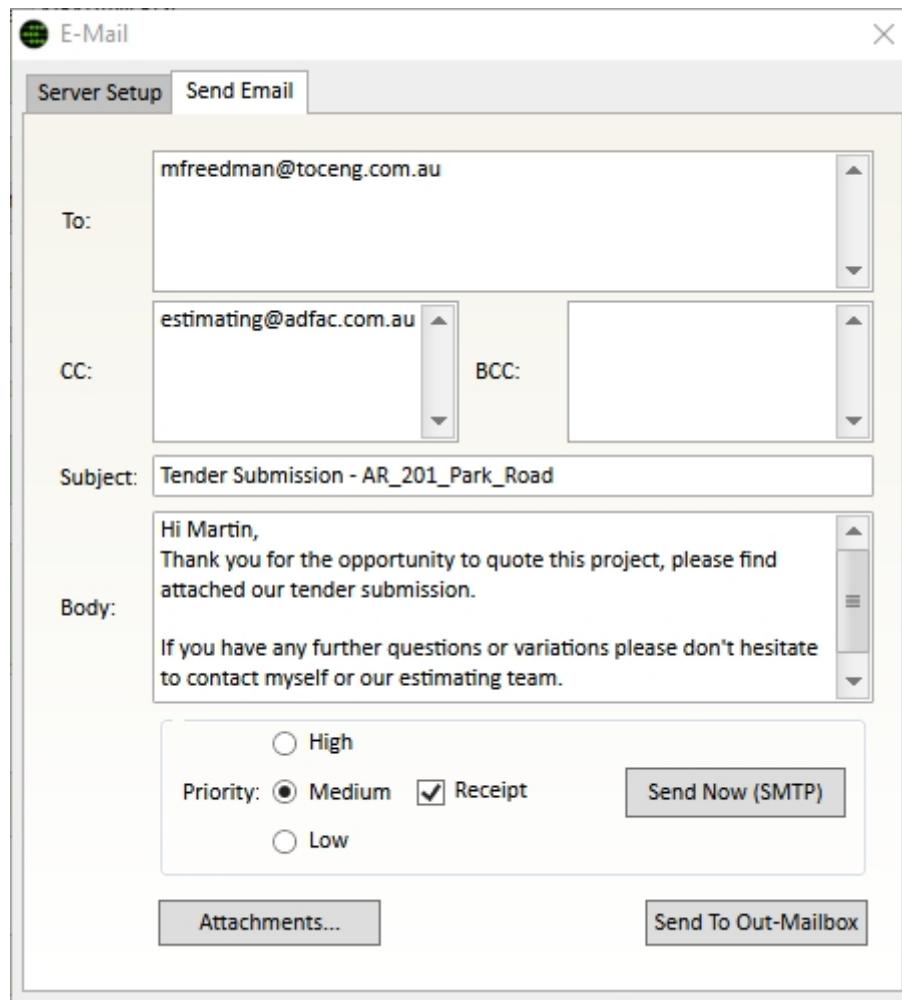


Figure 140: Email Window

4. You can now add any additional addresses to the email, and edit the *Subject* or *Body* to suit the individual needs of the Project you are working on.
5. To send the Email, select either:
 - *Send Now (SMTP)* or
 - *Send To Out-Mailbox*
 - *For more information, refer to Email a Report (on page 223).*

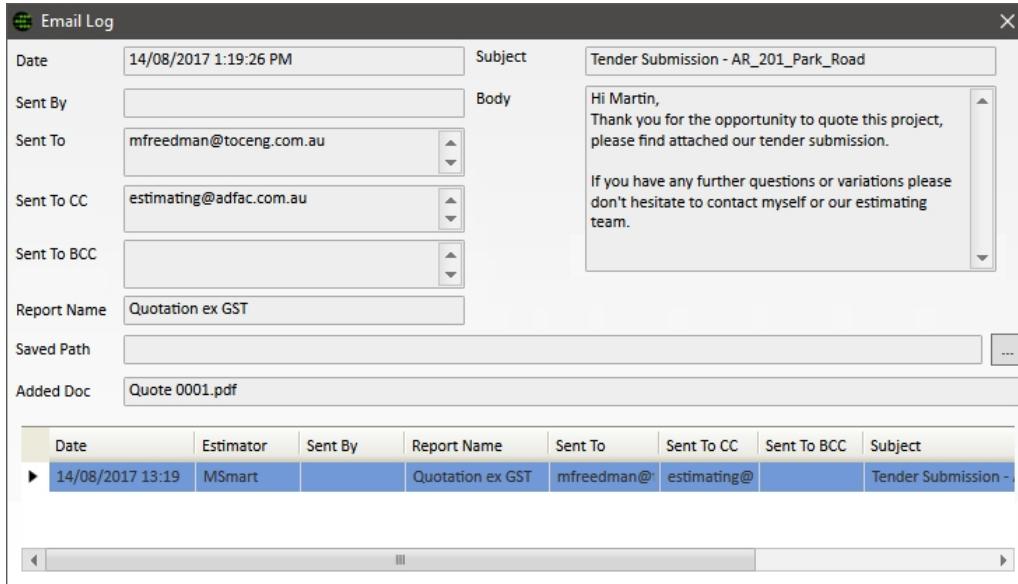
View Emails Sent from Benchmark

All Emails that are sent from Benchmark are logged in the email Log. However, a copy of the attached Quote/reports is only available if the Save Emailed Reports feature is enabled. Otherwise, only a record of the email details with fields such as Date, subject, from and to are saved.

To View the Email Log for a Project:

1. Open the **Project Details** Window and select the Client Details Tab
2. Click the **Email Log** button.

The Email Log window will be displayed.



The screenshot shows the 'Email Log' window with the following details:

- Date: 14/08/2017 1:19:26 PM
- Subject: Tender Submission - AR_201_Park_Road
- Sent By: (empty)
- Sent To: mfreedman@toceng.com.au
- Sent To CC: estimating@adfac.com.au
- Sent To BCC: (empty)
- Report Name: Quotation ex GST
- Saved Path: (empty)
- Added Doc: Quote 0001.pdf

In the preview pane, the email body contains:

Hi Martin,
 Thank you for the opportunity to quote this project,
 please find attached our tender submission.

 If you have any further questions or variations please
 don't hesitate to contact myself or our estimating
 team.

A small preview table below shows the email details:

Date	Estimator	Sent By	Report Name	Sent To	Sent To CC	Sent To BCC	Subject
14/08/2017 13:19	MSmart		Quotation ex GST	mfreedman@...	estimating@...		Tender Submission -

Figure 141: Email Log Window

In the Email Log, you can see the email information for each email that has been sent. You can also open the report/quote if the Save Email Reports is enabled.



Turning On Save Emailed Reports

Save Emailed Reports is not enable by Default. For more information, refer to [Customise Administration Settings](#) (on page 288).



Administration Email Log

Benchmark Administrators may wish to review a log of all emails issued from within Benchmark. This can be seen in the Logs tab in the [Administration](#) window.

Export your Estimate data to other systems

Benchmark can export data from your estimate to Microsoft Excel and other formats. This is useful for project management and job costing purposes. Benchmark can also export to construction scheduling software.

Export Estimate Data Overview

Benchmark can export the data from a Project to other business systems. These systems consist of Microsoft Excel ®, Microsoft Project ® and accounting/job costing systems.

All of the Exports available in Benchmark can be accessed from the [Project Details](#) window.

A common field used in some of the exports to other systems is the **Cost Code**. Depending on how your company has its reporting and systems set up, Cost Codes can play a very important role and can be used in Accounting, Job Costing and/or Project Management functions. The section on the following page discusses how Cost Codes work within Benchmark.

Assign Cost Codes within a Project

Depending on how your business does its job costing or accounting, you can assign Cost Codes at the Resource, Item and/or Section level in your Project. Businesses generally set up and assign Cost Codes in one of two ways:

1. By setting up Cost Codes for all Resources in the Resource Library. When Resources are added to a Project the Cost Code data is automatically brought into the Project. Little or no editing of Cost Codes is therefore generally required in a Project; or
2. By assigning Cost Codes to an Item (or Groups of Items or an entire Section) in a Project. Using this method, the Cost Codes are generally decided on and assigned on a project by project basis.

To use Cost Codes, you must first set up your Cost Codes in Benchmark's [Codes](#) window. For more information, refer to [Set up Codes](#) (on page 284). You must also nominate which method of Cost Codes you wish to use; this is done in the [Administration](#) window. For more information, refer to [Customise Administration Settings](#) (on page 288). These two critical aspects should be set up by your administrator.

You can assign Cost Codes when in a project by:

1. Assigning Cost Codes to Sections. For more information, refer to [Assign Cost Codes to Sections](#) (on page 88).
2. Assigning Cost codes to Items. For more information, refer to [Assign Groups, Cost Codes and Activities to Items](#) (on page 111).
3. Assigning Cost Codes to Resources For more information, refer to [Assign Cost Codes to Resources](#) (on page 132)

The method you use in Benchmark for Cost Codes will depend purely on how your accounting and/or other business systems are set up.

Report on or Export Cost Code data

To review the Cost Codes in your Project:

1. Navigate to the **Project Details** window and select Report then one of the following, based on what you would like to see
 - Direct Costs
 - Overheads
 - Project Total.
2. Within these menus are various reports that show Cost code information., Such as:
 - Resource By Cost Code
 - Resource By Cost Code Summary
 - Resources By Item By Cost Code
 - Resources without a Cost Code.

You can also export your estimate broken down by Cost Code, to Microsoft Excel. To do this:

1. In the **Project Details** Window, select the Export to Excel menu
2. Then select from one of the five Cost Code exports

Create a Construction Program

Benchmark has the ability to interface with Microsoft Project® to assist in the creation of Construction Programs.

Benchmark has two exports to Microsoft Project:

- **Export to MPX File** – This export exports the Section and Item work breakdown structure of the Benchmark estimate. Durations can be exported as long as they have been calculated and/or entered into the *Duration* field in the **Project Items** window. This export uses an MPX file format.
- **Resource Based Export (XML)** – This export exports the Section and Item work breakdown structure of the Benchmark estimate together with Resources and cost data. This will link all of the Resources in the Project to the Items (tasks) within Microsoft Project. Once in Microsoft Project, it will calculate your Item durations automatically based on the Resources within each Item. Using this feature you, therefore, do not need to calculate the duration of each Item; the system does this for you.



Microsoft Project 2007 and later – MPX exports

To use MPX exports in Microsoft Project 2007 and later you must enable legacy formats in the security options of Microsoft Project. Please consult your Microsoft Help documentation for information on how to enable this feature.

Using the Duration Calculator to calculate Item Durations

When exporting to Microsoft Project using the MPX export, you need to calculate the duration of each Item in your estimate. When using the Resource Based Export to Microsoft Project, Item durations are automatically calculated.



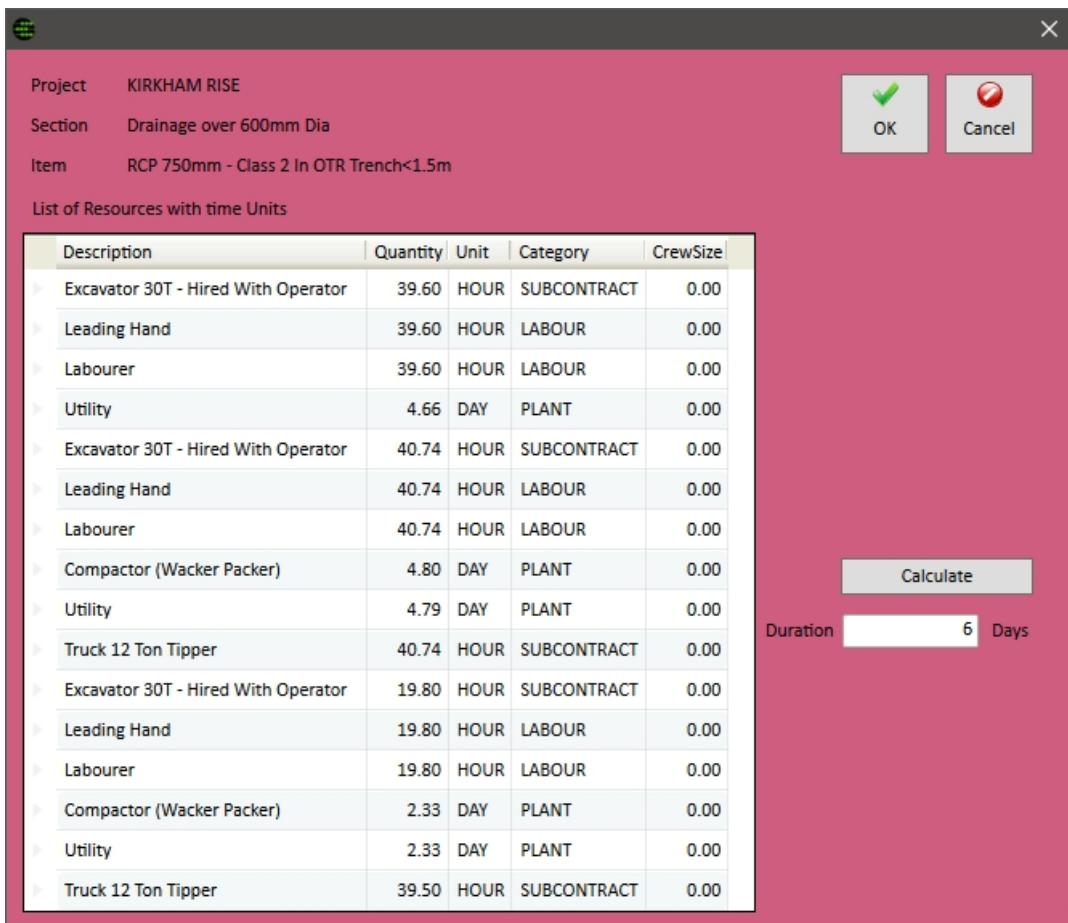
Duration Calculator only required for MPX

When using the Resource Based Export to Microsoft Project, Item durations are *automatically* calculated.

The Duration Calculator works by adopting the duration of the Resource in that Item with the longest duration, taking into account the Resource Crew Size (if applicable) and the specified number of working hours in a day. This assumes that the Resources work in parallel and not in sequence, one after the other. If this is not the case, then the user can manually override the calculated duration by typing in a new duration.

To calculate the Duration for an Item using the Duration Calculator:

1. In the **Project Items** window, highlight the *Item* you want to calculate the duration for.
2. Click on the Duration Calculator button.
3. A window with all-time based Resources for the highlighted Item will appear.



The screenshot shows the Duration Calculator window with the following details:

Project: KIRKHAM RISE
Section: Drainage over 600mm Dia
Item: RCP 750mm - Class 2 In OTR Trench<1.5m

List of Resources with time Units

Description	Quantity	Unit	Category	CrewSize
Excavator 30T - Hired With Operator	39.60	HOUR	SUBCONTRACT	0.00
Leading Hand	39.60	HOUR	LABOUR	0.00
Labourer	39.60	HOUR	LABOUR	0.00
Utility	4.66	DAY	PLANT	0.00
Excavator 30T - Hired With Operator	40.74	HOUR	SUBCONTRACT	0.00
Leading Hand	40.74	HOUR	LABOUR	0.00
Labourer	40.74	HOUR	LABOUR	0.00
Compactor (Wacker Packer)	4.80	DAY	PLANT	0.00
Utility	4.79	DAY	PLANT	0.00
Truck 12 Ton Tipper	40.74	HOUR	SUBCONTRACT	0.00
Excavator 30T - Hired With Operator	19.80	HOUR	SUBCONTRACT	0.00
Leading Hand	19.80	HOUR	LABOUR	0.00
Labourer	19.80	HOUR	LABOUR	0.00
Compactor (Wacker Packer)	2.33	DAY	PLANT	0.00
Utility	2.33	DAY	PLANT	0.00
Truck 12 Ton Tipper	39.50	HOUR	SUBCONTRACT	0.00

Calculate button

Duration: 6 Days

Figure 142: Duration Calculator Window

4. Click on the Calculate button to calculate the duration of the Item.
 - If you disagree with the calculated duration, you can manually override the duration at this stage by clicking in the Duration field and typing in the duration in *DAYs*.
5. Click on OK to return to the **Project Items** window.
6. Repeat this process for each Item in your Project.

Export to Construction Programming Software

You can export your Project to Construction Programming Software like Microsoft Project ® or Suretrack ®, in two different ways:

- Project Items to MPX File or
- Resource based export to an XML File.

Export to an MPX file - Legacy

Benchmark generates an MPX file for a Project that can be opened in Microsoft Project

To export this file and open it in the Construction Programming software:

1. First, ensure you have calculated durations for each Item using the Duration Calculator as described in **Using the Duration Calculator to calculate Item Durations** (on page 228)
2. From the **Project Details** window, select Report then select Scheduling then select Export to MPX File.
3. Select the destination folder and enter a filename for your export, then select Save.
 - Make sure the file you save has the '.MPX' extension in the *filename* field (i.e Project_X.mpx).
4. Open Microsoft Project or Suretrack.
5. Open the MPX file that you just created.

You will now have a base Construction Program to work from. This function links your Program to your Estimate, giving you a more accurate Program.

Export to an XML file

Benchmark generates an XML file for a Project that can be opened in Microsoft Project.

To export this file and open it in Microsoft Project:

1. From the **Project Details** window, select Report then select Scheduling then Resource-based Export (XML).

2. Select your exporting preferences from the **Export to Microsoft Project Options** window

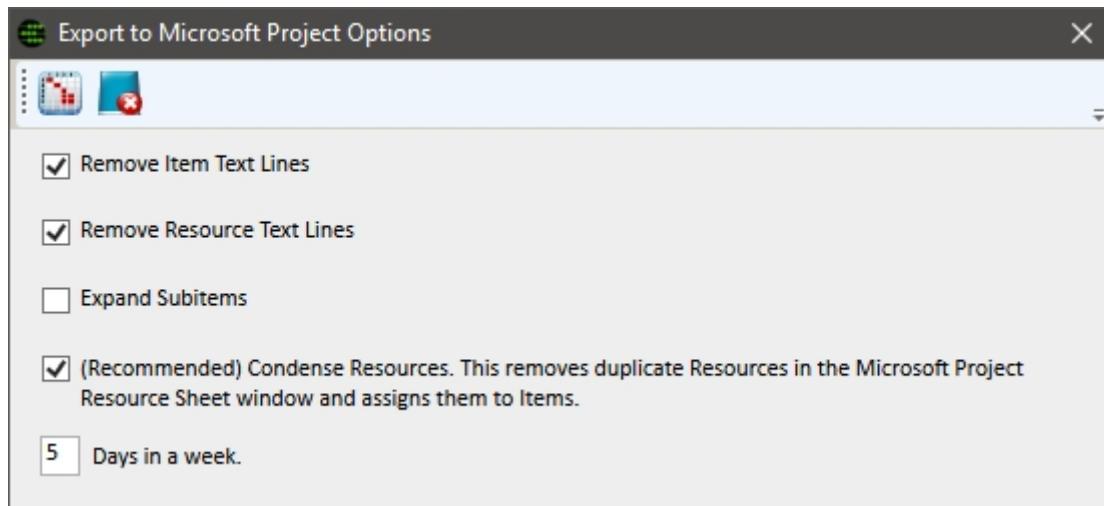


Figure 143: Microsoft Project Options

3. Right-click and select Export Project.
4. Select the destination folder and enter a filename for the export then click Save.
 - Make sure the file you save has the .XML extension in the *filename* field.
5. Select Yes to the prompt to open the export file in Microsoft Project.
6. Follow the Microsoft Project import wizard.

You will now have a base Construction Program to work from. This function links all of the Resources to your Items (tasks) within Microsoft Project. It will also calculate the durations for you automatically, giving you not only more accurate Programming, but more accurate Estimating.

Export to Microsoft Excel

Benchmark has some powerful, automated exports to Microsoft Excel which can be run for an individual Project. These can be used for job costing, project management and for integration with other business systems. The exports are generated from the [Project Details](#) window and are shown below.

Export To Excel	Help
All Resources by Cost Code	
All Resources by Cost Code by Section	
Resources by Cost Code by Selected Sections	
All Resource Sub Totals by Cost Code	
All Resource Group Totals by Cost Code	
Resources by Subcontractor/Supplier	
Project Total Resources by Group	
Project Total Resources by Item	
Project Total Resources by Section	
Direct Cost Resources by Category	
Project Review/Analysis	
Resources by Item	
Resources by Item with Used and Remaining	
Resources by Item PLMS	
Schedule of Items	
Direct Cost Items by Selected Group	
Project Total Items by Group PLMS	
Costing and Cash Flow	
Items by Cost with Resources PLMS	
iSeekplant Export	
iSeekplant Export and Email	
Excel Quote	

It is recommended that you run each of these exports to see which one suits your needs.

- The top section exports are resources related and are exported by different resource filters.
- The middle section exports are based around the Project and Project Items. These exports will export the entire structure of the project.
- Schedule of Items and Excel quote both export the Project Items with Submission prices.

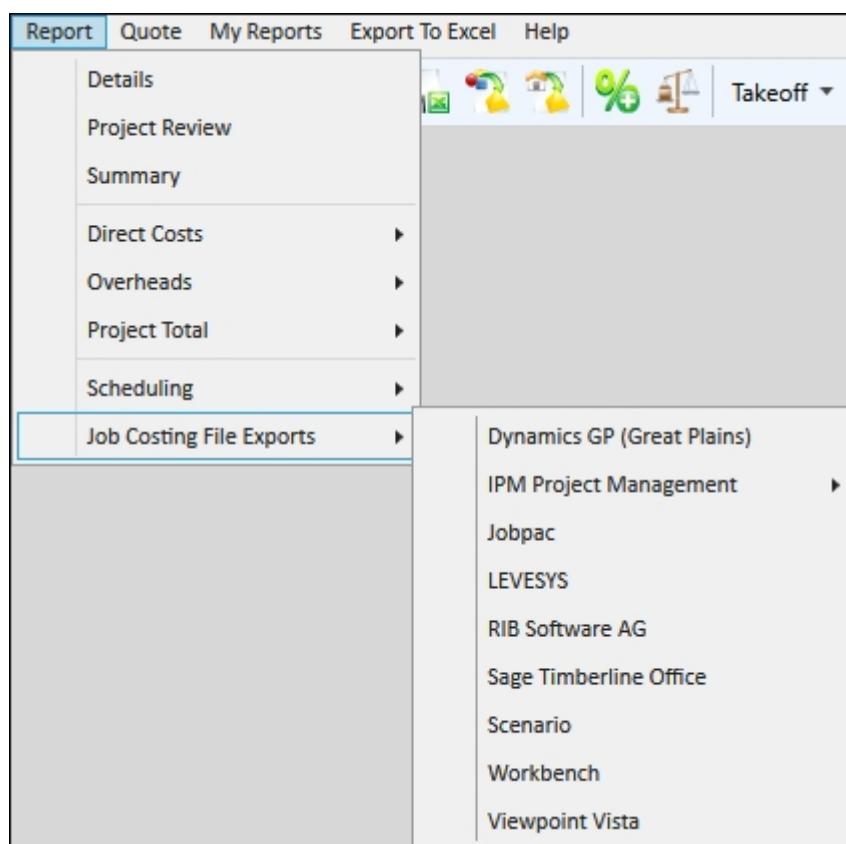


Microsoft Excel is not required

When you run an *Export to Excel*, if Benchmark detects that you don't have Excel installed on the same computer, it will open the Excel export in *Spreadsheet Gear*, which is the 3rd party spreadsheet component embedded in our software to assist you in various applications.

Export to other business systems

Benchmark has direct exports to accounting and job costing systems. These exports are run from the **Project Details** window as shown below. Please contact the Benchmark Support team for more information.



If you would like Benchmark to connect to one of your business systems then please don't hesitate to contact our support team as we are always looking for ways to integrate our solution to improve business flow for our clients.

Pricing Variations and Progress Claims

You can use Benchmark to price Variations and generate your Progress Claims. You can even include Retentions for your Progress Claims and select from a variety of professional Progress Claim reports to submit to your Client.

Add Variations to Your Project

You can price Variations in one of two ways.

- If you use Progress Claims and wish for your Variation Items to be displayed in your Progress Claims together with your original contract Items, follow the steps below; OR
- If you do not use Progress Claims, then you can price your Variation by adding a brand new Project.

Add a Variation

To add variation Items to your Project and have these *flow* into your Progress Claims correctly:

1. Duplicate the original Project. To do this, open the Project so you are in the **Project Details** window. Right-click and select Duplicate.
2. You will now be in the **Duplicate Project** window (For more information, refer to **Duplicate a Project** (on page 75)).

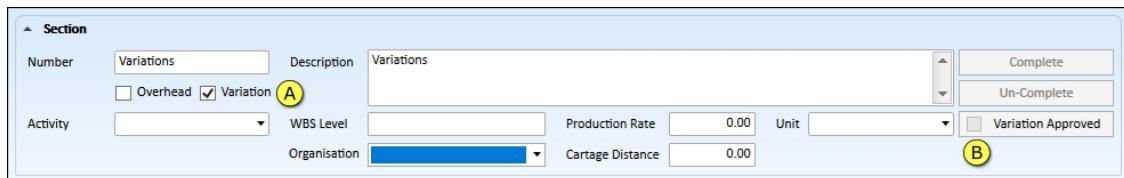
For the purpose of pricing a Variation, it is recommended that you check the following options in the **Duplicate Project** window and then select Duplicate:

- a. Link Duplicated Projects for Market Share Analysis.
- b. Retain Current Resource Rates in Duplicated Project
3. You will now be in the **Project Details** window for the duplicated Project; you may wish to add some text to the end of the *Project Title* so you can easily distinguish this Project from the original, For example *Project Title - with variations*.
4. Right-click and select OK.
5. Right-click and select *Spread*.
6. In the **Project Spread** window, right-click and select *Fix All Rates* (For more information, refer to *Fixing All Item Submission Rates* (on page 204)).

This will lock in the submission rates from the original scope of works that your client has accepted.

7. Right-click and select Close.
8. Go to the **Project Sections** window.
9. Right-click and select Add.
10. Enter a Section *Number* and enter a description for your new Section (i.e. Variations).

11. Check the Variation checkbox (A) (This flags this Section as Variation Section which is used in the Progress Claim reporting).



The screenshot shows a software interface for managing project sections. At the top left, there's a section header 'Section'. Below it, there are several input fields and dropdown menus. One of the dropdown menus has a yellow box around its title 'Variations' and contains two options: 'Overhead' and 'Variation'. The 'Variation' option is checked and highlighted with a yellow circle labeled 'A'. To the right of these fields are buttons for 'Complete' and 'Un-Complete'. Further down, there are more fields: 'Activity' (with a dropdown arrow), 'WBS Level' (empty), 'Production Rate' (0.00), 'Unit' (empty), 'Organisation' (blue dropdown menu), and 'Cartage Distance' (0.00). On the far right, there are two buttons: 'Variation Approved' (highlighted with a yellow box and labeled 'B') and another button that is partially visible.

Figure 144: Variation Section

12. Click on OK.
13. Double-click on this Section to go to the **Project Items** window.
14. Now you can add your variation Items to your Project. For more information, refer to **Project Items** (on page 90).

If you use Benchmark's Progress Claims function, then these Variation Items are displayed on your Progress Claims.



Variation Approved (B)

This is used to trigger external systems integrated with Benchmark that there has been a variation in the project and an update is required.

Produce a Quote/Approval form for a Variation

After adding a Variation, you can then create a quote (or Variation Approval report) for the Variation to submit to your Client.

This uses Benchmark's Word Template feature, so you must set up the following:

1. A Word Template for a Variation Approval form. For more information, refer to **Set up Microsoft Word Templates** (on page 412).

To generate a quote/approval form for a Variation:

1. In the **Project Sections** window highlight the Variation Section.
2. Select Quote Then Word Template from the menu.
3. Browse for the Microsoft Word Template document and click Open.
4. This will then create your document in Microsoft Word and open the document ready for you to review and/or edit before submission.



Where are your Word Quotes saved?

The default folder where Benchmark saves your Quotes in Word is called **Benchmark Documents**, this folder is created by Benchmark at the level above the folder that you selected the template from.

After Benchmark creates your Word Quote for a Project, this document is now in Word and outside of Benchmark's control; any changes you make in the Word document to things like Conditions, for example, will **NOT** be reflected in your Benchmark estimate.

We recommend that the only changes you make in your Word document are layout adjustments and adjustments to wording so that you retain consistency between your Word Quote and your Benchmark estimate.

Produce Progress Claims

Using Benchmark's Progress Claims feature saves you time preparing *Progress Claims* for payment, and will help you ensure your *Progress Claims* are accurate and free from errors.

If you issue *Progress Claims* for payment to your client as your job progresses, you can use Benchmark's Progress Claims function. You can enter progress data for each Item in your Project, and you can also produce *Progress Claim* reports from Benchmark, which you can submit to your Client.

Benchmark's Progress Claims feature includes **Retentions**. For each *Progress Claim* that is entered, Benchmark can work out the *Retention* based on the amount claimed and the *Retention percentage set*. Benchmark will continue to calculate *Retentions* until a nominated, maximum retention value is reached or the quote has been claimed to the full amount.

You can also price **Variations** in Benchmark and have them flow through to your *Progress Claims*. Benchmark includes an option to mark a *Section* as a *Variation* which provides additional reporting functions in *Progress Claims*. To price *Variations* in Benchmark and have them flow to your *Progress Claims*. For more information, refer to Add Variations to Your Project (on page 233).

Add a Progress Claim

To add a *Progress Claim* for a Project:

1. In the **Project Details** window, right-click and select Go To → Progress Claims.

The Progress Claims window will then be displayed.

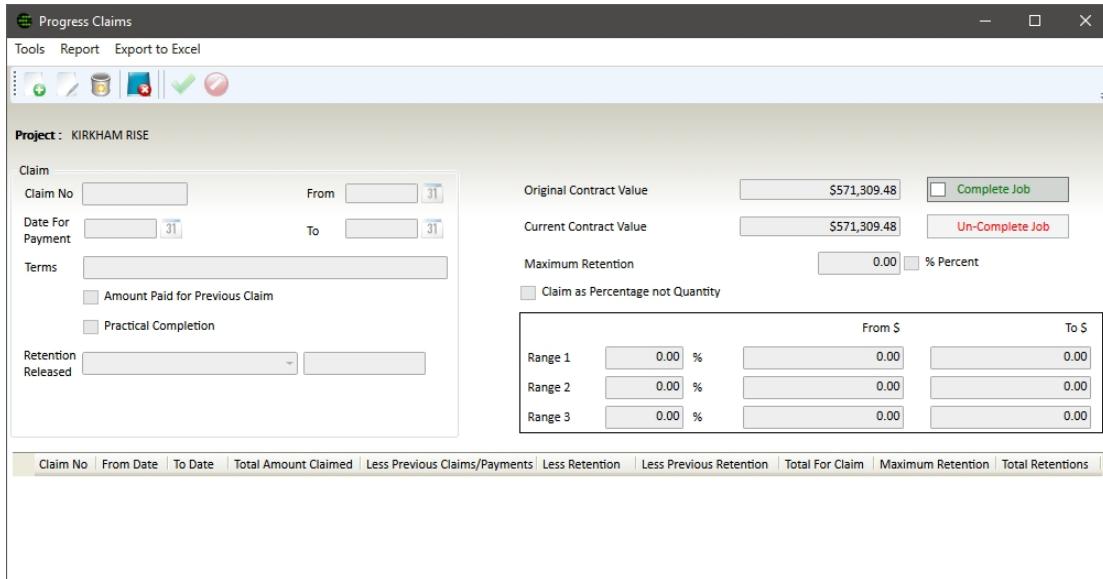


Figure 145: Progress Claims Window

In the image above you will see fields and values for the *Original Contract Value* and *Current Contract Value*. When the first *Progress Claim* is produced, Benchmark will lock in the then *current Submission price* as the *Original Contract Value*. If and when additional costs are added to the project (for example a *Variation* is added) then the *Current Contract Value* is updated. *Maximum Retention* (if expressed as a %) and the *Retention value* are then calculated for any subsequent *Progress Claims* on the Current Contract Value.

2. Right-click and select Add.
3. Select a *date* for payment.
 - This may already be populated with the default number of days due from the **Administration** window.
4. Select a *date* in the *From* field.
5. Select a *date* in the *To* field.
6. Click in the *Terms* field and enter the terms of payment for this Progress Claim (i.e. *Within 7 days of Progress Claim date*).
 - Default terms can be setup in the **Administration** window – Progress Claims tab.
7. On your First claim, you can select the *Claim as Percentage not Quantity* checkbox if you wish to submit Progress Claims by % Complete for this Project.
 - If you do not check this checkbox, your Progress Claims for this Project are done by Quantity complete.
 - If you always claim by % you can set this as a default in the **Administration** window – Progress Claims tab.
8. From the second Progress Claim onwards, you can check the *Amount paid for previous claim* checkbox and type in a value.

- a. If the value of Progress Claim one was \$105,000 and your client only paid you \$100,000 – you can enter \$100,000 into this field for Progress Claim
 - b. With this checked then the Progress Claim reports will replace the *Less Previous Progress Claim* amount with the *Less Previous Amount Paid*. Benchmark will calculate for you the sum of all previous amounts either previously paid or claimed. You only need to type in the amount paid for the previous Progress Claim, not the total amount paid to date; Benchmark will calculate this for you.
9. To include Retentions in your Progress Claims, complete the following otherwise skip this step.
- Even if your business does not implement a maximum retention for your Progress Claims, you must enter one for the retention calculations to work. If you do not have a maximum retention at all then we recommend that you set up a default Maximum Retention of 100 % in the **Administration** window, so that this is applied to every Project and so you don't have to worry about it.
- a. Select the *Maximum Retention* field and enter a maximum Retention for the Project. This can be entered as an amount or a percentage.
 - i. To enter the Maximum Retention as a percentage, type the % value into the *Maximum Retention* field and check the *% percent* checkbox.
 - ii. To enter the Maximum Retention as a value, type the value into the *Maximum Retention* field and DO NOT check the *% percent* checkbox.
 - b. Enter percentages and values into Range 1, 2 and 3 fields to suit your business. You must enter a From and To value for Range 1 as a minimum requirement for Retentions.
10. Press <ENTER> or right-click and select OK.
11. The **Progress Claim Input** window will now be displayed, ready for you to commence entering Progress Claim data. Refer to **Enter Progress Claim Data** (on page 238) for information on how to complete this window.

How to Enter Retention Ranges:

- Retention Range values can only be modified when you add the very first Progress Claim in a Project.
- The way you set up the Range figures will depend on how you calculate your Variations.
- Two examples of how you can set up these ranges are as follows:
 - a. **Example One – You have a simple 5% Retention**

In this case you only need to enter data into the Range 1 fields and can leave the remaining fields blank as shown below.

		From \$	To \$
Range 1	5.00 %	0.00	1,000,000.00
Range 2	0.00 %	0.00	0.00
Range 3	0.00 %	0.00	0.00

b. **Example Two – You have three different % Retention figures which apply to different values**

For example, you may have a situation where you can retain:

- 10% of the first \$500,000
- 5% of amounts above \$500,000 but less than \$1,000,000
- And 2.5% of amounts over \$1,000,000

		From \$	To \$
Range 1	10.00 %	0.00	500,000.00
Range 2	5.00 %	500,000.00	1,000,000.00
Range 3	2.50 %	1,000,000.00	10,000,000.00

Enter Progress Claim Data

The Progress Claim data you can enter is either:

- The *Total Quantity Complete* for each Item; or
- The *Total Percentage Complete* for each Item.



Total Quantity or Total Percentage completed

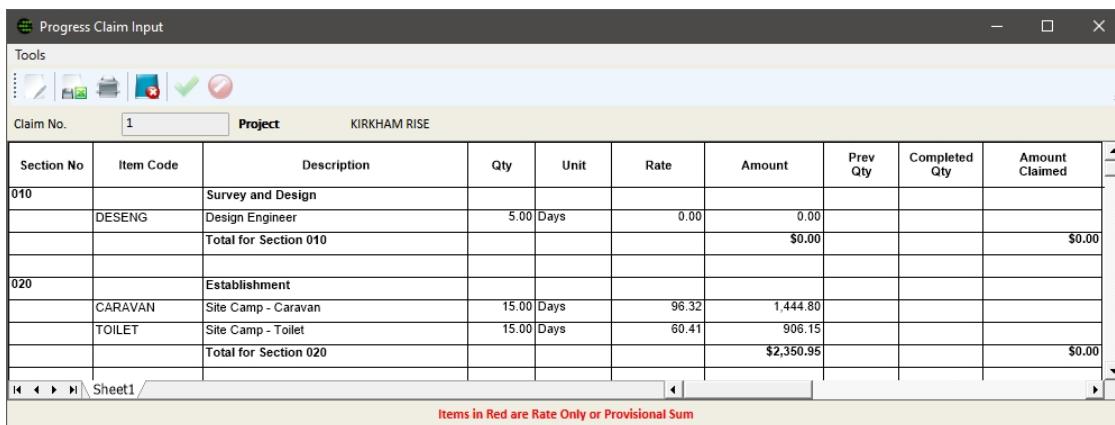
Benchmark Progress claims expect the Total work completed to date, not the work completed in this period of work. Therefore when entering a quantity or percentage, it must be the total amount of completed works for all past and current claim periods.

To enter or edit Progress Claim data for an existing Progress Claim:

1. From the **Project Details** window, right-click and select Goto, then Progress Claims.
2. In the **Progress Claims** window, double-click on the latest Progress Claim in the list.

(Note: You cannot edit old Progress Claims, only the most recent Progress Claim for a Project)

You will now be in the Progress Claim Input window.



Section No	Item Code	Description	Qty	Unit	Rate	Amount	Prev Qty	Completed Qty	Amount Claimed
010		Survey and Design							
	DESENG	Design Engineer	5.00	Days	0.00	0.00			
		Total for Section 010				\$0.00			\$0.00
020		Establishment							
	CARAVAN	Site Camp - Caravan	15.00	Days	96.32	1,444.80			
	TOILET	Site Camp - Toilet	15.00	Days	60.41	906.15			
		Total for Section 020				\$2,350.95			\$0.00

Figure 146: Progress Claim Input Window

3. Right-click and select Edit.

The *Completed %* or *Completed Qty* columns are the only fields in the Progress Claim Input window that you can edit or enter data into. They have a yellow background to make them stand out from the other fields.

4. Select the *Completed %* or *Completed Qty* column for the first Item, and type in the Total Percentage complete or the Total Quantity complete to date for this Item.
5. Press ENTER or the DOWN ARROW on the keyboard to move to the next Item, and type in the Total Percentage complete or the Total Quantity complete to date for this Item.
6. Continue to do this until you have entered data for each Item you are claiming for this Progress Claim.
7. Right-click and select OK.

Editing Item Description in Progress Claims

In the Project Claim Edit window you can make changes to your Project Items Descriptions. However please note that any changes to your descriptions will also update your Descriptions throughout your project. This is the same as if you edited your Item description in the Project Items window.

Adding Comments to Progress Claim Items

Comments can also be added to the Progress Claim Input window to record information about particular Items. These comments only appear in the Progress Claim Input window.

To add a comment:

1. In the Progress Claim Input window, select a Project Item Line.
2. Right-click and select Add Comment.

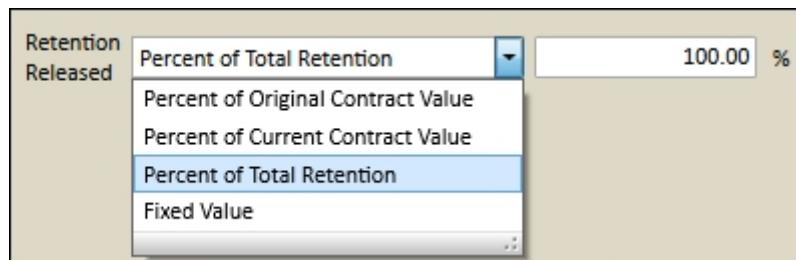
You can also Edit or Delete a comment if one already exists.

Practical Completion

The practical completion checkbox in the **Progress Claims** window allows an estimator to mark the Project as completed. Once checked, the final Progress Claim will include the released retention values in the Progress Claim Summary / Report.

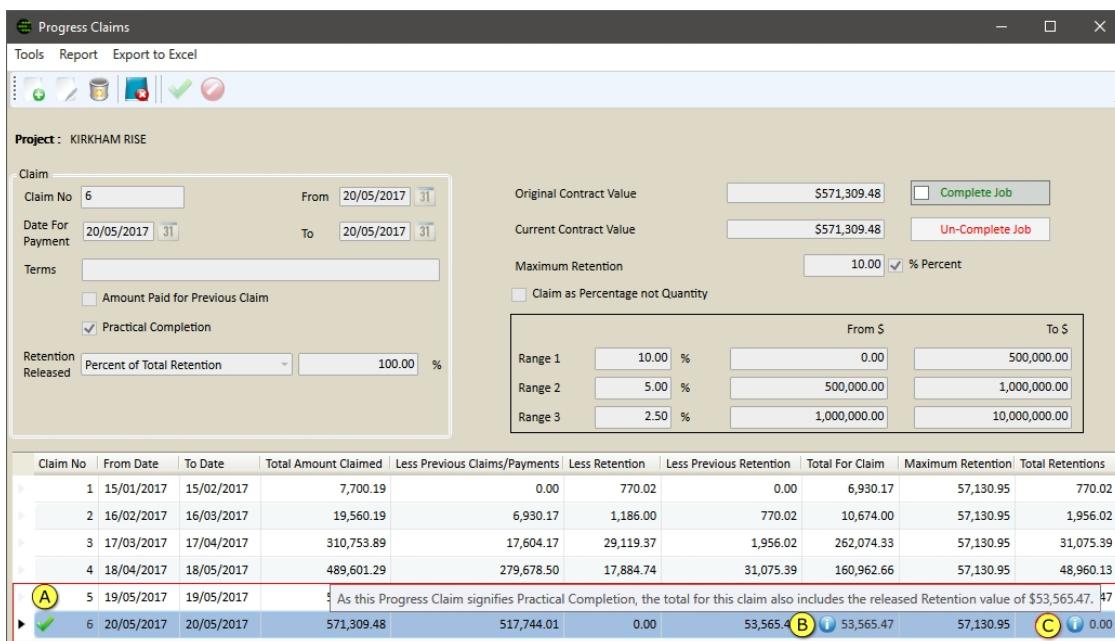
The retention amount released can be selected from a drop-down box and can be one of the following:

- A percentage of the Original Contract Value.
- A percentage of the Current Contract Value.
- A percent of Total Retention.
- Fixed Value.



When the *Practical Completion* checkbox is checked, the **Progress Claims** window displays the following icons:

- A check icon (A) highlights the Progress Claim that represents *Practical Completion*.
- An information icon (B), with hover over text containing an explanation, indicates both the modified calculation used to work out the Total for the Progress Claim and also the value of the released Retentions added to the Progress Claim total.
- An information icon (C), with hover over text containing an explanation, indicates the value of the released Retentions deducted from the Total Retentions.



Claim No	From Date	To Date	Total Amount Claimed	Less Previous Claims/Payments	Less Retention	Less Previous Retention	Total For Claim	Maximum Retention	Total Retentions
1	15/01/2017	15/02/2017	7,700.19	0.00	770.02	0.00	6,930.17	57,130.95	770.02
2	16/02/2017	16/03/2017	19,560.19	6,930.17	1,186.00	770.02	10,674.00	57,130.95	1,956.02
3	17/03/2017	17/04/2017	310,753.89	17,604.17	29,119.37	1,956.02	262,074.33	57,130.95	31,075.39
4	18/04/2017	18/05/2017	489,601.29	279,678.50	17,884.74	31,075.39	160,962.66	57,130.95	48,960.13
5	19/05/2017	19/05/2017		As this Progress Claim signifies Practical Completion, the total for this claim also includes the released Retention value of \$53,565.47. 47					
6	20/05/2017	20/05/2017	571,309.48	517,744.01	0.00	53,565.47	57,130.95	0.00	

Figure 147: Progress Claims Practical Completion

Produce Progress Claim Reports

Benchmark can generate various Progress Claim reports which you can print and fax to your Client.

There are various formats for Progress Claim reports, including:

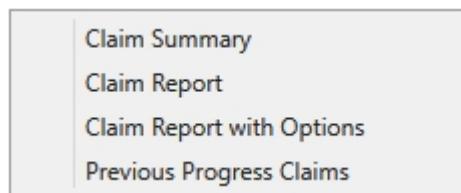


Figure 148: Progress Claim Reports

To run a Progress Claim report:

1. Highlight the Progress Claim that you wish to report on.
2. Select the Report drop-down menu and the Report you wish to run.
3. The **Report Destination** window is displayed.
4. Select the destination type.
5. Select OK.

A brief description of these reports follows.

Progress Claim Summary

This is a one-page Progress Claim Summary report based on the selected claim and a summary of the Progress Claims states. It includes the Original Contract Value, Variations approved, the amount completed for the original contract and the Variations, Retention details and the total amount claimed.

Progress Claim Report

This is the standard Progress Claim report which shows the Items in the estimate with the total claimed amounts in the selected Progress Claim. This report lists all Items as they appear in the quote.

Progress Claim Report with Options

This report is based on the standard Progress Claim report but provides the user with some useful formatting options.

These options consist of:

Option	Functionality/Printed on the Report
Site Location	Display the <i>Location</i> of the Project from the Project Details window.
Progress Claim Number	Display the <i>Progress Claim Number</i> as <i>Progress Claim Number X</i> .

Option	Functionality/Printed on the Report
Job Number	Display the <i>Job number</i> from the Project Details window.
Internal Reference	Display an <i>Internal Reference</i> number entered into the field.
Purchase Order Number	Display a <i>Purchase Order</i> Number entered into the field.
Tax Invoice	Display a <i>Tax Invoice</i> entered into the field.
ABN	Display an <i>ABN</i> entered into the field.
Include Column Lines	Check the checkbox to make lines appear between each column.
Include Retentions in Summary Total	Enables Retentions to be included in the summary total for the Progress Claim.
Right Align Logo	Moves the <i>Logo</i> on the report to the top right corner.
Split Variation Sections and Items	Sections that are not marked as a Variation are shown first with a subtotal and then Variation Sections with their Items are shown second with a subtotal.

Table 17: Options on Formatting Progress Claim Reports

Previous Progress Claims

This report shows progress data for the last four Progress Claims as well as the original Contract Rate / Amount, the Amount Claimed to Date and the total % complete for each Item.

Save a Progress Claim in Microsoft Excel

Benchmark allows you to save Progress Claim data into Excel. You may wish to do this to rearrange the format of the Progress Claim, or to insert additional columns.

To save a Progress Claim from Benchmark to Excel:

1. In the **Progress Claim Input** window, right-click and select **Save**.
2. You will now be presented with a **Save As** window. Enter a filename and Browse to the location you would like to save the file.
3. Select **Save** to complete the export.

Market Share Analysis

Benchmark allows you to record and report on market share data, such as if you won or lost a tender or if the job is still pending. This business critical data can help you analyse and grow your business.

Update and Analyse Your Market Share Data

In Benchmark you can enter Market Share data for a Project that will allow you to analyse your business at a later date. You can update marketing data within an individual Project in the Analysis tab of the [Project Details](#) window. To enable faster updating of marketing data for many projects at once, Benchmark has an [Update Marketing Data](#) window for this purpose. Market Share data can then be viewed and exported from Benchmark's Project Analysis feature.

Project Marketing Data Overview

The following window displays the data you can enter for each of your projects. This is the Analysis tab of the [Project Details](#) window.

Client Details		Analysis	Comments	Conditions	Project Data	
Original Quote No			<input type="button" value="Unlink"/>			
Client Order Number						
Client Ref. Number						
Expected Start Date			31			
Version	1					
Supervisor						
Prepared By	Administrator					
Estimator	Maxwell Smart					
Authorised By				Approval Date	31	
Winner						
Won Date			31			
Winning Price	\$0.00					
Rate	\$0.00		<input checked="" type="checkbox"/> Market Share			
Reason for Loss				<input type="radio"/> Pending	<input type="radio"/> Won	<input type="radio"/> Lost
<input type="checkbox"/> Originated from Template Project		Quote No				

Figure 149: Project Details Analysis Tab

A description of each of these fields is contained in the table below (please note that some of these fields are not true *marketing* data, however, for the purpose of explaining these fields they are included in this Marketing section).

Field / Checkbox	Description
Original Quote No.	If you duplicate a Project, the original quote number is automatically stored in this field. This field cannot be modified by the user.
Client Order Number	This allows the user to enter a Client's Order Number for reference purposes.
Approval Date	The date the Project is Authorised is automatically entered into this field. This date cannot be modified by the user, and generally is the best representation of the date the Quote was submitted to the Client.
Client Ref. Number	This allows the user to enter a Client's Reference Number for reference purposes.
Expected Start Date	The date the Project is expected to start. This field can be entered by the user and is used in the Forward Order report.
Version	Allows you to have different Project versions. This field can be entered by the user.
Supervisor drop-down	This allows the Supervisor for the Project to be selected. The content of this drop-down box is populated from the Estimator Library.
Estimator drop-down	The Estimator (user) who created the Project is automatically recorded in this drop-down box for each Project they create. The Estimator recorded in this drop-down list can be edited by anyone who has access to that Project.
Prepared By	The Estimator (user) who initially created the Project is automatically recorded in this field. This field cannot be modified by the user.
Authorised By	The Estimator (user) who authorises a Project is automatically populated in this field. This field cannot be modified by the user.
Winner	Allows you to register who won the job. You can set up the list of Winners to match your competitors. For more information, refer to Set up Codes (on page 284)
Won Date	Allows you to enter the date the job was won. This is the date the job was won by you or your Competitor and is automatically populated by the system when you select Won or Lost.
Winning Price	Allows you to enter the winning price for the job. Benchmark's Market Share Analysis reporting uses the Submission Price of the projects for reporting purposes.

Field / Checkbox	Description
Rate	Allows you to enter the winning rate in whatever format you like (e.g. \$/tonne or \$/m ²).
Market Share	Indicates this Project should be included in Marketing Analysis. Only Projects that have this checkbox ticked will be used in Market Share Data Analysis
Pending	Indicates the Project is pending and has not been marked as Won or Lost.
Won	Indicates you won the job. This is used in Market Share Analysis.
Lost	Indicates you lost the job. This is used in Market Share Analysis.
Reason for Loss	Indicates the reason for losing a job. The options for this field can be set up in Benchmark's Codes window. For more information, refer to Set up Codes (on page 284)

Table 18: Analysis Fields

Update Project Marketing Data

To update this data for a Project:

1. Open your Project so you are in the **Project Details** window.
2. Click on the Analysis tab.
3. Right-click and select Edit.
4. Edit the field(s) you wish to change.
5. Right-click and select OK.



Setting a Winner

When the Winner is set in the **Project Details** window on the Analysis Tab Benchmark will ask you if the Project was won. The answer to this question will automatically set the Project Status to *Won* or *Lost*.



Automatic Job Numbering

When setup in the **Administration** window, Benchmark will automatically assign the next *Job Number* when the project is marked as *Won*. For more information, refer to Setup Incremental Job Numbering.

Unlinking Projects from MarketShare

When a Project is duplicated, it can be linked for Market Share with the original Project. This means that only one of these Projects will eventually be won or lost. Therefore, when Projects are linked to Market Share only the project that has been assigned as the Market Share project will be used in the Marketing Analysis Data.

To Unlink a Project using the [Project Details](#) Window:

1. In the [Project Details](#) window, click the Analysis tab.
2. Right-click and select Edit.
3. Click the Unlink button.
4. A confirmation prompt will appear regarding Market Share:
 - a. Select Yes to assign Market Share to the Project.
 - b. Select No to un-check the Market Share checkbox.
5. Right click and select OK.

The Original Quote No field will be cleared for the Project and the Market Share checkbox will be updated.

To Unlink a Project using the [Update Marketing Data](#) window:

1. Open the [Update Marketing Data](#) window from the [My Benchmark](#) window.
2. Select the *Project* to unlink.
3. Click the Unlink button.
4. A confirmation prompt will appear regarding Market Share:
 - a. Select Yes to assign Market Share to the Project.
 - b. Select No to leave the Market Share checkbox unchecked.

The Original Quote No field will be cleared for the Project and the Market Share checkbox will be updated.

Update Market Share Data for Multiple Projects

Benchmark includes a specific window to update market share data for many projects. The [Update Marketing Data](#) window is accessible from the [My Benchmark](#) window.

By default, the [Update Marketing Data](#) window will *only* show Projects that are *authorised*. To change the default view settings:

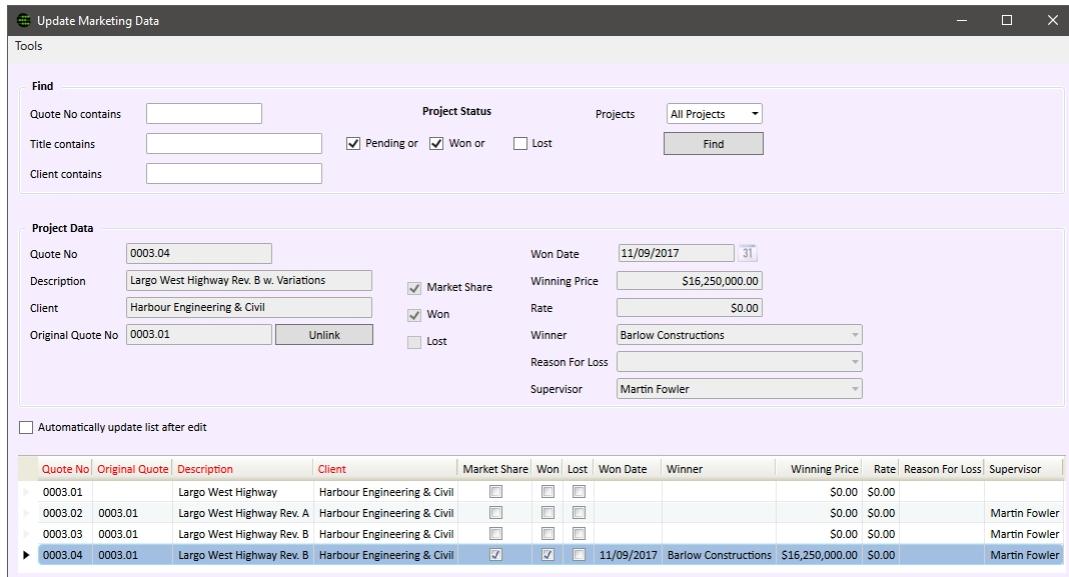
1. In the [Administration](#) window, select the General tab.
2. Right-click and select Edit.
3. Check the Include UnAuthorised Projects in Update Marketing Data
4. Right-click and select OK.

Opening the [Update Marketing Data](#) window:

1. From [My Benchmark](#), under My Favorites, select Update Marketing Data.

If this option is not available, please configure your My Favorites widget to include the Update Marketing Data button.

The **Update Marketing Data** window is displayed:



The screenshot shows the 'Update Marketing Data' window. At the top, there's a 'Find' section with fields for 'Quote No contains', 'Title contains', and 'Client contains', along with dropdowns for 'Project Status' (Pending or Won or Lost) and a 'Projects' dropdown set to 'All Projects'. A 'Find' button is also present. Below this is a 'Project Data' section containing fields for 'Quote No' (0003.04), 'Description' (Largo West Highway Rev. B w. Variations), 'Client' (Harbour Engineering & Civil), 'Original Quote No' (0003.01), and buttons for 'Unlink' and 'Lost'. To the right, there are fields for 'Won Date' (11/09/2017), 'Market Share' (checked), 'Winning Price' (\$16,250,000.00), 'Rate' (\$0.00), 'Winner' (Barlow Constructions), 'Reason For Loss' (dropdown), and 'Supervisor' (Martin Fowler). A checkbox for 'Automatically update list after edit' is unchecked. At the bottom, a table lists projects with columns for Quote No, Original Quote, Description, Client, Market Share, Won, Lost, Won Date, Winner, Winning Price, Rate, Reason For Loss, and Supervisor. The table shows four projects, with the fourth one (0003.04) selected and highlighted in blue.

Quote No	Original Quote	Description	Client	Market Share	Won	Lost	Won Date	Winner	Winning Price	Rate	Reason For Loss	Supervisor
0003.01		Largo West Highway	Harbour Engineering & Civil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			\$0.00	\$0.00		
0003.02	0003.01	Largo West Highway Rev. A	Harbour Engineering & Civil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			\$0.00	\$0.00	Martin Fowler	
0003.03	0003.01	Largo West Highway Rev. B	Harbour Engineering & Civil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			\$0.00	\$0.00	Martin Fowler	
0003.04	0003.01	Largo West Highway Rev. B	Harbour Engineering & Civil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/09/2017	Barlow Constructions	\$16,250,000.00	\$0.00	Martin Fowler	

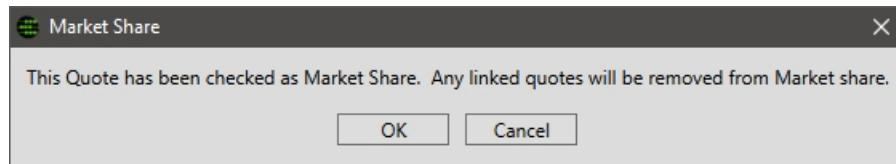
Figure 150: Update Marketing Window

Projects that are linked by Market Share are shown together with their primary project (The Project that is marked as Market Share). Projects linked by Market Share are always listed together regardless of the sort order or search criteria.

To update your Market Share data:

1. In the Update Marketing Data window, find the Project or Projects you wish to edit.
You can do this by:
 - a. Changing the sort order of Projects. Clicking the red column headings will sort the column
 - a. Apply a filter using the Find fields and Project status options.
2. Select the Project to edit.
3. Enter Edit mode by any of the following actions:
 - Double-clicking on the Project.
 - Right-click on the Project and click Edit.
4. Edit the relevant marketing field you wish to edit; noting:
 - Benchmark will fill the *Won Date* for you with the current date if you select Won or Lost.
 - If you have a *Default Winner* nominated in the **Administration** window, then Benchmark will fill in the *Winner* field with this information if you check the *Won* checkbox (note you can override this if required).
5. Select OK to save the data.

6. Benchmark will now update this data. Depending on the following settings and the Project you update, the following may happen:
- If you have updated the Won/Lost status, and if the Project you have edited was not the market share Project, a message will appear as follows:



Select OK (recommended).

- If you have updated the Won/Lost status, and you have mandatory fields enabled in the **Administration** window for *Winner* or *Reason for Loss*, then the system will check you have filled in these fields and if you haven't, it will enforce these fields be filled in before you can continue.
- If you have updated the Won/Lost status, the list of projects may then be refreshed; for example, if the list is showing Pending projects and you mark a project as Won – this project and its linked projects are removed from the list.
- If you have a large number of projects in your database, this processing and refreshing can take some time. Clearing the *Automatically update list after edit* checkbox enables you to edit the marketing data for many projects without the refreshing occurring each time. After you are finished you can re-open the **Update Marketing Data** window or perform a find using the *Find* function to refresh the list.

Produce Market Share Analysis Reports

Within Benchmark you can produce graphs and reports based on the Market Share Data entered for each Project. This allows you to review the Projects that you have won and lost over time.

Market Share reports can be produced from two locations in Benchmark:

- Using the powerful *Project Analysis* feature (covered below).
- And there are also some marketing reports available in the **Project Browser** window (For more information, refer to **Produce Multiple Project Reports** (on page 220)).

Project Analysis Window

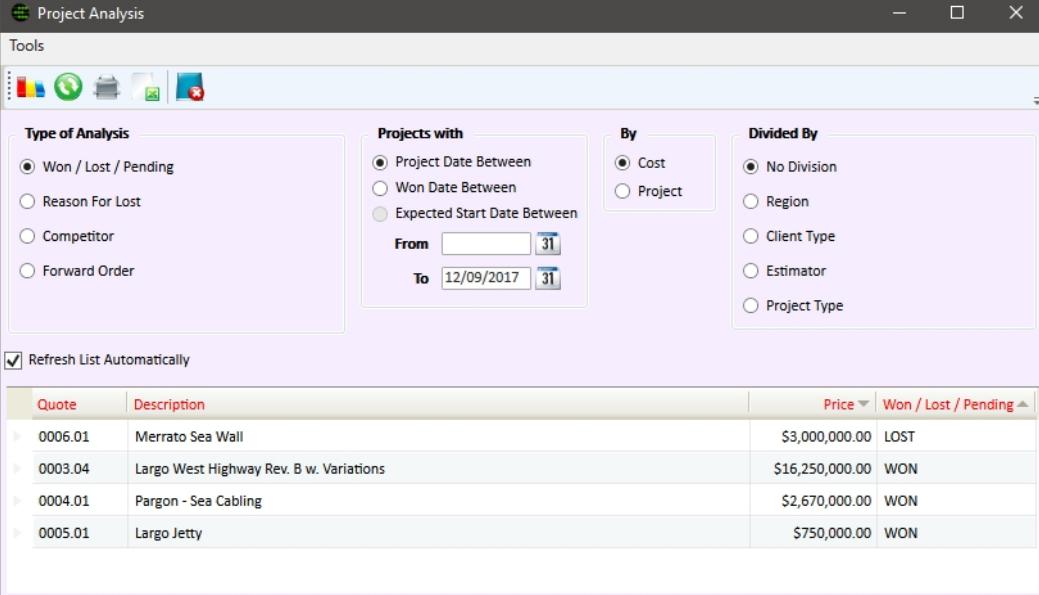
The Project Analysis window allows you to analyse your Project and produce reports.

Open up the **Project Analysis** window by either:

- Clicking Project Analysis in the My Favourites widget on **My Benchmark** window.
 - Or by selecting Report then Projects then Analysis from the **Project Browser** window.
- When the recalculation prompt appears answer:

- Yes to recalculate all your Projects or
- No to continue with the current values.

The **Project Analysis** window will appear displaying Market Share Projects with their Submission Price, and their Status.



The screenshot shows the 'Project Analysis' window with the following interface elements:

- Type of Analysis:** Won / Lost / Pending (selected)
- Projects with:**
 - Project Date Between (selected)
 - Won Date Between
 - Expected Start Date Between
- By:** Cost (selected)
- Divided By:** No Division (selected)
- Refresh List Automatically:** Checked
- Table:** Displays a list of projects with columns: Quote, Description, Price, and Won / Lost / Pending status.

Quote	Description	Price	Won / Lost / Pending
0006.01	Merrato Sea Wall	\$3,000,000.00	LOST
0003.04	Largo West Highway Rev. B w. Variations	\$16,250,000.00	WON
0004.01	Pargon - Sea Cabling	\$2,670,000.00	WON
0005.01	Largo Jetty	\$750,000.00	WON

Figure 151: Project Analysis Window

Types of Analysis:

There are four types of analysis reports you can generate from this feature:

1. **Won/Lost/Pending**

Graphs the projects based on project status.

2. **Reason for Loss**

Graphs the projects based on assigned Reason for Loss.

3. **Competitor**

Graphs the projects based on assigned Competitors.

4. **Forward Order**

The Forward Order produces a graph for the listed projects forecasting the expected cash flow required. This can be used in combination with the Budget figures entered in the **Administration** window.

Analysis Filter Options:

➤ **Projects With (filter)**

- *Project Date Between*

The Date the Project was created.

- *Won Date Between*

The Won Date of the Project. As shown on the **Project Details** window, Analysis tab. (Pending Project have no Won data, and will be excluded from the Won / Lost / Pending Report).

- *Expected Start Date Between*

Only available for Forward Order Reports, this is the Projects Expected Start Date from the **Project Details** window, Analysis tab.

➤ **By (sort)**

- *Cost*
- *Project*

➤ **Divided By (filter by)**

- *No Division*
- *Region*
- *Client Type*
- *Estimator*
- *Project Type*

To produce a report or export:

1. Select the Type of Analysis and the Projects With, By and Divided By options.
2. Select Graph to graph the results.
3. Select Print to print a Report with a more detailed list of the projects.
4. Select Export to Excel to export the key market analysis data for the current list of projects, to Microsoft Excel.



Project Analysis Regions

Corporate version users can only analyse projects from the Regions they have been given access to. ***Set up Codes*** (on page 284).



Refresh the list of projects

In the **Project Analysis** window there is a *Refresh List Automatically* checkbox. When checked, the list of Projects at the bottom of the window is automatically updated whenever you select a checkbox in the top section of the window. If you wish to leave the checkbox cleared, you can select the criteria of your search and then right-click and select the Refresh List command to refresh the list of projects. If you have thousands of quotes listed, leaving this cleared will eliminate any processing delay as you check each option.

Produce a Forward Order Report

The Forward Order report provides you with a broad analysis of your budgeted revenue versus your expected sales. In the *Analysis* tab of the [Project Details](#) window, there is a field called *Expected Start Date* which is where you enter the expected start date for a project.

The Forward Order report provides a graph month by month with the following data:

- *Budgeted revenue* for each month.
- Projects *Won* and expected to start in each budgeted month.
- Projects *Pending* and expected to start in each budgeted month.

Set Up Your Budgeted Revenue Figures

Budgeted revenue figures can be set up in the [Administration](#) window under the Budget Tab. For more information, refer to [Customise Administration Settings](#) (on page 288).



Budget Revenue per Region

Corporate version users can enter budgeted revenue for each Region.

Produce your Report

To produce your Forward Order report:

1. Check the Forward Order Analysis Type.
2. Enter in the date range for Projects With

All other Sort and Filter options are disabled when using the Forward Order analysis type.

3. Right-click and select the reporting option to suit your needs.

Other Features

This Chapter covers some miscellaneous functions which do not fit into any of the previous Chapters, yet are still important in day-to-day operations. These functions include:

- *Bid Teams*
 - Benchmark allows you to setup groups of Estimators access to Projects, these groups are called Bid Teams. For more information, refer to ***Bid Teams*** (on page 253).
- *Comparing Projects*
 - Benchmark provides a feature to compare project by Items and will generate statistics based on the compared projects. For more information, refer to ***Comparing Projects*** (on page 257).
- *Cost Check*
 - After a project has been completed, Cost Check can be run to check for updated Rates in the Resource Library. These can then be applied to the Project. For more information, refer to ***Cost Check (Resource Rates)*** (on page 259).
- *Custom Fields*
 - Additional Client specific fields can be setup for use with Projects, Sections, Item and Resources. For more information, refer to ***Custom Fields*** (on page 260).
- *Following Up your Projects*
 - Daily reminders can be setup to remind users to contact Clients regarding their quotations. For more information, refer to ***Following up your Projects*** (on page 261).
- *Revenue Driver*
 - Provides additional information for your Submission Items based on predetermined cost drivers. For more information, refer to ***Revenue Driver*** (on page 264).
- *System Security Audits*
 - Benchmark can track important events in Benchmark that change an estimate. For more information, refer to ***System Security Audit*** (on page 269).
- *Working Offline*
 - Benchmark allows you to check out some of your projects to work away from the office and out of range of an internet connection. For more information, refer to ***Working Offline*** (on page 272).

Bid Teams

Use the Bid Team feature to assign specific estimators to work on a particular project. This provides enhanced security and control over who can view and work on certain projects; for example, for a large tender with an aggressive deadline or one of a highly sensitive nature.

Bid Teams can be enabled in the **Administration** window. For more information, refer to **Customise options in the Administration window** (on page 288)

Assign Estimators to a Project Bid Team

When the Bid Team feature is enabled in **Administration**, the following feature is shown in the Analysis tab of the **Project Details** window.



Figure 152: Project Details Bid Team Option

Only the user assigned as the *Estimator* for a project can set up and then edit the *Bid Team*. To set up a *Bid Team*, the assigned *Estimator* needs to:

1. Edit the **Project Details** window, right-click and select **Edit**.
2. In the Analysis Tab, click **Use Bid Team for this Project**.
3. Click the **Edit Bid Team** button.



Figure 153: Project Details Bid Team Option

4. In the **Bid Team** window, from the list of available estimators, select the estimators who will be on the bid team.

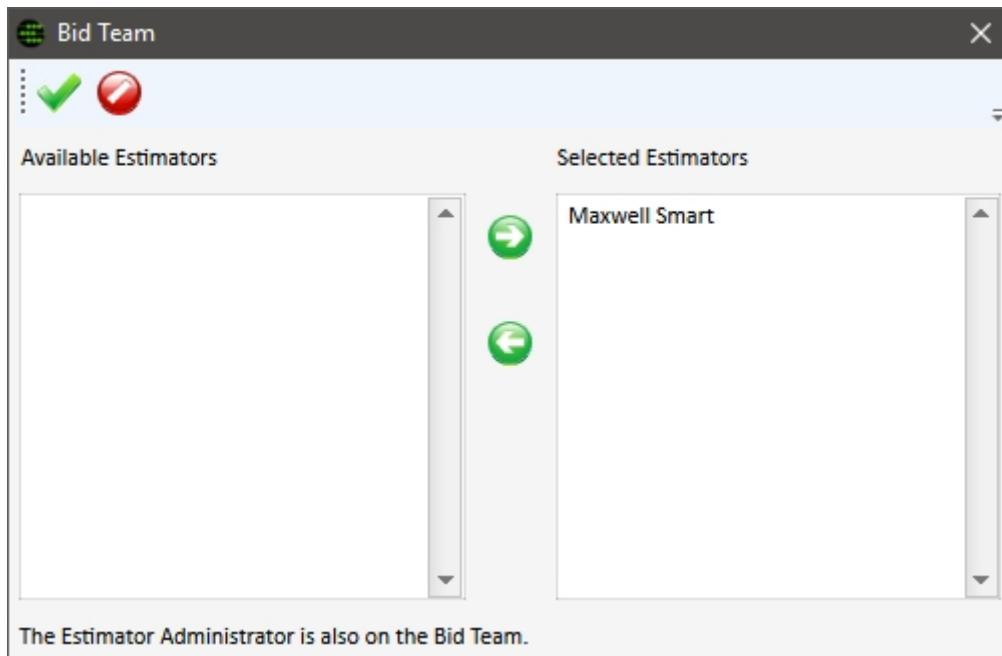


Figure 154: Project Details Bid Team Option

The list of *Available Estimators* will include ALL estimators in the database, except for:

- the users already selected on the Bid Team
- the user already assigned as the project Estimator, and
- the user who added the project and is therefore assigned to the Prepared By field.

5. When you have assigned all your estimators, select OK to close the **Bid Team** window.
6. Right-click and select OK to save your changes.



Note: When the Bid Team feature is enabled, access to Projects may change for some estimators. For more information, refer to **Access to Projects in the Project Browser** (on page 255).

View Bid Team members

To View the Bid Team:

1. In the **Project Details** window, click the Analysis tab.
2. Select the View Bid Team button.

The Bid Team window will appear and show the list of Estimators assigned.

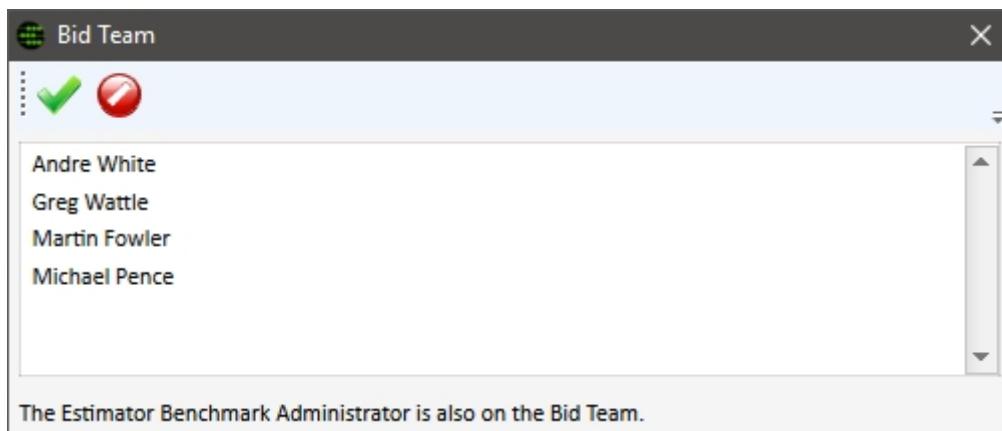


Figure 155: Project Bid Team



Prepared By and the assigned Estimator

The Estimator who prepared the estimate and the assigned Estimator are part of the Bid Team by default, but they do not appear in the Bid Team list.

Access to Projects in the Project Browser

When the Bid Team feature is being used, the list of Projects displayed in the Project Browser will change for some users. The table below shows the projects a user can see in the Project Browser and includes the expected behaviour for the Show Mine and Show All features, for users with different types of project access permissions, and if Bid Team is enabled or disabled.

Project Access in Estimator Library	Use Bid Team	Project Browser Show Mine	Project Browser Show All
ALL PROJECTS	NO	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By 	<ul style="list-style-type: none"> • All projects in the database
ALL PROJECTS	YES	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team 	<ul style="list-style-type: none"> • All projects in the database
MY PROJECTS	NO	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By 	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By

Project Access in Estimator Library	Use Bid Team	Project Browser Show Mine	Project Browser Show All
MY PROJECTS	YES	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team 	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team
REGIONAL PROJECTS [^]	NO	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) 	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • All other Projects in estimator's permitted regions
REGIONAL PROJECTS [^]	YES	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • On the Bid Team (regardless of Project Region and estimator's permitted regions) 	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • On the Bid Team (regardless of Project Region and estimator's permitted regions) • All other Projects in estimator's permitted regions

Table 19: Access to projects in Project Browser

[^] Regional Projects access is only applicable in the Benchmark Corporate edition.

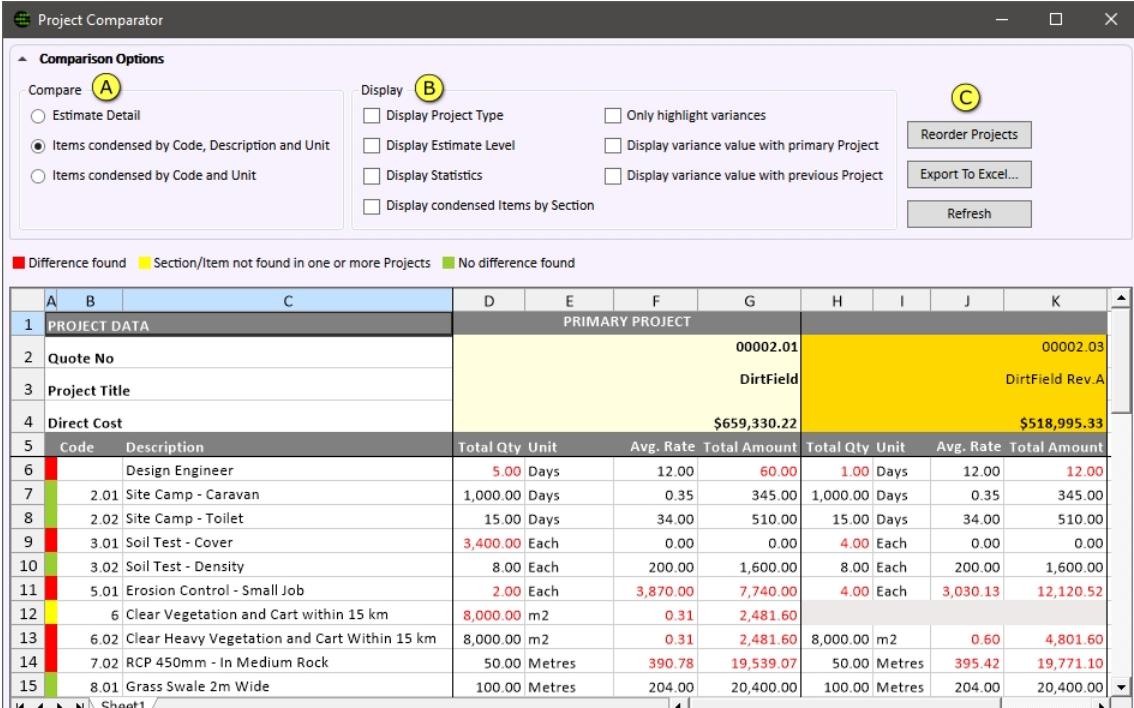
Comparing Projects

Project Comparator allows the user to compare one or more Projects. Project Managers can also use it to review and compare estimated margin details following refinement of their budget.

In the **Project Browser**, you can use this feature in one of two ways:

1. By selecting any Project and selecting Compare selected Project and all Linked Projects (this refers to projects linked by Market Share. For more information, refer to **Enter and analyse Market Share data** (see "**Market Share Analysis**" on page 243)).
2. By selecting two or more Projects, right-clicking and selecting Compare selected Projects

An example of the **Project Comparator** window is shown below:



The screenshot shows the Project Comparator window with several key areas highlighted:

- Comparison Options (A):** A panel on the left containing radio buttons for "Estimate Detail", "Items condensed by Code, Description and Unit" (which is selected), and "Items condensed by Code and Unit".
- Display (B):** A panel containing checkboxes for various display settings: "Display Project Type", "Display Estimate Level", "Display Statistics", "Display condensed Items by Section", "Only highlight variances", "Display variance value with primary Project", "Display variance value with previous Project", and "Display condensed Items by Section".
- Buttons (C):** A group of buttons on the right: "Reorder Projects", "Export To Excel...", and "Refresh".

The main area displays a comparison grid for "PROJECT DATA". The grid has columns labeled A through K. Row 1 is a header row for "PROJECT DATA". Rows 2, 3, and 4 show summary data for "Quote No", "Project Title", and "Direct Cost" respectively. Rows 5 through 15 show detailed items with columns for Code, Description, Total Qty, Unit, Avg. Rate, Total Amount, and two additional columns per item row. Some cells contain red or yellow highlights, indicating differences between projects.

Figure 156: Project Comparator example



Primary Project

All other Project will be compared to the Primary Project.

To enhance Benchmarks ability to compare projects, there are a number of display options and comparison options. Project Comparison can be done either by All Item or by Items condensed by Description and Code. In conjunction with this, the user can select a number of display options that include detailed statistics. These options can be seen in the figure below.

Comparison Options

- **Compare (A)**

This comparison feature makes it easier to compare Projects that are using the same *Item* across multiple projects, even if the *Item* is used as part of a *Composite Item* in another Project.

- *Estimate Detail*
 - Shows all the details of the Estimate, Sections, Items
- *Items condensed by Code, Description and Unit.*
 - Shows only Items condensed together where their Code, Description and Unit match.
- *Items condensed by Code and Unit.*
 - Shows only Items condensed together where their Code and Unit match.

➤ **Display (B)**

- *Display Project Type or Estimate Level*
 - Displays an additional row for each option in Project Data section.
- *Display Statistics*
 - Displays Item statistics across all projects. Including Minimum, Average, and maximum for Quantities, Rate and Amounts.
- *Display Condensed Items by Section* (only available when comparing by condensed Items)
 - Separates Items by Section.
- *Only highlight variances*
 - This filters the displayed items to only show Items that are different.
- *Display variance value with primary project*
 - The variance columns (Qty, Rate and Amount variance) are shown with the selected Primary Project.
- *Display variance with previous project*
 - The variance columns (Qty, Rate and Amount variance) are shown with the selected previous Project.

➤ **Reordering Projects (C)**

- The **Reorder Projects** window displays the *Project Quote Number* and *Project Title*. This window allows you to change your Primary Project and to reorder your Projects.

➤ **Exporting to Excel (C)**

- The view will be exported to excel.

➤ **Refresh (C)**

- This will refresh the view with the selected display options.



Refresh

When changes are made to the display options, the Refresh button must be clicked to update the spreadsheet view.



Export To Excel

Benchmark can export the Projects Comparison to Excel which allows users to create custom functions to further compare the details of the project.

Cost Check (Resource Rates)

In some cases, you may prepare an estimate, but the works are then delayed for a variety of reasons. For example, you may submit a *quote* to a Client, which is valid for 30 days. Three months later, you get the go-ahead, and your Client asks for an *updated price*. You can use Cost Check in this case to automatically update your Project with the *latest rates* from your **Resource Library**.

When you complete the *Project or parts of the Project* (i.e. a *Section or Item*), the price for that *Project, Section or Item* is *locked*. For more information, refer to **Using Complete in Projects** (on page 139).

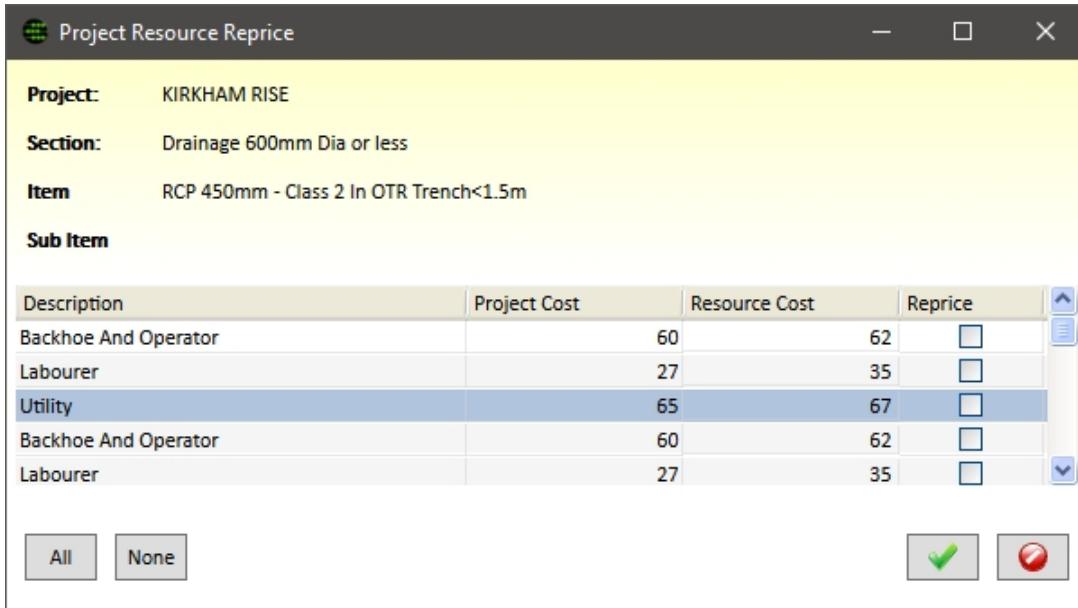
The Cost Check function compares the *Rate* of each of the *Resources* used in all *Completed Items* in a Project, to the *Rate* for each *Resource* from your *Resource Library*. If you have changed a *Resource* in the **Resource Library** after *Completing a Project*, then you can use the Cost Check function to *update the Resource prices* in the project.

Benchmark gives you the opportunity to either *update some or all of the Rates* or to keep them as they are. You can access Cost Check at the *Project, Section, Item or Resource level* of a Project. The function will always check the *whole project* from each of these locations.

To use the Cost Check function:

1. From within your Project, right-click and select Go To → Cost Check.
2. One of two windows, is presented:
 - a. If there are *no changes* in your Project, Benchmark displays a prompt stating: *There are no changes*.

- b. If there are *changes*, Benchmark displays the **Project Resource Reprice** window.



The screenshot shows the 'Project Resource Reprice' window with the following details:

Project: KIRKHAM RISE
Section: Drainage 600mm Dia or less
Item: RCP 450mm - Class 2 In OTR Trench<1.5m

Sub Item

Description	Project Cost	Resource Cost	Reprice
Backhoe And Operator	60	62	<input type="checkbox"/>
Labourer	27	35	<input type="checkbox"/>
Utility	65	67	<input checked="" type="checkbox"/>
Backhoe And Operator	60	62	<input type="checkbox"/>
Labourer	27	35	<input type="checkbox"/>

Buttons at the bottom: All, None, , .

Figure 157: Project Cost Check

The **Project Resource Reprice** window lists all the *Resources* that have changed for that Project. If the *same Resource* is used in *different Items* it is displayed *once for each Item* it is in.

The *Project Cost* is the *Resource rate* in the Project as it currently stands, whereas the *Resource Cost* is the *Resource Rate in the Resource Library*.

3. You can select which *Resources* you wish to *update on an individual basis*, or you can click *one button to update all rates*:
 - To update *Resources* on an *individual basis*, double-click on the *Resource* or check the *Reprice* checkbox for the *Resource*; or
 - To update *all listed Resources*, click on the *ALL* button and select *OK*.
4. Benchmark automatically reprices your Project.

Custom Fields

Benchmark allows Administrators to setup Custom fields allowing companies to create specialised fields for their users to enter data into. Custom fields can be created for:

- Projects

Project Custom fields are displayed in a new Tab on the **Project Details** window. The name of this can be customised when setting up Custom fields.

- Items

Item Custom fields are displayed in a Custom Field tab in the **Project Items** window or the **Item Library** windows

Custom fields are also able to be used with Composite Items and Composite Totals.

➤ Resources

Resource Custom fields are displayed in a Custom Field tab in the [Project Resources](#) window or the [Resource Library](#) window.

Resource Custom Fields (RCF) can be linked to the Resource Library and also be used in Calculations.

➤ Clients

Client Custom fields are displayed in a Custom Field tab in the [Client Library](#) window.

For more information, refer to [Setup Custom Fields](#).



A Maximum number of custom fields

Currently only fifteen custom fields can be added to each type.

Following up your Projects

Benchmark includes a Quotation Follow Up feature. This facility provides a very easy to use and effective method of tracking leads to help you generate more sales. To use the Follow Up facility, you must have it enabled in the [Administration](#) window.

The Follow Up feature will:

1. Record the details of all contacts with your client for each Project, including the next date for action;
2. Upon opening Benchmark, provide you with a list of quotes to be followed up on that day; and
3. Allow you to mark a quote as not requiring further follow up.

Record Details of Contacts with Clients

Benchmark allows you to maintain a record of all the relevant discussions you and your staff has with a client about each Quotation. Next, to each record of a contact with a Client, Benchmark also allows you to assign the next date for follow up (or Next Action Date - NAD). The system keeps track of these NADs and automatically reminds you when you need to follow-up on the quote. All of the follow up records are stored with each Project.

To enter in details of each contact with a Client:

1. From the [Project Details](#) window, select Go To then Follow Up on the toolbar.

The Follow Up window is displayed.

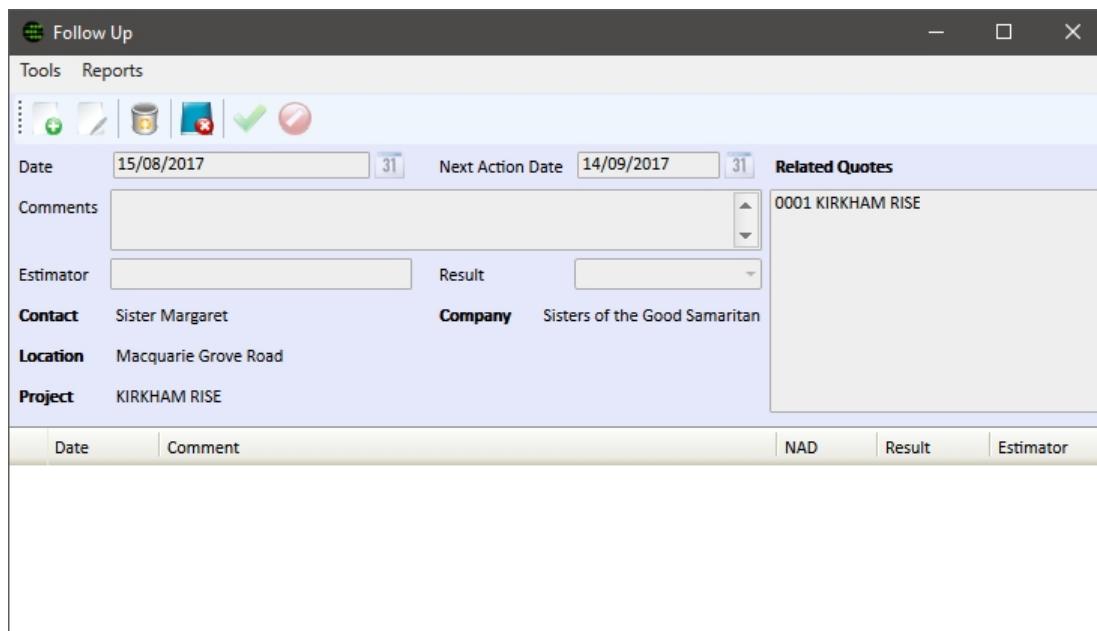


Figure 158: Project Follow Up Window

2. Right-click and select Add. Today's date is automatically inserted into the *Date* field.
3. Use the calendar to then select a date in the *Next Action Date* (NAD) field. Benchmark will remind you on this NAD to follow up this quote.
4. You can now enter any comments you wish to add about this contact with your Client in the *Comments* Field. For example: *Contacted Fred. He said he needs one more week to decide on the type of product he wants. Agreed to call him back next Thursday.*
5. Select a **Result** for this contact. This information is very useful for reporting purposes.
 - **SUCCESS** – Got through to the Client.
 - **FAILURE** – Forgot to contact the Client.
 - **NO CONTACT** – Attempted to contact the Client but could not get through to them (e.g. there was no answer on the phone).
6. Select OK. You will now see that the details of this entry appear in the bottom section of this window.

The Estimator field cannot be edited and is the name of the Estimator who is currently working on the project.

Only entries with a Date of today can be edited by the user and Only Benchmark Administrators can delete entries.

When a project is Authorised (For more information, refer to **Authorise a Project** (on page 77)), a default initial follow up record is added to the **Project Client Follow Up** window. The details of this record are:

- **Date:** Current Date
- **Comments:** Initial Follow-Up

- **NAD:** Current Date PLUS Default Follow Up Days. This is set up in the Benchmark **Administration** window, Follow Up tab.
- **Result:** Left blank
- **Estimator:** The Estimator who authorises the Project

Mark a Project for no further Follow Up

Benchmark allows you to mark a Project as not requiring further follow up. This may be because the Client has said they are not interested, or the Project may be won and completed, or you may have lost the Project to a Competitor.

When you mark a Project as requiring no further follow up, Benchmark will not consider this Project when it is checking which Projects require follow up. This reduces processing time at start up, and also provides you with a visual indication that the quote does not need following up any more.

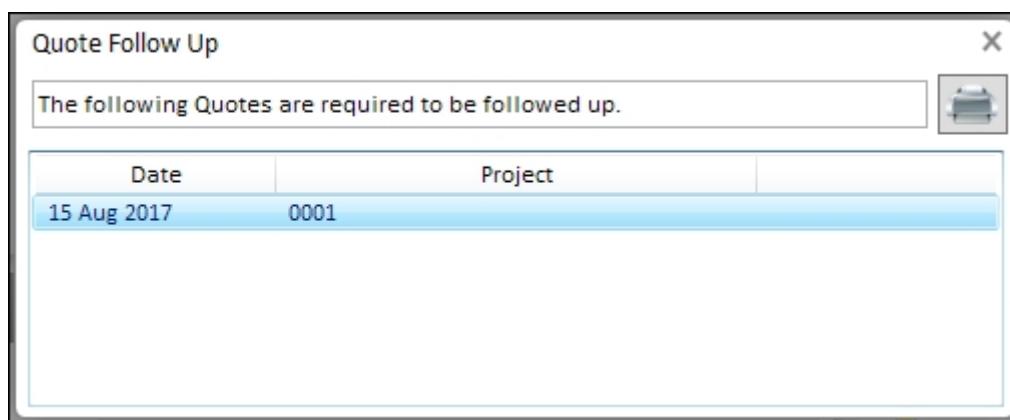
To mark a Project for no further follow up:

1. In the **Project Details** window, select the Client Details tab, if it is not already highlighted.
2. Right-click and select Edit.
3. Check the No Further Follow Up checkbox.
4. Right-click and select OK.

Produce a List of Quotes to be Followed Up Each Day

When you open Benchmark, the system will provide you with a reminder of what Quotes must be followed up on that day.

Benchmark will check the Next Action Date (NAD) of the last follow-up entry for all Projects where the *No Further Follow* checkbox is unchecked. The following window is displayed showing the quotes that require follow up on that day.



1. Click on the Printer button to print the list of projects for follow up (recommended).

Revenue Driver

Benchmark's Revenue Driver feature automatically calculates a *total Revenue Driver quantity* based on *user-defined parameters*, as well as a *submission rate* relative to the *Revenue Driver*.

Revenue Driver data is calculated for each Submission Item and as a Project total. It is displayed in numerous windows and features to help estimators and managers analyse and interpret their bid competitiveness and overall business performance.

As an example, an asphalt contractor may have a *key Revenue Driver* as the *total tonnage of asphalt*, and a roofing company may use the *total square metres of roof*.

Set up Revenue Driver

To enable the *Revenue Driver* feature:

1. In the General tab of the **Administration** window, click the Revenue Driver button

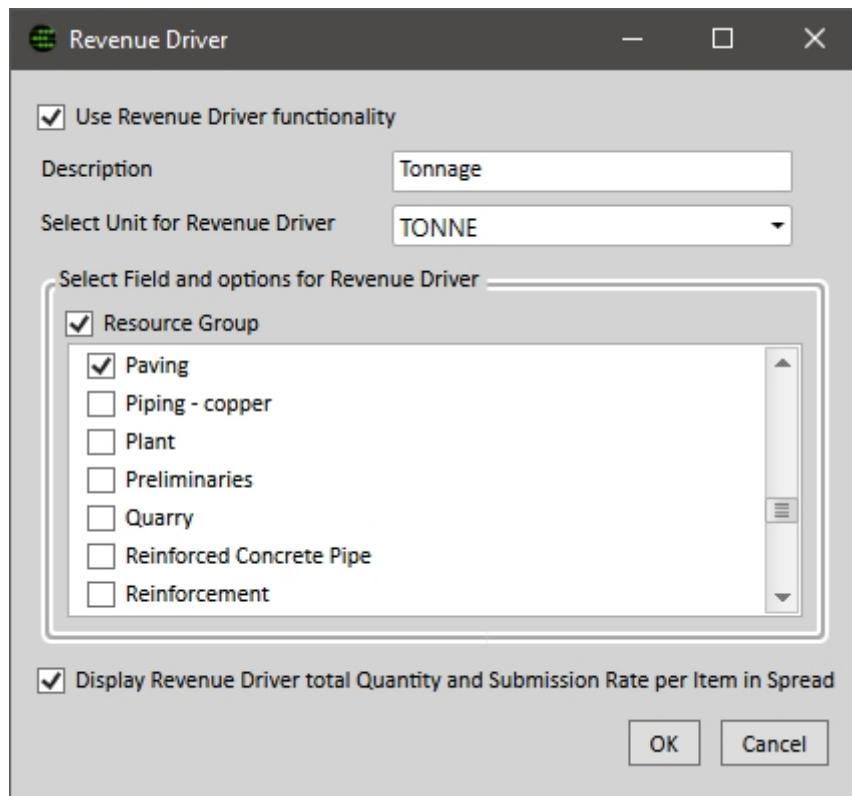


Figure 159: Revenue Driver Setup

2. Check the Use Revenue Driver functionality checkbox
3. Enter a **Description** (i.e. Tonnage)
4. Select a Unit for the Revenue Driver (i.e. Tonne)
5. Check the Resource Group checkbox and select the Resource Group(s) that correspond to the Revenue Driver Resources
6. If you would like revenue driver data displayed in the **Spread** window then:

- Check the Display Revenue Driver total Quantity and Submission Rate per Item in Spread checkbox
7. Select OK.



How the Revenue Driver quantity is calculated in a Project

Administrators should read how the *Revenue Driver quantity* is calculated in a Project as it is important to understand how it functions when setting up *Revenue Driver* settings.

How you set this up will also depend on your company's business rules, use of *Benchmark Estimating Software* and how your database is set up

How is the total Revenue Driver Quantity calculated?

The two main *quantity calculations* for *Revenue Driver* are:

1. Total Revenue Driver Quantity per Item.

- Only Items that appear on your quote will have a Revenue Driver Quantity calculated.
- Composite Totals, Items within Composite Items, Rate Only Items and Provisional Items will be excluded.
- For each of these Submission Items, the total Revenue Driver Quantity is calculated based on the Revenue Driver settings in the [Administration](#) window.

For example, if the settings were:

- Unit is Tonnes
- Resource Groups are PAVEMENT and ROAD

Then the Total Revenue Driver Quantity for a Submission Item would be the sum of the Quantities of all Resources in the Item, whose:

- Resource Unit is Tonnes, and
- where Resource Group is either PAVEMENT or ROAD.

2. Total Revenue Driver Quantity for a Project.

- The sum of all Revenue Driver quantities for the Submission Items as detailed above.

When is Revenue Driver calculated?

Revenue Driver data for *Items* and for a *Project* are calculated whenever the *Project Submission Price is recalculated*. However, when a Project is *Authorised*, the *Revenue Driver* data is *locked* and cannot be changed.

Where is Revenue Driver data displayed?

Revenue Driver data can be displayed/analysed in various areas of Benchmark. These are:

1. Project **Spread** window.

If the Display Revenue Driver Total Quantity and Submission Rate per Item in Spread is enabled in the **Administration** window, the following additional data is displayed for each item:

- $\{Revenue\ Driver\ Description\} [\{Revenue\ Driver\ Unit\}]$

This is the Total Quantity based on the selected Revenue Driver Units.

- $Direct\ Cost\ / \{Revenue\ Driver\ Unit\}$ = Item Direct Cost Amount / Revenue Driver Qty

This is the Item Direct cost divided by the Item Total Revenue Driver Quantity.

- $Submission\ Rate\ / \{Revenue\ Driver\ Unit\}$ = Item Submission Amount / Revenue Driver Qty

This is the Item Submission Amount divided by the Items Total Revenue Driver Quantity.

Where $\{Revenue\ Driver\ Unit\}$ is the Unit Selected in the **Administration** Window, Revenue Driver settings.

2. **Project Details** window.

In the Project Data tab, the following data is calculated and displayed for the project:

- Total Revenue Driver Quantity
- $Submission\ Rate\ / \{Revenue\ Driver\ Unit\}$ = Project Submission Amount / Total Revenue Driver Quantity.

3. **Project Browser** window

Revenue Driver data can be used in the following features:

- Advanced Find
- Field Selection
- Sort Settings
- Project Browser Export

4. **Project Analysis** window Exports

The Export to Excel exports the Project Revenue Driver total quantity and Project Revenue Driver Submission Rate when Revenue Driver is enabled.

Limitation of Revenue Driver

The Revenue Driver function does not work with *Projects that use Forecast Quantities*.

Resource Rate Change

The Resource Rate change feature allows Estimators to view all the resources used in a Project in a condensed view. Resource Rates can then be reviewed and adjusted to create a high confidence estimate. The **Project Resource Rate Change** window additionally displays dynamic graphs, and data showing the impact of Rate changes to the total cost of the Project.

The Resource Rate Change window can be accessed via the **Project Details** window by right clicking and selecting Resource Rate Change.

Resource Summary

The **Summary** tab shows a graphical cost breakdown of your Project by Resource Category and Resource Group.

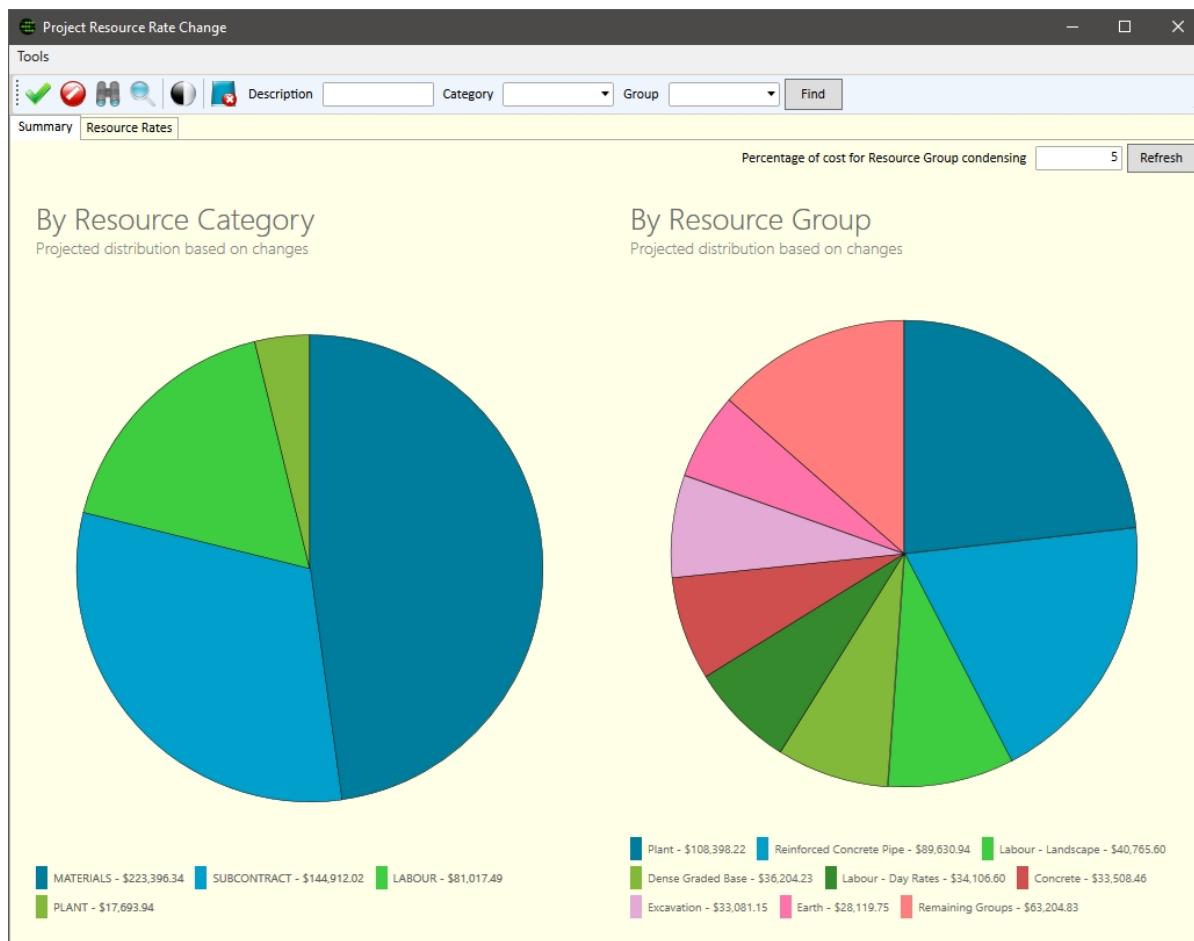


Figure 160: Resource Rate Change Summary

The level of detail for Resource Groups can be adjusted in the top right portion of the window by entering an alternative percentage. Resource Groups that have a Project Cost less than the entered percentage will be grouped together in a group called Remaining Groups.

Resource Rates

The Resource Rates Tab shows all the resources for the Project in a simple user interface. Resources can be sorted by column headers or filtered using the advanced search feature.

Within the Resource Rates Tab, Estimators can:

- Adjust Resources rates
- Apply a discount or percentage change to a Resource.
- Assign a Subcontractors / Suppliers to a Resource

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<table border="1"> <thead> <tr> <th>Code</th> <th>Resource Description</th> <th>Quantity</th> <th>Unit</th> <th>Current Rate</th> <th>Current Cost</th> <th>Category</th> <th>Group</th> <th>% Discount</th> </tr> </thead> <tbody> <tr><td>► CVAN</td><td>Caravan</td><td>15.00</td><td>DAY</td><td>\$65.24</td><td>\$978.58</td><td>PLANT</td><td>Preliminaries</td><td>0.00%</td></tr> <tr><td>LAB</td><td>Labourer</td><td>880.61</td><td>HOUR</td><td>\$27.00</td><td>\$23,776.43</td><td>LABOUR</td><td>Labour - Landscap</td><td>0.00%</td></tr> <tr><td>PLOO</td><td>Toilet</td><td>15.00</td><td>DAY</td><td>\$35.88</td><td>\$538.22</td><td>PLANT</td><td>Preliminaries</td><td>0.00%</td></tr> <tr><td>COVERTEST</td><td>Cover Test</td><td>8.00</td><td>ITEM</td><td>\$456.67</td><td>\$3,653.36</td><td>SUBCONTRACT</td><td>Testing</td><td>0.00%</td></tr> <tr><td>DENSTEST</td><td>Density Test</td><td>43.50</td><td>EACH</td><td>\$195.72</td><td>\$8,513.65</td><td>SUBCONTRACT</td><td>Testing</td><td>0.00%</td></tr> <tr><td>LDHND</td><td>Leading Hand</td><td>675.79</td><td>HOUR</td><td>\$49.50</td><td>\$33,451.40</td><td>LABOUR</td><td>Labour - Day Rates</td><td>0.00%</td></tr> <tr><td>HAYPKTSWIRI</td><td>Haybales + Pickets & Wire & Del</td><td>40.00</td><td>EACH</td><td>\$17.22</td><td>\$688.92</td><td>MATERIALS</td><td>Preliminaries</td><td>0.00%</td></tr> <tr><td>SILTCLTH</td><td>Silt Cloth (50M) + Pickets & Wire & Del</td><td>2.00</td><td>ROLL</td><td>\$358.81</td><td>\$717.63</td><td>MATERIALS</td><td>Preliminaries</td><td>0.00%</td></tr> <tr><td>D7</td><td>Dozer D7</td><td>23.20</td><td>HOUR</td><td>\$215.29</td><td>\$4,994.67</td><td>SUBCONTRACT</td><td>Plant</td><td>0.00%</td></tr> <tr><td>EXC30T&OP</td><td>Excavator 30T - Hired With Operator</td><td>269.40</td><td>HOUR</td><td>\$135.29</td><td>\$36,445.58</td><td>SUBCONTRACT</td><td>Plant</td><td>0.00%</td></tr> <tr><td>CHSAW</td><td>Chainsaw</td><td>12.00</td><td>DAY</td><td>\$32.62</td><td>\$391.43</td><td>PLANT</td><td>Plant</td><td>0.00%</td></tr> <tr><td>TR12T</td><td>Truck 12 Ton Tipper</td><td>302.27</td><td>HOUR</td><td>\$71.76</td><td>\$21,691.74</td><td>SUBCONTRACT</td><td>Plant</td><td>0.00%</td></tr> <tr><td>BACKHOE_OF</td><td>Backhoe And Operator</td><td>216.21</td><td>HOUR</td><td>\$60.00</td><td>\$12,972.77</td><td>SUBCONTRACT</td><td>Excavation</td><td>0.00%</td></tr> <tr><td>UTE</td><td>Utility</td><td>75.94</td><td>DAY</td><td>\$65.24</td><td>\$4,953.99</td><td>PLANT</td><td>Plant</td><td>0.00%</td></tr> <tr><td>SAND</td><td>Sand - 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Figure 161: Changing Resource Rates in the Project Resource Rate Change Window

To adjust a Resource:

1. In the Project **Resource Rate Change** window, select the Resource Rates tab.
2. Select or find a Resource.
3. Double click in either:
 - the (% *Discount or % Change* column) and enter in a percentage (% Change or % Discount is set in the **Administration** window; General Tab).
 - the *New Rate* Column and enter the new Resource Rate.
4. Benchmark will then display the new cost and the cost difference for review.
5. Repeat the steps above for each Resource as required.
6. When you have completed your changes, right-click and select OK.
7. Answer Yes to the confirmation prompt to apply your changes.

Handle Cartage Resources

The [Resource Rate Change](#) window presents Cartage Resources with the cartage icon next to the category. Identical Cartage Resources are condensed together, and the total cost of the condensed Cartage Resources is shown.

The cartage rate can be adjusted, and the total cartage cost is shown based on the cartage calculation; this is a formula which includes Flag Fall, Distance Included and the Cartage Distance. For more information, refer to [**How the Cartage Cost is Calculated**](#) (on page 192).

Currency Resources

When Multi-Currency is enabled, the [Resource Rate Change](#) window displays a Currency Resources tab. This allows the estimator to view all Currency Resources for the Project in one window and change the Currency Rates to be project specific.

System Security Audit



System Security Audit feature

This feature is only available in the *Corporate* edition.

Benchmark Estimating Software can track the following information:

- Changes to Projects,
- User Login attempts,
- Changes to the [Estimator Library](#) and
- Changes to [Administration](#) settings.

Enable System Security Auditing

Turn on the System Security Auditing feature in the **Administration** window → Audit tab, and enable the relevant data you wish to audit, as shown below.

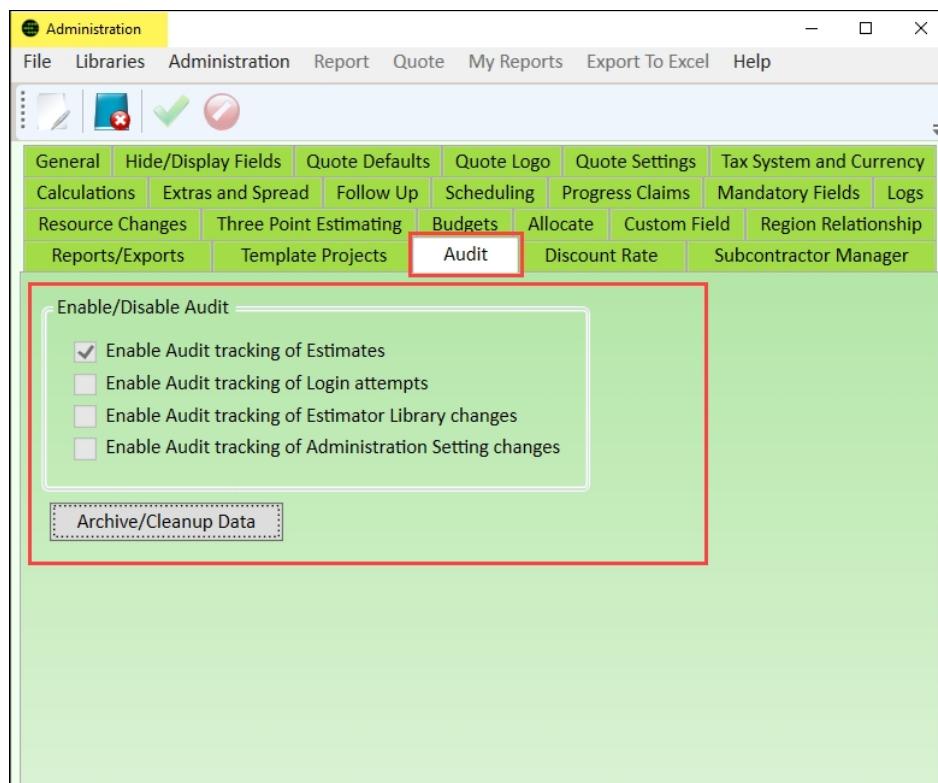


Figure 162: Administration window - Audit tab

What data is tracked?

Project Changes:

- On deletion of Project Items
- On deletion of Project Sections
- When Projects are Duplicated
- When Item or Resource Calculations are removed
- When Resource Rates are changed
- Resource currency changes
- When the Project is Completed or Uncompleted
- When Projects are marked as Won or Lost.
- When Projects are Authorised

Login attempts:

- Successful and unsuccessful logins
- Date/time and user details
- Login computer and the IP of computer.

Changes to Administration settings:

- Operation being performed – Add/Edit/Delete
- Date/time and user details of the person logged in
- Name of option being changed
- Previous and new value of option being changed.

Changes to Estimator Library:

- Operation being performed – Add/Edit/Delete
- Date/time and user details of the person logged in
- Estimator being added/edited/deleted
- If Estimator is changed, details of what is changed.

Archive/Cleanup Audit Data feature

The Audit feature can increase your database size over time, so there is an option to *archive and/or delete* this information.

To *Archive/Cleanup* audit information:

1. In the **Administration** window, select the Archive/Cleanup Data button.
2. Select the *Data Range* for the data to be archived/cleaned.
3. Select the *Data Types* to be archived or removed.
Project Audit information cannot be removed or archived.
4. Select one or more *action(s)*.
 - Archive the data (to Excel or a database).
 - Delete the data.
5. Click Archive or Archive and Delete.

Archive feature

An estimator who is also an *administrator* can manually archive audit data to Excel or a (SQLite) database. The archive function does not delete any data from the Benchmark Estimating Software database, but only exports the information.

The *archive options* are:

1. *Excel* - this is a quick way for a non-technical administrator to view the audit data.
2. *Database* - this option may be useful for a company who wants to undertake other analysis or reporting functions.

Delete feature

If your company has a large number of users the Audit function may create a large amount of audit data. The *Delete* option deletes the *selected audit data* from your database.

You should create an archive of your data before deleting it.

Working Offline

Quite often, users may need to work on an estimate when they do not have a connection to their central Benchmark database. For example, they are on-site or do not have an internet connection. For this scenario, there is a Check Out and associated Check In function.

It is assumed that the user who is working offline has a laptop or other personal computer that has the Benchmark application already installed on it.

The Check Out and Check In functions are accessed from the **Project Browser** window. They are both run from within the master database. The following diagram depicts this process:

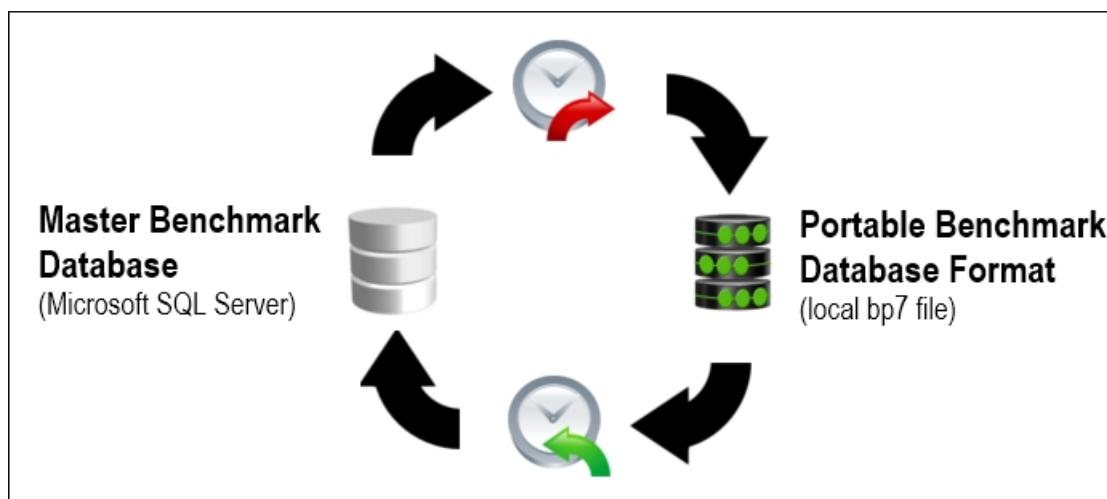


Figure 163: Project Browser - Check In and Check Out

An overview of how these processes work is as follows:

Check Out a Project(s):

1. Open Benchmark and open your central *Master* database.
2. Open the **Project Browser** window and select a Project(s) to check out.
3. Click the Check Out function to create a new Benchmark portable file-based database with all of your Libraries and the selected Project(s).
4. You can then copy this portable database to a laptop/PC (generally via a USB flash drive).

Working offline

1. You open Benchmark on your laptop/PC and work on the Project(s) in the portable database.
2. Instead of selecting your central database in the **Database Centre** window, select Open Portable Database.
3. Browse to the portable database created during the checkout process.
4. Click Open or double-click the file.

Check In the project(s):

When you return to your office, you copy the portable database back to your office computer/server, or plug into your network.

1. Open Benchmark and open your central *Master* database.

2. Open the **Project Browser** window.
 3. Right-click and select **Check In Project**.
 4. Browse to the file you have been working in offline.
 5. Click **Open** or double-click the file.
 6. The **Select Project** will be displayed, select the Project or Projects to check in.
 7. Click **OK**.
-



Checking In

There is no need to have Checked Out a project in order to Check it back in. You may be working offline and need to create a new Project.

For example; this new Project which was not started in the Master database can still be checked in. However, there may well be clashes with Quote Numbers, so it is recommended that you give the new project that is created offline a unique quote number (for example you can add ZZZ as a suffix or prefix before checking it in). After you have checked it back in, you should either (1) manually change the Quote Number so it aligns with the next quote in the system or (2) Duplicate it so it is automatically assigned the next quote number in the system.

Overwrite Warning

Checking In a Project that already exists in the Master Database will overwrite the existing Project with the Project being checked in.



In a Checked Out database, avoid adding new Library information

When working in a Checked Out database, it is advised that no new codes, new clients, or other library information be added to the database.

If you do add additional Code or Library information, then the newly created information will need to be created in your master database before you can check the Project back in. During the Check in Process Benchmark will generate warning messages that will indicate any missing information.

Checking Out Projects

To check out a Project or selection of Projects:

1. In your central *Master* database, open the **Project Browser** window and highlight the Project(s) you want to Check Out.
2. Right-click and select **Check Out Project**.
3. Select **Yes** to the confirmation prompt.

If you have selected multiple Projects, a second dialogue box will appear with this message:

You have selected multiple Projects.

- *Do you want them to be marked as checked out?*
- Select Yes to the confirmation prompt.

4. Enter a file name for your database and select a location to save the portable database.

This will then create a portable database which can be copied via a flash drive to the laptop/PC that the user is working on offline.



Checked Out flag

After a Project is Checked Out of the master database, the system automatically checks the Checked Out checkbox. Users cannot edit this flag but a System Administrator can change it if required. When a Project is marked as Checked Out, it should not be edited in the master database.

Working Offline

First ensure that the portable database that was created during the Check Out process has been copied to the hard drive of the laptop/PC that the user is working on when offline.

1. You open Benchmark on your laptop/PC and work on the Project(s) in the portable database.
2. Instead of selecting your central database in the **Database Centre** window, select Open Portable Database.
3. Browse to the portable database created during the checkout process.
4. Click Open or double click the file.

Checking In Projects

To Check In a Project:

1. Open Benchmark and open your central *Master* database.
2. Open the **Project Browser** window.
3. Right click and select Check In Project.
4. Browse to the file you have been working in offline.
5. Click Open or double-click the file.

6. The **Select Project** will be displayed, select the Project or Projects to check in.

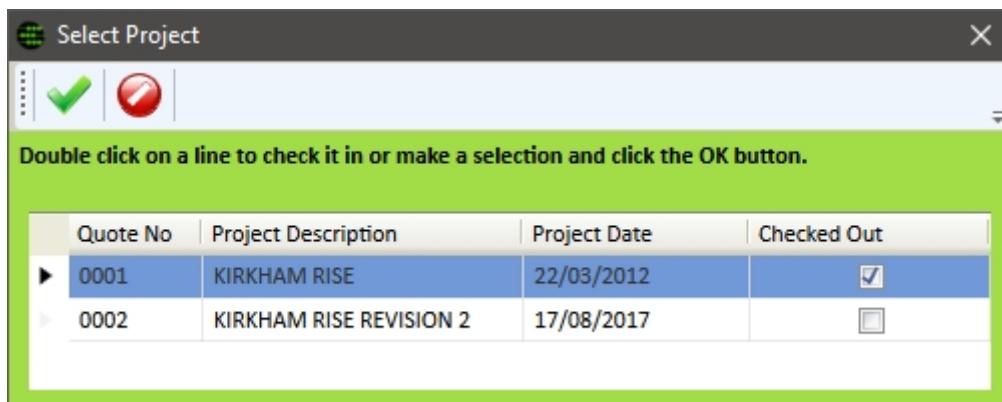
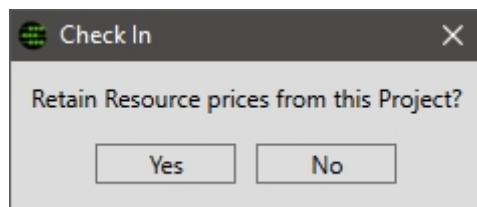


Figure 164: Check In Project Selection Window

7. Then you can either:
- Double-click on an individual Project to Check it in, or
 - Select a group of Projects and click on OK, to Check In multiple projects.
8. Select Yes to the confirmation prompt to proceed and *replace* the original project(s) with the ones being checked in.
9. If you Check In an individual project the following dialogue box is displayed:



- Select Yes to retain the Resource prices from the Checked Out database, or
 - Select No to automatically reprice your Project with the latest Resource rates from the Resource Library.
10. Select OK.



Important Notes regarding Check Out and Check In

The Check In process imports details of the Project only, not the Libraries.

To use Check Out, you must have access granted to you in the Estimator Library.



Check in Authorised Quotes only

If this option is checked in Benchmark's **Administration** window, only projects that are Authorised are displayed in the above window and can be checked in. When checking in authorised projects, the options to reprice the project are not displayed.

Part Three - Set Up and Administration

Database Management

Your database stores all of your estimating libraries, users and your estimates. This chapter provides you with an overview of the supported database formats, instructions on how to create a new database, and information on database backup and restore functions.

Database Management Overview

Your Benchmark Database stores all of your data. You can have one or many databases depending on your business and its structure. If you're a small company you may have only one database; larger organisations may have one database or elect to have one per business unit for example; depending on their company structure, strategic objectives and IT infrastructure.

If you do not have a database set up (either by your IT Administrator during installation or by someone else, you must create a new one).



Databases

During the Benchmark installation, a sample and blank databases can be installed. If you are using Microsoft SQL Server these can even be deployed to your existing Microsoft SQL Server. You should consult your IT Administrator or the person who installed the software to confirm if these databases have been deployed.

Database connections

You can also consult the Installation Manual for detailed instructions on installing and then configuring database connections. For more information, refer to **Add a Database Connection** (on page 18).

Benchmark utilises a central database to store all of its data. This database can be one of two formats:

1. **Microsoft SQL Server (MS SQL)** – used by all clients with one or more concurrent licenses.
2. **SQLite** – used by some single user licenses.
3. **Oracle** - used as an alternative to MS SQL for clients with existing Oracle servers.

Clients using MSSQL or Oracle may need the services of an IT Administrator to help them with some database tasks.



Corporate Databases

Corporate Databases are structurally different from the Benchmark Professional Version. Corporate Databases can therefore not be opened in Benchmark Professional Version.

Upgrading from a Professional to a Corporate database

Existing Professional users who upgrade to the Corporate product and wish to convert their database must contact the Benchmark Support Team for advice and assistance.

Sample Databases

The sample/blank MSSQL databases that can be installed during Benchmark software installation have the following Database Names. If you installed these databases and you wish to add a new database connection, use the following names in the Database Name field.

- BMCIVIL
- BMLANDSCAPE
- BMEMPTY

BMCIVIL and BMLANDSCAPE can be used as starting points for Civil and Landscaping clients respectively. BMEMPTY can be used for anyone who wishes to start with a clean, empty database.

Create a new Database

Some clients may need to create a new database from time to time. As mentioned above a blank database is provided with the Benchmark full installation software package and can be installed during installation.

The following instructions provide you with guidance on how to create a new SQLite and MSSQL database.

Create a new SQLite database

To create a new SQLite database, (otherwise known as a portable database) follow the steps below.

Note: The SQLite database format is only recommended for a single user.

1. Open Benchmark.
2. In the **DATABASE CENTRE** window, highlight and open a database so that you are in the **My Benchmark** window.
3. Select File → New portable database.
4. In the **Save As** window, browse to find the folder where you wish to save this database.
5. Enter the name of your database in the *File Name* field and click Save.

Once created you can add the new database to the Database Connection Centre. For more information, refer to **Add a Database Connection** (on page 18).

Create a new Oracle Database

Please contact Benchmark Support for information on the setup of a new Oracle Database.

Create a new Microsoft SQL database

Creating a new Microsoft SQL database is more involved than a SQLite database. Microsoft offers users a tool called Microsoft SQL Server Management Studio (MSSMS); this tool provides a graphical user interface and can be used to create new databases; this should only be used by database administrators.

To create a new Microsoft SQL database using Benchmark:

1. Create a new SQLite database following the steps above (**Create a new SQLite database** (on page 278)).
2. *Backup* this SQLite database to a generic backup file following the steps below (**Back Up your Database** (on page 280)).
3. Then *Restore* this generic backup file to a Microsoft SQL Server as documented in **Restore to an MSSQL Database** (see "**Restore to a Microsoft SQL Server**" on page 281).

You can also contact your Benchmark Support Team for an *empty* Microsoft SQL database (bak) file.

Database Server name

The name of your SQL Server is specific to your computer/business. If you already have SQL Server installed, then you must enter the SQL Server name specific to your installed SQL Server. If you are using the SQL Server 2008 Express, the *Server name* should be

NameOfYourComputer\Benchmark. You must determine the *NameOfYourComputer*; this can be found in the **Control Panel → System** window.

Database Server Port

Depending on your operating system and firewall settings, SQL Server may be blocked by default from passing through your firewall. If your connection fails, this may be the cause and to rectify this you must seek advice from your local IT support who maintains your network.

DB User name and password

If you are using the SQL Server 2008 Express installation as part of this installation we recommend that you use the following *User Name* and *Password* (*User Name* = **sa**, *Password* = **bENCHM@RK789**).

The User Name and Password entered for your SQL Server must have read/write permission to your SQL Server as a minimum. If you already have SQL Server, you must enter a User Name and Password to match one of your SQL Server accounts. For Benchmark this account should have full read/write access to the SQL Server. From time to time the database structure must be changed, so this account should have access to modify the database structure.

Back Up your Database

Benchmark provides administrators with the functionality to manually backup Benchmark databases without the need for sophisticated Management utilities. A Benchmark database can be backed up to an individual file and stored for future use if necessary.

To create a backup of your database please follow these simple steps:

1. Open Benchmark.
2. Connect to the database that you wish to Backup.
3. From the **My Benchmark** window select the File menu option from the top left of the window.
4. Select Utilities and then select from one of the following two options
 - a. **Backup Data** - This will back up the entire database. When restored the database would be a duplicate of the original when it was backed up.
 - b. **Backup Data – No projects** - This will back up all Libraries including the **Administration** window settings but will NOT backup any projects. This allows the administrator to restore this to a new database that will only contain library information.
5. A **Save As** file prompt opens and requests the user to enter a file name for the backup.
6. Click Save to begin the database backup process.
7. Once complete, your backup file is now ready to be stored or used to restore the database.

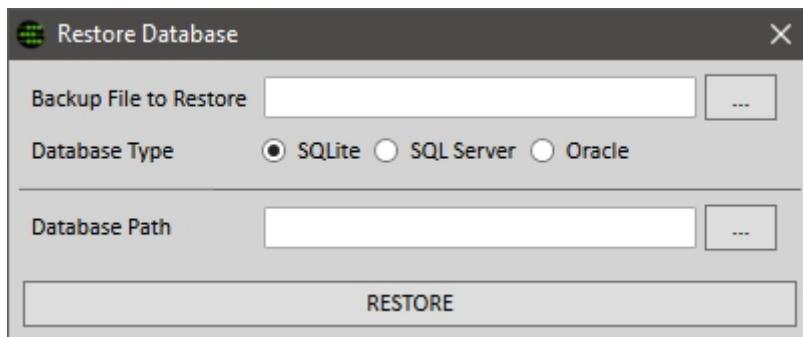
Restore your database

Benchmark Version 7 allows a user to restore a previous backup to either an existing database or to a new database. This functionality provides flexibility for administrators to manually restore a database.

To restore a database:

1. Open Benchmark.
2. When the **DATABASE CENTRE** window opens, select the Advanced button.
3. Select Restore Database.
4. The **Restore Database** window will open.
5. Follow the steps below depending on which database type you are using.

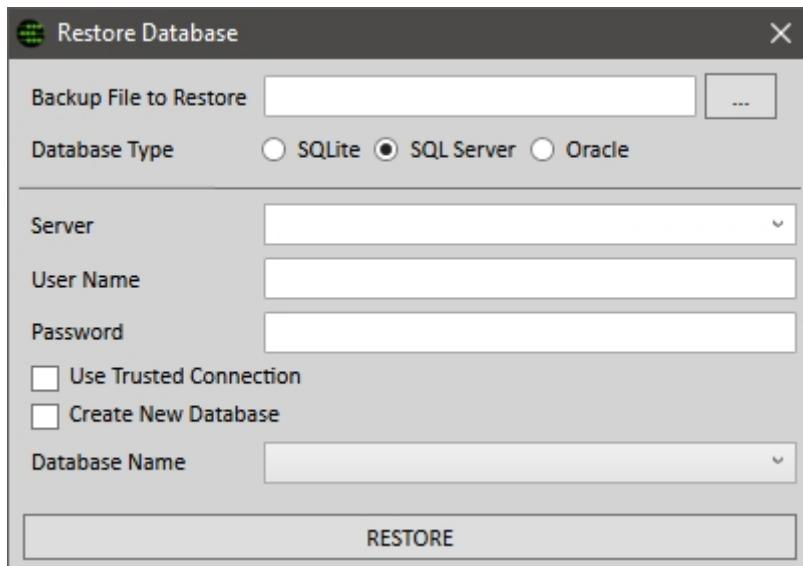
Restore to a SQLite database file



To restore a database to a SQLite database file:

1. Select the ... button next to the first line and navigate to the backup file you wish to restore.
2. Leave the radio button as SQLite.
3. Select the ... button next to the *Database Path* field and select the file you wish to restore over. If you would like to create a new file then you can enter a file name that does not exist and Benchmark will restore the data to a new Database by that name.
4. Click the **Restore** button to begin the restore process.
 - If there is more than one estimator in the Database you are required to enter an estimator username and password that is registered in the database being restored. This would usually be the Estimator with administrator access to the settings within the Benchmark Database.

Restore to a Microsoft SQL Server



To restore a database to a Microsoft SQL Server:

1. Select the button ... next on the first line and navigate to the backup file you wish to restore.
2. Change the radio button to **SQL Server** and the window will look like that above.

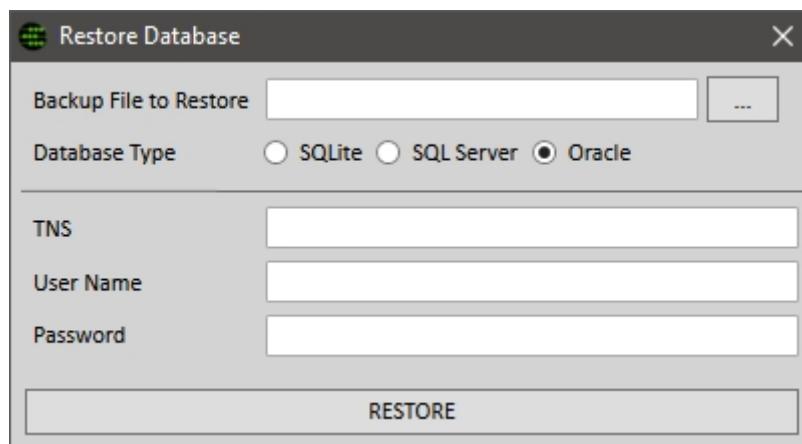
3. Select the **Server** drop-down and the drop-down is populated with MS SQL servers available for you to restore to. You can also directly type the address of the MS SQL server into the *server* field.

The format should be as follows:

HOSTNAME\INSTANCE

4. Enter the *Username* and *Password* for a user who has administration rights to SQL Server.
 - a. **Optional:** If you would like to use Microsoft Windows login authentication you can select the **Trusted Connection** option. This will disregard the *Username* and *Password* entered and will use the windows credentials for the current user logged in. This option requires that Windows users have been mapped in the Microsoft SQL Server
 - b. **Optional:** To create a new Database check the **Create new Database** checkbox and enter the name of the database to be created. This must not be an existing database name.
5. If you are not creating a new database, you can restore the Benchmark Database to an existing Database. Select the drop-down from the *Database Name* field and select a database you wish to restore over.
6. Click the **Restore** button to begin the restore procedure.
 - If there is more than one estimator in the Database you are required to enter an estimator username and password that is registered in the database being restored. This would usually be the Estimator with administrator access to the settings within the Benchmark Database.

Restore to an Oracle Database Server



To restore a database to an Oracle Database Server:

1. Select the ... button next on the first line and navigate to the backup file you wish to restore.
2. Change the radio button to **Oracle** and the window will look like that above.
3. Enter the *TNS* for the Oracle server.
4. Enter the *Username* and *Password* for a user who has administration rights to SQL Server.

5. Click the Restore button to begin the restore procedure.
 - If there is more than one estimator in the Database you must enter an estimator username and password that is registered in the database being restored. This would usually be the Estimator with administrator access to the settings within the Benchmark Database.



Oracle Client and TNS

The TNS must be specified in the Oracle Client installation within the tnsnames.ora file.

Set up Codes

Benchmark has many drop-down fields (or codes) that can be defined by the user, such as the Job Category, Unit, Resource Group and Item Group.

The following codes are available in Benchmark:

➤ **Activities**

Activities are assigned at the Items level and are used in Exports to costing systems.

➤ **Client Types**

Client Types are used in the Client Library as a Type classification for Clients.

➤ **Competitor**

Competitor is used for Market Analysis, Jobs that are lost to competitors can be assigned a competitor for analysis.

➤ **Cost Code**

Cost Code can be used at the Section, Item and Resource level in Benchmark to assign a Code for export to costing systems.

➤ **Depots**

Depot can be used at the Project and Project Item level to signify the depot related to the project or unit of work. This is used in reporting.

➤ **Estimate Levels**

Estimate level allows the administrator to assign different types of estimates. Such as preliminary, or detailed.

➤ **Item Groups**

Item Groups are assigned to Library and Project Items to group them for use within Benchmark.

➤ **Job Categories**

Job categories are used in the Project Details to further distinguish projects. When a code has been added the field will be displayed on the Project Details.

➤ **Organisations**

Organisations are used in the Project Details to further distinguish projects. When a code has been added the field will be displayed on the Project Details.

➤ **Project Site Types**

Project Site Types are used in the Project Details to further distinguish projects. When a code has been added the field will be displayed on the Project Details.

➤ **Project Types**

Project Types are used in the Project Details to further distinguish projects. When a code has been added the field will be displayed on the Project Details.

➤ **Reason for Loss**

Reason for Loss is used in conjunction with the competitor field and Market Analysis.

➤ **Regions**

Regions can define a logical area or a geographic region, that distinguishes the project. When using Regionalisation, Regions can dictate the Resource Rates used in a Project.

➤ **Resource Groups**

Resource Groups are assigned to Resources to group resources together. The resources groups are used in reporting and when adding Resources from the Resource Library.

➤ **Resource Types**

Resource Types are used to further distinguish Resources .

➤ **Salutations**

Salutations are used in the Client and Subcontractor / Supplier Library.

➤ **States**

States are used in the Project Location, Client and Subcontractor / Supplier Library.

➤ **Subcontractor Types**

Subcontractor Types are assigned to Subcontractors in the Subcontractor / Supplier library to further distinguish Subcontractors.

➤ **Units**

Units are used throughout Benchmark to indicate the Unit of measure.

Add, Edit or Delete Codes

To maintain (add, edit or delete) these fields:

1. Select Administration then Codes.
2. Click on the Code Type (A) you wish to maintain. When you click on the Code Type, the current options for that Code Type are listed in the right hand column, as shown below.

3. In the right hand section of this window, right click and select Add, Edit or Delete (B), to add a new code, edit the selected code or delete the selected code respectively.

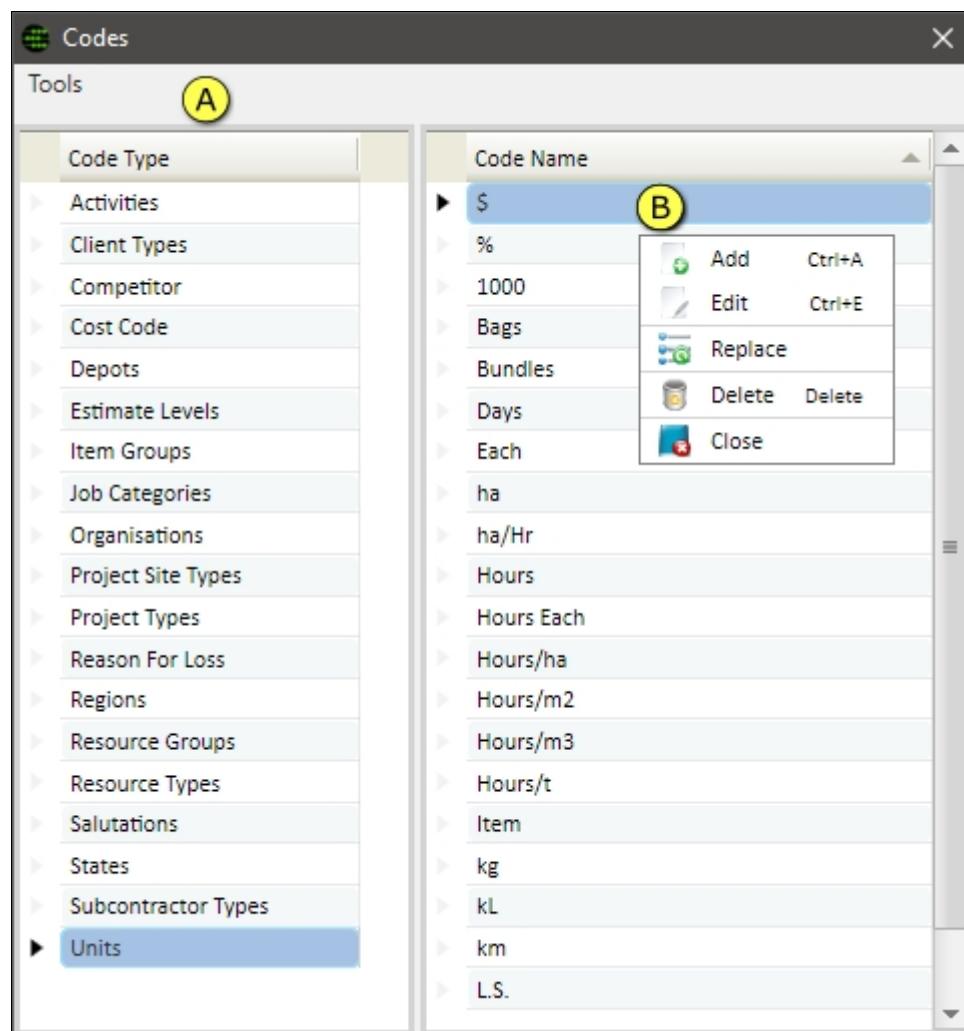


Figure 165: Codes Window



Restrict access to Codes

You may wish to restrict access so only certain users can maintain Codes. This can be done on a user by user basis in the Estimator Library.

Restriction on deleting Codes

You cannot delete a Code Name that is in use in the system. Also, when you edit a Code Name that is in use either in your libraries or a Project, every occasion where this Code Name is used is also updated.

Replace Codes

The Replace Codes function allows you to replace one Code Name with another Code Name. This function replaces the data wherever this Code Name is used in the database, including completed projects. This function is useful if an organisation wants to standardise Code Names. For example, you may have two different Units describing tonnes – these could be TONNE and T.

To make all Units for tonnes in your database to be T:

1. Select Administration → Codes.
2. Select the *Code Type* you would like to do the replace on.
3. Highlight the *Code Name* to be replaced on the right.
4. Right click on the selected line and select Replace.
5. Select the new *Code Name* that you want to replace the old one with.
6. Right click and select OK.
7. Now to tidy up your database, highlight the old Code Name (in this case TONNE) and select delete. As this old Code Name is no longer used it can be deleted from the database.



Limited Replace

Cost Code, Job Categories, Reason for Loss, Salutations, Resource Types, Subcontractor Types cannot be replaced.

Set up User Codes

User Codes provide a list of options for use with *Selection type custom fields*. The System Administrator sets up specific lists of options that are available for the user to choose from when filling in a custom field.

To set up a new User Code:

1. From the **My Benchmark** window , select Administration then User Codes from the menubar at the top of the window.
2. The **User Codes** window is displayed:
3. Right-click in the *User Code Type* area and select Add Code Type.
4. Enter a *code type* in the field and click OK.
5. Right-click in the *User Code Name* area and select Add.
6. Enter a selection option in the field.
7. Repeat steps 5 and 6 for each option you want to add.

You have now set up a *User Code*.

These *User Codes* can now be used in conjunction with Custom fields to provide a custom drop down selections.

Customise Administration Settings

The Administration settings in Benchmark allow users to set up system defaults, customise functionality, customise drop-down field options and even set up mandatory fields. This chapter provides information on these and many more settings and options that can be configured by the user.

Administration Settings Overview

You can customise various features and settings within Benchmark to suit your business. The main window in which these administration options can be set up and maintained is the **Administration** window which is accessed from the menu bar at the top of the window via Administration then Admin, as shown below:

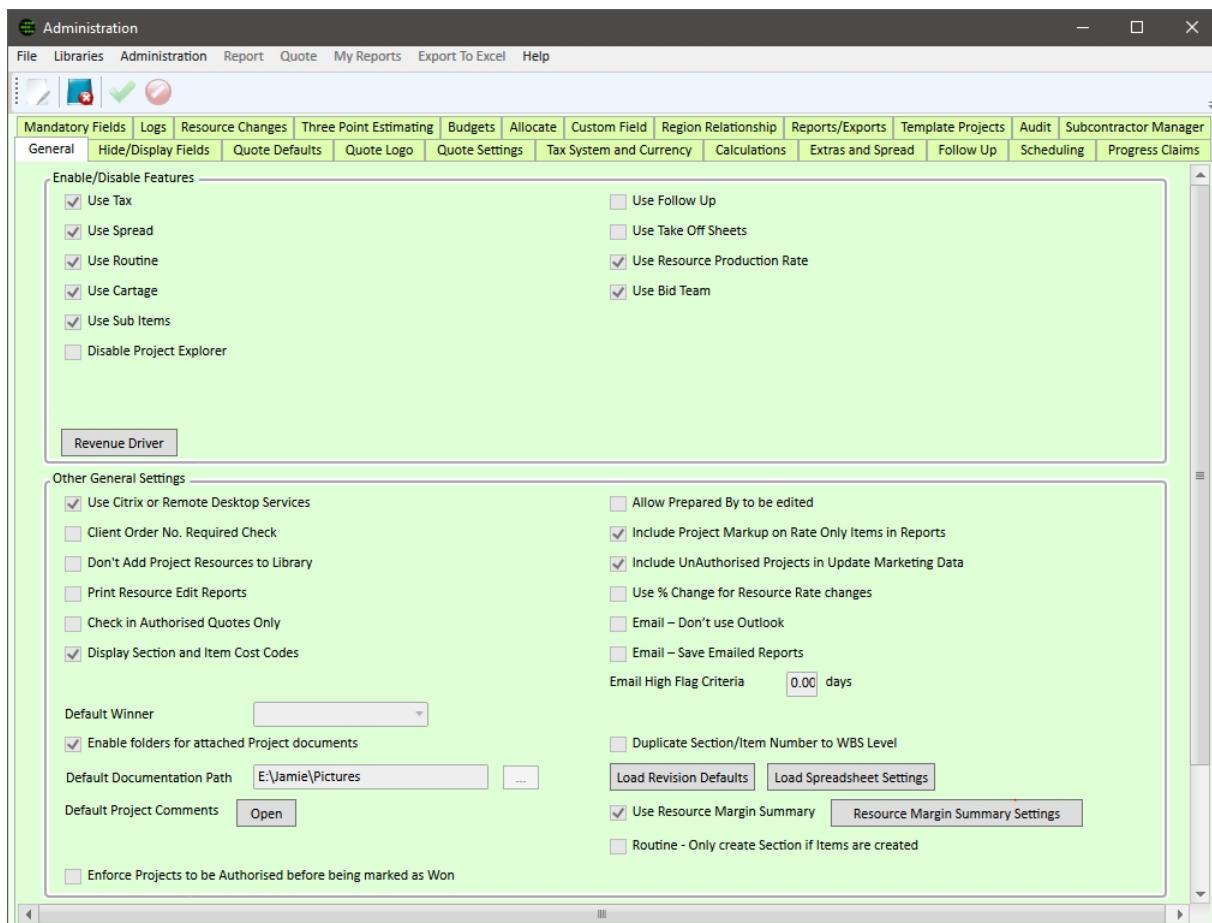


Figure 166: Administration Window - General Tab

Customise options in the Administration window

The **Administration** window is divided into *tabs* as follows:

- **General Options** (on page 290) – This allows you to enable or disable features within Benchmark, define some of the general settings of the program and also define Job Number settings (note the Job Number is separate to the Quote Number and this is explained further on in this chapter).
- **Hide / Display Fields** (on page 295) – This allows you to hide or enable some fields in the system depending on what fields you wish to use.
- **Quote Defaults** (on page 297) – This allows you to enter defaults for the various Quote functions, including the default Microsoft Word quote to use and the default Quote Introduction text.
- **Quote Logo** – This allows you to paste in your company logo(s) to be used on the various Quote reports.
- **Quote Settings** – This allows you to control various settings for Quotes including the formatting of the Quote Number and various settings for Conditions.
- **Tax System and Currency** - User can select a tax system and percentage and also a currency for the current database.
- **Calculations** - Within the section, the user can specify if the database will use advanced calculations features such as variables.
- **Extras and Spread** - User can specify default markup percentages, job size markups and default number of decimal places.
- **Follow-up** - Users can enter the default Estimator to process follow-up records and also set the number of defaults days before follow up is required
- **Scheduling** - This allows users to define the number of hours in a day and the number of hours in a week which Benchmark used to create schedules.
- **Progress Claims** - Users can enter default percentages for retentions and other Progress Claim related information.
- **Mandatory Fields** - The database can be set up to prevent users from closing off projects where certain fields have not been entered. This area allows the user to set up fields that must be entered.
- **Logs** - This provides the user with information about emails sent from within Benchmark and any errors that might have occurred.
- **Resource Changes** - This section provides details of all changes that have been made to Resources in the Resource Library.
- **Three Point Estimating** - This is only available when licensed to Three Point Estimating and contains details specific to Three Point Estimating and Monte Carlo simulations.
- **Budgets** – This allows users to populate details about the expected Revenue for each month of the year. This information is then used in the Forward Order report.
- **Allocate** - This tab contains specific settings to adjust the way Allocate and Auto Allocate work.
- **Custom Field** - This tab allows Administrators to setup Custom Fields for Clients, Projects, Items and Resources.

- **Region Relationship** - Users can specify the field hierarchy used for Job Category, Region and Depots.
- **Reports/Exports** - Additional settings for reports, i.e. Benchmark's Summary Report.
- **Template Projects** - Allows users to define settings for Template Projects.
- **Audit** - Allows administrators to setup Auditing in Benchmark.
- **Subcontractor Manager** - Settings for the use of Subcontractor Manager and associated features.



Making changes to the Administration window

To edit and make changes to the settings in the **Administration** window you must right click and select Edit first. The following pages provide you with details on the settings in each of the tabs in the **Administration** window.

General Options

The following table provides a comprehensive description of each option within the **Administration** window General tab.

Enable/Disable Features

Enable/Disable Features

<input checked="" type="checkbox"/> Use Tax <input checked="" type="checkbox"/> Use Spread <input checked="" type="checkbox"/> Use Routine <input checked="" type="checkbox"/> Use Cartage <input checked="" type="checkbox"/> Use Sub Items <input type="checkbox"/> Disable Project Explorer	<input type="checkbox"/> Use Follow Up <input type="checkbox"/> Use Take Off Sheets <input checked="" type="checkbox"/> Use Resource Production Rate <input checked="" type="checkbox"/> Use Bid Team
---	--

Revenue Driver

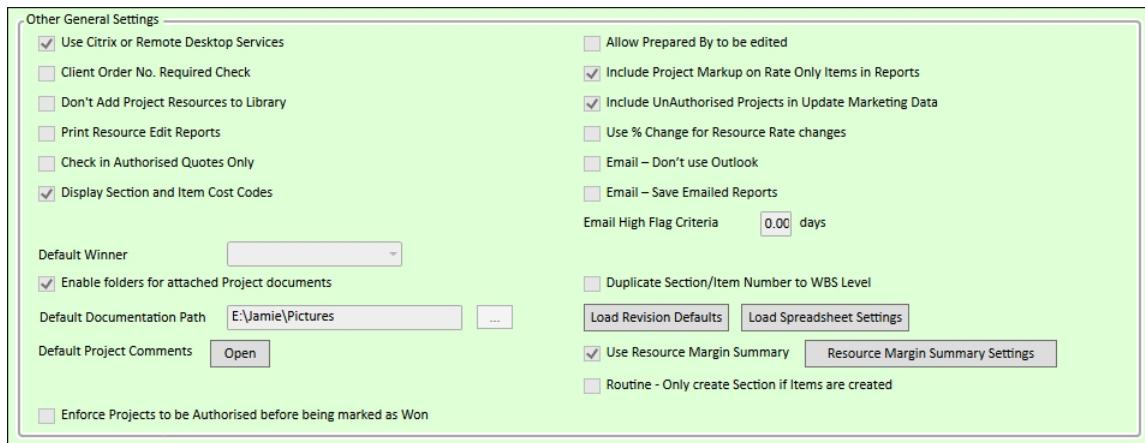
Figure 167: Enable/Disable Features

Setting	Description
Use Tax	Enables/disables the tax system within the current Benchmark database. Set up the individual tax system and percentage in the Tax System and Currency tab (see " Tax System and Currency " on page 303).
Use Spread	Enables/disables the Spread feature, which allows the user to manage the way Benchmark spreads profit/indirect costs across <i>Items</i> . For more information, refer to Use Spread to manipulate your Submission Price (on page 200).
Use Routine	Enables/disables the use of <i>Routines</i> in the current database. For more information, refer to Run a Routine in your Project (on page 184).

Setting	Description
Use Cartage	Enables/disables the <i>Cartage fields</i> and calculations for <i>Cartage Resources</i> . For more information, refer to Use Cartage in a Project (on page 191).
Use Sub Items	Enables/disables the creation and use of <i>Sub Items</i> in the current database. Use Sub Items in your Project (see " Project Sub Items " on page 135).
Disable Project Explorer	Disables/enables Project Explorer. For more information, refer to Project Explorer (on page 60).
Use Follow Up	Enable/disables the use of <i>Follow Up</i> records as reminders for estimators. For more information, refer to Follow up your quotations (see " Following up your Projects " on page 261).
Use Takeoff Sheets	Enables/disables the use of spreadsheets to calculate <i>Item quantities</i> . These sheets can be stored with the Item and are used to do takeoffs. For more information, refer to Set up Quantity Takeoff Templates (on page 401).
Use Resource Production Rate	Enables/disables the use of <i>Production Rates</i> at the <i>Resource level</i> within a Project and within the Item Library. For more information, refer to Use Resource Production Rates (on page 165).
Use Bid Team	Enables/disables the Bid Team feature. For more information, refer to Assign Estimators to the Bid Team.
Revenue Driver	Open the Revenue Driver Settings for the Database. For more information, refer to Revenue Driver (on page 264).

Table 20:

Other General Settings



The screenshot shows the 'Other General Settings' window with various configuration options:

- General Settings:**
 - Use Citrix or Remote Desktop Services
 - Client Order No. Required Check
 - Don't Add Project Resources to Library
 - Print Resource Edit Reports
 - Check in Authorised Quotes Only
 - Display Section and Item Cost Codes
- Default Winner:** A dropdown menu showing 'Default Winner'.
- Enable folders for attached Project documents:**
- Default Documentation Path:** E:\Jamie\Pictures
- Default Project Comments:** Open
- Reporting and Marketing:**
 - Allow Prepared By to be edited
 - Include Project Markup on Rate Only Items in Reports
 - Include Unauthorised Projects in Update Marketing Data
 - Use % Change for Resource Rate changes
 - Email – Don't use Outlook
 - Email – Save Emailed Reports
 - Email High Flag Criteria: 0.00 days
 - Duplicate Section/Item Number to WBS Level
- Resource Management:**
 - Use Resource Margin Summary
 - Resource Margin Summary Settings
 - Routine - Only create Section if Items are created
- Project Management:**
 - Enforce Projects to be Authorised before being marked as Won

Figure 168: Administration Window - Other General Settings

Setting	Description
Use Citrix or Remote Desktop Services	Changes the background colour and appearance of Benchmark windows when using Benchmark over a Terminal Server/Citrix connection. For more information, refer to Citrix and virtual machine installation options.
Client Order No. Required check	When checked, Benchmark will display a <i>Client Order no</i> field in the Client Library . For more information, refer to Marketing Data Overview (see " Project Marketing Data Overview " on page 243).
Don't Add Project Resources to Library	Disables/enables the addition of all new <i>Project Resources</i> to the Resource Library . For more information, refer to the Note at the end of Add new Resources (on page 114).
Print Resource Edit Reports	Enable/disable prompt for the user to print a report after editing a <i>Resource</i> in the Resource Library .
Check in Authorised Quotes Only	Disable/enable the feature to limit Check In to authorised Projects. For more information, refer to Working Offline (on page 272).
Display Section and Item Cost Codes	Disable/enable the display of <i>Section</i> and <i>Item Cost Code</i> fields. This will hide the 'Display Resource Cost Codes'
Display Resource Cost Codes	Disable/enable the display of <i>Resource Cost Code</i> fields. This will hide the Display Section and Item Cost Codes.
Default Winner	Select the default winner to be selected when a Project is marked as won. Winners can be set up in the Codes window Competitor field. For more information, refer to Set up Codes (on page 284).
Enable folders for attached Project documents	When enabled, a specific folder is created per project to store documents attached to a project. For more information, refer to Project folders and document attachments.
Default Documentation Path	This is the default location for Benchmark to look for documents that are no longer present in the location that was initially set for <i>documents attached to Items or Projects</i> .
Default Project Comments	Click the Open button to open the Default Project Comments window, where you can set up default comments. These comments are added to the Comments field in the Project Details window when a new Project is created.
Enforce projects to be Authorised before being marked as Won	Enable/disable making <i>Project Authorisation</i> a prerequisite to marking a Project as <i>Won</i> .

Setting	Description
Enable Prepared By to be edited	Enable/disable editing of the <i>Prepared By</i> field in the Project Details Analysis tab.
Include Project Markup on Rate Only Items in Reports	Enable/disable inclusion of <i>Project Markup</i> (by the overall <i>Project Markup percentage</i>) for <i>Rate Only Items</i> in Quote Reports.
Include UnAuthorised Projects in Update Marketing Data	Enable/disable the inclusion of <i>unauthorised Projects</i> in the Update Marketing window.
Use % Change for Resource Rate changes	When checked, the Discount % column in the Resource Rate Change window is changed to % change. This also changes how the Resource Rate Change works; the % entered is added rather than applied as a discount.
Email – Don't use Outlook	When checked, the option to send the email to MS Outlook is disabled.
Email – Save Emailed Reports	When checked, Emailed reports and quotes are saved to the file system. See Default Word Quote Path for further details.
Email High Flag Criteria	Here you can specify the number of days. If a request for authorisation email or an authorisation approval email is sent and the Project closing date is within this number of days, then SMTP emails are sent with a high priority.
Fall back to Global Rate when Regional Rate is Zero	Corporate edition only. When checked, <i>Regional Resources</i> that don't have a rate for the current Project's <i>Region</i> are assigned the <i>Global</i> (or default) <i>Rate</i> .
Duplicate Section/Item Number to WBS Level	Enable/disable duplication of entered <i>Section</i> or <i>Item numbers</i> to the <i>WBS Level</i> field. You can use <i>WBS</i> (Work Breakdown Structure) <i>Level</i> fields for linking to other business systems like Accounting or Job Costing systems.
Load Revision Defaults	Click this button to open the Load Revision Settings window. This allows administrators to setup default settings for comparing revised projects with the original project. This includes: <ul style="list-style-type: none"> ➤ Preconditions ➤ Comparison options ➤ Duplicate Project Settings.

Setting	Description
Load Spreadsheet Settings	Click this button to open the Load Spreadsheet Settings window. This window allows Administrators to setup the defaults for handling Quantity precision and zero quantities for Load spreadsheet.
Use Resource Margin Summary	When checked, this shows the <i>Resource Margin Summary</i> details on the Project Details window. Set the <i>Resource Margin</i> details <i>for each Project</i> in the Extras window. For more information, refer to Program Resource Margin Summary (see " Project Resource Margin Summary " on page 84).
Resource Margin Summary Settings	Click this button to open the Resource Margin Summary Settings window. This window allows you to set the default Resource groups and units to be used with the Resource Margin Summary.
Routine - Only create section if Items are created	Use this option to control when to <i>create Sections</i> when you <i>run a Project level Routine</i> . When the checkbox is cleared, <i>Project level Routines always create a Section (SE line type)</i> if it's part of the Routine.

Table 21:

Job Numbering



The screenshot shows a dialog box titled "Job Numbering". It contains a field labeled "Last Job No" with the value "13". There are two checkboxes: one checked labeled "Use Incremental Job Number" and one unchecked labeled "Do not allow Job No to be edited".

Setting	Description
Last Job Number	Here you can define the <i>last used Job Number</i> . Benchmark can then increment the <i>job number</i> based on this field. Note: This is <i>NOT</i> the quote number. <i>Job Numbers</i> are generally used to identify only those <i>Projects you have Won</i> and those being constructed.
Use Incremental Job Number	When checked, <i>Projects marked as Won</i> will automatically have their <i>Job Number</i> field incremented, based on the <i>last Job Number allocated</i> .
Do not allow Job No to be edited	When enabled, you cannot edit the <i>Job Number</i> field in the Project Details window.

Adding Items from Project, Allocate Resource from Project Item and Auto Allocate From Project

<input checked="" type="checkbox"/> Add Item from Project, Allocate Resources from Project Item and Auto Allocate from Project <input type="checkbox"/> Set "Copy Submission Price" checkbox in "Project Selection" window to true by default <input type="checkbox"/> Set "Copy Resource Cost Codes" checkbox in "Project Selection" window to true by default	

Setting	Description
Set "Copy Submission Price" checkbox in "Project Selection" window to true by default	When checked, the Copy Submission Price checkbox is always checked when the Project Selection window is displayed.
Set "Copy Resource Cost Codes" checkbox in "Project Selection" window to true by default	When checked, the Copy Resource Codes checkbox is always checked when the Project Selection window is displayed.

Hide / Display Fields

The following table provides a comprehensive description of each option within the **Administration** window Hide/Display Fields tab.

<input type="checkbox"/> Hide Fields <input type="checkbox"/> Hide Depot in Item Library and Project Item windows <input type="checkbox"/> Hide Markup % <input type="checkbox"/> Hide DC Markup % <input type="checkbox"/> Hide Won checkbox <input type="checkbox"/> Hide Quote Re

Hide Settings	Description
Hide Depot in Item Library and Project Item windows	When enabled the <i>Depot</i> field is hidden in the Item Library and Project Item windows.
Hide Markup %	The <i>Markup %</i> field in the Project Details , Spread and Extras windows are hidden from users.
Hide DC Markup %	The <i>DC Markup %</i> field in the Project Details , Spread and Extras windows are hidden from users.
Hide Won Checkbox	The <i>Won</i> checkbox is hidden from users in the Project Details window.
Hide Quote Re	The <i>Quote Re</i> field on the Project Details is hidden from users.

Display Fields	
<input checked="" type="checkbox"/>	Display Job No
<input checked="" type="checkbox"/>	Display Item Start Date
<input checked="" type="checkbox"/>	Display Submission Prices in Project Sections window
<input checked="" type="checkbox"/>	Display Submission Prices in Project Items window
<input checked="" type="checkbox"/>	Display Submission Prices in Project Resources window
<input type="checkbox"/>	Display Item Text in Select Library Items and Select Project Items windows

Display Settings	Description
Display Job No	When enabled the <i>Job No</i> field is displayed on the Project Details window and Project Browser window.
Display Item Start Date	When enabled, the <i>Item Start Date</i> field is displayed in the Project Item window.
Display Submission Prices in Project Sections Window	When enabled, Benchmark displays an additional column in the Project Sections window that displays the sum of the Project Item Submission values for each section.
Display Submission prices in Project Items window	When enabled, Benchmark displays an additional column in the Project Items window, that displays the total submission price for each Item.
Display Submission Prices in Project Resources window.	When enabled, Benchmark displays additional fields in the Project Resources window displaying the total submission price for the current Item.
Display Item Text in Select Library Items and Select Project Items windows	When enabled, the Item text field will be displayed in the Select Library Items and Select Project Items windows for each Item.

Hide Project Resource Columns	
<input type="checkbox"/>	Hide Crew Size column
<input type="checkbox"/>	Hide Subcontractor column
<input type="checkbox"/>	Hide Category column
<input type="checkbox"/>	Hide Resource Text column
<input type="checkbox"/>	Hide PR Group column
<input type="checkbox"/>	Hide Cost Code column

Hide Resource Column Settings	Description
Hide Crew Size column	Hides the Crew Size column in the Project Resources window grid.
Hide Category column	Hides the Category column in the Project Resources window grid.
Hide PR Group column	Hides the Production Rate Group column in the Project Resources window grid.

Hide Resource Column Settings	Description
Hide Subcontractor column	Hides the Subcontractor Company column in the Project Resources window grid.
Hide Resource Text column	Hides the Resource Text column in the Project Resources window grid.
Hide Cost Code column	Hides the Cost Code column in the Project Resources window grid.

Hide Project Item Columns

 Hide Item Text column Hide Cost Code column

Hide Item Column Settings	Description
Hide Item Text column	Hides the Item Text Column in the Project Items window grid.

Quote Defaults

Word Quote Saving Options

 Save all Word Quotes into a single folder
 Save Word Quotes to Project folders

Licence Name

Quote Introduction

Quote Validity

Quote Footer

Word Quote Table Defaults

Quote Last Page Text

Default Word Quote Template

Browse...

Default Quote

Select...

Quote for Auto Email

 Allow selection of Quote in a Project

 Set default Quote to use

Select...

The following table provides a comprehensive description of each option within the **Administration** window Quote Default tab.

Setting	Description
Save all Word Quotes in a single folder	All Word Quotes for all projects are saved in the same folder.

Setting	Description
Save Word Quotes to Project Folders	Word Quotes are saved in a specific folder for each project.
License Name	The license name can be used on the Quote with Options report.
Quote Introduction	Here you can set up the default text to appear in the <i>Quote Introduction</i> field when creating a new project.
Quote Validity	Here you can set up the default text for the Quote Validity field. This can be used in the Quote with Options report.
Quote Footer	Here you can set up the default text for the Quote Footer field. This can be used in the Quote with Options report.
Word Quote Table Defaults	This allows you to set up the appearance of Word Quote Tables. Headings, Sections, Sub Totals and Totals can be customised by selecting a font and colour, and the Project Total can also be placed in a separate table.
Quote Last Page Text	This allows the administrator to set up the default text for the Quote Last Page Text field. This is designed for the last page of terms and conditions that some companies may use in their quotations. This can be used in the Quote with Options report and the Rate Only including GST report.
Default Word Quote Template	Here you can specify the location of the default template to be used when producing a word quote. This path is also used to create a folder called <i>Benchmark Documents</i> within which Word quotes are saved.
Default Quote	Here you can specify a default quote report that can be run from the Quote menu in Benchmark.
Quote for Auto Email: Allow selection of Quote in a Project	When enabled using the Email button on the Project Details window will provide a list of available quote reports.
Quote for Auto Email: Set default Quote to use	When enabled, only this quote report is available for email.



Regional Quote Defaults

Corporate version users can set the *Quote defaults for each Region* in the Database.

Quote Logo

The following table provides a comprehensive description of each option within the **Administration** window Quote Logo tab.

Setting	Description
Logo Top	The logo you paste into this field is used at the top of various quotes (and Progress Claim) reports.
Logo Bottom	The logo you paste in this field is used at the bottom of the Quote Inc Tax(2) report.

Table 22: Quote Logo Administration Settings

Before adding your logo to Benchmark it must be formatted into a suitable graphics format. Benchmark will accept the following image file types: bmp, png, wmf, emf, jpg, pcx, wbmp.

To add a logo:

1. If you are not in the **Administration** window, select the **Administration** window.
2. Select the **Quote Logo** tab.
3. Right click and select **Edit**.
4. Right click in the *Logo Top* or *Logo Bottom* field and select **Paste from file**.
5. When the open file window appears, navigate to your logo graphic file. You may need to change the file type in the bottom right corner to specify a different graphic type.
6. Select **Open** to add your logo.



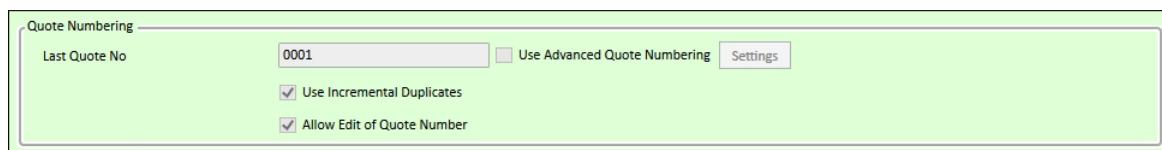
Regional Quote Logo Settings

Corporate version users can set the Quote Logo settings for each Region in the Database.

Quote Settings

The Quote Settings tab includes settings for Quote Numbering, Condition, Quote Email and Other Quote Settings.

Quote Numbering



The screenshot shows the 'Quote Numbering' section of the Administration window. It includes a text input for 'Last Quote No' containing '0001', a checkbox for 'Use Advanced Quote Numbering' which is unchecked, and a 'Settings' button. Below these are two checked checkboxes: 'Use Incremental Duplicates' and 'Allow Edit of Quote Number'.

Benchmark provides some additional options for Quote Numbering these include:

Setting	Description
Last Quote No	Here you can specify the last quote number used. Benchmark will then increment the number for each new quote/project created. (Quote numbers can be Alphanumeric)
Use Incremental Duplicates	When enabled, a duplicated Project can have an incremental number added to the quote no. (i.e. if quote 2001.01 was duplicated and it was the same Project – the duplicate would be quote 2001.02).
Allow Edit of Quote Number	When enabled, the users can edit the quote number for each Project in the database. When disabled, Benchmark will automatically create the quote number based on the last quote number field above.

When you create a Project, you can base the Quote No that is generated on an *Advanced Quote Numbering* method that your *System Administrator* defines. Benchmark can use this method to automatically create quote numbers based on a combination of two or three fields/values.

To set up the Advanced Quote Numbering system:

1. Before you define the numbering system, you must consult your key internal stakeholders to get their input and approval. **Do not** set this up in Benchmark until you have business sign off.
2. Open the **Administration** window and select the **Quote Settings** tab.
3. Enter Edit mode by right clicking on the mouse and selecting **Edit**.
4. Check the **Use Advanced Quote Numbering** checkbox and press **ENTER**. This enables the **Settings** button next to the checkbox.
5. Click the **Settings** button to display the **Advanced Quote Numbering** window.
6. Select the *Prefix* field you wish to use. The *Prefix* field is displayed on the **Project Details** window. As an example, if you select *Region* for your *Prefix* field, you will have *unique, incremental Quote Numbers per Region*. Prefix field options are:
 - Region
 - Depot
 - Job Category
 - Project Type
 - Organisation
 - State
7. After you select the Prefix field, the table is populated with the *chosen field* and the *values* you have set up for this field. *For each value* you must now *enter a corresponding prefix*;

You can use either of these two options to set up Advanced Quote Numbering:

- **Two fields** - Prefix Field and Last Quote Number.

- **Three fields** - Prefix Field, Year and Last Quote Number.
8. Check the **Use Year** checkbox if you want to include the year in your quote number. If you do this you can then type in a year value. (**Note:** if you do this you need to manually adjust this at the start of each fiscal or calendar year depending on your chosen setting).
 9. Enter the *Last Quote Number* for *each prefix*; when you set this up you may start at zero for all, but you can start at different values if you wish to continue on from an existing numbering system you have established. If you expect thousands of quotes to be generated, then you should use **0000**.
 10. Select OK to save these settings.



Disabling Advanced Quote Numbering

If you disable the *advanced quote numbering system* at any time, it will not change the quote number of any existing quotes that had used the advanced quote numbering system format in the past.



Quote Number field length

The Quote No field has a limit of 20 characters to accommodate for the advanced quote number functionality. All reports and exports accommodate this field length.

Advanced Quote Numbering example:

If you set up this feature with the following fields:

- [Prefix field= **Region**] and the prefix for the *Region of NORTH* = **NTH**
- [Year] = **16-17-**
- [Last Quote Number] = **0002**
- The next quote number in the *NORTH Region* will be *NTH-16-17-0003*.

Conditions

Conditions	
Standard Conditions GST Inclusive	<input type="checkbox"/> Mandatory Standard Conditions <div style="border: 1px solid #ccc; height: 100px; margin-top: 5px;"></div>
Standard Conditions GST Exclusive	<div style="border: 1px solid #ccc; height: 100px; margin-top: 5px;"></div>
Enter the Standard conditions to appear on Quotes as the first Standard condition, depending on whether the quote is exclusive or inclusive of Tax Show Payment Term Condition as : <input type="radio"/> Standard Condition <input type="radio"/> Project Specific Condition <input type="radio"/> Neither 	

Setting	Description
Mandatory Standard Conditions	When enabled, all Standard Conditions in the Conditions library are added to new Projects. Also, the Standard Conditions added to a Project cannot be deleted.
Standard Conditions GST /VAT Inclusive	Here you can add default conditions for Quotes inclusive of Tax
Standard Conditions GST/ VAT Exclusive	Here you can add default conditions for Quotes exclusive of Tax
Show Payment Term Condition as	<p>Select whether the Payment Term Condition is shown as:</p> <ul style="list-style-type: none"> ➤ Standard Condition ➤ Project Specific Condition ➤ Neither <p>Note: Selecting Neither is recommended if you use only Word Quote templates for your quoting and if you are using the Payment Term Condition merge marker with your Word Quote templates</p>

Quote Email / PDF Settings

Quote Email/PDF Settings

Email Subject	<input type="text"/>
---------------	----------------------

Setting	Description
Email Subject	Here you can specify a default text for the Subject in Quote emails.

Other Quote Settings

Other Quote Settings

<input type="checkbox"/> Only print Quotes if Authorised
<input type="checkbox"/> Don't Show Borders on Word Report Tables
<input type="checkbox"/> Remove Blank Lines from Conditions in Word Reports

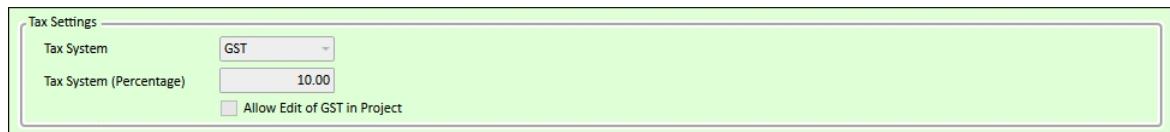
Setting	Description
Only print Quotes if Authorised	When enabled this will only allow Quotes to be printed if they have been authorised.
Don't Show Borders on Word Report Tables	When enabled, borders will not be created around the schedule of Item tables in Word quotes.

Setting	Description
Remove Blank Lines from Conditions in Word Reports	When enabled, all blank lines are removed from Conditions in Word quote templates.

Tax System and Currency

The Tax and Currency Tab allows Administrators to setup a Tax System, set defined or custom regional formatting styles and manage available currencies when using multiple currencies in Benchmark.

Tax Settings



The screenshot shows the 'Tax Settings' window with the following details:

- Tax System:** GST
- Tax System (Percentage):** 10.00
- Allow Edit of GST in Project:** (checkbox)

Table 23:

Table 24: Tax System Administration Options

Setting	Description
Tax System	You can select from either GST or VAT as a tax system.
Tax System (Percentage)	Here you can specify the default percentage to use for the tax system selected above.
Allow Edit of {Tax System} in Project	When enabled users can edit the tax system percentage within each individual project.

Setting Up Tax

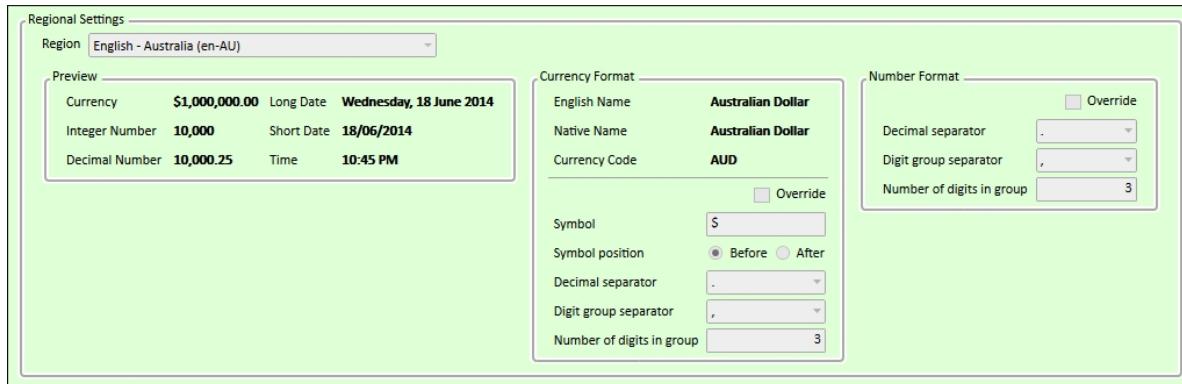
Benchmark can be setup to use Tax, this might be GST or VAT or another type of tax system for your country.

To enable Tax in Benchmark:

1. Open the **Administration** window and select the General tab.
2. Right click and select Edit.
3. In the Enable/Disable Features group, select the Use Tax checkbox.
4. Select the Tax System and Currency tab.
5. Select the Tax System for your database.
6. Enter a *Tax System percentage*
 - If you would like users to be able to edit the Tax percentage within the Projects, then check the Allow Edit of {Tax} in Project.

7. Right click and select OK to save your changes.

Regional Settings



Regional settings are used to setup the default number formats and currency formats for Benchmark to use. If you have used multiple currencies then the regional settings will be applied to the specified base currency.

Setting	Description
Region	Regions can be selected from the drop down. This list includes most world regions. Once selected, Benchmark will show a preview of the regional settings. If there is a region you would like that is not present, please contact Benchmark Support.

These **Currency Format** and **Number Format** options dictate how your *currency values* and *numbers* are displayed on all windows and all Benchmark reports. Benchmark uses the default *Date* formats for every *Date* field.

Custom Currency Format

The default currency settings can be overridden to provide custom formatting. To do this:

1. In the **Administration** window, select the **Tax System and Currency** tab.
2. Right click and select **Edit**.
3. Ensure you have the correct **Region** selected for your country.
4. Check the **Override** button in either the **Currency Format Group**.
5. Enter a currency symbol.
6. Set the currency symbol position.
7. Specify the Decimal separator (*separator between whole numbers and fractional numbers*).
8. Specify the Digit group separator.
9. Specify the number of digits in a group.

Custom Number Format

The default number settings can be overridden to provide custom formatting. To do this:

1. In the **Administration** window, select the Tax System and Currency tab.
2. Right click and select Edit.
3. Ensure you have the correct Region selected for your country.
4. Check the Override button in either the Number Format Group.
5. Specify the Decimal separator (*separator between whole numbers and fractional numbers*).
6. Specify the Digit group separator.
7. Specify the number of digits in a group.

Regional Settings and Calculations

When working with Calculations, you can either use a decimal point or a comma as the separator between whole numbers and fractional numbers. This allows Estimators in many countries across the globe to continue to work in the way they are most comfortable.

Additionally, if you have many estimators working in the one database (possibly from different countries for example), you can customise this setting on a per estimator basis. So you could have some estimators using a full stop ‘.’ as the decimal separator in calculations, and others using a comma ‘,’.

For those estimators using the comma, the

- Comma ‘,’ replaces full stop ‘.’ the decimal separator in calculations, and
- Semicolon ‘;’ replaces comma ‘,’ as the parameter separator in calculations.

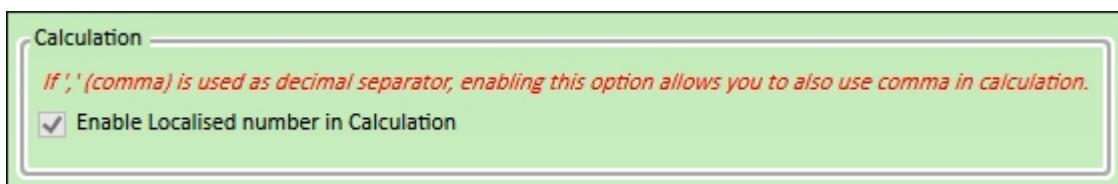


Localised Calculations

Local calculations can only be enabled when the selected region uses a comma for the decimal separator. For more information, refer to **Regional Settings** (on page 304).

To enable localised Calculations:

1. In the **Administration** window, select the Tax System and Currency tab.
2. In the Regional Settings Group, you should see a Calculation group on the far right.



3. Right click and select Edit
4. Check the Enable Localised number in Calculation checkbox.
5. Right click and select OK.



Localised Calculations

If you use this feature, it is important to understand that the underlying calculation data in your database is not changed.

The Localised Calculations feature enables a different *visual representation* of the calculation.

When the localised calculation is enabled, there are important considerations for users of this feature:

1. Benchmark features which export calculations (i.e. Item Library Export, Routine Library Export to Text) will NOT export calculations in localised format. If you edit these exports with an intention to import them back into your Benchmark database, you need to ensure the calculations remain in non-localised format (i.e. full stop as decimal separator and comma as parameter separator).
 2. The Project Review/Analysis Export to Excel does export calculation data (as text only) and does so in localised format; this export though is for review/analysis only and cannot be imported back into Benchmark.

View calculations on reports and on windows

When the localised calculation is enabled, calculations on reports and in windows are displayed in their localised format.

Multi-Currency Settings

When Multi-Currency is enabled, Benchmark allows Administrators to setup additional Currencies, adjust the Currency formatting for each currency and specify a default exchange rate. When Multi-Currency is first setup, the base currency is selected along with one or more additional currencies. These additional currencies will be shown in the Multi Currency settings and can be edited to make changes to the exchange rate or formatting style.

Multi-Currency Settings									
Code	Description	Exchange Rate	Example Amount (Based on \$10.00)	Symbol	Symbol Position	Decimal separator	Digit group separator	Number of digits in group	
GBP	British Pound	1.65000	6.06060606060606	£	Before	.	,	3	
BGN	Bulgarian Lev	1.20000	8.33333333333333	лв.	After	,	(SPACE)	3	

To add a Currency:

1. In the **Administration** window, select the Tax System and Currency tab.
 2. In the *Multi-Currency Settings* group, click the Add icon.
 3. A new row will appear, allows the user to select a Currency Code.

4. Select a Currency Code.
5. Enter the Exchange Rate for the currency (*where the exchange rate is the ratio of new currency divided by the base currency*).
6. Override any of the currency formatting.
 - Currency Symbol.
 - Currency Symbol position.
 - Decimal Separator (separator between whole numbers and fractional numbers).
 - Digit group separator
 - Number of digits in a group.
7. Click the OK button on the left side of the Multi-Currency Settings.

To edit an existing Currency:

1. In the **Administration** window, select the Tax System and Currency tab.
2. In the *Multi-Currency Settings* group, click the Edit icon.
3. Enter an updated Exchange Rate.
4. Override any of the currency formatting.
 - Currency Symbol.
 - Currency Symbol position.
 - Decimal Separator (separator between whole numbers and fractional numbers).
 - Digit group separator
 - Number of digits in a group.
5. Click the OK button on the left side of the Multi-Currency Settings.

Calculations settings

<input type="checkbox"/> Show Calculations in Lists
<input type="checkbox"/> Use Variables in Calculations
<input type="checkbox"/> Use iq(),pr(), and cs() in Calculations
<input checked="" type="checkbox"/> Enable "Base quantity on Calculation"
<input type="checkbox"/> Default Checkbox to Checked

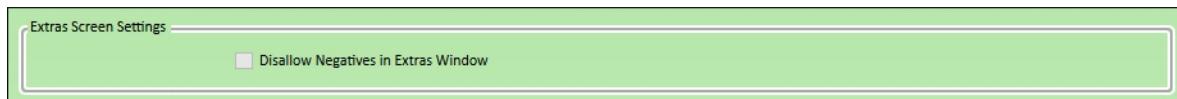
The following table provides a comprehensive description of each option within the **Administration** window Calculations tab.

Setting	Description
Show Calculations in List	When enabled, Item and Resource calculations are shown in the list in the Project Resource , Project Item and the Item Library Resource windows.
Use Variable in Calculations	When enabled users can add, edit and use Variables in Resource and Item calculations.

Setting	Description
Use iq(), pr() and cs() in Calculations	When enabled, users can use the Item Qty (iq), Production Rate (pr) and Crew Size (cs) buttons/functions in Resource quantity calculations.
Enable Base quantity on Calculation	When enabled, the user can set an Item/Resource Quantity to always base its quantity on the result of the calculation.
Default Checkbox to Checked	This checkbox is only displayed if the <i>Enable Base quantity on calculation</i> checkbox is checked. When checked, this will check the <i>Enable Base quantity on calculation</i> checkbox by default when the user opens the Calculator window for an Item/Resource.

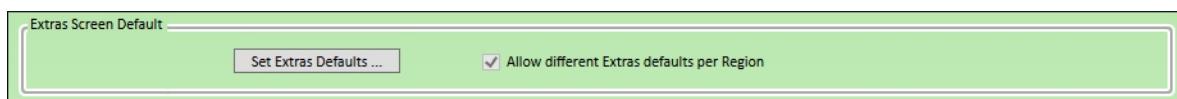
Extras and Spread

Extras Screen Settings



Setting	Description
Disallow Negatives in Extras Window	When enabled, negative values cannot be entered into the Extras window fields.

Extras Screen Defaults



The Extras window contains the markup percentages that are used to generate Project Profit and Project Indirect Costs. Here the default markup percentages can be set as defaults for new Projects.

Settings	Description
Set Extra's Defaults Button	Here you can enter the <i>Default Extras</i> field settings by clicking the Extras default button.
Allow different Extras defaults per Region	When Enabled, Extras Defaults can be setup per Region. This is enabled and hidden by Default in the Corporate Edition.

To Setup Extras Defaults:

1. In the **Administration** window, select the Extras and Spread tab.

If you want to setup *defaults per Region*; check the Allow different Extras defaults per Region (*not required for Corporate version*).

- Please ensure you have all your regions setup in the Codes window. For more information, refer to **Set up Codes** (on page 284)
2. Select the Set Extras Defaults button.

The Extras Default window will appear.

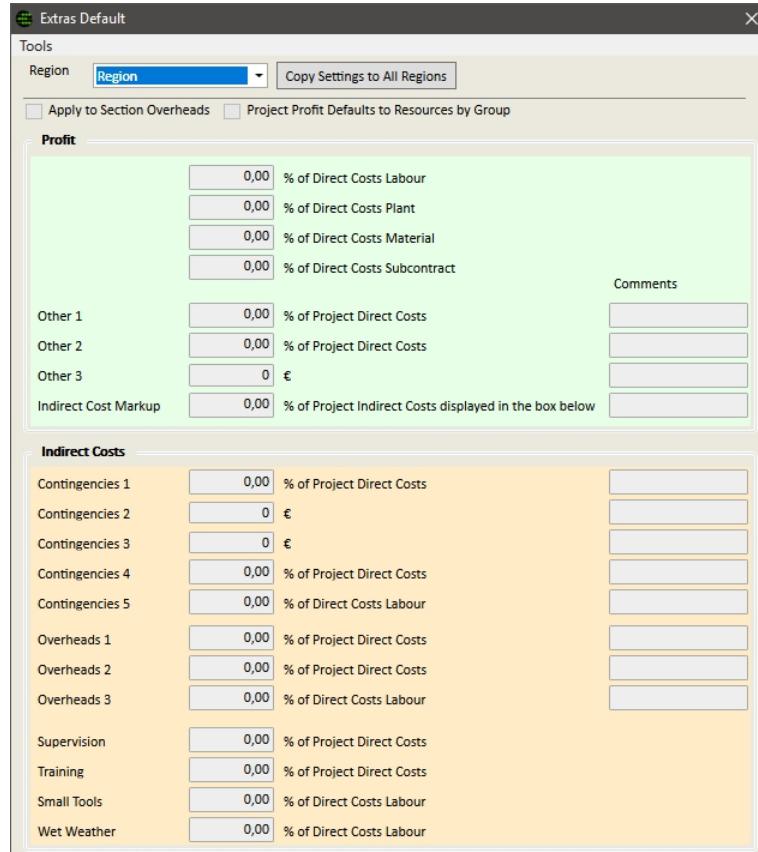


Figure 169: Extra's Defaults

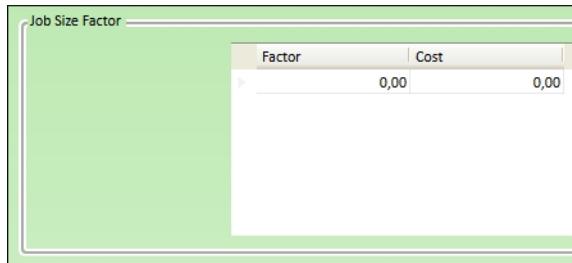
3. If adding defaults per Region, Select a Region.
4. Right click and select Edit.
5. Enter your values as required.
 - If you would like profit and Indirect markup to overhead Sections; check the Apply to Section Overheads.
 - If you would prefer to assign Resource profit by Resource Group instead of Category; check the Project Profit Defaults to Resources By Group.
6. Right-click and select OK.
7. When adding defaults per region, repeat steps three and four, or select Copy Settings to All Regions
8. Right-click and select Close.



Copy Settings to All Regions

This option is only visible in the Corporate Edition, or when the Allow different Extras defaults per Region has been selected in the Professional Edition.

Job Size Factor



The factor will be applied as a profit percentage to the project.
The percentage applied will be based on the project cost.
How to use:
Left click on the Factor column, enter the factor and press TAB to move to the Cost column. Press TAB to insert new lines.

Administrators can setup default additional markups based on a Projects Direct Cost. When the project is Recalculated, Benchmark will check the Job Size Factor and apply the Appropriate markup based on the Projects Direct Cost. The markup used can is shown in the *Job Size Factor* field within the [Project Extras](#) window for a given Project.

To enter a default markup based on the Job size (Direct Cost):

1. Open the [Administration](#) window and Select the Extras and Spread tab.
2. Right-click and select Edit.
3. In the Job Size Factor area, click the Factor column header and enter a Factor (Percentage).
4. Press TAB and enter the maximum Direct Cost this factor should be applied to.

i.e.

- If you enter 10 into the factor and then enter 1,000 into the cost
- A markup of 10 percent would be applied to the Project where the Project cost is less than or equal to \$1,000.



Cost Column

The Job Size Factor will be applied while the Project Direct Cost is less than or equal to the Cost.

Spread Settings

Spread Settings

Default number of decimal places for displayed and calculated Rates	<input type="text" value="2"/> Decimal Places (Min: 0, Max: 4)
Default number of decimal places for displayed Amount	<input type="text" value="2"/> Decimal Places (Min: 0, Max: 2)
<input type="checkbox"/> Do not calculate Spread after Routines <input type="checkbox"/> Show Default Submission Rate and Amount Variation in Spread (not yet supported for projects using Forecast Quantities)	

The following table provides a comprehensive description of each option within the **Administration** window Extras and Spread tab.

Decimal Points – Display and Calculate	Here you can set the default number of decimal places for displaying and calculating rates in the Spread window. It is recommended you enter 2 in this field.
Decimal Points – Display Amounts	Here you can set the default number of decimal places for displaying amounts in the Spread window. It is recommended you enter 2 in this field.
Do not calculate Spread after Routines	When enabled, Benchmark will not Recalculate the Project after a Routine is run.
Show Default Submission Rate and Amount Variation in Spread	When enabled, the Default Submission Amount based on the Default Extras will be calculated and shown in the Spread window along with the Amount variation column.

Show Default Submission Rate and Amount Variation in Spread

There are some important considerations when using Default Submission Rate and Amount feature. The important elements of these calculations are:

- This feature effectively runs the Spread algorithm twice;
 - once using the *Project Extras* values and
 - once using the *Extras Default* values from the **Administration** window.
- If Overhead Sections are used in a Project, these are used in both Spread calculations.
- When the default spread calculation is run, the following applies:
 - The default even Spread is performed (i.e. no unbalancing can obviously be done)
 - Any project specific changes to the spread, such as unbalancing, will have no impact on the default Submission Rate calculations. For more information, refer to **Spread Balancing** (on page 202).



Project Recalculation

The Default Submission Rate and Amount Deviation values are calculated whenever the Submission Price of the Project is recalculated unless the Project is Authorised.



Extras defaults per Region

When using the Allow different Extras defaults per Region feature, the default Extras values used to calculate the default Submission Rates, will be based on the Project Region.

Follow Up

Default Follow Up Days	<input type="text" value="30.00"/>
Estimator	<input type="text"/>

The following table provides a comprehensive description of each option within the **Administration** window Follow Up tab.

Setting	Description
Default Follow-Up Days	Here you can specify a default number of days; after a Quote is authorised, Benchmark will automatically create a Follow-Up event this number of days into the future.
Estimator	You can specify an Estimator to be the default Estimator for Follow Up records which are missed.

Scheduling

Hours in a day	<input type="text" value="8.50"/>
Hours in week	<input type="text" value="0.00"/>

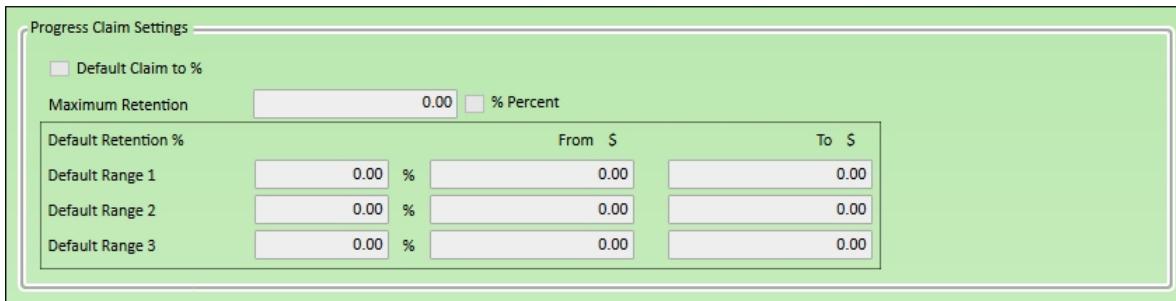
The following table provides a comprehensive description of each option within the **Administration** window Scheduling tab.

Setting	Description
Hours in a day	You can enter the working hours in a day for use with exports to Microsoft Project. <i>Hours in a Day</i> is used with <i>Margin Summary</i> for time-based units.
Hours in a week	You can enter the working hours in a day for use with exports to Microsoft Project.

Progress Claim

The Progress Claims tab contains the default setting for Progress Claims.

Progress Claim Settings



Default Range			
	From \$	To \$	%
Default Range 1	0.00	0.00	0.00
Default Range 2	0.00	0.00	0.00
Default Range 3	0.00	0.00	0.00

The following Progress Claim settings can be setup as Defaults. All new progress claims will be initialised with these settings. The user, however, can override these within projects if required.

Setting	Description
Default Progress Claim to %	When checked all new Progress Claims will default to being claimed by Percentage complete rather than by Item quantity complete. This can still be adjusted by the user on a Project by project basis.
Maximum Retention	You can enter a default amount or percentage for the maximum retention amount.
% Percent	When checked the Maximum retention field above is considered a maximum percentage otherwise the value entered in the Maximum retention is considered a maximum amount.
Default Range 1 - %	You can enter a percentage for retentions to be applied to for the following From and to Fields.
Default Range 1 – From \$	Start amount for the above percentage to be applied.
Default Range 1 – To \$	Final amount for the above percentage to be applied.

Setting	Description
Default Range 2 - %	You can enter a percentage for retentions to be applied to for the following From and to Fields.
Default Range 2 – From \$	Start amount for the above percentage to be applied.
Default Range 2 – To \$	Final amount for the above percentage to be applied.
Default Range 3 - %	You can enter a percentage for retentions to be applied to for the following From and to Fields.
Default Range 3 – From \$	Start amount for the above percentage to be applied.
Default Range3 – To \$	Final amount for the above percentage to be applied.

Progress Claim Report



The screenshot shows a window titled "Progress Claim Report" with four input fields:

- Statement:** A text input field.
- Default Days Due:** A numeric input field containing "0.00".
- Terms:** A text input field.
- Report Footer:** A text input field.

The following settings are used in the Progress Claim Report and can be setup here in the [Administration](#) window as Defaults.

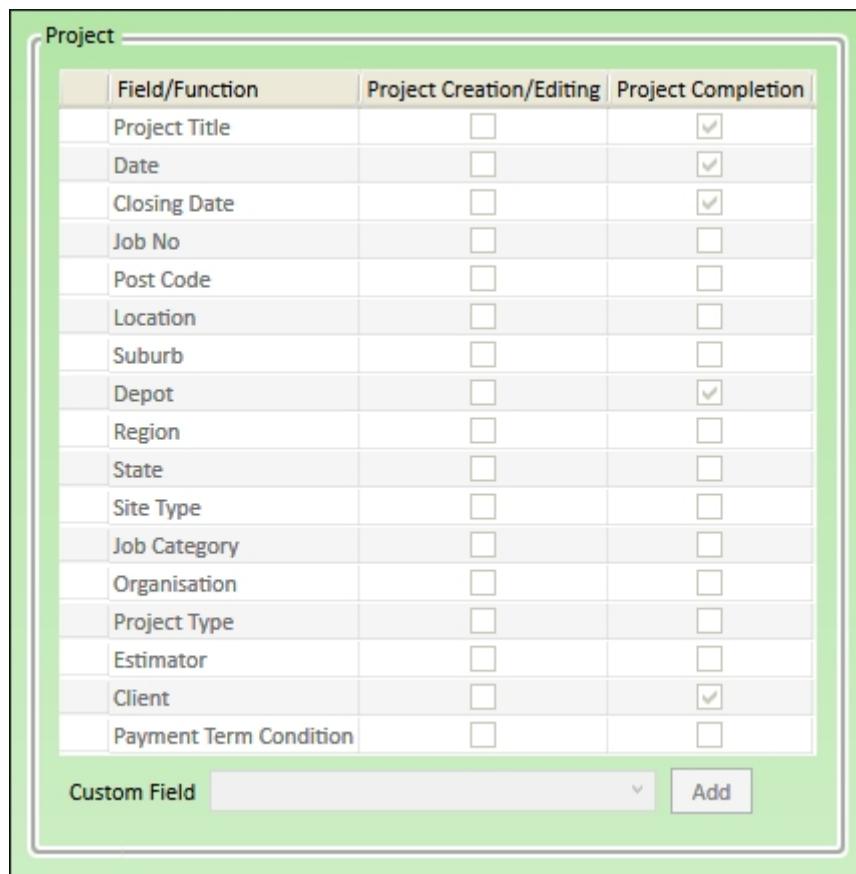
Setting	Description
Statement	You can enter a default statement to be included in Progress Claim reports. For example: <i>This Progress Claim is made in accordance with etc.</i>
Default Days Due	You can enter the default number of days before the Progress Claim is due. Users can override this when creating a Progress Claim.
Terms	You can set the default terms for Progress Claim reports. Users can override this when creating a Progress Claim.
Report Footer	You can set the default footer for Progress Claim reports.

Mandatory Fields

Benchmark offers you the ability to set mandatory fields within a Project that must be entered. Mandatory fields exist for these scenarios:

1. Adding or Editing a Project
2. Completing a Project.
3. Entering Market Share data.

Project Mandatory Fields



Field/Function	Project Creation/Editing	Project Completion
Project Title	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Closing Date	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Job No	<input type="checkbox"/>	<input type="checkbox"/>
Post Code	<input type="checkbox"/>	<input type="checkbox"/>
Location	<input type="checkbox"/>	<input type="checkbox"/>
Suburb	<input type="checkbox"/>	<input type="checkbox"/>
Depot	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Region	<input type="checkbox"/>	<input type="checkbox"/>
State	<input type="checkbox"/>	<input type="checkbox"/>
Site Type	<input type="checkbox"/>	<input type="checkbox"/>
Job Category	<input type="checkbox"/>	<input type="checkbox"/>
Organisation	<input type="checkbox"/>	<input type="checkbox"/>
Project Type	<input type="checkbox"/>	<input type="checkbox"/>
Estimator	<input type="checkbox"/>	<input type="checkbox"/>
Client	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Payment Term Condition	<input type="checkbox"/>	<input type="checkbox"/>

Custom Field

Project Mandatory fields can be setup for Project Creation / Editing or when a Project is completed, or both.

The following is a list of Project fields that can be assigned as mandatory.

Field	Description
Project Title	Title field
Date	Date field
Closing Date	Closing Date field
Job No	Job Number field
Post Code	Post Code field.

Field	Description
Location	Location field
Suburb	Suburb field
Depot	Depot field
Region	Region field
State	State field
Site Type	Site Type field
Job Category	Job Category field
Organisation	Organisation field
Project Type	Project Type field
Estimator	Analysis tab- An Estimator must be assigned to a Project.
Client	Client Tab - A Client must be assigned to a Project.
Client Type	Project Client must have a Client Type assigned.
Payment Term Condition	Project Client must have a payment term condition assigned.

Project Custom fields can also be added to mandatory fields, and will be displayed in the list of fields, with a red x.



Region Relationships & Mandatory Fields

Job Category, Depot and Region can be assigned a cascading relationship. When either of these fields are marked as mandatory, Administrators must ensure that are valid options, as projects cannot be created if all fields are not completed.

To add mandatory fields:

1. In the **Administration** window, select the Mandatory Field tab.
2. Right click and select **Edit**.
3. For Project Creation/Editing column:
 - Check the checkbox for the fields you would like to make mandatory.
4. For Project Completion column:
 - Check the checkbox for the fields you would like to make mandatory.

5. If you would like to add custom fields:
 - a. Select the Project Custom Field from the drop down and Select Add.
 - b. In either the Project Creation/ Editing column or the Project Completion column, select the checkbox for the Project Custom field.
6. Right click and select OK.

Marketing Analysis

Marketing Analysis

Check the fields that must be completed for Marketing Analysis.

Completing this will be compulsory if the Date is entered into the Winner or Won Date field or if the Won or Lost checkboxes are checked.

- Expected Start Date (if the Project is Won)
- Expected Start Date (if the Winner is the default Winner)
- Winner (if the Project is Won)
- Winner (if the Project is Lost)
- Reason for Loss (if the Project is Lost)
- Supervisor (if the Project is Won)

Marketing Analysis fields can be setup as mandatory and will be checked when the Project is marked as Won or Lost.

Field	Description
Expected Start Date (If Project is Won)	If the project is marked as Won, then an Expected Start Date must be entered.
Expected Start Date (If the winner is the default winner)	If the default winner is selected for a Project then an Expected Start Date must be entered.
Winner (If the Project is Won)	If the project is won then a winner must be selected.
Winner (If the Project is Lost)	If the Project is lost then a winner must be selected.
Reason for Loss (if the Project is Lost)	If the Project is lost then a reason for the loss must be entered

To configure mandatory fields for Marketing Analysis:

1. In the **Administration** window, select the Mandatory Field tab.
2. Right click and select Edit.

3. Select the appropriate check boxes.
4. Right click and select OK.

Logs

The following table provides a comprehensive description of each option within the [Administration](#) window Logs tab.

Logs	Description
Email Log	You can view a log of all emails that have been sent from Benchmark.
Error Log	You can view a log of any errors that have occurred between the Benchmark Database and the client.

Resource Changes

Date	Estimator	Code	Old Code	Description	Price	Unit
15/05/2017 14:20:47	Martin Fowler	ROLLERMULTITYRE	ROLLERMULTITYRE	ROLLER - MULTI TYRED	125.00	Hours
05/05/2017 13:21:13	Martin Fowler	ROLLERPADFOOT15T	ROLLERPADFOOT15T	ROLLER - PADFOOT 151	115.00	Hours
15/02/2017 15:21:39	Martin Fowler	ROLLERPADFOOT8T	ROLLERPADFOOT8T	ROLLER - PADFOOT 8T	90.00	Hours

Report

Find

The following table provides a comprehensive description of each option within the [Administration](#) window Resource Changes tab.

Resource Changes	Description
Resource Log	You can view a log of all Resource changes that have been made to the Resource Library in the current database.

Budgets

Date	Budget
January, 2017	600000.00
February, 2017	400000.00
March, 2017	500000.00
April, 2017	300000.00
May, 2017	400000.00
June, 2017	250000.00
July, 2017	250000.00
August, 2017	540000.00
September, 2017	100000.00
October, 2017	250000.00
November, 2017	350000.00
December, 2017	200000.00

The Budgets tab is used to populate details about the forecast Revenue for each month of the year. This allows the User to produce a Forward Order report to compare won and pending Projects versus their budgeted revenue.

Budgets	Description
Date	Enter the Date the Budget amount applies to. Here you should only enter one date per month.
Budget	The Budget amount for the specified month.

To add a budget entry:

1. In the **Administration** window, select the Budgets tab.
2. Click the Add icon.
3. Select a Date in the date column.
4. Enter in a Budget Amount in the Budget column
5. Click the OK button (green tick).



For Corporate users Budgets can be set up for each Region in the database. The following options are available when using the Corporate edition.

Use Company Wide Budget Values

- The budget information entered is used for all of the Regions in the database.

Use Region by Region Budget Values

- Budget information can be entered for each Region. Setting up your Budgets this way will then enable you to obtain Forward Order reporting per Region, and also for your entire business; for the latter Benchmark will add up the Region by Region data for you to allow you to generate a company-wide Forward Order report.

Allocate

The Allocate Tab include the basic ad advanced setting for Auto Allocate and Auto Allocate from Project.

Basic Settings

Basic Settings	
<input type="checkbox"/>	Do not add allocated heading text
<input type="checkbox"/>	Auto Allocate even when Item Unit is different
<input type="checkbox"/>	Postpone Auto Allocation of unmatched Items and matching Items with different units
<input type="checkbox"/>	Give user option to generate Auto Allocate Summary report on completion of Auto Allocate

Setting	Description
Do not add allocated heading text	When enabled, the Resource Text line will not be added to the Project Item resources, indicating the Source Item.
Auto Allocate even when Item Unit is different	When enabled Auto Allocate will not prompt the user when the Source Item Unit does not match the Target Item Unit. When disabled the user will always be shown a confirmation prompt when there is a Unit mismatch.
Postpone Auto Allocation of unmatched Items and matching Items with different units	When enabled, all Items with a matching Item are allocated first. This applies to the Auto Allocate and Auto Allocate from Project features. At the end of this process, all Items that could not be allocated are displayed to the user for them to select a suitable Item or leave the Item un-allocated.

Setting	Description
Give user option to generate Auto Allocate Summary report on completion of Auto Allocate	When enabled, a confirmation prompt will appear to the user at the end of the allocation process. This prompt will ask the user if they want to display a summary report of the allocation process.

Advanced Settings

Advanced Settings

Use Auto Allocate Acceptance Level
 Use Allocation Code Functionality

Auto Allocate Matching Criteria

Enable Advanced Matching Criteria Combination for Auto Allocate
 Acceptance Level %

Item Description
 Item Code
 Item Allocation Code

Auto Allocate from Project Matching Criteria

Enable Advanced Matching Criteria Combination for Auto Allocate from Project
 Acceptance Level %

Item Description
 Item Code

Note: Unit and Rate are always taken into account.

Display Match Criteria at the beginning of Auto Allocate processes
 Replace Project Item Text field with Item Library Text field during Auto Allocate
 Set Project Item fields during Allocate Resources from Item Library

- Replace Project Item Text with Item Library Text during Allocate Resources from Item Library
- Concatenate Item Library Text onto Project Item Text during Allocate Resources from Item Library

When using *Auto Allocation Acceptance level* and *Advanced Matching Criteria* a prompt is displayed during Auto Allocate. This prompt allows users to select the *accuracy* to use when *matching Items*. A 100% accuracy means that all characters in the Project Item description match all characters in the Item being allocated. This applies to:

- Auto Allocate feature
- Auto Allocate from Project.

Setting	Description
Use Auto Allocate Acceptance Level	When enabled, Benchmark will use a 100% acceptance level when matching Items. The match % will also be displayed in the Auto allocate window. When used in conjunction with Advanced Matching Criteria, a matching criteria prompt will be displayed to the user asking them to confirm an acceptance level and the matching fields to be used.
Use Allocation Code Functionality	When enabled, an Allocation code field is enabled in the Item Library and available for use in Load Spreadsheet when using Load spreadsheet and Auto Allocate.

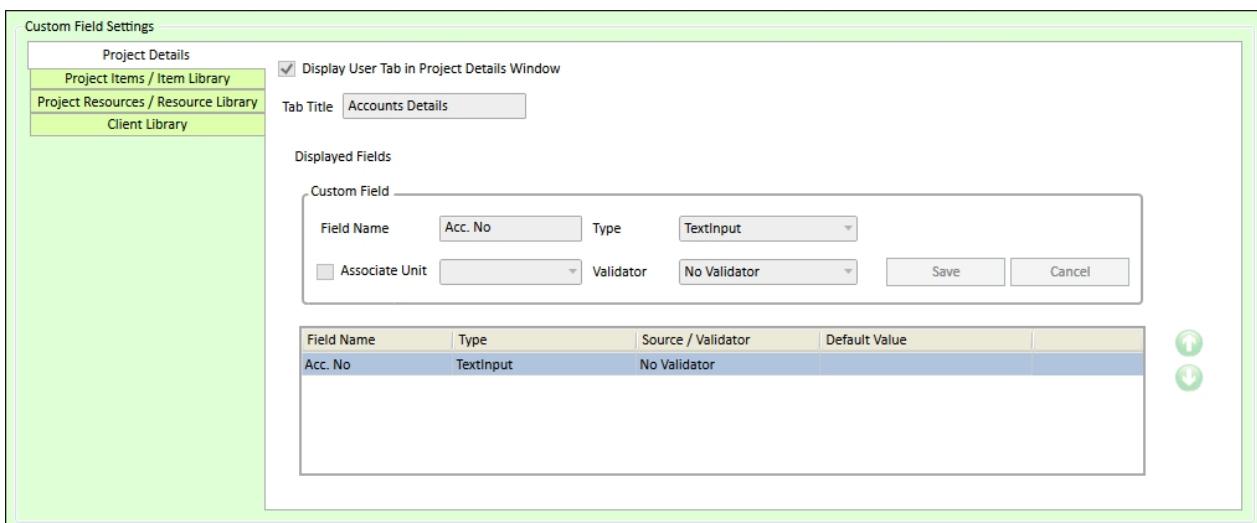
Setting	Description
Enable Advanced Matching Criteria Combination for Auto Allocate	<p>When enabled, Administrator can select which fields to be used as matching criteria when matching Project Items with Item Library Items during Auto allocate.</p> <p>These fields include:</p> <ul style="list-style-type: none"> ➤ Item Description. ➤ Item Code. ➤ Item Allocation Code (<i>when enabled above</i>). <p>When used in conjunction with Acceptance Level, a default acceptance level can also be entered.</p>
Enable Advanced Matching Criteria Combination for Auto Allocate from Project	<p>When enabled, Administrator can select which fields to be used as matching criteria when matching Project Items with Item Library Items during Auto allocate from Project</p> <ul style="list-style-type: none"> ➤ Item Description. ➤ Item Code. <p><i>Note: That Unit will also be used when matching items unless overridden.</i></p> <p>When used in conjunction with Acceptance Level, a default acceptance level can also be entered.</p>
Display Match Criteria at the beginning of the Auto allocate process	<p>When enabled, the acceptance level and matching criteria prompt will be displayed to the user otherwise the defaults specified above will be used.</p> <p>This is only displayed when used in conjunctions with one of the Advanced Matching criteria above.</p>
Replace Project Item Text field with Item Library Text field during Auto Allocate	<p>When enabled, the Project Item Text will be overridden with the Item Library Text when using Auto Allocate. (<i>Note: this is the Item Text Field, not the Item Description field</i>).</p>
Set Project Item fields during Allocate Resources from Item Library	<p>When enabled, the Project Item Text will be overridden with the Item Library Text when using Allocate Resource from Item Library.</p> <p>Additional options include:</p> <ul style="list-style-type: none"> ➤ Replace Project Item Text with Item Library Text during Allocate Resources from Item Library. ➤ Concatenate Item Library Text with Project Item Text during Allocate Resources from Item Library. <p><i>(Note: this is the Item Text Field, not the Item Description field).</i></p>



Advanced Options

Benchmark includes some advanced options for *Auto Allocation Item Matching*. These include matching by *Item Description*, *Item code* and *Allocation Code*. You can set these options in the Allocate tab in the [Administration](#) window.

Custom Fields



Custom Field Settings

Project Details

Project Items / Item Library

Project Resources / Resource Library

Client Library

Display User Tab in Project Details Window

Tab Title: Accounts Details

Displayed Fields

Custom Field			
Field Name: Acc. No	Type: TextInput	Source / Validator: No Validator	Default Value:
Associate Unit:		Validator:	Save Cancel

Field Name	Type	Source / Validator	Default Value
Acc. No	TextInput	No Validator	

Custom Fields can be created for:

- Projects,
- Items,
- Resources and
- Clients.

The following table describes the available fields for Custom Fields. and their purpose.

Field name/checkbox	Description
Field Name	Enter the name of the Custom Field as you want it to appear on the screen
Type	Select the type of the field. Most are self-explanatory but if you select: <ul style="list-style-type: none"> • Selection - you are presented with an extra field called Source - refer below for more details • TextInput - you are presented with an extra field called Validator - refer below for more details

Field name/checkbox	Description
Associate Unit	If you select the Type of Integer or Decimal, you can nominate if you wish to associate a Unit with the custom field. You may do this if the Custom Field is for DENSITY for example or another parameter where a unit of measure is beneficial
Source	If you select the Type of Selection, you need to select the <i>User Code</i> which is the source of this selection field. For more information, refer to <i>Set up User Codes</i> (on page 287)
Validator	If you select the Type of Text Input, you can nominate if you wish to have a validator on the text input field. For example, if the custom fields you are setting up must have numeric values, you can select the Validator of <i>Numeric</i> - this will then ensure that the user only enters numeric values into this fields. This helps you to enforce business rules for the Text Input custom fields.
Resource Custom Fields Only	
Linked	Checking this checkbox will mean that this Custom Fields is treated as a <i>Linked</i> field in Projects
Use in calculation	<p>Checking this checkbox will mean that this custom field can be used in a Resource Quantity Calculation; this applies both in Routines and within the Resource Quantity Calculator.</p> <p>This can only use with Numerical types;</p> <ul style="list-style-type: none"> ➤ Integer ➤ Decimal <p>For more information, refer to <i>Use Resource Custom Fields in the Calculator</i> (on page 175).</p>
Regionalised	<p>This is only available for the Corporate edition or when Regionalisation add-on has been purchased</p> <p>Checking this checkbox allows you to set up a different value for the Customer Field for each Resource for each region.</p> <p>If you do not check this, the custom fields for the Resource will have one value for all Region.</p>

Project Custom Fields

Project custom fields can be setup to appear on the Project Details window for each project.

To setup a Project Custom field:

1. In the **Administration** window, select the Custom Field tab.
2. Select the Project Details tab on the Left of the window.
3. Right click and select Edit.
4. Check the Display User Tab in the Project Details Window.
5. This will add an additional tab to the Project Details window where the Client, Analysis, Project Data, Comments and Conditions tab are currently listed.
6. Enter a Title for this tab. (this could be Additional Information or something more specific).
7. Right click and select OK.
8. In the List field of the window, right-click and select Add Field.
9. Enter a Field Name (This is the name of the custom field).
10. Select a Type (Text, Integer, Decimal, Date)
 - Selection types are drop downs and allow you to select a source list for the drop down. This source list comes from available User Codes. For more information, refer to **Set up User Codes** (on page 287)
 - Numerical types can also select an Associated Unit.
 - TextInput type can also have a validator associated (such as Alpha numeric, or alphabet).
11. Click Save.
12. Repeat steps eight through eleven to create additional custom fields.

You have just created one or more Project Custom fields.

Item Custom Fields

Item custom fields can be setup to appear on the Project Item and Item Library windows. Custom fields can be setup in the Library and will automatically be brought into the Project when the Item is added from the Library.



Project Item custom fields

Item Custom Fields can be imported from Excel into a Project using the Load Spreadsheet, Load New Project or Load Revision features. For more information, refer to **Importing Estimate data from a Spreadsheet** (on page 141)

To setup an Item Custom field:

1. In the **Administration** window, select the Custom Field tab.
2. Select the Projects Items / Item Library tab on the Left of the window.
3. Right click and select Edit.
4. Check the Display Item Custom Field in Project Items and Item Library Window.

This will add an additional tab to the Project Items and Item Library window called Custom Fields.

5. Right click and select OK.

6. In the List area of the window, right-click and select Add Field.
7. Enter a Field Name (This is the name of the custom field).
8. Select a Type (Text, Integer, Decimal, Date)
 - Selection types are drop downs and allow you to select a source list for the drop down. This source list comes from available User Codes. For more information, refer to **Set up User Codes** (on page 287)
 - Numerical types can also select an Associated Unit.
 - TextInput type can also have a validator associated (such as Alpha numeric, or alphabet).
9. Click Save.
10. Repeat steps six through ten to create additional custom fields.

You have just created one or more Item Custom fields.

Resource Custom Fields

You can set up Custom Fields for Resources and they can be populated with data in the Resource Library. This data can then be used within a Project to solve various estimating and business challenges.

You can use *Resource Custom Fields* for many applications, such as storing additional numerical data about *Resources*, that you can then use in quantity calculations.

For example, if you purchase *STEEL* per metre, you can store the *WEIGHT* and *SURFACE AREA* per metre of *STEEL*, as a *custom field*. Another example is to store the *DENSITY* of materials. This enables you to develop powerful calculations to further streamline your estimating and to give you more flexibility.



Resource Custom Fields impact database size

Adding Resource Custom Fields will increase your database size and may impact performance.

Benchmark recommends that you fully understand how the application will use your *Resource Custom Fields* before adding them.

You may also wish to **set up some Resource Custom Fields in a TEST database before deciding on their use and before implementing them into your production database.**

To setup a Resource Custom fields:

1. In the **Administration** window, select the Custom Field tab.
2. Select the Projects Resources / Resource Library tab on the Left of the window.
3. Right click and select Edit.
4. Check the Display Resource Custom Field in Project Resources and Resource Library.

This will add an additional tab to the Project Resource and Resource Library window called Custom Fields.

5. Right click and select OK.
6. In the List area of the window, right-click and select Add Field.
7. Enter a Field Name (This is the name of the custom field).
8. Select a Type (Text, Integer, Decimal, Date)

Selection

Selections are drop downs and allow you to select a source list for the drop down. This source list comes from available User Codes. For more information, refer to ***Set up User Codes*** (on page 287).

Numerical Types (Integer and Decimal)

These types can be used in the Resource Calculator. For more information, refer to ***Use Resource Custom Fields in the Calculator*** (on page 175).

- To enable their use in the Calculator, check the Use in Calculation checkbox.
- Numerical types can also have a Unit associated with them,
- To associate a unit, check the Associate Unit checkbox and select a Unit.

Text Input

Text Inputs can include validation (such as Alpha numeric, or alphabet).

9. Check the Linked checkbox if you would like the field to be associated with the Linked functionality, For more information, refer to ***Edit and unlink a Resource*** (on page 126).

When linked, any changes made in the Resource Library will update changes in the Projects resources that are linked. This will only occur however if the Project Resource is within an uncompleted Project Item.

10. Click Save.
11. Repeat steps six through ten to create additional custom fields.

You have just created one or more Resource Custom fields.

Client Custom Fields

To setup a Client Custom field:

1. In the **Administration** window, select the Custom Field tab.
2. Select the Client Library tab on the Left of the window.
3. Right click and select Edit.
4. Check the Display Client Custom Fields in the Client Library.

This will add an additional tab to the Client Library window called Custom Fields.

5. Right click and select OK.
6. In the List area of the window, right-click and select Add Field.

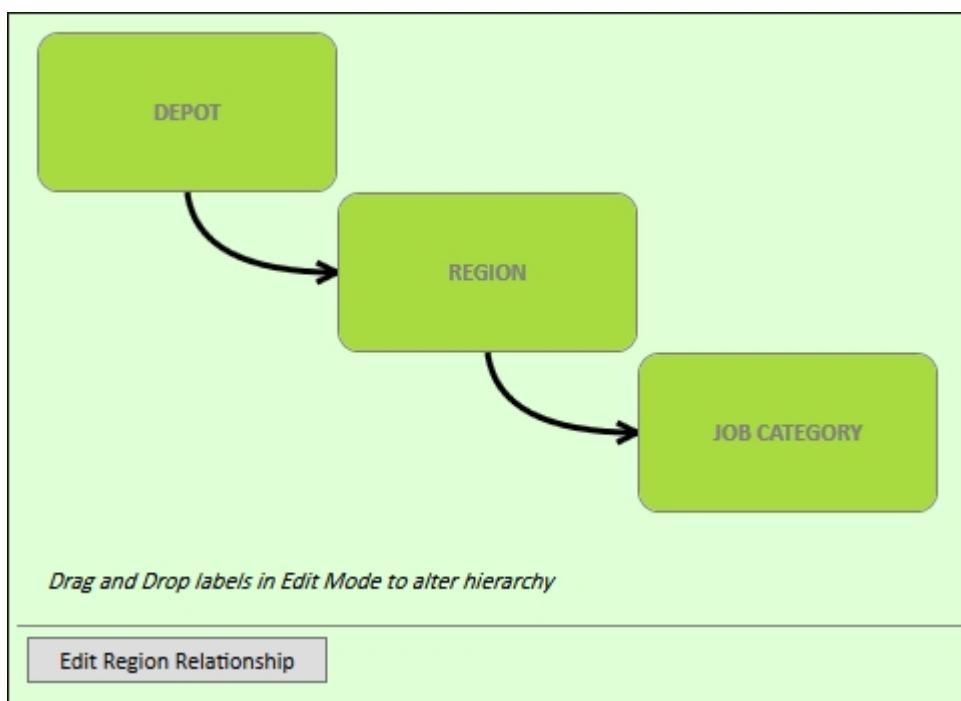
7. Enter a Field Name (This is the name of the custom field).
8. Select a Type (Text, Integer, Decimal, Date)
 - Selection types are drop downs and allow you to select a source list for the drop down. This source list comes from available User Codes. For more information, refer to ***Set up User Codes*** (on page 287)
 - Numerical types can also select a Associated Unit.
 - TextInput type can also have an validator associated (such as Alpha numeric, or alphabet).
9. Click Save.
10. Repeat steps six through ten to create additional custom fields.

You have just created one or more Client Custom fields.

Region Relationship

Regions, Job Categories and Depots can be setup cascaded, i.e. Become available in particular combinations only. To set up this relationship:

1. In the **Administration** window, select the Region Relationship tab.
2. Right click and select Edit.
3. Drag the boxes Region, Job Category and Depot into the hierarchy required.



Please note that any existing relationships for the existing setup will be cleared.

4. Click OK.
5. Answer OK to the confirmation prompt.
6. Select the Edit Region Relationship button.

7. The Field Relationship window will open and display three columns matching the hierarchy selected above.
8. Select a field in the left column (level 1).
9. In the middle column (level 2), check the fields that should be available under the selected level 1 field.
10. Select the check field in the middle column.
11. In the right column (level 3), check the fields that should be available for the selected level 1 and selected level 2 fields.
12. Repeat the steps 10 and 11 for each field in the middle column (level 2).
13. Repeat the steps 9, 10 and 11 for each field in the left column (level 1).

Example setup

You can make *Regions*, *Job Categories* and *Depots* only available in particular combinations. To set up this relationship:

1. In the **Administration** window, select the Region Relationship tab.
2. Right click and select Edit.
3. Drag the Region to the top left, Job Category to the middle and Depot to the bottom right.
4. Click OK.
5. Answer OK to the confirmation prompt.
6. Select the Edit Region Relationship button.
7. All the *Regions* from the **Codes** window are displayed here along with all *Job Categories* and all *Depots*.
8. Select a *Region* from the Region column.
9. Check on the checkboxes for each *Job Category* you wish to include for the selected Region.

You can now select the *Depots* that you would like to associate with the highlighted Region / Job Category.

- Check the checkboxes next to the relevant *Depots*.
10. Repeat the process for each *Region* and *Job Category* combination.



Example use

If the user selected a project *Region* of

1. Northern,

the available *Job Category* options would be

1. Road Construct
2. Pipeline.

If the user selected *Road Construct* then the available *Depots* would be

1. Yass,
2. Nowra,
3. Newcastle.

Once set up, the associations will apply to all projects within the Database. If there is data in existing projects that do not match the current relationship setup then these fields will not be displayed.

It is important to note that the information is not removed but rather not displayed.

Reports/Exports

Report Specific Settings

Summary Report

Do not display Overhead values on report if zero.
 Do not display Contingency values on report if zero.
 Do not display Profit values on report if zero.

Report Signoff Position

Position Title 1
Position Title 2
Position Title 3
Position Title 4

The Summary Report tab in the **Administration** window provides configuration options for Summary Reports.

Options	Description
Do not display Overhead values on report if zero	When enabled Overhead values will not be shown on the report if the Overhead value is zero.
Do not display Contingency values on report if zero	When enabled Contingency values will not be shown on the report if the Contingency value is zero.
Do not display profit values on report if zero	When enabled Profit values will not be shown on the report if the Profit value is zero.
Summary Report Sign Off Positions	Allows you to enter position titles for the fields that appear at the bottom of the Summary report.

Some additional options for Project Summary report, including removing zero values and including sign off position titles

Template Projects

The Template Projects tab in the [Administration](#) window provides options for controlling how *Template Projects* are used. For more information, refer to [**Template Projects**](#) (on page 433).

Administrators can mark fields to be clear when new Projects are generated from a Template Project. These fields include:

Field	Description
Title	The Project Title
Date	The Project creation Date
Closing Date	Closing Date for the Project
Closing time	Closing Time for the Project
Map Reference	The map reference field
Location	The Location field
Completed Indicator for Item	The complete status assigned to Project Items when marked as complete.

This is most useful when Template Projects were created from or based upon an existing Project. In most cases, all these fields would be checked.



To mark fields to be cleared:

1. In the **Administration** window, select the **Template Projects** tab.
2. Right click and select **Edit**.
3. In the **Clear Marked fields following duplication**
4. Select the fields that should be cleared when adding a new Project from a Template Project.
5. Right click and select **OK**.

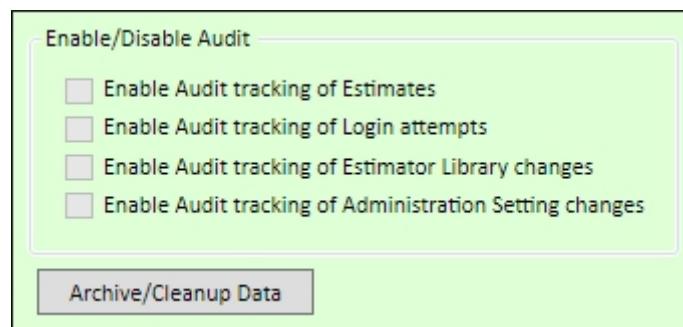
Setup Add / Allocate Preferences:



1. In the **Administration** window, select the **Template Projects Tab**.
2. Right click and select **Edit**.
3. On the right, in the **Add / Allocate Preferences**. Select an option from the drop down.
4. Right click and select **OK**.

This option will determine if Template Projects can be used by Estimators to add Items from or allocate Resources from.

Audit



The auditing tab allows Administrators to turn on Auditing for the current database. The following are the

Setting	Description
Enable Audit tracking of Estimates	Tracking of Estimates includes: <ul style="list-style-type: none"> ➤ On deletion of Project Items ➤ On deletion of Project Sections ➤ When Projects are Duplicated ➤ When Item or Resource Calculations are removed ➤ When Resource Rates are changed ➤ Resource currency changes ➤ When the project is Completed or Uncompleted ➤ When Projects are marked as Won or Lost. ➤ When Projects are Authorised
Enable Audit tracking of Login Attempts	Tracking of Login attempts includes: <ul style="list-style-type: none"> ➤ Successful and unsuccessful logins ➤ Date/time and the user details ➤ Login computer and the IP of computer.
Enabled Audit tracking of Estimator Library changes	Tracking of the Estimator Library includes:: <ul style="list-style-type: none"> ➤ Operation being performed – Add/Edit/Delete ➤ Date/time and the user details of person logged in ➤ Estimator being added/edited/deleted ➤ If Estimator is changed, details of what is changed.
Enable Audit tracking of Administration Setting changes	Tracking of Administration Settings includes: <ul style="list-style-type: none"> ➤ Operation being performed – Add/Edit/Delete ➤ Date/time and the user details of person logged in ➤ Name of option being changed ➤ Previous value and new value of option being changed.

To enabled Audit Tracking:

1. In the **Administration** window, select the Audit Tab.

2. Right click and select Edit.
3. Check the required Audit options.
4. Right click and select OK.

Set up Estimator Accounts

Benchmark allows you to set up accounts for all of your Estimators in the Estimator Library. For each estimator, you can set up a login and password as well as many access levels to control access to your data. By default, Benchmark includes a default Administrator Estimator.



Default Estimator

The databases provided include an Estimator called Administrator and a login code of **MAIN**. There is no password allocated, and if this is not changed, then anyone using the program will have Administrator level access to the program.

When only one Estimator exists in the Estimator Library, then Benchmark will automatically login as that estimator. However, once there is more than one Estimator Benchmark will display a Login window asking users to login.



Read Only

If you have a concurrent licensing agreement and all licences are being used, then when the next user tries to login they will receive a prompt message asking if they wish to continue and log in read-only mode.

Create and Edit an Estimator Account

Estimator Accounts are strongly recommended for all businesses to help protect your data. Benchmark allows you to create a profile for each estimator (user), which controls:

- Access to the program,
- Access to certain areas of the program and data,
- Access to Projects,
- Authorisation of Projects,
- Default Email Settings, and
- Default Personal details.

Create a New Estimator

To create a new Estimator:

1. Select Libraries then Estimator to display the **Estimator Library** window.

2. Right click and Add.

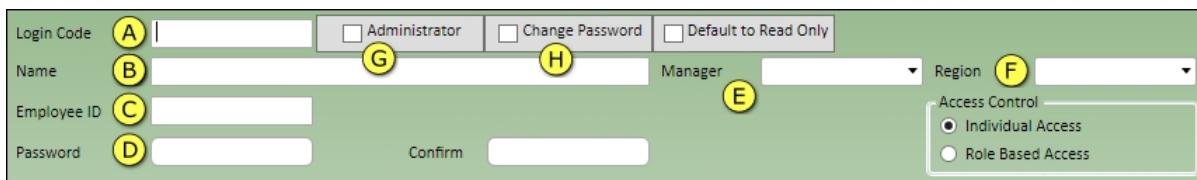


Figure 170: Adding a New Estimator

3. Enter a Login Code (A) (This is the code that is used when logging into Benchmark).
4. Enter a Name (B)
5. Enter and Employee ID (optional) (C)
6. Enter a Password and then confirm the password (D).
7. Select a Manager (optional) (E).

Managers are required if you use Benchmark's Authorisation functionality. For more information, refer to **Authorise a Project** (on page 77).

8. Select a Region (mandatory if shown) (F).
9. Check the Administrator checkbox if this user will be a **Benchmark Administrator** (G).
10. Check the Change Password checkbox (H) if you require the Estimator to change their password the first time they log on to the system (recommended).
11. Right-click and select OK.
12. You have created a new Estimator, however, you will still need to configure there access levels and permissions.



Benchmark Administrator.

Benchmark Administrators have access to all areas of the program and database. For larger organisations, it is strongly recommended that you have two System Administrators; one main Administrator and one who can act as a backup if the main one is away from work.

When you mark a user as an *Administrator* they are automatically assigned access levels to give them full access to the system; there are some remaining access levels that you can then control per user as required. In addition to these access levels, Administrators also have extra permissions.

- *Deleting Projects from the Project Details and Project Browser windows.*
- *Opening the Authority Matrix in the Estimator Library.*
- *Running the Export to Excel → Estimators and Access Levels report in the Estimator Library.*
- *Full Access to the Integration Settings window.*



Read Only Access

Read-only access offers two great benefits:

1. For companies with a concurrent licensing arrangement, more people in your organisation can view and gain access to the data in Benchmark for no additional cost.
2. Some Managers or Administration personnel who don't need to edit data can be in *read-only* mode all the time.



Default Region

Corporate version users are required to set up a default Region for the estimator. When the estimator creates a new Project, this default Region is assigned.

Library and Feature Permissions

On the right-hand side of the **Estimator Library** window are two columns titled **Access** and **Level**. The Access field contains the areas of the program that you can restrict or grant access to on a user-by-user basis.

Individual Access	Role Based Access
Access	Level
Resource Library	None
Item Library	None
Section Library	None
Client Library	None
Routine Library	None

Figure 171: Individual Access levels

There are different permission options available that provided a different level of access. These include:

- None
- Read only
- Read, Edit
- Read, Edit, Add
- Read, Edit, Add, Delete

These permissions can be assigned to following options in the Individual Access Area.

- Resource Library
- Item Library
- Section Library
- Client Library

- Routine Library
- Conditions Library
- Subcontractor/Supplier Library
- Variables Library
- Codes Window
- Template Project Library
- Projects
- User Codes

The Estimator Library Access settings have special options, these include:

- No (No Access)
- Yes (Full Access)
- Email / Personal Details. (Access to Email and Signature Details)

The Administration Window and the Integration Settings window include the following options:

- None
- Read Only
- Full Access.

All feature options excluding Project Authorisation include either Yes or No. The following table provides a list of these features.

Feature	Details
Export Libraries	Allows Libraries to be exported and saved to file.
Create New Database	Allows New portable databases can be created
Create Backup	Allows a Backup of the database can be created
Backup Data No Project	Allows a Backup of the database excluding projects.
Restore Database	Allows the Estimator to restore over this database.
Allow Routines After Authorise	Allows the Estimator to run a Routine after the Project has been authorised.
Check In	Allows Projects to be checked out to a portable database.
Check Out	Allows Projects to be checked in over the top of the existing project, or to create a new project.
Hide Profit	Hides the profit on the Project Details Window, and Reports
Project Analysis	Allows access to the Project Analysis window.
Disallow Contingencies 1 and 2 Edit	Disables the Contingencies 1 and 2 fields in the Project Extras. Extras Defaults in the Administration window can still be edited.

Feature	Details
Progress Claims	Allows access to Progress claims feature within Projects.
Disable Section Library Prompt	When set to Yes, Estimators will not be prompted about adding default sections when adding a new project.
Disable Word Templates	Disables the Word Template Quote feature
Disable Default Word Templates	Disables the use of a default word Template. Estimators who use word template will be forced to select a template when using Word Template Quotes.
Disallow Spread Decimal Place Edit	When set to Yes, the number of decimal places cannot be changed in the Project Spread window.
Disallow Contingencies Edit	When set to Yes, the Estimator cannot edit Contingencies in the Projects Extras window.
Use Forecast Quantity	When enabled Estimators will be prompted to use Forecast Quantities when adding new projects. They will also be able to enable and disable Forecast Quantity for individual Projects.
Add/Allocate Item from Project	When enabled, Estimators will be able to add items or allocate resources from items in existing projects.
Unlink Projects from MarketShare	When enabled, Estimators will be able to unlink Projects from Market share. Market share links are used in Marketing Analysis
Multi-Currency - Adjust Exchange Rates within Project Exchange Rates window.	When enabled, Estimators can edit the Exchange Rates for the Project. Otherwise, the default exchange rates will be used from the Administration window, Tax System and Currency Tab.
Multi-Currency - Unlock Exchange Rate for individual Resource in Project	When enabled, alternative exchange rates can be set for individual resources
Disallow change to Project status after Won	When set to Yes, Projects cannot be changed from Won after being marked as Won.
Disallow Project Browser Export to Excel	When set to Yes, Estimators will not be able to export Project information from the Project Browser to spreadsheets

Project Access Permissions

In Estimators access to Projects within the database can be set up for either access to all Projects in the database or access to only the Projects assigned to the Estimator. By default Projects created by the Estimator are automatically assigned to that Estimator.

There are three options that work together for Project Access. These are:

1. Projects Access level (Access List).
2. My Projects or All Projects (Project Access Tab).
3. Bid Teams For more information, refer to **Bid Teams** (on page 253).

For Estimators to be able to see any Projects they must have access to Projects.

To enabled Access to Projects:

1. In the **Estimator Library** window, select the Estimator from the list of Estimators.
2. Right click and select Edit.
3. In the Access List, select Projects and choose from one of the following options:
 - Read, Edit
 - Read, Edit, Add
 - Read, Edit Add, Delete
4. Right click and select OK

To set up Project Visibility:

1. In the **Estimator Library** window, select the Estimator from the list of Estimators.
2. Select the Project Access Tab
3. Right-click and select Edit.
4. Select either
 - a. My Project Only or
 - b. All Projects
 - c. All Projects in Selected Regions (regionalisation Only).

When using this option, please select the Project regions available to the Estimator.

5. Right-click and select OK.



Bid Teams

When using Bid Teams, Project Access will be controlled by the Estimators assigned to the Projects Bid Team. For more information, refer to **Bid Teams** (on page 253).

Access to Projects in the Project Browser

When the Bid Team feature is being used, the list of Projects displayed in the [Project Browser](#) will change for some users. The table below shows the projects a user can see in the [Project Browser](#) and includes the expected behaviour for the Show Mine and Show All features, for users with different types of project access permissions, and if Bid Team is enabled or disabled.

Project Access in Estimator Library	Use Bid Team	Project Browser Show Mine	Project Browser Show All
ALL PROJECTS	NO	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By 	<ul style="list-style-type: none"> • All projects in the database
ALL PROJECTS	YES	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team 	<ul style="list-style-type: none"> • All projects in the database
MY PROJECTS	NO	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By 	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By
MY PROJECTS	YES	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team 	<ul style="list-style-type: none"> • Assigned to the estimator • Prepared By • On the Bid Team
REGIONAL PROJECTS^	NO	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) 	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • All other Projects in estimator's permitted regions

Project Access in Estimator Library	Use Bid Team	Project Browser Show Mine	Project Browser Show All
REGIONAL PROJECTS [^]	YES	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • On the Bid Team (regardless of Project Region and estimator's permitted regions) 	<ul style="list-style-type: none"> • Assigned to the estimator (regardless of Project Region and estimator's permitted regions) • Prepared By (regardless of Project Region and estimator's permitted regions) • On the Bid Team (regardless of Project Region and estimator's permitted regions) • All other Projects in estimator's permitted regions

Table 25: Access to projects in Project Browser

[^] Regional Projects access is only applicable in the Benchmark Corporate edition.

Project Authorisation

Project Authorisation permissions are setup in the Estimator Library and provide additional configuration to allows Estimators to only authorise Projects under certain conditions.

These additional configuration options include:

- Project Authorisation
 - Less Than Project Value
 - Greater Than Margin Value
- Authority Matrix

To setup basic Authorisation permission:

1. In the **Estimator Library** window, select an Estimator from the list of Estimators.
2. Right click and select Edit.
3. In the Access List, select Project Authorisation (A) and chose one of the following options:
 - Yes (Estimators can Authorisation projects, based on the Less Than Project Value and Greater than Margin Rate conditions).

- No (Estimators can never authorise a Project).

Project Authorisation	A	No
Less than Project Value	B	0
Greater than Margin Rate	C	0.00

Figure 172: Authorisation Permissions

4. Select the Less than Project Value (**B**)
5. Type in the *Maximum Project Value* that this Estimator has permission to Authorise.
When a Project Submission price is less than this value, this Estimator can Authorise the Project.
6. Select the Greater than Margin Rate (**C**)
7. Type in the Minimum Margin Percentage that this Estimator has permission to Authorise.
When a Project Margin Percentage is greater than this value, this Estimator can Authorise the Project.
8. Both *Less Than Project Value* and *Greater than Margin Rate* must be set.
9. Right click and select OK.

Authority Matrix



More Advanced control of Authorisation with the Authority Matrix

The Authority Matrix allows you to set up a matrix of the users who can authorise projects for a defined *Project Margin* and *Project Submission Price*. This function is applicable for medium to large organisations that want to exercise advanced control over the authorisation of Projects, and have multiple users.

Only users with access to the **Estimator Library** can set up or amend the Authority Matrix. It is recommended that only the System Administrator has access to the **Estimator Library**.

To set up the Authority Matrix:

1. From the **Estimator Library** window, select Tools then Authority Matrix, or click on the Authority Matrix icon.
2. Fill in the Margin and Submission Price values to suit your organisation. Margin values are in Column One, Project Submission Values are in Row One.

3. Once you have set Your margin Column and your Project Submission Value Row. you can enter Authorisation Levels.

Margin/Value	100000	150000	200000	500000	750000	1000000	1250000
30	1	1	1	1	1	1	2
25	1	1	1	1	1	1	2
20	1	1	1	1	1	1	2
17	2	2	2	2	2	2	2
18	2	2	3	3	3	3	3
12	3	3	3	3	3	3	3
10	3	3	3	4	4	4	4
8	3	3	4	4	5	5	5
5	5	5	5	5	5	5	5
0	5	5	5	5	5	5	5

Figure 173: Authority Matrix example

4. For each white field enter a number that corresponds with the access level. Access level 1 will be the lowest.
5. When complete, close the Authority Matrix to save your changes.
6. Now for each user in the Estimator Library window,
 - a. Select Estimator, right click and select Edit
 - b. Select an Authorisation level in the Project Authorisation field.
 - c. Right click and Select OK.

Estimator Email Settings

If you want to send any Benchmark reports via Email, and Microsoft Outlook is not your default email software, you must set up default email settings for each Estimator.

To set up the default email settings:

1. In the Estimator Library, select an Estimator from the list of Estimators.

2. Select the Email tab.

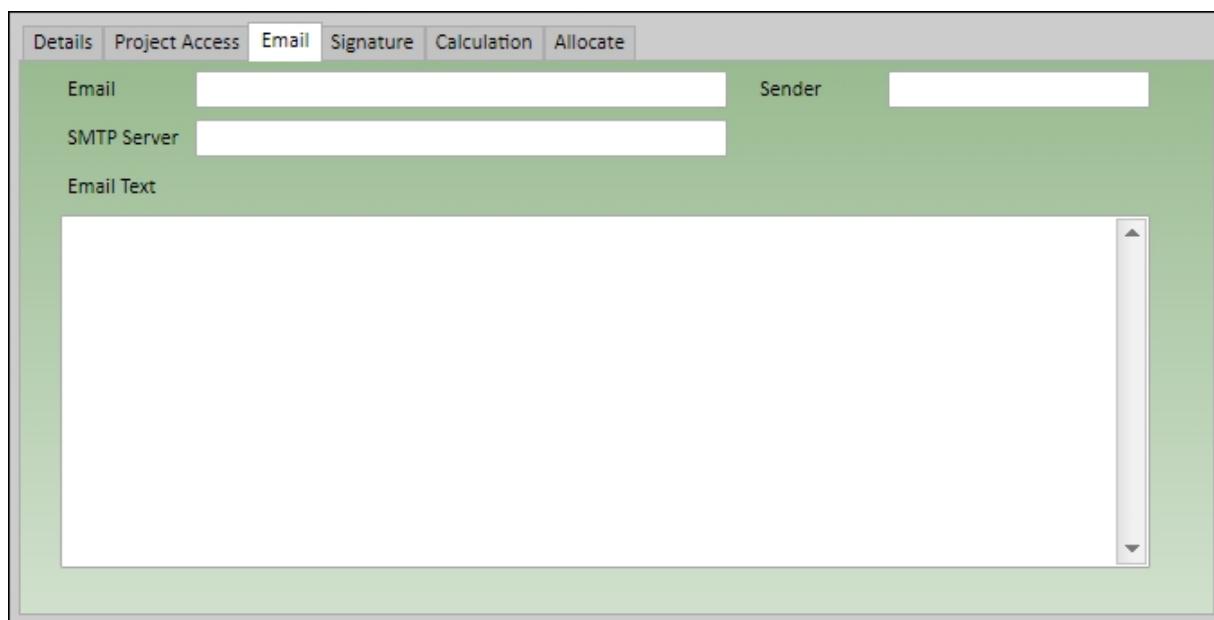


Figure 174: Email Settings

3. Select the *eMail* field and type the email address of the Estimator.
4. Enter the name of the Estimator in the *Sender* field (This name is who the email will appear from in the recipient's email inbox).
5. Enter the SMTP Server name in the *SMTP Server* field (note that you may need to get this from your IT officer).
6. Enter the default text in the *eMail text* field. (This text is automatically brought into the email message when using the Auto Email feature. For more information, refer to ***Use Auto Email to Email a Quotation*** (on page 223)).

Estimator Signature

You can set up personal details for each Estimator which can appear on some of the Benchmark Quotation reports and also be exported to Word Templates.

1. In the **Estimator Library**, select the **Signature** tab.

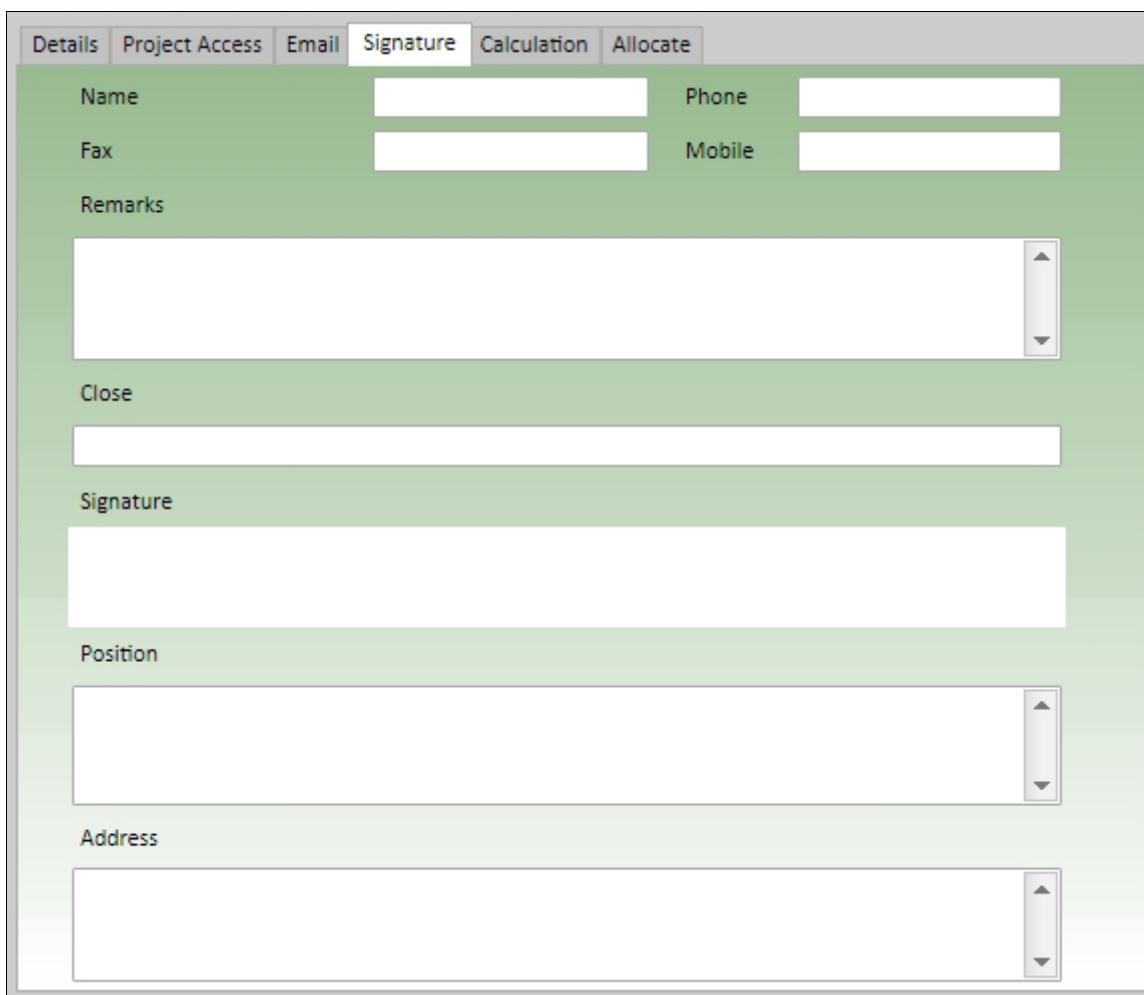


Figure 175: Signature Tab

2. Select the relevant field (e.g. *Phone*, *Fax*, *Mobile*) and enter in the details for each Estimator.
3. Highlight the *Remarks* field and type in a closing remark, such as: *Thank you for the opportunity to submit this Quote etc.*
4. Highlight the *Close* field and type in a closing remark, such as: *Yours Faithfully.*
5. Right click in the *Signature* field and select *Paste from File ...* and then find your digital signature picture file.
6. Enter in the *Position* of the user, such as Managing Director.
7. Enter in the office location for this Estimator (note that you would normally only do this if you have multiple Estimators working in the same database, you are using the Word Quote Templates and you have them set up to print the Estimator's office location).
8. Right-click and select OK.



Signature Image

For the next step, you must first scan in the Estimator's signature. Then, using Microsoft Paint or another similar package, manipulate this signature file, and save it as a jpeg, gif or other picture file format in a known location on your computer.

Estimator Default Calculation

You can set up default calculation for use with the Subcontractor Manager. This provides a default calculation for all new Resources created during the process of accepting a Subcontractor/Supplier quote.

1. Select the Calculation tab.
2. Select Edit Calculation to open the **Calculator** window.
3. Enter in the default calculation in the *Edit Calculation Text*. This default calculation is used to calculate the Resource quantities for Resources that are created by the Subcontractor manager during the process of accepting a quote.
4. Click OK to save the calculation and OK again to save it as the default calculation for the current estimator.



Advanced Calculations

Advanced users can also add *Project Variables* and the *Item Quantity variable* to default calculations (assuming these advanced functions are enabled in the **Administration** window). Variables used in the default calculation are automatically brought into the project when the Subcontractor Manager creates the Resources. If the Variable already exists in the Project then Benchmark uses the existing Variable value.

Localise Calculations for Estimators

You may have some users with access to the database who want to view and/or develop calculations differently to how it is set in the **Administration** window. This can be controlled by configuring the Enable localised number in calculation setting in the **Estimator Library**, Calculation tab. For more information, refer to **Regional Settings and Calculations** (on page 305).

To enable localised Calculations for an Estimator:

1. In the **Estimator** Library, select an Estimator from the list of Estimators.
2. Select the Calculation tab, right click and select Edit.
3. In the lower part of the window, check the **Override Calculation Localisation Settings** checkbox.

4. Check or uncheck the Enable Localised Number in Calculation checkbox.

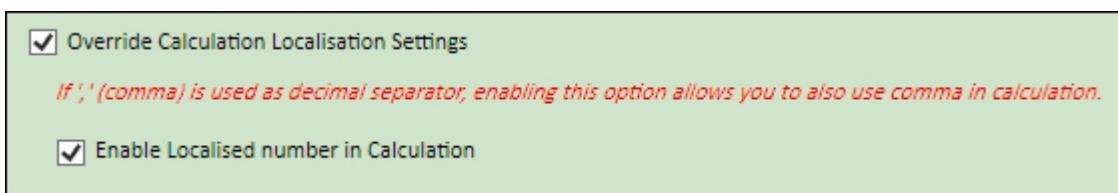


Figure 176: Localised Calculations

5. Right click and select OK.
6. Repeat for each Estimator as required.

Estimator Allocate Overrides

Specific *allocate settings* can be set up for estimators that will override the settings in the Benchmark [Administration](#) window. See [Allocate](#) (on page 320) for information on the specific of these settings.

To override Administration settings for Allocate:

1. In the [Estimator](#) Library, select an Estimator from the list of Estimators.
2. Select the Allocate tab, right click and select Edit.
3. Check the Override Advanced Allocate Settings checkbox.
4. You can then override the settings are required.

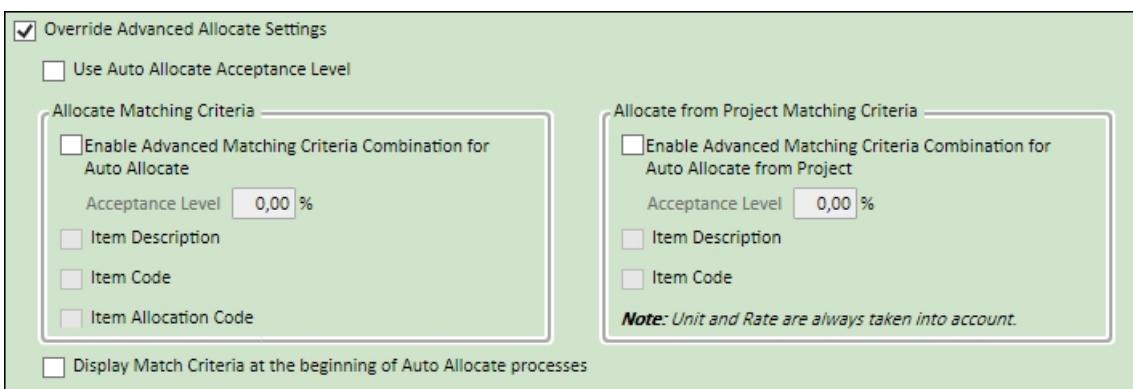


Figure 177: Allocate Overrides

5. Right click and select OK.

Edit a User Profile

To edit a user's profile:

1. Open the Details tab of the [Estimator Library](#).
2. Highlight the user and right-click and select Edit.
3. Modify their *Access Levels*, or select the eMail or Signature tab to modify other details for the user.
4. Right-click and select OK.

Duplicate a User's Profile

Duplicating a User's profile is a great time-saving tool when you are setting up many user accounts. You can Duplicate the Estimator, change details and access levels as required, and you have a new user very quickly.

To Duplicate a user's profile:

1. Open the Details tab of the [Estimator Library](#).
2. Highlight the user and right-click and select Duplicate.
3. Modify their *Code*, *Name* and *Password*, and modify their access levels and personal details as required.
4. Right-click and select OK.

Read-only Estimators

Estimators within Benchmark can be setup to always be Read only. When an Estimator is logged in as *read-only*, they *cannot add, edit, delete or duplicate any data*.

Read only Estimators can perform the following operations:

- Navigate throughout the software in accordance with their normal user permissions.
- Authorise a project (if the user has the approval to Authorise projects)
- Complete a project (if they have access to it)
- Run project reports, quotes and exports (if they have access to the project)
- Run market analysis reports and exports (if they have access to marketing reports), and
- Customise their [My Benchmark](#) window.



Read Only Access

With a concurrent licensing arrangement, more people in your organisation can view and gain access to the data in Benchmark for no additional cost.

When all the concurrent licenses are in use, Benchmark will allow additional Estimators to login to Benchmark as Read only.

Role-Based Access

Administrators can assign *roles* to Estimators to easily control who can access different areas of Benchmark. This access relates directly to roles performed within your organisation.

In addition to defining and assigning roles, the Role-Based Access feature enables you to define the type of functions that can be performed in each of the areas. This is like the existing individual estimator access levels but also enables greater flexibility when managing groups of estimators that perform similar roles.

What Roles can you define?

You may define as many roles as you can administer; the names can be customised to reflect positions within your organisation, e.g. *Junior Estimator, Senior Estimator, Manager, IT Administrator*, etc.

What does Role Based Access control?

You can assign role based permissions for the following Library areas:

Administration	Resource Library
Client Library	Routine Library
Codes	Section Library
Conditions Library	Subcontractor/Supplier Library
Estimator Library	Template Project Library
Integration Settings	User Codes
Item Library	Variables Library
Projects	



Benchmark Administrator

Estimators assigned as Benchmark Administrators will override limited access to the **Integration Settings** window.



Multiple Estimator Roles

An estimator can take on many roles within Benchmark. They will have the most liberal permission allowed by their combined roles.

For example, if an 'Estimator' role allows Read-Only access to the Subcontractor / Supplier Library, and the 'Subcontractor Liaison' role allows Read, Edit, Add access, then an Estimator assigned both of those roles will have Read, Edit, Add access.

Create or Edit Roles

Administrators *set up and maintain Roles* in the **Role Based Access** window.

To *add or edit a Role*:

1. From the Administration Menu, select Role Based Access.

When the **Role Based Access** window appears

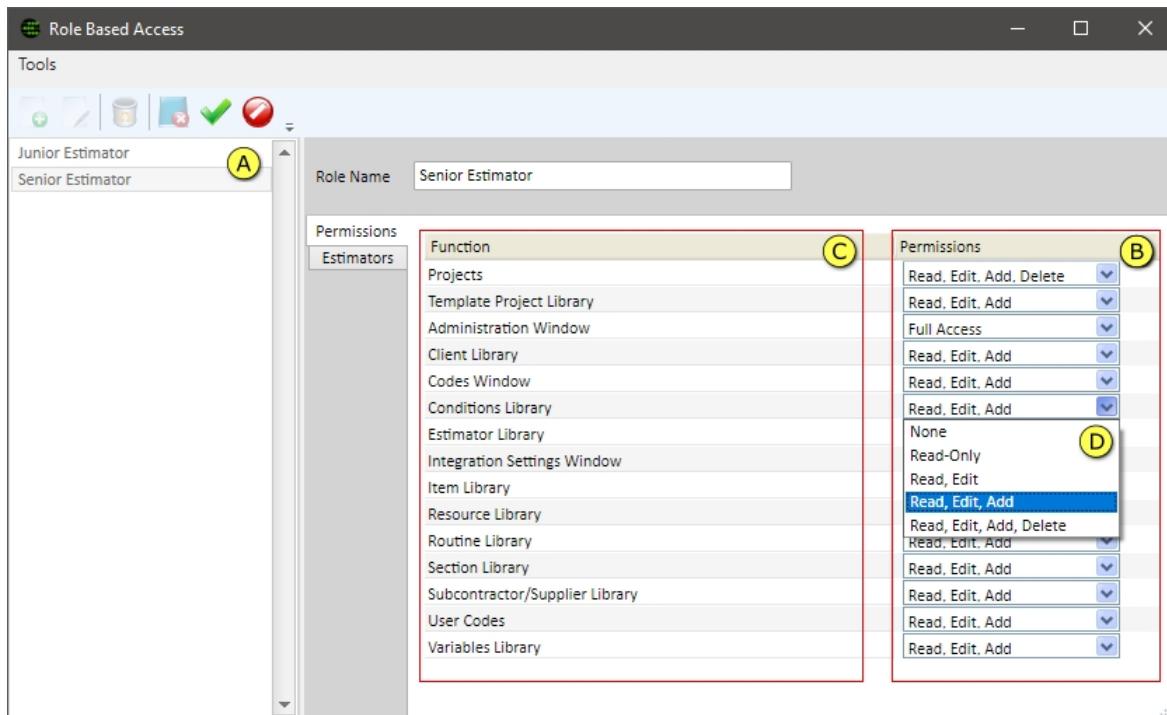


Figure 178: Role Based Access Window

2. Select Add or Edit.



3. Add the *Role Name*, or select a *Role to Edit* (A).
4. Select the *access level* from the *Permissions* options (D) to assign permissions (B) for the different areas (C).
5. Click OK.

Assign Estimators to Roles

To assign one or more estimators to a role:

1. Open the **Role Based Access** window, by selecting the Administration option from the menu and then selecting Role Based Access.
2. Select the Role (A) for the list of Roles.
3. Select one or more Estimators (B) to assign to the role.
4. Click the Right Arrow (C) to move them in one step.

You can also remove an estimator from a role in a similar way.

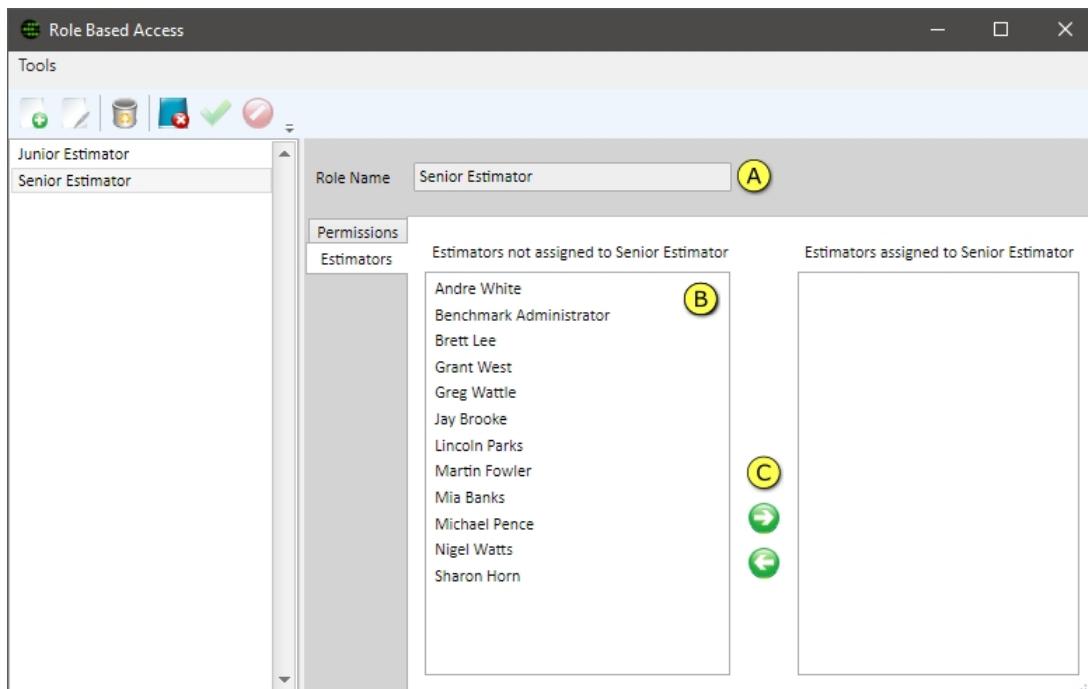


Figure 179: Assigning Estimators to Roles

Assign Roles to Estimators

Benchmark recognises that there are times when your business process means that you are focused on an individual, and would like to view how the roles have been allocated to them. This is particularly the case when you hire new estimators or promote an existing one.

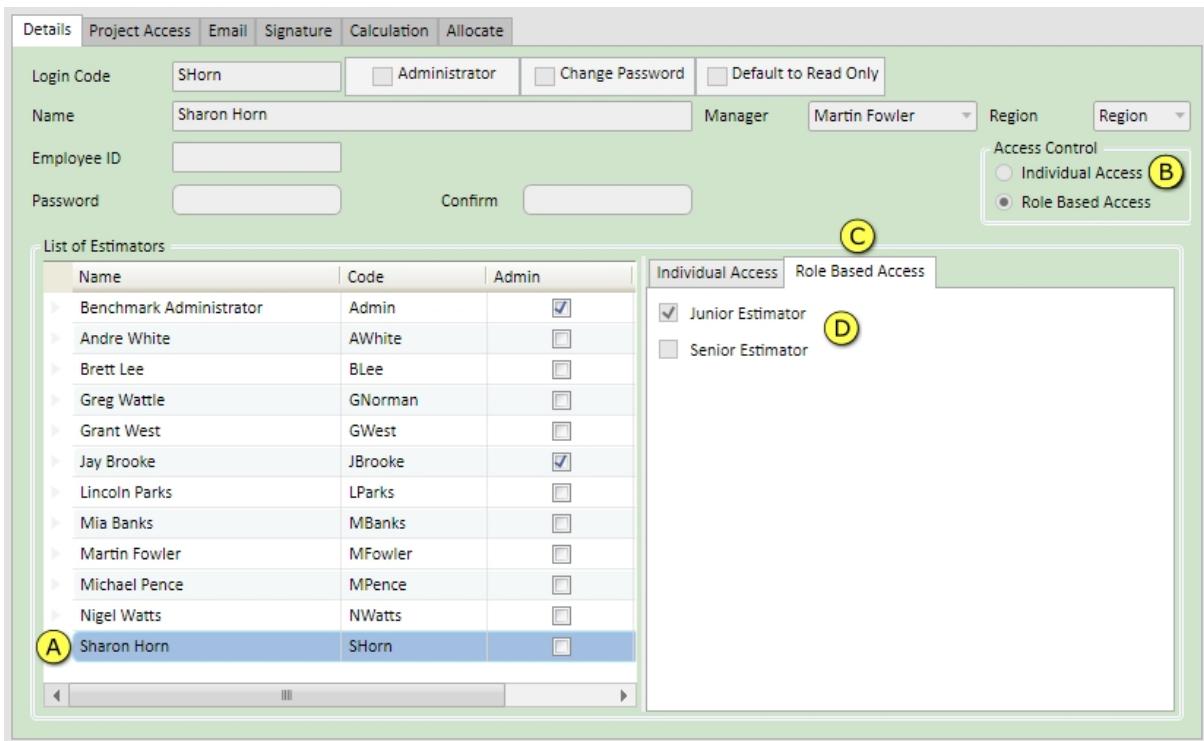
In the **Estimator Library** window, to edit the roles for each estimator:

1. Choose the estimator (A).
2. Click Edit to edit the access for the selected estimator



3. Select Role Based Access option in the Access Control area (B)
4. Click the Role Based Access tab (C).
5. To assign or remove a role from this estimator, check or clear the Role checkbox.(D).

6. Right click and select OK.



Name	Code	Admin
Benchmark Administrator	Admin	<input checked="" type="checkbox"/>
Andre White	AWhite	<input type="checkbox"/>
Brett Lee	BLee	<input type="checkbox"/>
Greg Wattle	GNorman	<input type="checkbox"/>
Grant West	GWest	<input type="checkbox"/>
Jay Brooke	JBrooke	<input checked="" type="checkbox"/>
Lincoln Parks	LParks	<input type="checkbox"/>
Mia Banks	MBanks	<input type="checkbox"/>
Martin Fowler	MFowler	<input type="checkbox"/>
Michael Pence	MPence	<input type="checkbox"/>
Nigel Watts	NWatts	<input type="checkbox"/>
Sharon Horn	SHorn	<input type="checkbox"/>

Individual Access Role Based Access

Junior Estimator

Senior Estimator

Figure 180: Assigning Roles to Estimators

Individual Access instead of Role Based Access

The Access Control group (D) determines whether the user's access rights are based on *individual access* or *role based access*. By selecting Individual Access you can control the user's access on an *individual* basis.

Logged in Users

Benchmark provides a Logged in Users window, that displays all the current Estimators that are logged into the current database. This window will also display if Estimators are in read only mode.

To view logged in users:

1. Select File menu and select View Logged in Users.

This displays the **Logged in Users in this Database** window as shown below.

Logged In Users in this Database		
User Name	Date/Time Logged In	Read Only Mode
Admin	04/08/2016 10:05:06 AM	<input type="checkbox"/>
MBanks	04/08/2016 10:08:06 AM	<input type="checkbox"/>
Refresh		

Figure 181: Logged In Users

This window helps to identify any users that have left Benchmark Estimating Software open while they are not using it. In this case, the user may be consuming a licence that another user may require.

The other benefit of this window is that it enables a System Administrator to check for active users before making system wide changes that will affect all users, such as performing upgrades and restoring a database. In these cases a System Administrator can use this tool to ensure everyone is logged out before performing these operations.

Set up your Libraries

Your estimating data is stored in *Libraries*. Benchmark is designed around a Library concept, to save you time re-typing and rebuilding your Items and Resources. The Libraries in Benchmark also help improve the accuracy and consistency of estimates. This chapter provides you with guidance on how to set up your Benchmark Libraries. It should be read by the super user in your organisation and is also a useful tool for day-to-day users who want to know more about the Library structure.

Set up your Resource Library

A Resource is the most basic cost element in a Benchmark estimate. You can store the standard Resources you use in a central Resource Library. This Library should be the first Library that you establish in Benchmark.

To open your Resource Library:

1. Select Libraries → Resource from the menu at the top of the window.

Create Library Resources

To create Resources in your **Resource Library** you can:

- Add Resources individually.
- And you can also import them from a spreadsheet or XML data..

Add a new Resource

There are two important Resource fields that are used through out Benchmark to group and or markup resources. These two fields are Resource Group and Resource Category. Either of these fields can be used to generate profit and or indirect costs in Benchmark.

Resources can have one of four possible categories PLANT, LABOUR, MATERIALS, SUBCONTRACT and these categories are used for reporting and project markup. Please note there additional categories cannot be added.

Resources can also have a Resource Group which is a user definable field allowing Administrators to create any number of Resource groups. Resource Groups can be things such as Concrete, Day Labour, Pipework, Cabling, Miscellaneous, Electrical, Asphalt, Vehicles etc. For more information, refer to **Set up Codes** (on page 284).

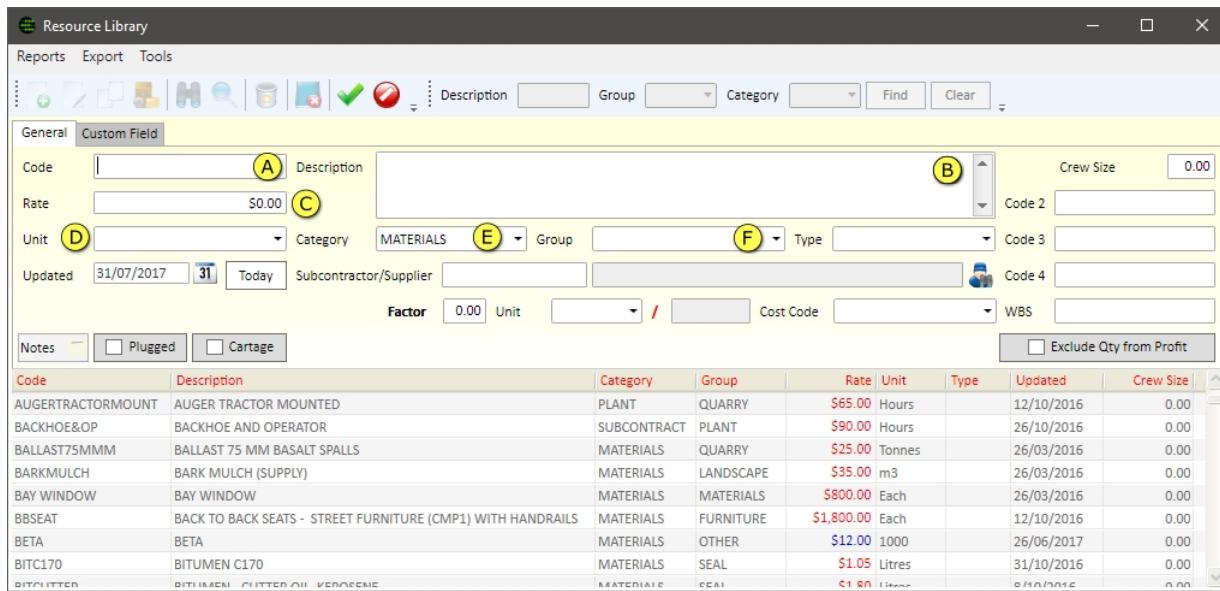
As an example, a Labourer Resource would have a Category of LABOUR and a Group of Day Labour or Night Labour. Or, if you have a Reinforced Concrete Pipe Resource, the Category for this Resource will be MATERIALS and the Group could be PIPES.

To add a new Resource in the Resource Library:

1. Select Libraries → Resource from the menu at the top of the window.

The **Resource Library** window is displayed.

2. Right click and select Add.



Code	Description	Category	Group	Rate	Unit	Type	Updated	Crew Size
AUGERTRACTORMOUNT	AUGER TRACTOR MOUNTED	PLANT	QUARRY	\$65.00	Hours		12/10/2016	0.00
BACKHOE&OP	BACKHOE AND OPERATOR	SUBCONTRACT	PLANT	\$90.00	Hours		26/10/2016	0.00
BALLAST75MM	BALLAST 75 MM BASALT SPALLS	MATERIALS	QUARRY	\$25.00	Tonnes		26/03/2016	0.00
BARKMULCH	BARK MULCH (SUPPLY)	MATERIALS	LANDSCAPE	\$35.00	m ³		26/03/2016	0.00
BAY WINDOW	BAY WINDOW	MATERIALS	MATERIALS	\$800.00	Each		26/03/2016	0.00
BBSEAT	BACK TO BACK SEATS - STREET FURNITURE (CMP1) WITH HANDRAILS	MATERIALS	FURNITURE	\$1,800.00	Each		12/10/2016	0.00
BETA	BETA	MATERIALS	OTHER	\$12.00	1000		26/06/2017	0.00
BITC170	BITUMEN C170	MATERIALS	SEAL	\$1.05	Litres		31/10/2016	0.00
DITCHWIDEN	DITCHWIDEN CUTTER ATTACHMENT	MATERIALS	CCAI	\$1.00	Hours		01/01/2016	0.00

Figure 182: Resource Library - Adding a new Resource

3. Enter a Resource Code (A) (the Resource Code must be unique).
4. Enter a Resource Description (B) up to 300 characters (the first 75 characters must be unique).

The Resource Description field is case sensitive. For example, BOBCAT is different to Bobcat. We recommend you enter all Resources in CAPITALS.

5. Enter a Rate (C) (cost) for this Resource.
6. Select a *Unit* (D) from the drop-down box.
7. Select a Resource *Category* (E) from the drop-down box.
8. Select a *Group* (F) from the drop-down box.
9. Right click and select OK.

Optional Resource Fields

Resource Field	Description
Type	This is a drop-down box you can set up to further categorise your Resources.
Updated	Benchmark will automatically enter today's date in the <i>Updated</i> field. This field represents the date the Resource rate was last updated. You can change the date if you wish.
Subcontractor / Supplier	You can associate a Subcontractor/Supplier with a Resource by clicking on the icon to the right of this field and selecting the Subcontractor/Supplier.
Notes	Enter notes about the Resource. This is not possible in Edit mode.

Resource Field	Description
Plugged	<p>You can use this checkbox if the rate you have entered for the Resource is a guess. If it is a quoted rate (e.g. Material quote from a supplier) or a calculated rate (e.g. labour rate) do not select Plugged. Plugged Resources appear in red and those not Plugged appear in blue.</p>
Cartage	<p>Cartage is often used to describe the transport of material from a stockpile or depot, to a work site. Cartage value varies depending on the quantity transported and the distance transported. Therefore, this Resource is often given a rate per unit per unit. For example, cartage may be described as \$x per tonne per km.</p> <p>Typically, material costs vary depending on the distance they need to be delivered to a site. This is particularly relevant to the cost of material resources such as asphaltic concrete, road base and gravels. These Resources have a base cost for the material, ex-bin, and in addition, the cost of Cartage is added</p>
Resource Factor	<p>A Resource Factor provides another unit of measure per unit of Resource. For example: STEEL may be purchased per Linear Metre and as an Estimator, you want to know the total kgs of STEEL used in the Project. You can do this by specifying a Factor for the Resource that (in this case) represents the number of kgs of STEEL per Linear Metre. When doing an estimate Benchmark can then print out a report on the total kgs of STEEL in the Project.</p>
Cost Code	<p>Used for linking to other business systems like Accounting or Job Costing systems. Different businesses use Cost Codes in different ways; some assign them to individual Resources in the Resource Library, others assign them to Section or Items on a Project by Project basis. For further information on assigning Cost Codes, refer to Add, Edit or Delete Codes (on page 285).</p>
Code 2, 3, 4	<p>These are used to enter other coding details, generally used for linking with other business systems like Accounting or Job Costing systems.</p>
WBS	<p>Used for linking to other business systems like Accounting or Job Costing systems.</p>

Exclude Qty from Profit	You can decide not to apply markup to Resources in an estimate. You may do this for a Quote from internal business units, for example. If you always wish to do this for a Resource in your Resource Library then check the checkbox. When you add the Resource to a Project, it will have the checkbox checked by default (you can clear the checkbox in a Project if required).
--------------------------------	---



Users of the Corporate version have an additional Resource field:

Region status

There are three *Region Status* options:

Global – A *Global Resource* is one that is identical in all Regions. This is the default state of a new Resource added by an Estimator with access to all Regions. A Global Resource can be:

- used in all Projects,
- added to all types of Items and Routines and
- is available to all users when preparing an estimate.

Local – A *Local Resource* can only be seen or used in the Region it is based. This is the only available state of a new Resource added by an Estimator without access to all Regions. Local Resources that belong to REGION A, for example, can only be added to Projects being constructed in REGION A and Local Items/Routines that are specific to REGION A.

Regional – A *Regional Resource* has an identical code/description in all Regions, but can have a different Rate, Subcontractor/Supplier, Date Updated and Plugged status per Region. When this Resource is used in a Project the Rate used will be the Rate applicable to the Project's Region. A Regional Resource can be used in all Projects and added to all types of Items and Routines. The status is chosen by checking the appropriate box.

Import Resources electronically

You can import a list of Resources electronically. You may wish to do this when you are first setting up your database or for when you receive an updated price list from a Supplier. For more information, refer to ***Export or Import Libraries*** (on page 402)

Edit a Library Resource

To edit a Library Resource:

1. Select Libraries → Resource from the menu at the top of the window
2. Highlight the Resource you want to edit, right click and select Edit.

3. Edit the desired field and select OK.



Updating Resources

When you update a Resource in the [Resource Library](#), all Library Items and uncompleted Items in Projects that contain that Resources, are automatically updated for you.

In the [Resource Library](#), fields with drop-down boxes can be edited for multiple Resources by highlighting the Resources, selecting Edit, changing the field and selecting OK.

Create a Currency Resource in the Resource Library

You can create a Currency Resource by:

1. Adding a new Resource and checking the Currency checkbox, then filling in all relevant currency fields
2. Editing a Non-Currency Resource and checking the Currency checkbox, then filling in all relevant currency fields, or
3. Importing a Resource file using the File, Utilities, Import then select the Import Resources feature.

The following table lists the available fields when using multi currency in Benchmark.

Field name/checkbox	Description
Currency	When checked, this checkbox will enable all other currency fields and will also change the behaviour of the Rate field as follows: <ul style="list-style-type: none"> ➤ The Rate field for a currency resource becomes a calculation of the values in the Exchange Rate and Currency Rate fields, and ➤ The Rate field becomes dimmed when the Currency checkbox is checked.
Currency (Code)	A drop-down selection of all currencies as setup in the Administration window.
Currency Rate	This is the Resource's Rate in the selected Currency (Code).
Exchange Rate	This is the exchange rate for the selected Currency. In the Resource Library, this will default to the Administration exchange rate value whilst the Locked checkbox is checked. When the Locked checkbox is not cleared then the exchange rate can be amended to be specific to the Resource.

Field name/checkbox	Description
Locked	<p>In the Resource Library, a Locked exchange rate means that the exchange rate is locked to the value in the Administration window.</p> <p>Note: In a Project, a Locked exchange rate means that the exchange rate is locked to the value in the Project Exchange Rates window.</p>



Multi Currency and Regionalisation

Multi-Currency can be used with Regionalisation add on, this means that:

1. Local and Global Resources can be configured as Currency Resources, and
2. Regional Resources can have different currencies for each Region.

Create a Cartage based Resource in the Resource Library

In estimating there is often a special form of Resource; *Cartage*. This Resource is often used to describe the transport of material from a stockpile or depot, to a work site. The value of this Resource varies according to the amount of the quantity to be transported and the distance it has to be transported. Consequently, this Resource is often not just given a rate per unit, but often a Rate per unit per unit. For example, cartage may be described as \$x per tonne per km.

Typically, material costs vary depending on the distance they need to be delivered to a site. This is particularly relevant to the cost of material resources such as asphaltic concrete, road base and gravels. These Resources have a base cost for the material, *ex-bin*, and in addition, the cost of Cartage is added.

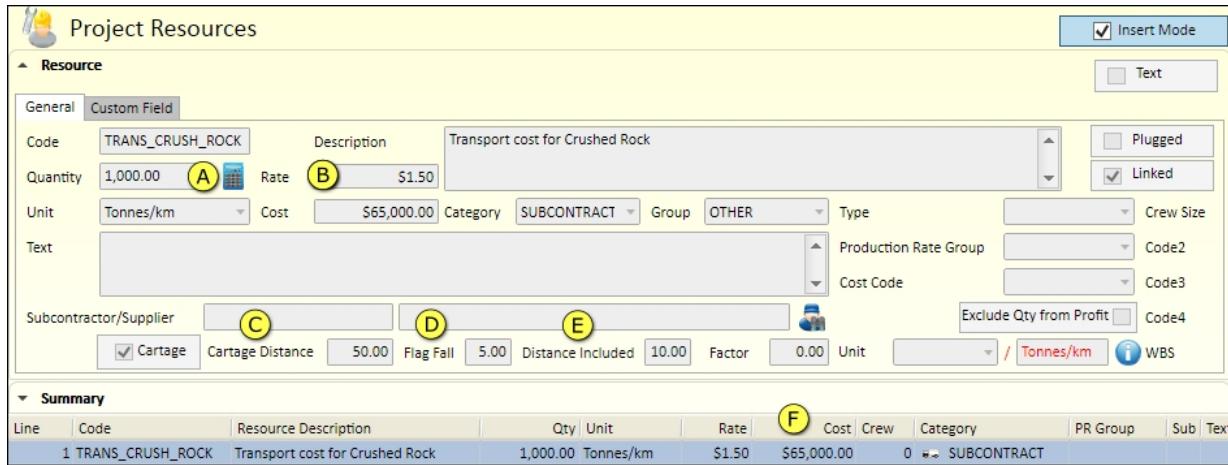
If the **Cartage** checkbox is not displayed you must turn this on in the **Administration** window. For more information, refer to **Customise options in the Administration window** (on page 288)

Cartage is often calculated as a *rate per unit per unit*, for example *per tonne per kilometre (R)*. Sometimes there is a *flag fall* or *base price per tonne*, that is not related to the distance to be travelled (*F*). You can think of this as a *minimum fee per tonne* (for example, for *Cartage*). Often this flag fall includes a certain *Cartage distance*, known as the *Distance Included (DI)* before the further *Cartage rate (R)* applies. If the quantity of the *Resource* to be transported is *Q*, and the *distance* to be carted is *D*, then the *cost of the Cartage Resource* can be calculated as:

Cost

$$= [\text{Quantity in tonnes} \times \text{Rate per tonne-km} \times (\text{Cartage Distance} - \text{Distance Included})] + [\text{Quantity in tonnes} \times \text{Flag Fall}]$$

The example above uses *tonne-km*, however, the unit can be different if required, and the formula remains the same.



Line	Code	Resource Description	Qty	Unit	Rate	F	Cost	Crew	Category	PR Group	Sub	Text
1	TRANS_CRUSH_ROCK	Transport cost for Crushed Rock	1,000.00	Tonnes/km	\$1.50		\$65,000.00	0	SUBCONTRACT			

Figure 183: Example Cartage Resource

The screen shot above shows you an example of a *cartage-based Resource*. **Note:** The *Cost* here is not just *Quantity * Rate*; it uses the calculation above which equates to:

- (A) Quantity in tonnes = 1000 t
- (B) Rate per tonne-km = \$ 1.5
- (C) Cartage Distance = 50 km
- (D) Flag Fall = \$5
- (E) Distance Included = 10 km

Cost

$$\begin{aligned}
 &= (1000 * 1.5 * (50 - 10)) + (1000 * 5) \\
 &= 60000 + 5000 \\
 &= 65000 \text{ (F)}
 \end{aligned}$$

To create a Cartage-based Resource in the **Resource Library**:

1. Create a resource. For more information, refer to **Create Library Resources** (on page 355).
 2. Ensure the Resource rate is appropriate for the rate per unit per distance.
 3. Select the **Cartage** checkbox.
- When you do this, two more fields are displayed – *Flag Fall* and *Distance Included*.
4. Type in the *Flag Fall* and *Distance Included* as required.
 5. Right click and select OK to save your changes.



Quantity & Cartage Distance

The quantity and the cartage distance are entered when the Resource is used in a Project.

Duplicate a Library Resource

Duplicating a Library Resource is a very useful function if you want to create many Resources that are similar (e.g. the same material but a different size or class).

To duplicate a Library Resource:

1. In the **Resource Library**, highlight the Resource you want to duplicate, right-click and select Duplicate.
2. Edit the desired fields (e.g. Description, Code and Rate) and select OK.
3. Answer Yes to the confirmation prompt.

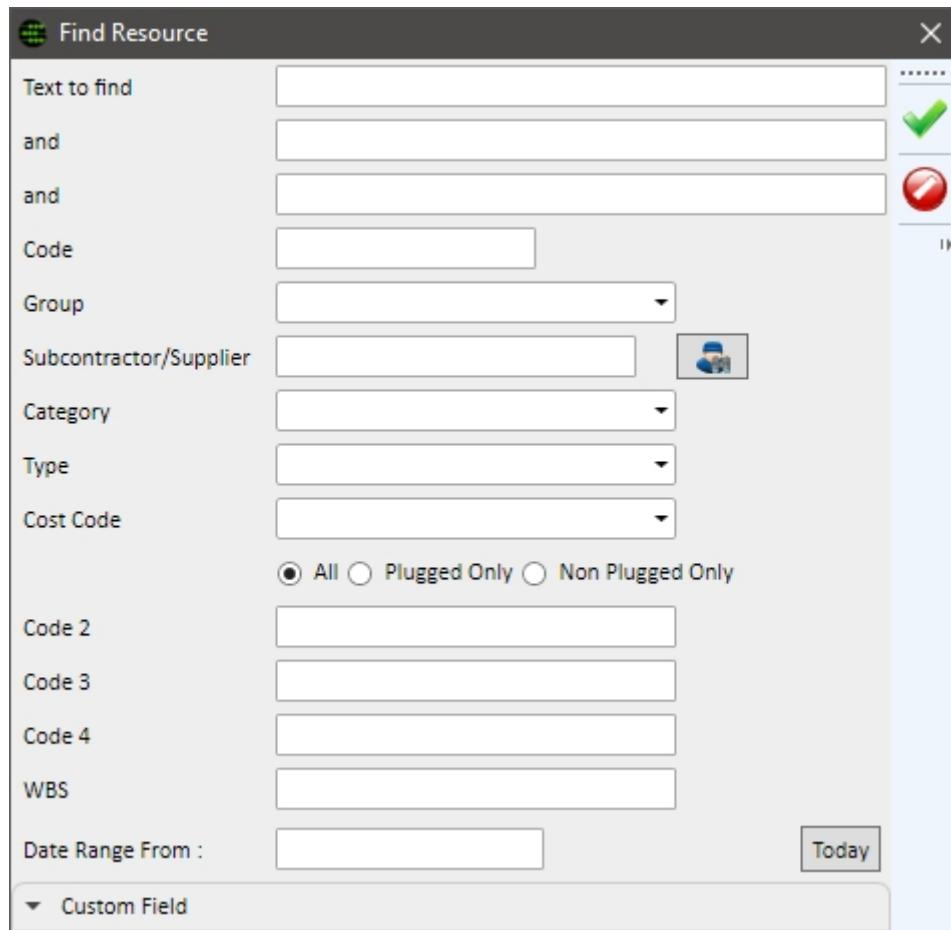
Search for Resources in the Resource Library

You can sort the columns in the **Resource Library** by clicking on the *column headings*. You can also use the Find function at the top of the **Resource Library** window. In these fields you can search for Resource Descriptions, Group or Category.

If the Find feature is not available:

1. Select the empty space in the toolbar.
2. Right-click and select Show Find toolbar.

In addition to using the Find function, the Advanced Find function allows you to do more advanced searches.



The screenshot shows the 'Find Resource' dialog box with the following fields and options:

- Text to find:** A search input field.
- and:** A logical operator field.
- and:** Another logical operator field.
- Code:** A search input field.
- Group:** A dropdown menu.
- Subcontractor/Supplier:** A search input field with a small icon to its right.
- Category:** A dropdown menu.
- Type:** A dropdown menu.
- Cost Code:** A dropdown menu.
- Search Options:** Radio buttons for "All" (selected), "Plugged Only", and "Non Plugged Only".
- Code 2:** A search input field.
- Code 3:** A search input field.
- Code 4:** A search input field.
- WBS:** A search input field.
- Date Range From:** A date input field with a "Today" button to its right.
- Custom Field:** A dropdown menu.

Figure 184: Advanced Find

To search for a Resource or list of Resources:

1. Open the **Resource Library**.
2. Right click and select the Advanced Find function.
3. Select the *field* that you wish to search for and enter your search data or select an option from the drop-down box.
4. Click the OK button to execute the find.



Changing the Displayed Resource Rates in the Corporate Version

Rate Filter: Corporate Users can change the displayed rate for the listed Resources by changing the Rate Filter. Only users that have access to *Display Library Data for All Regions* can change the Rate Filter otherwise, the Rate Filter is locked to the Estimator's default Region.

Searching for Resources in the Corporate Version

Find: Additional Find fields are shown in the Resource Library for Corporate users that provide additional search features. These include the following

Advanced Find: In the Corporate Version the **Advanced Find** window contains some additional Regionalisation fields to assist in finding Resources. The following fields are listed at the bottom of the **Advanced Find** window.

Search by Custom Fields in the Resource Library

To search using Custom Fields in the **Resource Library**:

1. Select the Advanced Find icon
2. Select the Custom Field tab
3. Enter the details of the Custom Field search criteria

Assign Data To Resources

The Assign Data feature enables estimators to update many resources at once assigning either a Group, Cost Code or Type.

To assign data in the Resource Library:

1. In the **Resource Library**, select the Resources to assign data to.
2. Right click and select **Assign Data**.
3. Select a Group and or Cost Code and or Type.
4. Click OK.

Set up Your Item Library

Items are stored in Benchmark's *Item Library* and are made up of one or more Resources. The Resources associated with an Item are grouped in such a fashion that they make up a unit of work/activity.

There are several options available for you to build up your Item Library, these are;

- Creating Items in a Project and then Duplicating them to the Item Library
- Creating new Items in the Item Library
- Importing Items from a spreadsheet

Create a new Library Item

To create a new Item in the **Item Library**, define the mandatory fields (these steps are exactly the same as if you were creating an Item from first principles in a Project):

1. Select Libraries from the menu bar, then select Item and Sub Item to display the **Item Library** window.
2. Right click and select Add.

Figure 185: New Library Item

The cursor will be flashing in the *Code* field. The Item *Code* is not mandatory and only recommended to be completed if you work on standard specifications (like methods of measurements) or if your work is to a Client's standard bill item list and they use unique codes for their Items).

3. Enter an Item *Description* up to 300 characters in the *Description* field. The first 75 characters must be unique. The Item *Description* should be a concise description of the work Item (e.g. *Supply and Lay Reinforced Concrete Pipe 375 Class 2 in Other Than Rock*).
4. Enter a *Quantity*.
5. Select a *Unit* from the drop-down box.
6. Right-click and select OK.

The following table lists all fields available for an Item in the Library.

Item Fields	Definition
Code	The Item <i>Code</i> is not mandatory and only recommended to be completed if you work on standard specifications (like methods of measurements) or if your work is to a Client's standard bill item list and they use unique codes for their Items)
Description	The <i>Description</i> field may contain up to 300 characters. The first 75 characters must be unique. The Item <i>Description</i> should be a concise description of the work Item (e.g. <i>Supply and Lay Reinforced Concrete Pipe 375 Class 2 in Other Than Rock</i>).
Quantity	The <i>Quantity</i> of the Item in terms of the <i>Units</i> specified.
Unit	The <i>Unit</i> that the Item is measured in; for example, Metres, Square Metres, Cubic Metres, Tonnes, Kilograms, etc.

Item Fields	Definition
Rate and Cost	These are calculated by Benchmark. The Cost is derived from the Resources allocated to the Item and the Rate is the Cost divided by the Item Quantity.
Group	Item <i>Groups</i> whilst not mandatory are recommended . They can be used to group and sort Items in the Item Library. They can also be used to select a group of Items to for use in the Subcontractor Manager.
Cost Code	You can assign a <i>Cost Code</i> to an Item and this <i>Cost Code</i> will be brought into a Project when you add the Item to your Project. You must have this option turned on in the Administration window to see the <i>Cost Code</i> field in the Item Library.
Activity	You can assign an <i>Activity</i> to an Item and this <i>Activity</i> will be brought into a Project when you add the Item to your Project. The <i>Activity</i> field data can be used in some exports to Job Costing/Accounting systems.
Key	This field is only required if you use the 'Excel Items by Key' report in the Project Browser , which can be used for detailed market share analysis.
Production Rate / Unit	You can nominate a <i>Production Rate</i> for an Item and then use this <i>Production Rate</i> to quickly calculate the Quantities of the Resources you add to your Item.
Sub Item checkbox	Check the <i>Sub Item</i> checkbox if you want this Item to be a Sub Item. Sub Items are ideal for crews or gangs that work together and can be called on as an individual Resource within an Item. Note: If you check the <i>Sub Item</i> checkbox you do need to enter a Code for the Sub Item in the Item <i>Code</i> field. You need Sub Items turned on in the Administration window to use this function.
Depot	You can assign a <i>Depot</i> to an Item in the Item Library. <i>Depots</i> can be used for Items which come from different sites. This <i>Depot</i> field can be turned on or off in the Administration window.
Text	Here you can type in additional information about the Item, such as any assumptions.
Text checkbox	The Text checkbox indicates the Item is purely a Text Item and it will not contain Resources. If you regularly add the same lines of Text in an estimate you can create these Text Items in your Item Library .

Item Fields	Definition
Documents	The Documents feature allows you to hyperlink a Document to an Item in your Library. This is useful for linking Specifications or Standard Drawings to Items for example. If this Item is then used in a Project this hyperlink will be added to the Project Item as well, to help you quickly find important documentation for the Item when in a Project.
Duration	An Item can include a Duration in the Item Library. This can be typed in by the user or calculated using the Duration Calculator next to the Duration field. This is only used in the MPX Export to Microsoft Project. For more information, refer to <i>Using the Duration Calculator to calculate Item Durations</i> (on page 228)
Takeoff Sheet Code	A Takeoff Sheet is a spreadsheet that allows an estimator to calculate the quantity of an Item when in a Project. In the Item Library you can link a Takeoff Sheet Template to an Item; when this Item is added to a Project the Takeoff Sheet Template is automatically "linked" to the Item in the Project, which allows the estimator to quickly do a quantity calculation using the linked template. For more information on setting up and assigning Quantity Takeoff Sheets refer to page. You need Quantity Takeoff Sheets turned on in the Administration window to use this function.



Regionalisation - Local Items

Items that are Local are specific to a particular Region. These Items can only be used in Projects that have been assigned the same Region as the Items.



Regionalisation - Global Items

Items that are Global can be used in Projects in any Region. The Rate of a Global Item can depend on the Region they are used in. The Rates is determined by the Rate of the Resources in the Item which themselves can differ by Region.

When Corporate Users are adding a new Item in the Item Library they will see the following additional checkbox:

<input type="checkbox"/> Local	Region	<input type="button" value="▼"/>
--------------------------------	--------	----------------------------------

To create a **Local** Item check the Local checkbox and select the Region the Item is relevant for.

To create a **Global** Item do not check the Local checkbox.

If you have access to Library data in all Regions, you can create Global Items as well as Local Items in any Region. However, if you only have access to Library data in your Region, then you can only add Local Items that are specific to your Region, and in this scenario the Local checkbox is checked, the Region defaults to the Region assigned to you, and you cannot edit the *Region* field.

When the Cost filter Region is changed, the cost of the Item is recalculated on the Resource rates for the select Region. If the resources do not have a specific rate for the selected Region the global Resource Rate is used. This can result sometimes in the Item Rate remaining the same. Global Items cannot be made using local Resources

Add Resources to your Item

After creating a new Item, add the Resources required to complete the Item.

To add Resources to a Library Item:

1. Highlight the Item in the Item Library window, right-click and select Item Resources, or double-click on the Item; This displays the **Item Library Resource** window.

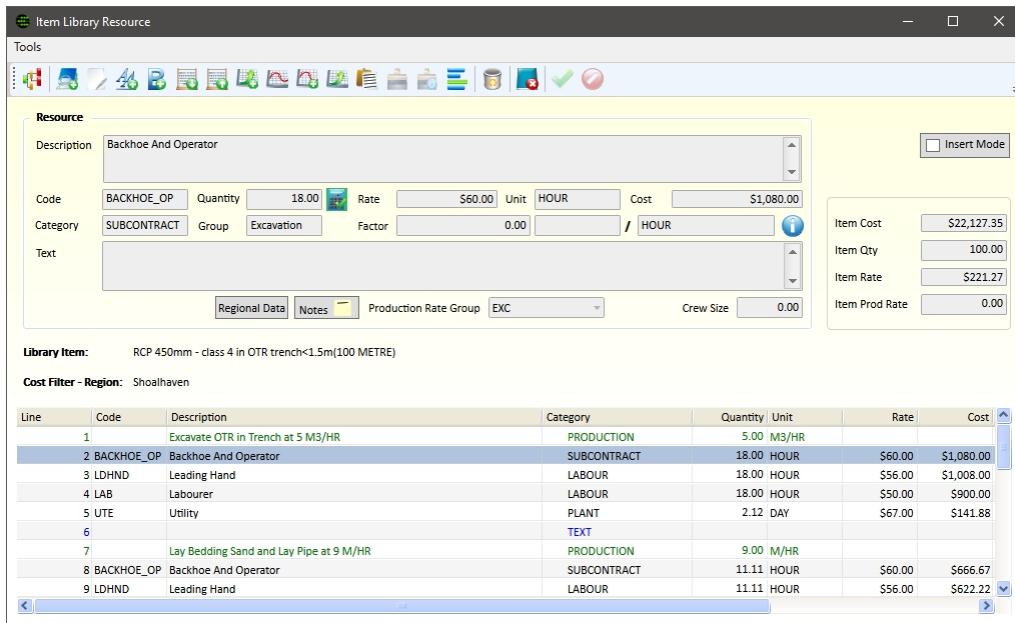


Figure 186: Item Library - Resource Window

2. Right-click and select Add from Resource Library.
3. In the **Resource Selection List** window, there are three ways you can add Resources:
 - a. Select a *Group* from the left-hand column:
The Resources within that group are now displayed in the right part of this window;
 - b. Click on the **Find** toolbar icon, enter the text you wish to search for, and select **OK**; or
 - c. Enter data into one of the **Find** fields and press **TAB** or click on the **Find** button.
4. For each Resource you wish to add, double-click on it; it will then appear in the bottom section of the **Resource Selection List** window.
You can double-click on (i.e. select) as many Resources at the one time as you wish.
5. Right-click and select **OK** to add the Resource(s) you just selected to the Item in your Project.
You will now be back in the **Item Library Resource** window.
6. You now have to enter or calculate the Quantity of each Resource you added. The Quantity of each Resource is required to perform the specified Item quantity.
 - a. If you have added one Resource only, the cursor will be active in the *Quantity* field. Enter a Quantity and press **ENTER**; or
 - b. If you have allocated more than one Resource at once you can enter in your Resource quantities quickly by double-clicking in the *Quantity* column in the bottom half of the window and typing in the *Quantity* for each Resource. Press **TAB** to move between the *Quantity* fields for each Resource. Press **ENTER** when you have finished entering the Quantities, OR

- c. You can edit each Resource individually and type in the Quantity in the QUANTITY field.



Item Quantity Calculation

There is also a powerful Calculator function which you can use to calculate Resource quantities. To use this Calculator, select your Resource, right-click and select Edit and then click on the Calculator icon next to the Quantity field. For more information, refer to **Calculate Resource Quantities** (on page 131).

You can improve the appearance and structure of your Item detail by using Insert Mode and the Move function. Insert Mode allows you to insert a Resource or line at a particular point, and the Move function allows you to move lines to other positions.



Global, Regional and Local Items

Corporate version users can set up Items using a combination of Global, Regional and Local Resources. For more information, refer to **Set up Regionalisation** (on page 422).

Duplicate Project Items to your Item Library

When you start estimating Projects in Benchmark you will create new Items, that you can then duplicate to the **Item Library**. This is a very effective method of building up your **Item Library**. For more information, refer to **Duplicate a Project Item to the Item Library** (on page 110).

Duplicate a Library Item

You may have many Items that are very similar, and may only differ by the type of material.

You may also have many Items that are an extension of each other. For example, you may have a Supply Item, then a Supply and Install Item, then a Supply, Install and Test Item. In this scenario, you can Duplicate the Supply Item, edit it to include Resources for Installation, to very quickly create a new Supply and Install Item. Duplicating an Item in the Item Library copies the details of the Item and all Resources linked to that Item.

To duplicate a Library Item:

1. In the **Item Library** window, select the Item you want to duplicate and press <CTRL+D>.
2. Select Yes to the confirmation prompt.
3. The cursor will now be flashing in the *Description* field.
4. Edit the Item *Description* (The first 75 characters of this description must be unique).
5. Edit the *Code* If you use Codes.
6. Edit any other fields such as the *Quantity*, *Unit* or *Group* as required. (Generally, if you are creating a similar Item to the one you duplicated, these fields are left the same).

7. Right-click and select OK.
8. Right-click and select Item Resources.

The Item Library Resource window is displayed.

9. Add, Edit or Delete Resources by clicking on the Resource and selecting the *Add*, *Edit* or *Delete* icons on the toolbar.

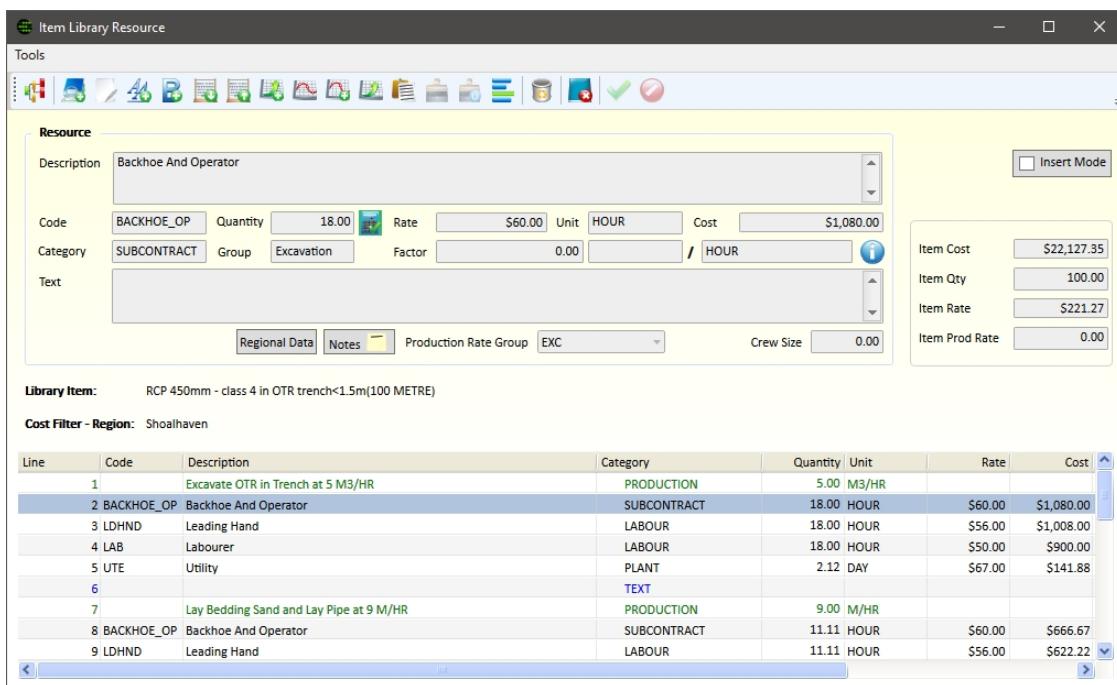


Editing an Item or Sub Item in the Item Library

You can change an Item or Sub-Item in the Item Library at any time after you have created it. This will change the Item or Sub-Item the next time you use it in a Project, but not affect any previous use of the Item or Sub-Item in old Projects.

Item Resources using advanced functions

The following window demonstrates how an Item can be set up in your Library and includes the use of some of the more advanced functions including Variables, Production Rates Groups and Sub Totals. The category column displays the different line type (A).



The screenshot shows the 'Item Library Resource' window with the following details:

- Resource:**
 - Description: Backhoe And Operator
 - Code: BACKHOE_OP
 - Category: SUBCONTRACT
 - Text: (empty)
- Cost:**
 - Item Cost: \$22,127.35
 - Item Qty: 100.00
 - Item Rate: \$221.27
 - Item Prod Rate: 0.00
- Library Item:** RCP 450mm - class 4 in OTR trench<1.5m(100 METRE)
- Cost Filter - Region:** Shoalhaven
- Resource List:**

Line	Code	Description	Category	Quantity	Unit	Rate	Cost
1		Excavate OTR in Trench at 5 M3/HR	PRODUCTION	5.00	M3/HR		
2	BACKHOE_OP	Backhoe And Operator	SUBCONTRACT	18.00	HOUR	\$60.00	\$1,080.00
3	LDHND	Leading Hand	LABOUR	18.00	HOUR	\$56.00	\$1,008.00
4	LAB	Labourer	LABOUR	18.00	HOUR	\$50.00	\$900.00
5	UTE	Utility	PLANT	2.12	DAY	\$67.00	\$141.88
6			TEXT				
7		Lay Bedding Sand and Lay Pipe at 9 M/HR	PRODUCTION	9.00	M/HR		
8	BACKHOE_OP	Backhoe And Operator	SUBCONTRACT	11.11	HOUR	\$60.00	\$666.67
9	LDHND	Leading Hand	LABOUR	11.11	HOUR	\$56.00	\$622.22

These functions have been added to the Item by right-clicking and selecting the relevant function; you can see these functions listed in the right click menu below:

	Item Library	Ctrl+2
	Add From Resource Library	Ctrl+R
	Edit	Ctrl+E
	Add Text	Ctrl+T
	Add Bold Text	Ctrl+B
	Add Group Total	Ctrl+G
	Add Subtotal	Alt+Ctrl+S
	Add Production Rate	Ctrl+P
	Add Item Variable	
	Add Item Variable From Library	
	Assign Production Rate Group	Alt+Ctrl+P
	Copy	Ctrl+C
	Paste	Ctrl+V
	Paste with Zero Quantities	
	Move Line	Ctrl+M
	Delete	Delete
	Close	

The following table provides you with some information on what each function can be used for and also a cross reference to another section of the manual which covers these functions in more detail:

Function	Description and Use
Add Text & Bold Text	Makes the layout of your Item clearer. Some people use these headings to describe different activities or for headings like Material, Labour, Subcontract and Plant.
Add Group Total	Group Totals add up all Resource costs BELOW the Group Total until the next Group Total. These are good for detailed Items that may have several major sub-tasks and where you would like a total for each.
Add Subtotal	Sub Totals add up all Resources ABOVE the Sub Total, to the previous Sub Total.
Add Production Rate	Adds a Production Rate line and allows you to specify a Production Rate Group for this line. You can then assign this Group to Resources in the Item. Then, when you change the Production Rate, all Resources with that Production Rate Group are updated.
Add Item Variable	Adds a Variable to the Item. This function is useful for Variables that could change on an Item by Item basis like depth, width, thicknesses etc.

Function	Description and Use
Add Item Variable from Library	This allows the Estimator to select an Item Variable from the Variable Library. These Item Variables cannot be edited as they are linked to the Variable Library. Any change to the Variable in the Variable Library would flow through to each Item this Variable has been used in.

Table 26: Additional Resources Lines

Create a Sub-Item

Sub-Items provide you with another level in your estimate. Each Sub-Item is stored in your Item Library as an Item and is available to add to an Item as if it were a single Resource.

Sub-Items are ideal for crews who work together, for material assemblies and are also used by many clients for Items of equipment. Sub-Items are created in a very similar manner to creating an Item.

To create a Sub-Item:

1. To create a new item. For more information, refer to [Create a new Library Item](#) (on page 365).
2. Click in the Item *Code* field and type in a code for the Sub-Item.
Each Sub Item *must* have a unique Sub Item code;
3. Check on the *Sub Item* checkbox
4. Right click and select OK.
5. The Item resources can then be customised as required. For more information, refer to [Add Resources to your Item](#) (on page 368).



Extra Data

When creating Sub-Items, there are extra fields for Code 2, 3, and 4, WBS details and Resource Type. Because Sub-Items are used at the Resource Level of a Project, these additional fields provide Sub-Items with the same fields to report on as Resources.

 Extra Data X

Crew Size	<input type="text"/>
Code 2	<input type="text"/>
Code 3	<input type="text"/>
Code 4	<input type="text"/>
WBS	<input type="text"/>
Type	<input type="text"/>

Assign Groups, Cost Codes and Activities to Items

Assigning a Group is important. In the Item Library, this helps your estimators easily find the Items when adding items to your estimate. In your Projects, Item Groups are important when using the Subcontractor Manager, and other features. Cost Code and Activity data are used only in exporting to Job Costing/Accounting systems.

This data can be assigned for each and every Item individually using edit, however, there is also an Assign feature which allows you to assign values to many Items in one operation.

To assign values to many Items in one operation:

1. Highlight the *Items* that you wish to assign data to.
2. Right-click and select either:
 - Assign Group
 - Assign Cost Code
 - Assign Activity
3. You will then be presented with a window showing you the Group/Cost Code/Activity values respectively that you can select from.
4. Double-click on the selected Group/Cost Code or activity to assign the selected value.
5. Select Yes when the confirmation prompt appears to complete the assignment.



Cost Codes

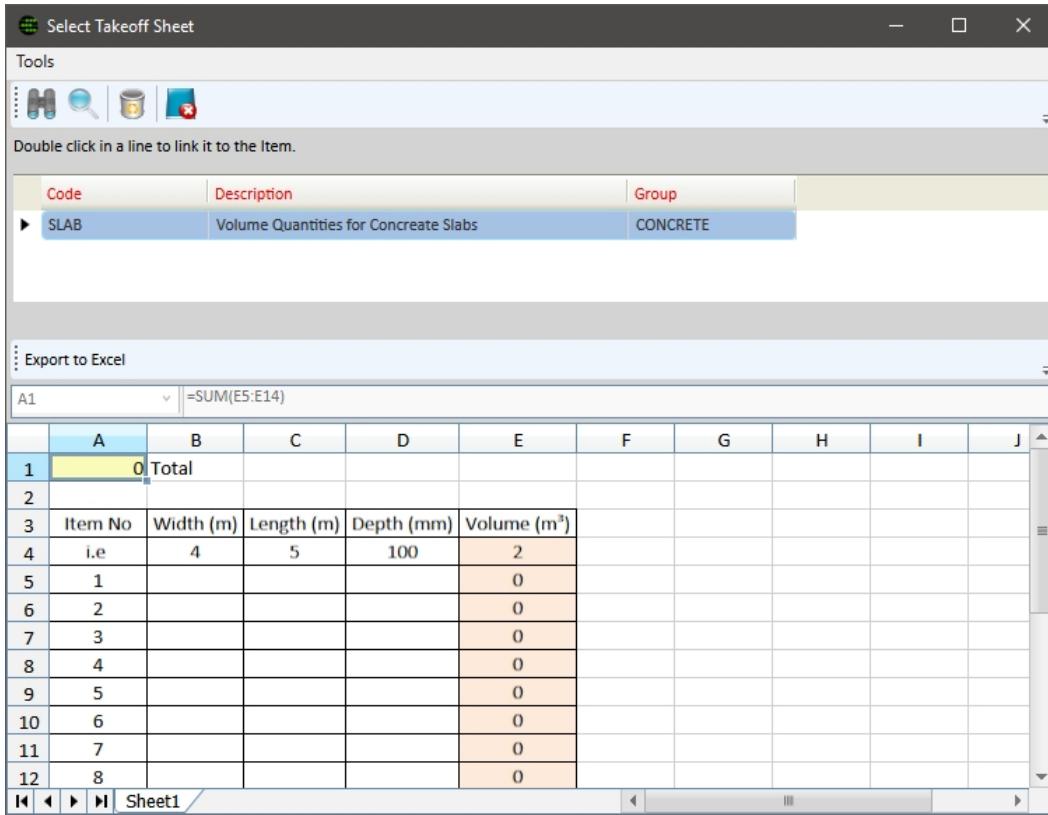
Cost Codes must be turned on in the **Administration** window to be displayed in the **Project Items** and **Item Library** windows.

Associate Quantity Takeoff Sheets with Items

You can associate Quantity Takeoff Sheets to your Items in the **Item Library** window. To do this;

1. Highlight the Item and select Edit from the toolbar.
2. Click the Takeoff Sheet icon.

3. In the **Select Takeoff Sheet** window, double-click on a template.



Code	Description	Group
► SLAB	Volume Quantities for Concrete Slabs	CONCRETE

A	B	C	D	E	F	G	H	I	J
1	O Total								
2									
3	Item No	Width (m)	Length (m)	Depth (mm)	Volume (m³)				
4	i.e	4	5	100	2				
5	1				0				
6	2				0				
7	3				0				
8	4				0				
9	5				0				
10	6				0				
11	7				0				
12	8				0				

4. Click on OK on the toolbar.

If you now add this Item from your Library to a Project the link with the associated Takeoff sheet template is brought into the Project automatically.

For more information, refer to ***Set up Quantity Takeoff Templates*** (on page 401).

Search for Items in the Item Library

You can sort the columns in the Item Library by clicking on the column headings. You can also use the Find function at the top of the **Item Library** window. In these fields, you can search for Item Descriptions or Group.

If the Find feature is not available then:

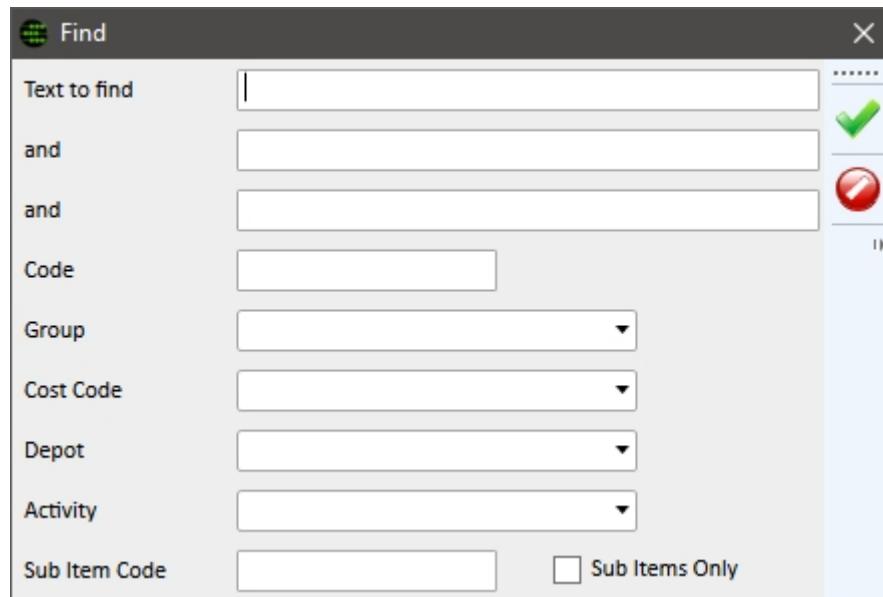
1. Select the empty space in the toolbar.
2. Right-click and select Show Find Toolbar

In addition to using the Find function, the Advanced Find function allows you to do more advanced searches.

To search for an Item or list of Items:

1. Open the **Item Library**.
2. Right click and select the Advanced Find.

3. Select the field that you wish to search for and enter your search data or select an option from the drop-down box.



The screenshot shows the 'Find' dialog box with the following fields:

- Text to find:** An input field containing a vertical bar character (|).
- and:** Two input fields, both empty.
- Code:** An input field.
- Group:** A dropdown menu.
- Cost Code:** A dropdown menu.
- Depot:** A dropdown menu.
- Activity:** A dropdown menu.
- Sub Item Code:** An input field.
- Buttons:** A green checkmark icon and a red edit icon.
- Checkboxes:** A checkbox labeled 'Sub Items Only' is unchecked.

4. Click the OK button to execute the find.



Changing the Displayed Items Costs in the Corporate Version

Cost Filter: Corporate Users can change the displayed Cost for the listed Items by changing the Cost Filter. Where Items have differing Cost between Regions, the Cost filter will select the displayed Cost in the [Item Library](#) window.

Searching for Items in the Corporate Version

Find: Additional Find fields are shown in the Item Library for Corporate users that provide additional search features.

Advanced Find: In the Corporate Version the Advanced Find window contains some additional Regionalisation fields to assist in finding Items.

Set Up Your Variable Library

A *Variable* is a parameter or factor that can be used in your Project Item and Resources calculations. A *Variable* could be the *Density of Road Base*, a *Wastage Factor*, the *number of hours worked in a day*, or even the *Length of a Road*.

The [Variable Library](#) can store standard *Variables* for easy access and within Projects and within the Item Library [Use Variables in Your Project](#) (on page 167) provides more information on how Variables can be used in your Projects.

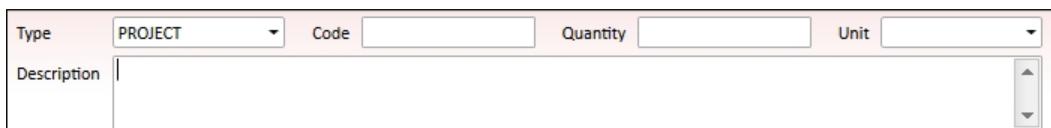
If the [Variables Library](#) is not displayed ou must turn this on in the Calculations tab in the [Administration](#) window. For more information, refer to [Calculations Settings](#) (on page 307)

Add Variables to the Variable Library

1. Click Libraries from the top menu and then select Variables.

The **Variable Library** window is displayed.

2. Right click and select Add.



The screenshot shows a Windows-style dialog box titled 'Add'. At the top left is a dropdown labeled 'Type' with 'PROJECT' selected. To its right are three input fields: 'Code' (empty), 'Quantity' (empty), and 'Unit' (empty). Below these is a large text area labeled 'Description' which also contains no text. On the far right of the dialog is a vertical scroll bar.

3. Select a *Type* from the drop-down box. The Type can be *Project*, *Section* or *Item*.

- a. Project Variables are available to all Items and Resources within a Project.
- b. Section Variables are available to all Items and Resources within a Section.
- c. Item Variables are available to all Resources within an Item.

All Variables added into the **Variable Library** can be used in *Resource calculations* in the **Item Library** and, when you add Items to your Project, the Variables contained in them are automatically added to your Project.

4. Enter a unique *Code*. (This is the Code used in calculations and is the means of identifying the Variable in calculations. The maximum number of characters is 25, however, we recommend you keep your Codes abbreviated).
5. Enter a *Quantity*; the default value you wish the variable to have.
6. Select a *Unit*; the default unit for the Variable.
7. Enter a *Description*; the description of the Variable.
8. Right click and select OK to save the Variable.

Import Variables electronically

You can import a list of Variables electronically. You may wish to do this when you are first setting up your database. For more information, refer to **Export or Import Libraries** (on page 402).

Edit Variables in the Variable Library

Changes made to Variables in the **Variable Library** will only update calculations in the **Item Library**. Any Projects that contain Variables from the **Variable Library** will not be updated.

1. Open the **Variable Library** by using the Libraries then select Variables menu option.
2. Select a *Variable* from the list, right-click and select Edit.
3. Select the relevant field and make your required changes.
4. All calculations that use this variable will be updated in the **Item Library**.

Delete Variables in the Variable Library

1. Open the **Variable Library** by using the Libraries >Variables menu option.
2. Select the *Variable* to delete.

3. Right-click and select Delete.
4. Answer Yes to the confirmation prompt to proceed.

Variables can only be deleted if they are not being used in Resource calculations in the [Item Library](#).

Set up Your Section Library

The Section Library contains a list of Sections that are used in most Projects you estimate. If you use the Section Library in a Project, it also acts as a reminder so that you do not leave anything out of your Estimate.

To create a new Section in the Section Library:

1. Select the Libraries menu, then select Section Library.

The [Section Library](#) window displays.

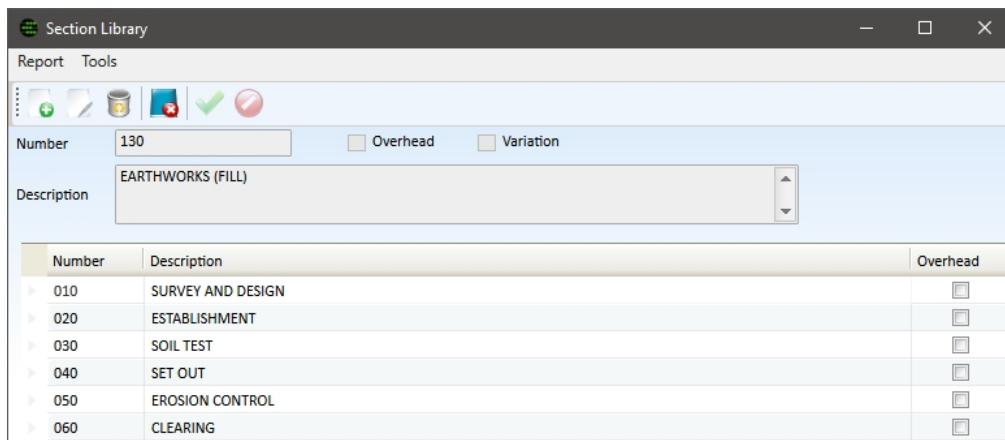


Figure 187: Section Library

2. Right click and select Add.

The cursor will be flashing in the *Number* field.

3. Type in the Section *Number*, up to five characters.
4. Type in a *Description*.
5. (Optional) If the Section is an Overhead, use the left mouse button to check the *Overhead* checkbox.
6. (Optional) If the Section would always be a Variation, check on the *Variation* checkbox.
7. Right click and select OK.

You can edit and delete Sections in the Section Library as you require. To do this, highlight the Section, and select either the Edit or Delete toolbar icon.

Set up Your Client Library

The [Client Library](#) stores details of all of your clients. To create a new client:

1. Select Libraries from the menu bar then select Clients.
2. Right click and select Add.
3. Type in a *Code* for the Client.
4. Press TAB to move to the other fields and enter the information required.
5. When you have finished entering the Client details, select OK on the toolbar.

You can *sort* the **Client Library** by the Code, Client Type, Town and State columns. These columns are also displayed in the **Client Selection** window to help you find your Client faster.

You can edit or delete Clients as you require. To do this, highlight the Client, and select either the Edit or Delete toolbar icons.

You can also create and use *Custom fields* in your **Client Library**. For more information, refer to **Custom Fields** (on page 323).



Corporate Client Library

The Client Library can be set up to include Clients that are available for all Regions or for a particular Region:

- To create a **Local** Client, check the *Local* checkbox and select the required Region.
- To create a **Global** Client that can be used in all Projects, do not check the Local checkbox.

Note: Clients marked as **Local** are only available *in the specified Region*.



Client Types

Client Types can be setup in the **Set up Codes** (on page 284).

Active and Inactive Clients

Clients can be marked as Active or Inactive. This does *not* affect existing assignments or links between an *inactive Client* and older Projects, but it prevents you from assigning the *inactive Client* to a Project.

To make a Client inactive:

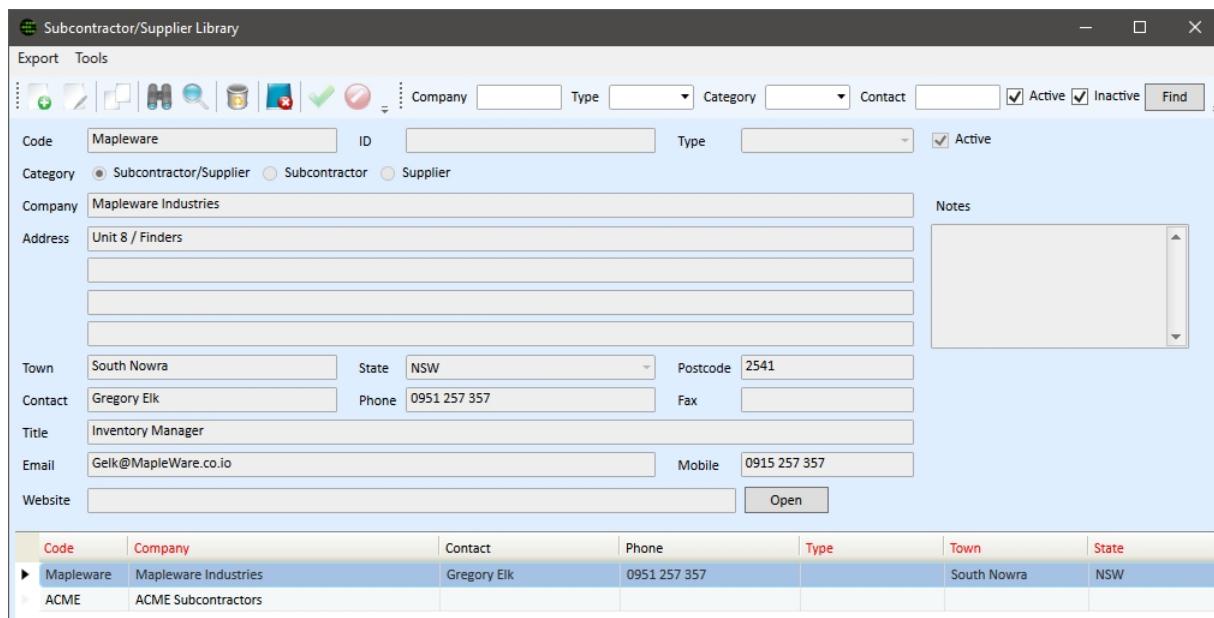
1. In the **Client Library** window, select a client from the list of Clients.
2. Right click and select Edit.
3. Un-check the Active checkbox.
4. Right click and select OK.

Inactive Clients remain in the **Client Library** and you can *re-activate* them if required.

Set up Your Subcontractor/Supplier Library

Benchmark can store details of the *Subcontractors and Suppliers* you use. Functionally, only those using the Subcontractor Manager feature in Benchmark must set up the **Subcontractor/Supplier Library**. If you do not use the Subcontractor Manager feature, you can use the **Subcontractor/Supplier Library** to store your *Contractors contact details* for reference purposes. To enter a *Subcontractor's/Supplier's* details:

1. Select Libraries from the menu bar and then select Subcontractors/Suppliers to open the **Subcontractor/Supplier Library** window.



The screenshot shows the 'Subcontractor/Supplier Library' window. At the top, there are buttons for Export, Tools, and various icons. Below that is a search bar with fields for Company, Type, Category, Contact, Active (checkbox), Inactive (checkbox), and a Find button. Underneath the search bar are sections for Code (set to 'Mapleware'), ID, Type, Category (radio buttons for Subcontractor/Supplier, Subcontractor, Supplier, all three are selected), Company ('Mapleware Industries'), Address ('Unit 8 / Finders'), and Notes (a large text area). Further down are fields for Town ('South Nowra'), State ('NSW'), Postcode ('2541'), Contact ('Gregory Elk'), Phone ('0951 257 357'), Fax, Title ('Inventory Manager'), Email ('Gelk@MapleWare.co.io'), Mobile ('0915 257 357'), and Website. An 'Open' button is next to the Website field. At the bottom is a grid table with columns: Code, Company, Contact, Phone, Type, Town, and State. Two rows are visible: one for 'Mapleware' with 'Mapleware Industries' as the company, 'Gregory Elk' as the contact, and '0951 257 357' as the phone number; and another for 'ACME' with 'ACME Subcontractors' as the company.

Code	Company	Contact	Phone	Type	Town	State
Mapleware	Mapleware Industries	Gregory Elk	0951 257 357		South Nowra	NSW
ACME	ACME Subcontractors					

Figure 188: Subcontractor / Supplier Library

2. Right click and select Add.

The cursor will be flashing in the *Code* field.

3. Enter the details for your *Subcontractor/Supplier*, pressing TAB to move from one field to the next.
4. Right-click and select OK to enter your new Subcontractor/Supplier.
5. Right-click and select Close.

You can *sort* the **Subcontractor/Supplier Library** by the Code, Company, Subcontractor/Supplier Type, Town and State columns. These columns are also displayed in the **Subcontractor/Supplier Select** window to help you find your *Subcontractor/Supplier* faster.

A radio button indicates the Subcontractor/Supplier Category. These categories include:

- Subcontractor only
- Supplier only
- Subcontractor / Supplier

Categories help you to search for the appropriate vendor.



Corporate Subcontractor/Supplier Library

The Subcontractor/Supplier Library can be set up to include Subcontractors/Suppliers that are available for all Regions or for a particular Region:

- To create a Local Subcontractor/Supplier, check the Local checkbox and select the required Region.
- To create a Global Subcontractor/Supplier that can be used in all Projects, do not check the Local checkbox.

Note: Subcontractor/Suppliers marked as Local are only available in the specified Region.

Active and Inactive Subcontractors/Suppliers

You can make a Subcontractor/Supplier inactive so users cannot use them in new Projects. Inactive Subcontractors/Suppliers, however, will remain in the database for historical records.

When you clear the Active checkbox, you cannot assign the Subcontractor/Supplier to a Resource in the Resource Library.

To mark a Subcontractor/Supplier as inactive:

1. In the **Subcontractor / Supplier Library** window, select a Subcontractor/Supplier.
2. Right click and select Edit.
3. Un-check the Active checkbox.
4. Right click and select OK.



Finding Inactive Subcontractors /Suppliers

You can use the Find and Quick Find features to search based on the Active status.



Resource Library Report

When you mark Subcontractors/Suppliers as inactive this does not automatically remove their associations with Resources in the Resource Library.

You can use the Resource Library report Resources with Inactive Subcontractors/Suppliers to list all Resources with an inactive Subcontractor/Supplier assigned to it; system administrators can run this report and then edit these Resources to assign them to new Subcontractors/Suppliers as required.

Note: This does *not affect existing assignments/links between an inactive Subcontractor/Supplier and Resources in Projects or the Resource Library.*

Set up Your Condition Library

If you have Standard and Project Specific Conditions that you use on all your quotations, you can add these conditions to the Condition Library. When you are estimating a Project in Benchmark, you can then very quickly include any of the conditions from the Condition Library in your Project. These conditions then automatically appear on the Benchmark Quotation reports.

Add Conditions to the Condition Library

To add a Standard or Project Specific Condition to the Condition Library:

1. Select Conditions from the Libraries menu at the top of the window.

The **Condition Library** is displayed.

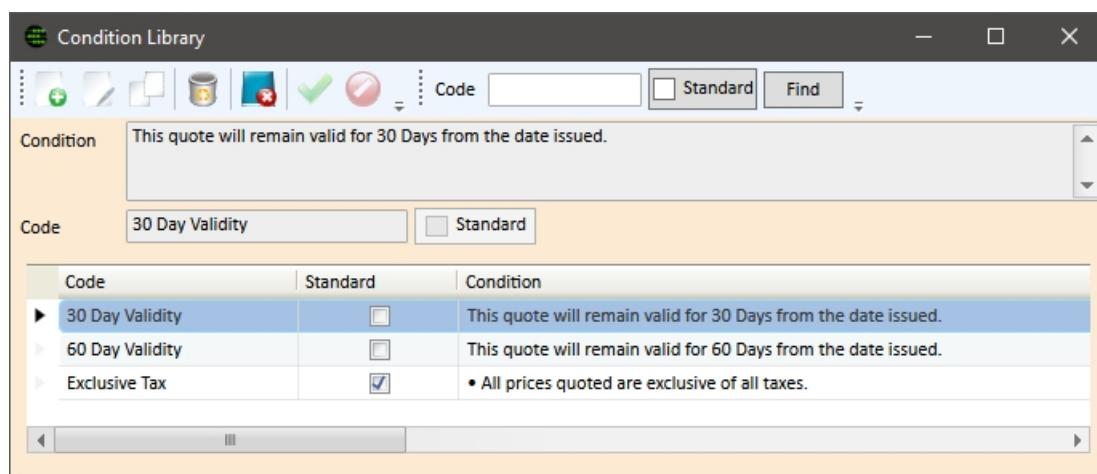


Figure 189: Conditions Library

2. Right click and select Edit. The cursor will be flashing in the *Condition* field.
3. Type in the details of the Standard or Project Specific Condition. (note that the way the condition is typed in here is how it is displayed on your Quotation reports).
4. Enter in a unique *Code* for your Condition, up to 20 characters. It is recommended that similar conditions have similar Codes as they are sorted this way when adding them to a Project.

For example, if you had three Project Specific Conditions that you used from time to time for Traffic Control you could code them TRAFF1, TRAFF2 and TRAFF3. The estimator can then very easily see the Traffic Control conditions grouped together.

5. Check on the Standard checkbox if this Condition is a Standard Condition.
6. Right click and select OK.

You can also edit or delete Conditions as you require. To do this, highlight the Condition, right-click and select Edit or Delete.



Corporate Condition Library

The Condition Library can be set up to include Conditions that are available for all Regions or for a particular Region. To mark a Condition for a specific Region, check the Local checkbox and select the required Region. These Local Conditions are only available in the specified Region. Conditions not marked as Local are considered Global and are available for Projects in all Regions.

Payment Term Condition

You can find Payment Term Condition settings and options in the [Client Library](#) window, [Project Details](#) window, Conditions tab.

The Payment Term Condition feature includes these options:

- In the [Client Library](#) window, you can associate a Payment Term Condition for each Client.
- When you assign a Client to a Project, the Client's Payment Term Condition is also assigned to the Project.
- In a Project, you can change the Payment Term Condition on a project by project basis if required.
- You can nominate in the [Administration](#) window how you would like your Payment Term Condition treated in your Quotations.
- There is a Word merge marker to export the Payment Term Condition to Word. The merge marker is <PAYMENT_CONDITION>. When you use this merge marker in a word template it replaces it with the contents of the Description field from the Project Payment Term Condition field.
- You cannot delete a Condition that is linked to a Client. If you try to delete a linked Condition.

Set up Your Routine Library

Routines are predefined scripts that allow Estimators to input Quantities relevant to a particular Project. These scripts use these quantities to generate Sections, Items and/or Resources within a Project. Routines are ideal for repetitive tasks and generate project specific Items saving you hours of work.

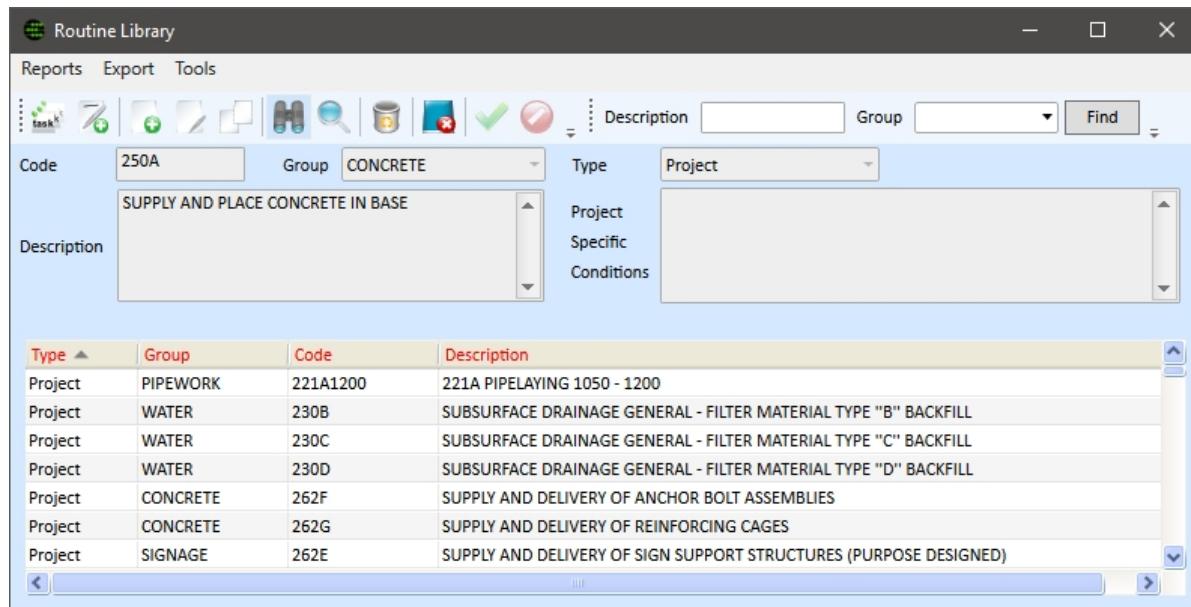
The writing of Routines is recommended for Intermediate to Advanced Estimators, who have been using Benchmark for some time.

Create a New Routine

To create a new Routine:

1. Click on the Libraries menu at the top of the window and select the Routine.

The Routine Library window is displayed. This window lists all of the Routines in your database.



2. Right-click and select Add.
3. Enter a *Code* for the Routine.
4. Select a *Group* for the Routine (these Groups are the same as your Item Groups).
5. Select a *Type* for the Routine.

There are three different types of Routines

- **Project** Routines can only be run in the [Project Details](#) window and can create Sections, Items and add Resources.
- **Section** Routines can only be run in the [Project Sections](#) window and can create Items and add Resources.
- **Item** Routines can be run in the [Project Items](#) window and allocate Resources to existing Items in your estimate.

6. Enter a *Description* of this Routine.
7. You can also enter Project Specific Conditions into a Routine.

This can be done in one of two ways:

- a. Type the Project Specific Condition in the *Project Specific Condition* field. Now right-click and select OK; or
- b. Select OK and then right-click and select Add Special Condition. The [Select Conditions](#) window will appear.
- c. Select which Special Conditions you want to add, right-click and select Add Project Specific Condition.



Corporate Routine Library

The Routine Library can be set up to include Routines that are available for all Regions or for a particular Region. To mark a Routine for a specific Region, check the *Local* checkbox and select the required Region. These Local Routines are only available in the specified Region. Routines not marked as Local are considered Global and are available for Projects in all Regions.



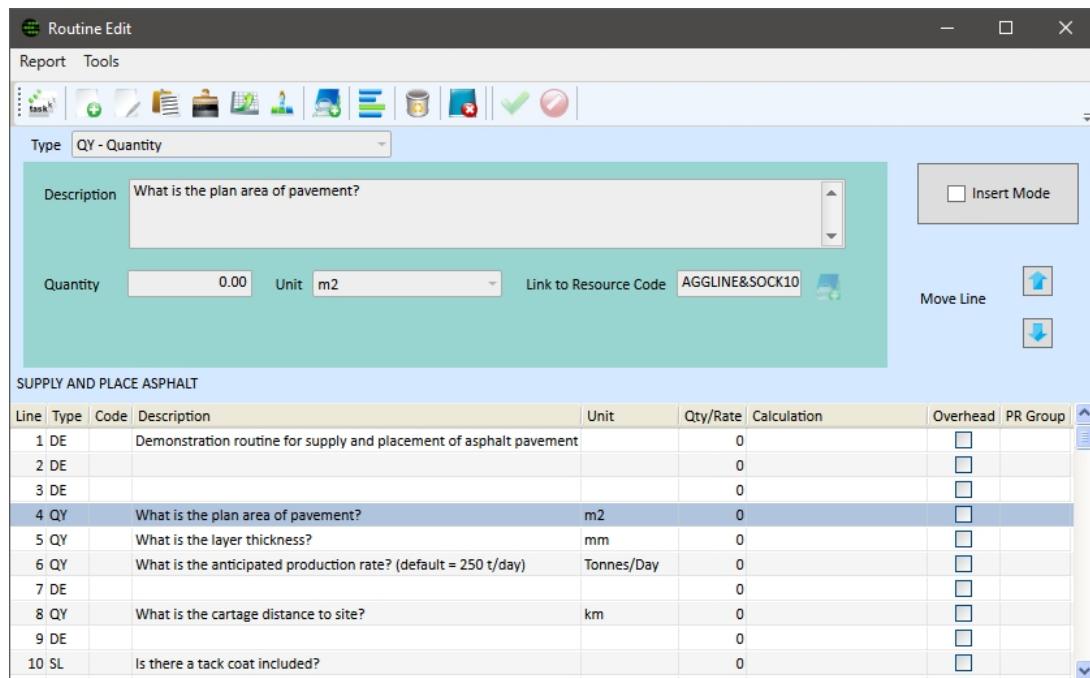
Localised calculations in Routines

Routines support Localised calculations with commas as the decimal point. For more information, refer to ***Localised Calculations*** (see "***Regional Settings and Calculations***" on page 305).

Create the Routine Script

1. Double-click on the Routine, or right-click and select Routine Edit.

The Routine Edit window will appear, as shown below. This window is where you enter the Routine details.



The screenshot shows the 'Routine Edit' window with the following details:

- Report Tools**: Standard toolbar with icons for Back, Forward, Print, etc.
- Type**: QY - Quantity
- Description**: What is the plan area of pavement?
- Quantity**: 0.00, Unit: m², Link to Resource Code: AGGLINE&SOCK10
- Insert Mode**: Checkable box.
- Move Line**: Up and down arrow buttons.
- SUPPLY AND PLACE ASPHALT**: A table listing lines:

Line	Type	Code	Description	Unit	Qty/Rate	Calculation	Overhead	PR Group
1	DE		Demonstration routine for supply and placement of asphalt pavement		0			
2	DE				0			
3	DE				0			
4	QY		What is the plan area of pavement?	m ²	0			
5	QY		What is the layer thickness?	mm	0			
6	QY		What is the anticipated production rate? (default = 250 t/day)	Tonnes/Day	0			
7	DE				0			
8	QY		What is the cartage distance to site?	km	0			
9	DE				0			
10	SL		Is there a tack coat included?		0			

2. Right-click and select Add.
3. Select the Type of line from the drop-down box.

Different fields are displayed in the coloured section of the Routine Edit window, depending on which line you select. (See below for details on each line type).

4. Enter the details for that line.
5. Right click and select OK.

6. Continue to add lines to your Routine as required.

There are various different types of lines that can be used within a Routine.

Routine Line Types

Input Line Types	Description
QY - Quantity	QY (Quantity) lines are input lines defined by a question that will be shown to the Estimator when running a routine. The entered answer (input) can then be used in other calculation lines to calculate Item or Resource Quantities.
SL - Selections	SL (Selection) lines are predefined drop downs lines that will be shown to the Estimator when running a routine. The selected answer can then be used in other calculation lines to calculate Item or Resource Quantities.
SE- Section	SE (Section) lines when present in a Routine will create sections based on the information entered. Sections will only be created if there are Items within the section with a quantity greater than zero. <i>(Project Level Routines only)</i>
IQ- Item Quantity	IQ (Item Quantity) lines are shown to the Estimator when running a routine. When a Quantity is entered, the Item will be created. <i>(Project and Section Level Routines only)</i>
IC- Item Calculation	IC (Item Calculation) lines create Items where the Item Quantity is calculated. When the calculated quantity is greater than zero the Item will be created. <i>(Project and Section Level Routines only)</i>
PQ - Productivity Quantity	PQ (Productivity Quantity) lines are shown to the Estimator when running a routine. These lines allow the Estimator to enter a Production Rate for the Item directly listed above Productivity Quantity Line. <i>(Can only be used on the line after a IQ or IC line)</i>
PC - Productivity Calculation	PC (Productivity Calculation) lines are used to calculate the Item Production Rate. These lines calculate the Production Rate for the Item directly listed above Productivity Quantity Line. <i>(Can only be used on the line after a IQ or IC line)</i>
RQ – Resource Quantity	RQ (Resource Quantity) lines are shown to the Estimator when running a routine. When a Quantity is entered, the Resource will be created.

Input Line Types	Description
RC – Resource Calculation	RC (Resource Calculation) lines create Resources where the Resource Quantity is calculated. When the calculated quantity is greater than zero the Resource will be created
RP – Resource Production Rate	<p>RP (Resource Production Rate) lines are shown to the Estimator when running a routine. These lines allow the Estimator to enter a Production Rate for the resource.</p> <p>When using an RP line you must also select all Resources that belong to the Resource Production Rate Group.</p> <ul style="list-style-type: none"> ➤ To do this right-click and select Assign Production Rate Group.
RPC – Resource Production Rate Calculation	<p>RPC (Resource Production Rate Calculation) lines allow the production rate to be calculated while running the routine.</p> <p>When using an RPC line you must also select all Resources that belong to the Resource Production Rate Group.</p> <p>To do this right-click and select Assign Production Rate Group.</p>
CA – Calculation	CA (Calculation) lines routine lines that contain a calculation, that can be referenced in other lines.
DE – Description	DE (Description) lines are routine lines that allow Estimators to add Text lines to routines that can be seen when the routine is run.

Quantity - QY

Using a QY (Quantity) line allows you to define a question that will be asked in the Routine. All QY lines are presented to the user as questions when they run a Routine in a Project.



The recommended minimum fields to be entered for a QY line are:

- Description
- Unit
- Quantity (you can enter a default if you wish, which the user can then override when they run the Routine)

QY lines can be linked to a Resource Code from the Resource Library. When a QY has been linked the Resource Rate for the linked Resource will appear in the **Routine Input** window adjacent to the QY line.

Section - SE

The SE (Section) line is used to create a Section in your Project. This type of line is only required (and available) in a Project level Routine (i.e. a Routine with a Type of Project).

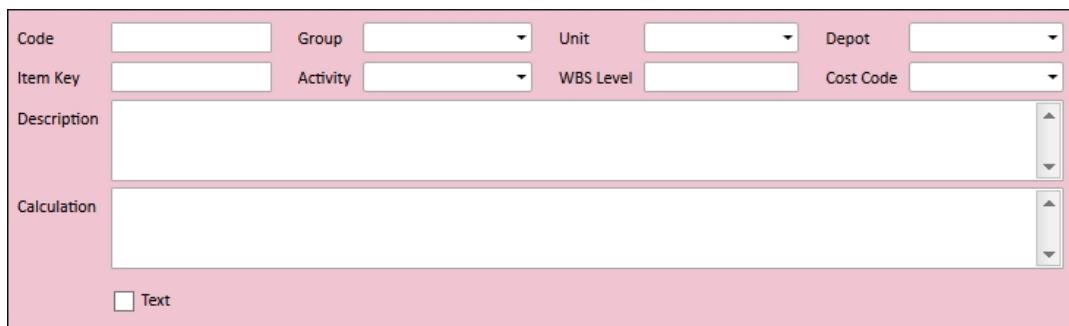


The recommended minimum fields to be entered for a SE line are:

- Section No.
- Description

Item Calculation - IC

The IC (Item) Calculation line will create an Item in your Project. This line type allows you to define an Item to be generated where the Quantity is calculated by the Routine. For example, you may have input questions in your Routines (QY lines) like: *What is the length?*, *What is the width?* and *What is the depth?*. The Item you wish to create is expressed as a volume so this Quantity must be calculated and you would use an IC line to do this. This type of line is only required (and available) in a Project or Section level Routine.



The recommended minimum fields to be entered for an IC line are:

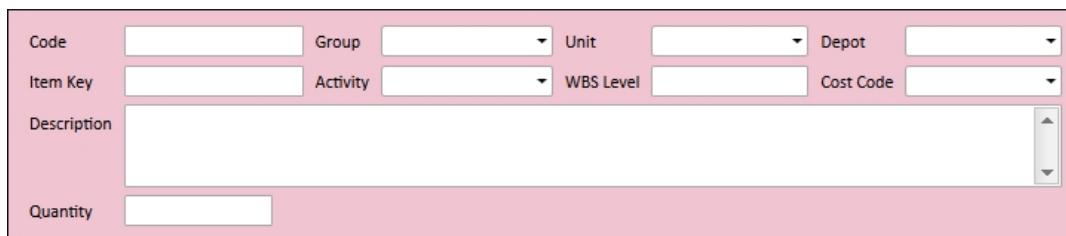
- Unit
- Description
- Calculation (This field is used to calculate the Item Quantity. More information on how to enter a calculation is contained in the following pages)

A Routine can create a Text Line at the Item Level by including an Item Calculation (IC).

1. Add the IC line
2. Enter the Description
3. Enter a Calculation
4. Check the *Text* checkbox

Item Quantity - IQ

The IQ (Item Quantity) line will create an Item in your Project. This should be used where the Quantity for the Item does not need to be calculated. The IQ line will also be presented to the user as a question when the Routine is run, so the user can type in the Item Quantity if they wish. This type of line is only required (and available) in a Project or Section level Routine.



Code		Group	<input type="button" value="▼"/>	Unit	<input type="button" value="▼"/>	Depot	<input type="button" value="▼"/>
Item Key		Activity	<input type="button" value="▼"/>	WBS Level		Cost Code	<input type="button" value="▼"/>
Description							<input type="button" value="▲"/> <input type="button" value="▼"/>
Quantity							

The recommended minimum fields to be entered for an IQ line are:

- Unit
- Description
- Quantity (you can enter a default if you wish, which the user can then override when they run the Routine)

Item Productivity Quantity - PQ

The PQ (Productivity Quantity) line will add a Production Rate line to an Item in a Project, when the Item is created by the Routine. You can define an Item's Production Rate as a particular numerical value when creating the Routine.

When using PQ, add the line on the line under the Item Calculation (IC) or the Item Quantity (IQ) line of the Item the Production Rate is referring to. The text contained in the *Description* field does not transfer to the Project. This field is for you to easily identify which Item the Productivity is related to.

This type of line is only required (and available) in a Project or Section level Routine.



Unit	<input type="button" value="▼"/>
Description	
Quantity	

The recommended minimum fields to be entered for a PQ line are:

- Unit
- Description
- Quantity (This is the value of the Item Production Rate - you can enter a default if you wish, which the user can then override when they run the Routine)

Item Productivity Calculation - PC

The PC (Productivity Calculation) line can calculate an Item's Production Rate and then add this Production Rate to the Item created by the Routine.

When using PC, add the line on the line under the IC or IQ line of the Item the Production Rate is referring to. The text contained in the description field does not transfer to the Project. This field is for you to easily identify which Item the Productivity is related to.

Unit	<input type="text"/>
Description	<input type="text"/>
Calculation	<input type="text"/>

The recommended minimum fields to be entered for a PC line are:

- Unit
- Description
- Calculation (This field is used to calculate the Production Rate for the Item. More information on how to enter a calculation is contained in the following pages)

Calculation - CA

Use the CA (Calculation) line to work out values that are going to be used various times in the remainder of the Routine. Using CA, you can nominate a Description of your Calculation, and then nominate the formula to be used in the Calculation field.

When entering a calculation and you wish to refer to a line, for example, line 2, you refer to it as #2#. If you want to multiply the quantity in line 2 by 3 then your calculation would look like: #2#*3. For more information, refer to Calculator operators and Calculator functions.

For a CA line there is also a checkbox titled *Display in Question List*. Checking this checkbox will show this CA line in the list of Questions when you run your Routine. You may want to do this if there was an important calculation you wanted to review after answering the Routine questions, but before building the Routine.

CA lines are generally spaced throughout your Routine, close to the respective Item or Resource lines that they relate to.

Description	<input type="text"/>
Calculation	<input type="text"/>
<input type="checkbox"/> <i>Display in Question List</i>	

The recommended minimum fields to be entered for a CA line are:

- Description

➤ Calculation

Description - DE

Use the DE (Description) line as a note to the user or as a heading to improve the presentation.

For a DE line, there is also a checkbox titled *Display in Question List*. Checking this checkbox will show this DE line in the list of Questions when you run your Routine. You may want to do this to improve the presentation of the QY lines to the user.

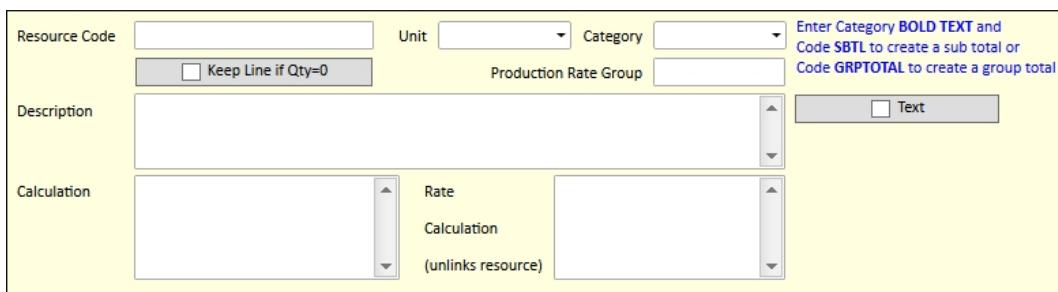
DE lines are spaced throughout your Routine as appropriate to space out sections of the Routine and make it easier to review and maintain.



Resource Calculation - RC

The RC (Resource Calculation) line will add from the Resource Library or create a Resource in your Item in the Project. This line type allows you to add or create a Resource to be generated where the Quantity is calculated by the Routine.

When adding Resources to your Routine then you should use Resources from the Resource Library. In the Routine, right-click and select Add from Resource Library, select the Resource(s) you wish to add and you will see that they are brought into your Routine as RC lines automatically.



The recommended minimum fields to be entered for a RC line are:

- Code - The Code MUST be the same as the Resource Library Code. When you select Add from Resource Library to bring in Resources as RC lines, then the Code will automatically be the same as the Code in the Resource Library.
- Unit
- Category
- Description
- Calculation

Resource Level Sub Total

A Routine can create a Sub Total at the Resource Level by including a Resource Calculation (RC).

1. Add the RC line

2. Enter the Code as **SBTL**
3. Enter the Category as **BOLD TEXT**
4. Enter a suitable description i.e. *Materials*

Resource Level Group Total

A Routine can create a Group Total at the Resource Level by including a Resource Calculation (RC).

1. Add the RC line
2. Enter the Code as **GRPTOTAL**
3. Enter the Category as **BOLD TEXT**
4. Enter a suitable description i.e. *Supply and Lay etc.*

Calculate the Rate of Resources

The Routine Resource Type RC (Resource Calculation) includes a Rate Calculation field. If a calculation is entered into the Rate Calculation field, then the Resource is generated as a Project specific Resource with the Rate as determined in the Routine. This allows a Resource to be generated with a Project Specific Rate.

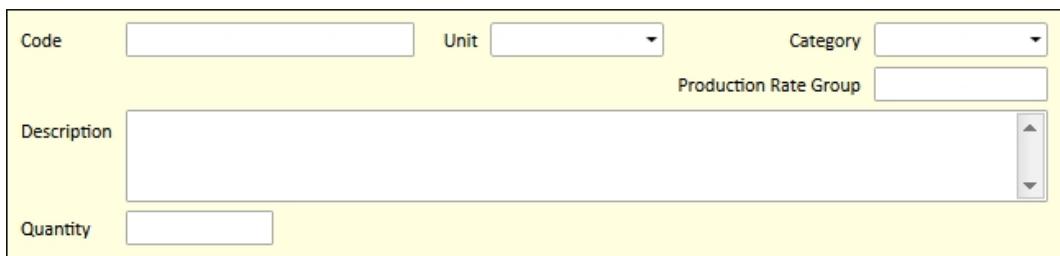
Resource Quantity - RQ

Use RQ (Resource Quantity) line to add or create a Resource in your Item in a Project. The RQ line can be used to define a Resource where its Quantity is not a calculated value. When you run the Routine, the RQ lines are presented to the user as questions.

It is recommended that all Resources created by a Routine come from the Resource Library.

To create an RQ line we recommend you:

1. Add the Resource from the Resource Library
2. Edit this line which will be an RC line
3. Change the Type to RQ



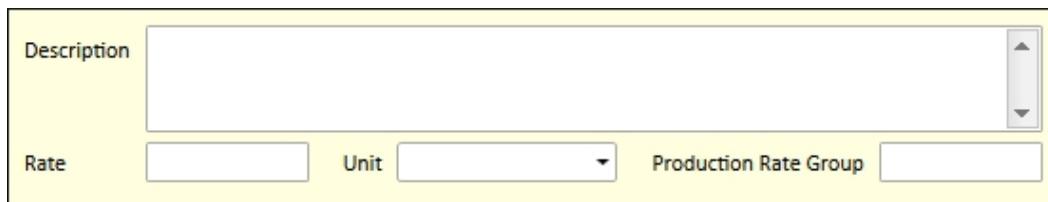
Code	<input type="text"/>	Unit	<input type="text"/>	Category	<input type="text"/>
Production Rate Group <input type="text"/>					
Description	<input type="text"/>				
Quantity	<input type="text"/>				

The recommended minimum fields to be entered for an RQ line are:

- Code - The Code MUST be the same as the Resource Library Code.
- Unit
- Category
- Description
- Quantity (you can enter a default if you wish, which the user can then override when they run the Routine)

Resource Production Rate - RP

Use RP (Resource Production Rate) line to create a Resource Production Rate line in your Item. This type of line will bring in a Resource Production Rate line with a defined Production Rate that is entered into the Routine.



Description			
Rate	Unit	Production Rate Group	

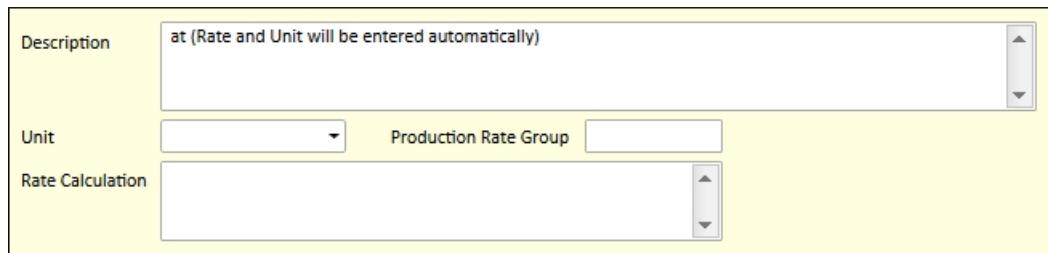
The recommended minimum fields to be entered for an RP line are:

- Description
- Rate
- Unit
- Production Rate Group

When using an RP line (i.e. Resource Production Rate lines) you must also select all Resources that belong to the Resource Production Rate Group, to do this right-click and select Assign Production Rate Group.

Resource Production Rate Calculation - RPC

Use the Resource Production RPC (Rate Calculation) line to create a Resource Production Rate line in your Item. This type of line will bring in the Resource Production Rate with a rate that can be calculated within the Routine.



Description	at (Rate and Unit will be entered automatically)		
Unit	Production Rate Group		
Rate Calculation			

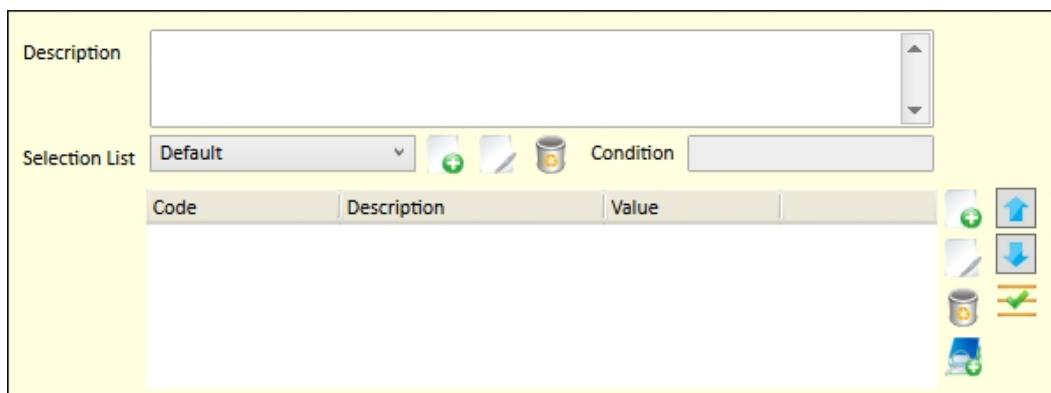
The recommended minimum fields to be entered for an RPC line are:

- Description
- Rate Calculation
- Unit
- Production Rate Group

When using an RPC line (i.e. Resource Production Rate lines) you must also select all Resources that belong to the Resource Production Rate Group, to do this right-click and select Assign Production Rate Group.

Routine Selection Lines - SL

Selection (SL) lines allow you to set up a question line in a Routine with a customisable drop-down list. SL lines allow the drop-down list content to be user configurable based on logic calculations; this is referred to as a Selection List.



Selection List Example:

To help explain Selection Lists, consider the following example. Imagine you are an Asphalt contractor and you have the following questions in a Routine:

- Q1 - What is the State?
- Q2 - What is the Depot?
- Q3 - What is the Asphalt Mix?

Your company may offer one hundred asphalt mixes in total but not all one hundred are available in every State/Depot combination.

The writer of the Routine can configure the Selection List the drop-down list options for Q3, to be dynamically based on the answers to Q1 and Q2.

To create a Selection List:

1. In the **Routine Edit** window, right click and select Add to add a new line
2. Select SL – Selection in the *Type* field
3. Enter a *Description*.
4. Select Add Selection List
5. Configure the first Selection List:
 - a. Enter a *Name*.
 - b. Enter a *Condition* in the form of a Routine calculation,

The condition calculation is what determines which Selection List is displayed to the user; the way this works is that:

- i. If the result of the Condition calculation = 1, the Selection List options are displayed.
 - ii. If the result ≠ 1 the Selection List options are not displayed.
 - iii. Only the very first Selection List whose Condition calculation = 1 is shown.
- c. Select OK

- d. Select Add and/or Add from Library to enter the detail of the first applicable option for that Selection List.
 - e. Repeat Step d to add additional selection options.
6. Repeat Steps 4 & 5 for each additional Selection List.

Routine Calculations

The following commands and operators can be used in all the *Calculation* fields within a Routine.

Command	Description	Example
#number#	Refers to the value of the line number in a Routine.	#3# refers to value of line 3
abs(number)	Returns the magnitude of a real number ignoring its positive or negative sign.	abs(1002) returns 1002 abs(-203.45) returns 203.45
acos(number)	Returns the arc cosine of a number in the range 0 to 180 degrees.	acos(sqr(2)/2) returns 45
asin(number)	Returns the arc sine of a number in the range -90 to 90 degrees.	asin(sqr(3)/2) returns 60
atan(number)	Returns the arc tangent of a number in the range -90 to 90 degrees.	atan(1) returns 45
atan2(y,x)	Returns the arc tangent of the point y, x coordinates.	atan2(1,1) returns 45
cos(number)	Returns the Cosine of a number where the number is in degrees	cos(60) returns 0.5
(Var1 Criteria Var2)	Evaluates the calculation (Var1 Criteria Var2) as true or false .	(#2#>=#4#) returns 1 if the value on line 2 is >= the value on line 4
exp(number)	Returns e raised to the power of a given number	exp(0.5) returns 1.6487
fact(number)	Returns the factorial of a number rounded to an integer first.	fact(4) returns 24, that is 4*3*2*1
IF(Var1,Criteria,Var2,Var3)	Returns Var2 if the statement (Var1 Criteria) is true, otherwise returns Var3. Var1, Criteria, Var2 and Var 3 can be line numbers, numbers or calculations.	Value of #3# = 11. IF(#3#,11,0,1) returns 0 <i>Refer below for more examples of the IF statement</i>

Command	Description	Example
int(number)	Returns the integer part of a number; it does not round to the nearest integer	int(23.1056) returns 23
ln(number)	Returns the log to base e (the natural logarithm) of a number; or -1e100 if number <= 0.	ln(exp(0.5)) returns 0.5
log(number)	Returns the log to base 10 of a number; or -1e100 if number <= 0.	log(100) returns 2
max(value1, value2...)	Returns the maximum value from a list of values. The values should all be numbers when numeric comparison is used.	max(3,6,2,7) returns 7
min(value1, value2...)	Returns the minimum value from a list of values. The values should all be numbers when numeric comparison is used.	min(3,6,2,7) returns 2
mod(number1,n umber2)	Returns the remainder of a number division, that is, when number 1 is divided by number 2 to produce a remainder; it is a true modulus function	mod(6,4) returns 2
not(expression)	The numeric value of an expression that evaluates to true is 1, therefore not(true) is 0. Similarly, not(false) is 1.	not(31<45) returns 0
pick(number,value0,v1,v2 etc..)	Selects an item from a list of values (strings or numbers) depending on the value or result of the number argument.	pick(#2#,1100,2200,4500,6800) Line 2 = 2; returns 4500
pwr(number, power)	Returns the result of raising a number to a power.	pwr(2,5) returns 32
randintrng(number1, number2)	Returns a random integer between number 1 and number 2 inclusive.	randintrng(25,50)
rnd(number,dp)	Rounds a number to a number of decimal places specified in dp.	rnd(2.105693,5) returns 2.10569
rndup(number,d p)	Rounds a number up to a number of decimal places specified in dp.	rndup(2.105693,0) returns 3

Command	Description	Example
rnddown(number,dp))	Rounds a number down to a number of decimal places specified in dp.	rnddown(2.105693,0)) returns 2
sin(angle)	Returns the Sine of an angle where the angle is in degrees.	sin(30) returns 0.5
sqr(number)	Returns the square root of a number. Benchmark defines the square root of a negative number X as sqr(abs(X)) .	sqr(100) returns 10
tan(Angle)	Returns the Tangent of an angle where the angle is in degrees.	tan(45) returns 1

Operators	Description	Example
+	Addition	3 + 1 returns 4
-	Minus	2 - 2 returns 0
*	Multiply	2 * 4 returns 8
/	Divide	16 / 4 returns 4
>	Greater than (Left to Right)	IF(#3#,>1,1,2) returns 1 (true) if line 3 is greater than 1.
<	Less Than (Left to Right)	IF(#3#,<1,1,2) returns 1 (true) if line 3 is less than 1.
<>	Not equal to	(3<>1) returns 1 (true)
>=	Greater than or Equal to	(#3#>=3) returns 1 if line 3 is greater than or equal to 3
<=	Less than or Equal to	(#3#<=3) returns 1 if line 3 is less than or equal to 3
&	And Operator (expression1 & expression2) Both expression must be true to return 1 (true) otherwise 0 (false) is returned	(IF(2,>1,1,0)& IF(8,<10,1,0)) Returns 1 (both statements are true)
 	Or Operator (expression 1 expression 2) one expression must be true to return 1 (true) otherwise 0 (false) is returned	(IF(2,>1,1,0) IF(20,<10,1,0)) Returns 0 (Only one statement is true)

IF Statements Expanded

IF(Var1,Criteria,True,False)

Syntax

IF (number, Operator number, number, number)

The *number* can be a calculation or a line reference. Here are a number of Examples.

IF (#10# , > 15 , 18 , 9)

If the value of line 10 in the Routine is greater than 15 then return 18 otherwise, return 9.

IF(#3# , < #4# , #5# , #6#)

If Line 3 is less than Line 4 then return Line 5 otherwise return Line 6

IF (#3# , #4# , #6# , #8#) * IF(#4# , > #5# , #2# , #1#) etc....

If Line 3 is Equal to Line 4 then return Line 6 otherwise return Line 8) * (If Line 4 is greater than Line 5, then return Line 2 otherwise return Line 1.

IF (#2#+2,<>#3#+1,#2#+5,#2#+8)

If Line 2 +2 is not equal to Line 3 +1, then return Line 2 + 5, otherwise return Line 2 + 8

You can multiply, add, subtract, divide IF statements or use the **&** or **|** operators (see below).

Logic Statements Expanded

Logical statements can be used in Routines to add additional functionality to calculations. A logical statement is a Boolean statement in that it will return either True or False. In Benchmark this is expressed as the number one for true and a zero for false. Because the logic statements return a numerical value they can be used to create complex calculations.

Syntax

(expression)

Example

(#3# >= #4#)

If Line 3 is greater than or equal to Line 4, then 1 is returned otherwise returns a 0

Complex Example

Line 2 = 10, Line 3 = 15, Line 4 = 12

(#2# >= #3#) * IF(#3# , 15 , 1 , 0) & IF(#3# , > #4# , 1 , 0)) returns 0

Statement One = (10 >= 15) returns 0.

Statement Two = (IF (15 , 15 , 1 , 0) + IF(15 , >12 , 1 , 0)) returns 2

(Statement one) * (Statement Two) = 0 * 1

An **IF** statement can be contained within parentheses I.E. (**IF (#2#, > #3#, 20, 40)**) however and **IF** statement cannot be contained within another IF statement.

Resource Custom Fields in Routines

Using Resource Custom fields in Routine is available when resources have been added from the Resource Library, Resource custom fields add additional flexibility to Resource quantity calculations. For more information, refer to [Use Resource Custom Fields in the Calculator](#) (on page 175).

Resource Custom field (rcf) can be directly referred to within the Calculation field of a Resource Calculation line (RC).

For example:

- rcf("Density") would refer to a Custom field label Density.



Custom Fields per Region

Corporate edition users can set up *Resource Custom Fields* to be regional. In this case the *Resource Custom Field value* used in the Calculation is the one defined for that *Project Region*.

Localised Routine Calculations

When the localised calculation feature is enabled, users will experience changes to the calculation syntax when writing routine scripts.

For those estimators using the comma, the

- Comma ',' replaces full stop '.' as the decimal separator in calculations, and
- Semicolon ';' replaces comma ',' as parameter separator in calculations.

This will effect all Routine Calculations that use a comma to separate inputs.

Visual Text Indicator

Routine Line Types which have a *Calculation* field will contain a visual text indicator. This indicates to the user that Localised calculation is active and that different syntax should be entered in the calculation fields.

Localisation is Active
Use ',' (comma) as decimal separator and ';' (semicolon) as parameter separator

The Line Types that contain calculation lines and are impacted by this are:

- CA – Calculation
- IC – Item Calculation
- RC – Resource Calculation
- PC – Productivity Calculation
- RPC – Resource Production Rate Calculation, and
- SL - Selection (*Selection List Condition*).

Display Resource Rates in QY, SL and RQ lines

When you run a Routine you can see the Resource Rate in the list of questions for the following line types:

- QY – Quantity

The Link to Resource Code feature for QY lines enables you to select a Resource from the Resource Library that is directly related to the QY question.

- RQ – Resource Quantity

RQ lines can be directly referenced to a *Resource* in the **Resource Library** by entering a *Code* into the *Code* field (1) that matches a *Resource* in the **Resource Library**.

- SL – Selection

When creating an SL line, you can create drop-down list entries which are linked to the Resource Library in two ways:

- By selecting Add (1) and typing in a code into the *Code* field (2) that matches a Resource in the Resource Library, or
- By selecting Add from Library (3) and selecting a Resource from the Resource Library.

Both these options allow you to link Resources to the drop-down list entries and in each of these cases, the corresponding Resource Rate is shown when running the Routine.

Write Routines for use with Power Routines

Power Routines are **written as Item Level Routines**, regardless of whether the Power Routine creates Sections and Items, or Items only. Refer above for information on writing Routines. If you have an existing Item level Routine you can use this when running a Power Routine.

Test Your Routine

As you create your *Routine* we recommend you test it. You can test your *Routine* from within the **Routine Library**.

To test your Routine:

1. In the **Routine Edit** window, right-click and select Test the Routine.
2. In the **Routine Test** window, answer the questions to the Routine, right-click and select OK.
3. Benchmark will automatically perform the *Calculate* operation and you can review your quantity calculations based on your input data.
4. You can *Edit* this window, change the answers to your Questions and re-test the *Routine* as many times as you want.

Set up Quantity Takeoff Templates

This facility allows you to create standard Quantity Takeoff templates which are in a spreadsheet format, and store these in a Library. A user producing an estimate can then call up a template and do a Takeoff for an Item in an estimate. Having standard templates available saves time and ensures consistency in Takeoff methods as well as improved accuracy of quantity calculations.

You can restrict access to the Takeoff Sheet Template library on a user by user basis; this is done as part of the user account set up. For more information, refer to ***Set up Estimator Accounts*** (on page 335).

Add a Quantity Takeoff Sheet Template

To set up templates for your spreadsheets in the **Takeoff Sheet Template** window:

1. Select Libraries from the menu bar and then select Takeoff Sheets.

The **Takeoff Sheet Template** window displays.

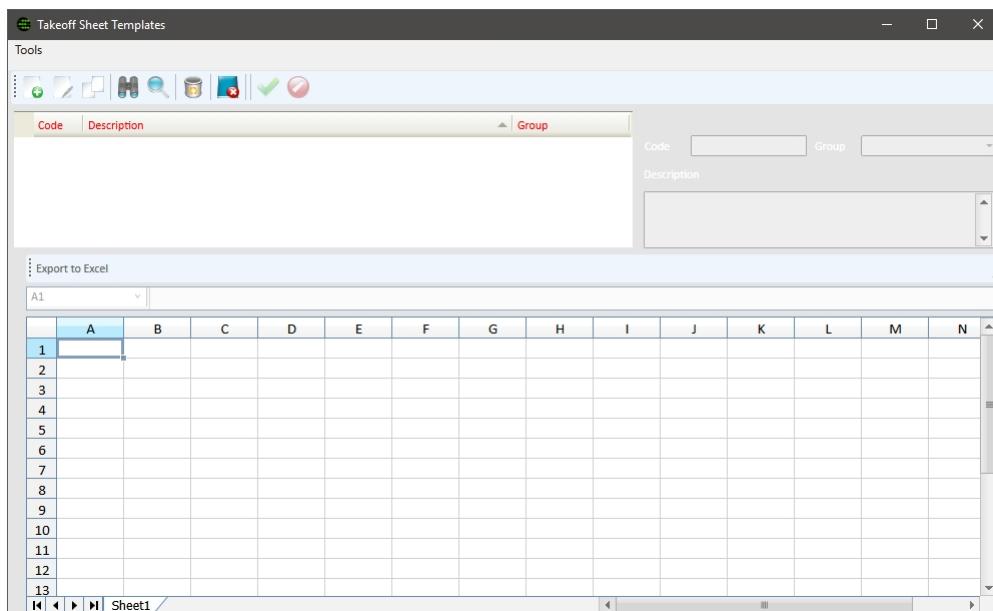


Figure 190: TakeOff Sheet Templates

2. Right-click and select Add.
3. Enter a unique code in the *Code* field.
4. Select a Group from the *Group* drop-down box (note that this is not compulsory).
5. Enter a description for your Takeoff Template in the *Description* field.
6. Set up your quantity takeoff template in the spreadsheet section in the lower half of the **Takeoff Sheet Template** window, following the tips below.
7. Once you have finished right-click and select OK and this template is now saved.

Tips for setting up Quantity Takeoff sheet templates

- The value in **Cell A1** is the value that is transferred to the Item Quantity field for the Item.

- In Edit mode, you can modify the spreadsheet by typing formulas into cells (as you would do in Microsoft Excel). You can also edit the formatting of each cell by right clicking and selecting Range Explorer.
- The Takeoff Sheet function utilises an embedded spreadsheet function called Spreadsheet Gear®. The following website contains a list of functions that Spreadsheet Gear supports.
<http://www.spreadsheetgear.com/products/spreadsheetgear.net.aspx#FunctionList>
- When creating templates, click on the OK, and then Edit, button regularly. This will save your template in the same way as an auto save feature would.
- Add a blank Takeoff sheet. This can be used within the estimate to create a custom sheet specific to an Item.
- Highlight cells you want data entered into when the sheet is associated with an Item in a colour to indicate that they are data entry cells. (Use two colours – one for cells that are required and one for cells that are optional).
- Include instructions for use on the sheet to help you complete the Takeoff when it is added to an Item.

Example Takeoff sheet

Below is an example of a simple Takeoff sheet template to calculate the total quantity of multiple volumes. Note cell A1 is highlighted - this is the end calculation. (the sum of all the volumes)

	A	B	C	D	E
1	0	Total			
3	Item No	Width (m)	Length (m)	Depth (mm)	Volume (m³)
4	i.e	4	5	100	2
5	1				0
6	2				0
7	3				0
8	4				0
9	5				0
10	6				0
11	7				0
12	8				0
13	9				0
14	10				0

Export or Import Libraries

Benchmark provides you with facilities to export and import your key Libraries. This is a useful tool in various tasks;

- Setting up a new database, for example when you first receive the Software;

- Migrating data between databases (if required) and
- Performing bulk changes to data quickly.

If you wish to do any of these tasks then the recommended approach is to:

1. Export the Library first (the export can create a Microsoft Excel or Extensible Markup Language (XML) file). This is so that you know what format the data must be saved in.
2. Update data or add new data in Microsoft Excel (if required).
3. Save the amended file.
4. Import the data back into the Library.

The following pages guide you through how to Export and Import data from your Libraries. Some guidance is also provided on how you can edit data in Microsoft® Excel after you have exported it.

You can also control which users can Export Library data with the *Export Libraries* access level in the [Estimator Library](#). Some companies may wish to use this access level to restrict some personnel from being able to export their important estimating data.

Export Libraries

You can export your Library data from the File menu:

1. Select File then Utilities then Export as shown below, and then selecting the appropriate Library. This will, however, export ALL records in the relevant Library.



2. Select the library you would like to export and follow the prompts to save the export file.

Note: Export Data will export all Libraries and other data like Administration settings and Codes but will not export Projects.

Alternatively opening the Library itself and selecting the Export menu provides a more control over the export content. You can:

- All records in the Library
- All listed records
- Or selected records only



You must have at least one record in a Library to Export the data

Before you can Export data from a Library you must ensure that you have at least one record in your Library, otherwise, the export file will be empty.

To export data from individual Libraries:

1. After you export the data you need, you are presented with a window similar to the following:
2. Select the folder on your Computer where you wish to Export this data to.
3. Select the **Save as type:** field. For simplicity reasons, we recommend that you export directly to Excel.
4. Enter a name of the save file in the *File name* field, for example, if you were exporting all Pipe Resources you may wish to call your file **Pipe_Resources_DDMMYY**.
5. Click on **Save** to export your data.

Export Items

If you Export Items, you are asked if you wish to also export the Resources that these Items contain and also Variables that are used by this Item. You would generally reply Yes to these questions if you are exporting Items with the intention of importing them into a fresh database.

Add or edit exported Library data in Microsoft Excel

After you have exported data from your Libraries, Benchmark will create a Microsoft® Excel or XML file. It is generally recommended to open the Excel file for simplicity reasons. XML files are recommended to be opened only by advanced users.

The following sections provide you with some guidance for some of the main Libraries.

Mandatory fields - Resource Library

When adding or modifying Resources in Microsoft Excel certain fields are mandatory and/or have special conditions that must be met. The followings fields are mandatory:



Column Structure

The order of the column must be kept the same as the original export.

Field/Column name in Excel	Conditions
META Columns	Column A and <i>MUST BE</i> unhidden and copied down when adding new Resources. For editing Resources, this field should not be modified. If additional features are enabled, there will be additional META columns. The META structure needs to be replicated for each resource.
[DATATYPE]	This field should be copied and pasted for all new Resources. For editing Resources, this field should not be modified.

Code	For entering new Resources the Code must be unique, and with a maximum of 25 characters; if you type in more than 25 characters some characters are truncated. When editing Resources in Microsoft Excel, the Code can be changed, however, changing the Code will result in a new Resource being created during the Import process. Benchmark uses the Code (and Description) to identify Resources.
Description	For entering new Resources the first 75 characters of the Resource Description must be unique, and with a maximum of 300 characters. When editing Resources in Microsoft Excel, the Description can be changed, however, changing the Description can result in a new Resource being created. Benchmark uses the first 75 characters of the Description (and Code) to identify Resources.
Rate	The Resource cost/rate must be entered. Rates cannot be entered with the \$ symbol. When editing Resources in Microsoft Excel, if you edit the Rate then this is updated when you import the Excel file.
Date Updated	This is the Date the Resource price was updated. In most cases, it may be your current Date but could also be the Date Published from a Supplier's price guide for example. If all dates are the same we recommend that you copy and paste the date. The format required for the Date is '07-10-2010 00:00:00 (The apostrophe is necessary to ensure Microsoft Excel does not reformat the date/time).
UnitId	This is Unit of the Resource. When adding or editing Resources in Excel the Unit you type in must be exactly the same as the Units that belong in the database you are importing the file back into. The exception to this is if the person importing the Resource file has access to the Codes window – in this case, the import process will flag any Units that do not exist and offer the user the option to create them in the Codes window automatically.
ResourceGroupId	This is the Resource Group the Resource is stored with. When adding or editing Resources in Excel the Resource Group you type in must be exactly the same as the Resource Groups that belong in the database you are importing the file back into. The exception to this is if the person importing the Resource file has access to the Codes window – in this case, the import process will flag any Resource Groups that do not exist and offer the user the option to create them in the Codes window automatically.
Category	This must be filled in with either MATERIALS, LABOUR, PLANT, or SUBCONTRACT.

Table 27: Resource Import Mandatory Fields

Mandatory fields - Item Library

When adding or modifying Items in Microsoft Excel, certain fields are mandatory and/or have special conditions that must be met. The following fields are mandatory:

Field	Conditions
META – Column A	This is in Column A and MUST BE unhidden and copied down when adding new Items.
META – Column B	This field MUST BE copied and pasted to signify the beginning of the Item's Resources.
META – Column C	This field MUST BE copied and pasted to for each Resource line of the Item as per Domains fields in the tables below.
META	Additional META columns may be present in the sheet if custom fields or regionalisation is used.
[DATATYPE]	This should be copied down from new Item lines that are of the same type. For example, all resource lines should be of Type ItemLibraryResource .
Description / [DATATYPE]	This column is for the Item Description and the Resource Line Types within the Item.
AggrType / ItemResType/ DataType	This should always be 1 for Items.
ItemGroupId	This is the Resource Group the Item is stored with. When adding or editing Items in Excel the Item Group you type in must be exactly the same as the Item Groups that belong in the database you are importing the file back into. The exception to this is if the person importing the Item file has access to the Codes window – in this case, the import process will flag any Item Groups that do not exist and offer the user the option to create them in the Codes window automatically.
UnitId	This is Unit of the Item. When adding or editing Item in Excel the Unit you type in must be exactly the same as the Units that belong in the database you are importing the file back into. The exception to this is if the person importing the Item file has access to the Codes window – in this case, the import process will flag any Units that do not exist and offer the user the option to create them in the Codes window automatically.

Table 28: Item Import Mandatory fields

Item Library Resource Lines	
META	'd:ItemLibraryResourceDomain
DATA TYPE	ItemLibraryResource
Line type	1
Order	Enter a digit, representing the sort order of the Resources within the Item.
Resourceld	This field is the Resource Code as listed in the Benchmark Resource Library. The Resource will only be added to the item if there is a corresponding Resource in the Resource Library within Benchmark with the same Resource Code as entered in this field.
Quantity	Enter the Resource Qty to associate with the Resource.

Table 29: Item Resource Line Type Information

Item Library Text Lines	
META	'd:ItemLibResourceTextDomain
DATA TYPE	'ItemLibResourceText
Line type	2
Order	Enter a digit, representing the sort order of the Resources within the Item.
Description	This is the Text that is to appear in the Description field of the Text line
TextType	The Text Type defines Type of Text, Either BOLDTEXT (Bold Red Text) or TEXT (Blue Text)

Table 30: Item Resource Text Line Type Information

Item Library Total Lines	
META	'd:ItemLibResourceTotalDomain
DATA TYPE	'ItemLibResourceTotal
Line type	3
Order	Enter a digit, representing the sort order of the Resource Total within the Item.

Item Library Total Lines	
TotalType	Enter GRPTOTAL for a group total line or SBTOTAL for a subtotal line.
Description	The Text for the Description of the Subtotal or Group Total.
Quantity	Enter the Quantity for the Total Line.

Table 31: Item Resource Line Total Type Information

Item Library Resource Production Rate Lines	
META	'd:ItemLibResourceProdRateDomain
DATA TYPE	'ItemLibResourceProdRate
Line type	4
Order	Enter a digit, representing the sort order of the Production Rate within the Item.
Text	Enter the Description for the Production Rate line.
UnitId	This is Unit of the Production Rate. When adding or editing Production Rate Lines in Excel the Unit you type in must be exactly the same as the Units that belong in the database you are importing the file back into. The exception to this is if the person importing the Item file has access to the Codes window – in this case the import process will flag any Units that do not exist and offer the user the option to create them in the Codes window automatically.
Rate	Enter the Production Rate. I.E. 90
Group	Enter a production Rate Group, This group can be assigned to resource lines in the ProdRateId column.

Table 32: Item Resource Line Production Rate Type Information

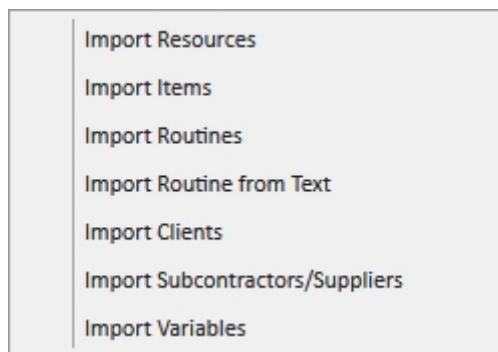
Item Library Item Variable Lines	
META	'd:ItemLibraryVariableDomain
DATA TYPE	'ItemLibraryVariable
Line type	5
Order	Enter a digit, representing the sort order of the Resource Variable within the Item.
Quantity	Enter the value for the Item Variable.

Item Library Item Variable Lines	
Description	Enter the Description for the Item Variable line.
UnitId	This is Unit of the Item Variable. When adding or editing Item Variable Lines in Excel the Unit you type in must be exactly the same as the Units that belong in the database you are importing the file back into. The exception to this is if the person importing the Item file has access to the Codes window – in this case the import process will flag any Units that do not exist and offer the user the option to create them in the Codes window automatically.
Code	The Variable Code that is associated with the Variable, this can be in the Calculation field of the Resource lines.

Table 33: Item Resource Line Variable Type Information

Import Libraries

Your Libraries can be imported by selecting File then select Utilities and Import as shown below.



These files must be in the same format as that which is created when you export the Library; it is generally recommended that you export your Library first to obtain the file structure before you import it back in.



Format of Import files

If you export your Libraries to Extensible Markup Language (XML) format and you edit this data Microsoft Excel, then this must be saved as an XML data file type before it can be imported back into Benchmark.

Import Resources

During the Import process, if there are missing code references, Benchmark will ask you would like to create missing codes.

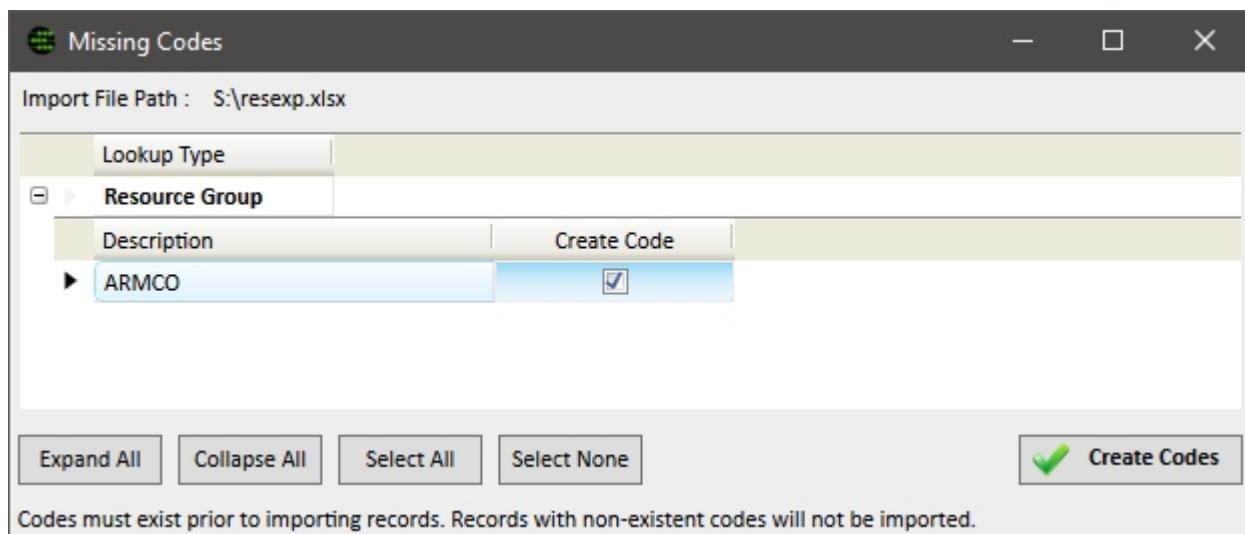


Figure 191: Importing - Missing Codes

When importing Resources, Benchmark will look for duplicate Resources. If Benchmark finds Resources with the same *Code* or *Description* it will display the following window:

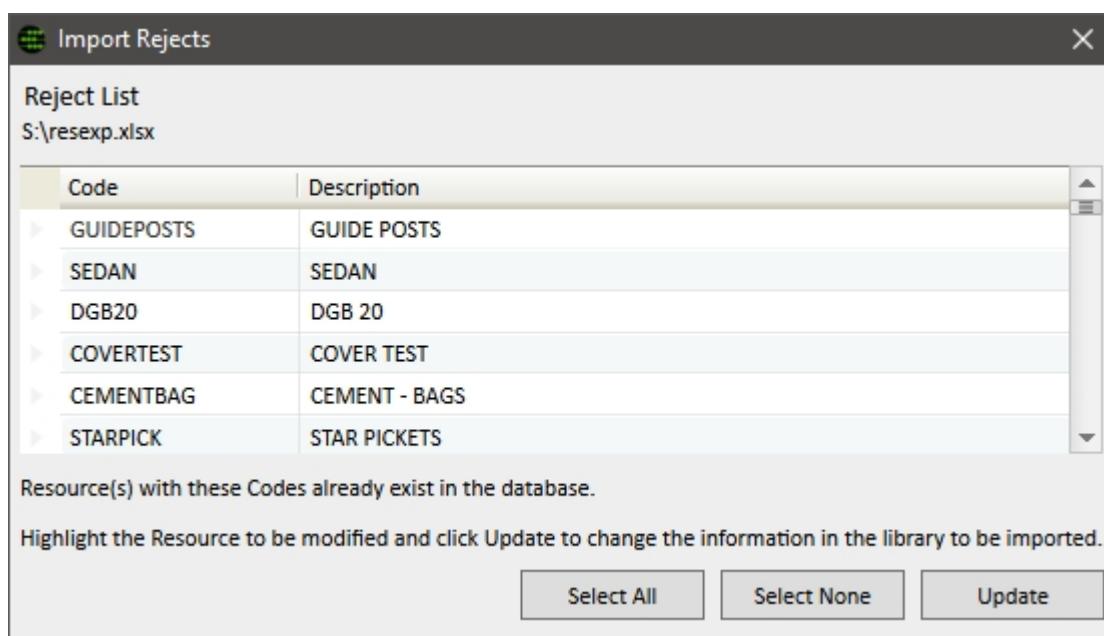


Figure 192: Resource Import - Import Rejects

The user can then highlight individual Resources that they wish to update, or use the Select All button to highlight all of them.

Resource Library Import/Export

When Multi-Currency is enabled, new currency fields are included in the import and export of the Resource Library.

The Import feature allows:

- creation of new Currency Resources and
- conversion of a Resource without an associated currency to a Resource with a currency assigned (and vice versa).

As an example if you export Resources, enter a Currency and import the file back into the database, Benchmark will assign the currency details to the resource.

- *IsCurrencyEnabled* is to be set to TRUE.
- *CurrencyCode* is the Currency Code for the selected currency in the Administration window. For more information, refer to **Multi-Currency Settings** (on page 306).
- *CurrencyRate* is the resource Rate for the selected currency.
- *ExchangeRate* is any specific exchange rate for this Resource.

Rules to note on importing *currency resources* are as follows:

1. If *IsCurrencyEnabled* is set to TRUE then the Currency Code column must not be blank
2. If *IsCurrencyEnabled* is set to TRUE then the Resource Rate field will be ignored
3. Currency Code must exist in the list of currencies set up in the **Administration** window, Multi- Currency Settings AND it must not match the system's Base Currency; if either of these rules are not met the Resource will not be imported.
4. If the Currency Rate is left blank then it will default to 0.00 as part of the import process
5. If the Exchange Rate is blank or 0.00 then the exchange rate value in the **Administration** window will apply and the Locked checkbox will be checked.
6. If the Exchange Rate is set (i.e. not null and not 0) then the Locked checkbox will be cleared, and
7. If the Locked column is set to TRUE, and if an Exchange Rate exists for the Resource in the import file, the Exchange Rate value in the import file will be ignored and the Exchange Rate will be locked to the value in the Administration window.

Import Items

When importing Items you will first be asked if the database you are importing the Items into has the Resources used by these Items, and also a similar question for Variables. You are also given the option of importing the required Resources and/or Variables first. If the database you are importing your Items into does not contain the Resources/Variables used by the Items then it will generate an error message for you – it will still import the Items, however, the costs may not be the same as expect.

Set up Microsoft Word Templates

The Microsoft Word® Template function in Benchmark provides users with the power to set up their own Quote Report Templates. These templates can then be utilised when producing a Quote to a client.

Create Microsoft Word Templates

Benchmark provides you with the option of exporting your Quotes to Microsoft Word. These Quotes are based on Templates that you can set up to suit your business. You can have one or many templates as required. For example, you may have one template for Lump Sum tenders and a different one for Schedule of Rates contract submissions.

When you are generating your Word Quote from within a Project you select the appropriate Template to use.

- Benchmark opens the selected Word Quote template and then populates the document with the relevant information from the estimate.
- Benchmark populates the word document by looking for *merge markers* in the template.
- When Benchmark creates a Word Quote for a Project, it will save the Quote in a folder called **Benchmark Documents**; Benchmark creates this folder in the directory above, where your default Word Quote Template is stored. For more information, refer to **Quote Defaults** (on page 297).

Create Microsoft Word Quote Templates

You can create your own Word Quote templates using a new Word document or by copying and modifying an existing Word document. When you select a Word Quote Template, you can choose from .doc, .docx and .docm file types.

You could copy and modify an existing Quote template that you may already have in Word. Open a Word document and use the tables of *merge markers* to assist you to create your own Word Quote template for use with Benchmark.

Project Fields from the Project Details window	
Merge Marker	Field location in Benchmark
<PROJECT_QUOTE_NUMBER>	Quote No field
<PROJECT_JOB_NUMBER>	Job No field
<PROJECT_TITLE>	Title field
<PROJECT_CLIENT_REFERENCE>	Analysis tab, Client Ref. Number field
<PROJECT_LOCATION>	Location field
<PROJECT_SUBURB>	Suburb field

Project Fields from the Project Details window	
Merge Marker	Field location in Benchmark
<PROJECT_DEPOT>	Depot field
<PROJECT_REGION>	Region field
<PROJECT_STATE>	State field
<PROJECT_SITE_TYPE>	Site Type field
<PROJECT_JOB_CATEGORY>	Job Category field
<PROJECT_ORGANISATION>	Organisation field
<PROJECT_TYPE>	Project Type field
<PROJECT_QUOTE_INTRODUCTION>	Quote Introduction field
<STANDARD_CONDITIONS>	Conditions Tab, Standard Conditions field
<SPECIAL_CONDITIONS>	Conditions Tab, Project Specific Conditions field
<PAYMENT_CONDITION>	Conditions Tab, Payment Term Conditions Description field.
<COMMENTS>	Comments Tab
<PROJECT_NOTES>	Notes button (opens the Project Notes window)
<PROJECT_SCOPE>	Notes button (opens the Project Notes window), Scope field.
<PROJECT_DELIVERABLES>	Notes button (opens the Project Notes window), Deliverables field.
<PROJECT_DOCUMENTATION>	Notes button (opens the Project Notes window), Documentation field.
<PROJECT_LEVEL_OF_ESTIMATE>	Project Data Tab, Estimate Level field
<PROJECT_VARIABLE_###>	Displays the quantity of Project Variable with Code 'VAR NAME' to two decimal places.
<PROJECT_CUSTOM_FIELD_###>	Displays the value of Project Custom Field 'FIELD NAME'.

Table 34: Merge Markers for Word Templates - Project Details

Client Fields from the Project Details window, Client Details Tab	
Merge Marker	Field location in Benchmark
<CLIENT_COMPANY>	Client field
<CLIENT_ADDRESS_FULL>	Address lines with Company, Town, State, Postcode (from Client Library)
<CLIENT_ADDRESS>	Address lines only (from Client Library)
<CLIENT_TOWN>	Town field (from Client Library)
<CLIENT_STATE>	State field (from Client Library)
<CLIENT_POSTCODE>	Postcode field (from Client Library)
<PROJECT_CLIENT_SALUTATION>	Salutation field
<PROJECT_CLIENT_CONTACT>	Contact field
<PROJECT_CLIENT_FIRST_NAME>	The first word in the Contact field
<PROJECT_CLIENT_PHONE>	Phone field
<PROJECT_CLIENT_EMAIL>	Email field
<PROJECT_CLIENT_FAX>	Fax field
<CLIENT_TITLE>	Title field (from Client Library)

Table 35: Merge Markers for Word Templates - Client Details

Estimator Fields	
For the Estimator selected in the Project Details window, Analysis tab, Estimator field. The details all come from the Estimator Library window.	
Merge Marker	Field location in Benchmark
<ESTIMATOR_CODE>	Details TAB, Code field
<ESTIMATOR_NAME>	Signature TAB, Name field
<ESTIMATOR_PHONE>	Signature TAB, Phone field
<ESTIMATOR_FAX>	Signature TAB, Fax field
<ESTIMATOR_MOBILE>	Signature TAB, Mobile field
<ESTIMATOR_REMARKS>	Signature TAB, Remarks field
<ESTIMATOR_CLOSE>	Signature TAB, Close field

Estimator Fields	
For the Estimator selected in the Project Details window, Analysis tab, Estimator field. The details all come from the Estimator Library window.	
Merge Marker	Field location in Benchmark
<ESTIMATOR_SIGNATURE>	Signature TAB, Signature field
<ESTIMATOR_POSITION>	Signature TAB, Position field
<ESTIMATOR_ADDRESS>	Signature TAB, Address field
<ESTIMATOR_EMAIL>	eMail TAB, eMail field

Table 36: Merge Markers for Word Templates - Estimator Details

For the person selected in the Project Details window, Analysis tab, Supervisor field. The details all come from the Estimator Library window.	
Merge Marker	Field location in Benchmark
<SUPERVISOR_CODE>	Details TAB, Code field
<SUPERVISOR_NAME>	Signature TAB, Name field
<SUPERVISOR_PHONE>	Signature TAB, Phone field
<SUPERVISOR_FAX>	Signature TAB, Fax field
<SUPERVISOR_MOBILE>	Signature TAB, Mobile field
<SUPERVISOR_REMARKS>	Signature TAB, Remarks field
<SUPERVISOR_CLOSE>	Signature TAB, Close field
<SUPERVISOR_SIGNATURE>	Signature TAB, Signature field
<SUPERVISOR_POSITION>	Signature TAB, Position field
<SUPERVISOR_ADDRESS>	Signature TAB, Address field
<SUPERVISOR_EMAIL>	eMail TAB, eMail field

Table 37: Merge Markers for Word Templates - Supervisor Details

Dates	
Merge Marker	Field location in Benchmark
<DATE_PRINTED>	The date the report is run (i.e. today's date).
<DATE_PRINTED_7D>	The date the report is run plus 7 days.

Dates	
Merge Marker	Field location in Benchmark
<DATE_PRINTED_14D>	The date the report is run plus 14 days.
<DATE_PRINTED_30D>	The date the report is run plus 30 days.
<DATE_PRINTED_3>	The date the report is run plus 91 days (3 months).
<DATE_PRINTED_6>	The date the report is run plus 182 days (6 months).
<DATE_AUTHORISED>	Analysis Tab, Approval Date field.
<DATE_CREATED>	Date field.

Merge Markers for Word Templates - Dates

Project Prices	
Merge Marker	Field location in Benchmark
<PROJECT_SUBMISSION_PRICE>	No currency symbol. Spread Price+ Provisional Sum
<PROJECT_SUBMISSION_PRICE_2DP>	Submission Price to two decimal points exclusive of GST
<PROJECT_SUBMISSION_PRICE_*##%>	This marker provides the ability to calculate a percentage of the project submission price and display it in the Word report that is generated. <PROJECT_SUBMISSION_PRICE_*10%> would calculate 10% of the submission price.
<PROJECT_TAX>	Total tax (same value as shown at the bottom of the tables)
<PROJECT_TOTAL_PRICE_TAX>	Total Project Price including Tax (same value as shown at the bottom of the tables)
<PROJECT_TOTAL_PRICE_TAX_*##%>	This marker provides the ability to calculate a percentage of the project submission price inclusive of tax and display it in the Word report that is generated. <PROJECT_TOTAL_PRICE_TAX_*25%> would calculate 25% of the submission price inclusive of Tax.

Project Prices	
Merge Marker	Field location in Benchmark
<PROJECT_SUBMISSION_PRICE_GST_2DP>	Submission Price to two decimal points inclusive of tax
<ITEM_GROUP_TOTAL_###>	<p>This marker provides the ability to calculate the total Submission Amount of Project Items for the specified Item Group and display it in Word report.</p> <p><ITEM_GROUP_TOTAL_GROUP_NAME> would display the total Submission Amount of Project Items with Item Group 'GROUP NAME'.</p>

Table 38: Merge Markers for Word Templates - Submission Price

Project Section	
Merge Marker	Field location in Benchmark
<SECTION_DESCRIPTION>	Description of the highlighted Section
<SECTION_SUBMISSION_PRICE>	Submission Price for the highlighted Section
<SECTION_TAX>	Tax for the highlighted Section
<SECTION_SUBMISSION_PRICE_TAX>	Submission Price including Tax for the highlighted Section

Table 39: Merge Markers for Word Templates - Section Details



Merge markers can also be placed in the header and/or footer of your document.

To change the font of the Benchmark data: change the font of the merge marker in your Word template.

Merge markers for Schedules of Items

The table below lists the merge markers which can be used for displaying the list of Sections and/or Items in your estimate.

Merge marker to insert into your word template	Section Description	Item Code	Item Description	Item Qty	Item Unit	Item Rate	Item Rate with Tax	Item Total	Item Total with Tax	Section Subtotal	Section Total with Tax	Project Total	Tax for Project	Project Total with Tax
Schedule of Quantities														
<SECT_ITEM_DQU_TOT AL>	✓		✓	✓	✓					✓		✓		
<SECT_ITEM_DQU_TOT AL_TAX>	✓		✓	✓	✓					✓		✓	✓	✓
<SECT_ITEM_CDQU_TOT AL>	✓	✓	✓	✓	✓					✓		✓		
<SECT_ITEM_CDQU_TOT AL_TAX>	✓	✓	✓	✓	✓					✓		✓	✓	✓
Schedule of Rates														
<SECT_ITEM_CDUR>	✓	✓	✓			✓	✓							
<SECT_ITEM_CDUR_TAX >	✓	✓	✓			✓			✓					
<SECT_ITEM_CDQUR>	✓	✓	✓	✓	✓	✓	✓							
<SECT_ITEM_CDQUR_TA X>	✓	✓	✓	✓	✓			✓						
<SECT_ITEM_DQUR_TO TAL>	✓		✓	✓	✓	✓	✓			✓		✓		
<SECT_ITEM_DQUR_TO TAL_TAX>	✓		✓	✓	✓	✓	✓			✓		✓	✓	✓
<SECT_ITEM_CDQUR_T OTAL>	✓	✓	✓	✓	✓	✓	✓			✓		✓		
<SECT_ITEM_CDQUR_T OTAL_TAX>	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓
<SECT_NO_TOTAL_ITEM _CDQURT_TOTAL_TAX>	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓

Merge marker to insert into your word template	Section Description	Item Code	Item Description	Item Qty	Item Unit	Item Rate	Item Rate with Tax	Item Total	Item Total with Tax	Section Subtotal	Section Total with Tax	Project Total	Tax for Project	Project Total with Tax
Section List														
<SECT_TOTAL>		✓								✓		✓		
<SECT_TOTAL_TAX>		✓								✓		✓	✓	✓
<SECT_TAX_TOTAL>		✓								✓				✓
Full Schedule														
<SECT_ITEM_CDQURTOTAL>		✓	✓	✓	✓	✓	✓		✓	✓		✓		
<SECT_ITEM_CDQURTOTAL_TAX>		✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
<SECT_ITEM_DQURTOTAL>		✓		✓	✓	✓	✓		✓	✓		✓		
<SECT_ITEM_DQURTOTAL_TAX>		✓		✓	✓	✓	✓		✓	✓		✓	✓	✓
<RATE_ONLY_CDUR>			✓	✓		✓	✓							
<RATE_ONLY_CDUR_TAX>			✓	✓		✓		✓						
<PROVISIONAL_ONLY_CDQURT>			✓	✓	✓	✓	✓	✓	✓					
<PROVISIONAL_ONLY_CDQURT_TAX>			✓	✓	✓	✓			✓	✓				
<SECT_ITEM>		✓		✓						✓				
<SECT_ITEM_VARIATION>		✓		✓				✓	✓	✓		✓	✓	✓

Merge marker to insert into your word template	Section Description	Item Code	Item Description	Item Qty	Item Unit	Item Rate	Item Rate with Tax	Item Total	Item Total with Tax	Section Subtotal	Section Total with Tax	Project Total	Tax for Project	Project Total with Tax
Schedules for individual Section in a Project														
<ITEM_CDQURT>		✓	✓	✓	✓	✓	✓	✓	✓					
<ITEM_CDQURT_TAX>		✓	✓	✓	✓	✓	✓	✓	✓		✓			
Composite Item Merge Markers														
<SECT_ITEM_CDQURT_C OMPTOTAL_CDQU>														
<SECT_ITEM_CDQURT_C OMPTOTAL_CDQU_TAX >														
<SECT_ITEM_DQURT_C OMPTOTAL_DQU>														
<SECT_ITEM_DQURT_C OMPTOTAL_DQU_TAX>														

Table 40: Word Template Merge Markers

Select a default Microsoft Word Quote Template

Once you have created a Word Template to use you can specify this as your default Template.

First, save this Template in a central folder on your server. We recommend that you create a folder called **Benchmark Word Templates** in the same folder that your Benchmark database is saved in, and save the Template in this folder.

To select a default Word Quote Template for your database:

1. From the **Administration** window, click on the **Quote Defaults** tab
2. Right-click and select **Edit**.
3. Click on the **Browse** button, located to the right of the **Default Word Quote Template** field.
4. Select the template that you want as a default for this database. Click on **Open**.

This template opens when selecting Quote → Default Word Template from the **Project Details** window. Even if you only have one Template you should select this Template as your default.

When you select Quote → Word Templates from the **Project Details** window, Benchmark will open this folder and ask the user to select from the templates in the folder.

Set up Regionalisation



Corporate edition only

Only the Benchmark Corporate edition contains the Regionalisation feature, that enables you to produce estimates which incorporate regional variations. These may be differences in *rates, contacts or administrative settings*.

The Regionalisation feature enables you to use *different prices in different Regions*. For example, a *Resource* in your **Resource Library** can have a *different price for each Region*. When an estimator prices a Project in *Region A*, Benchmark will automatically use the *prices for Region A*. This example only discusses *Resources*, but you can also configure other Benchmark Libraries like this. For more information, refer to **Libraries impacted by Regionalisation** (on page 426).

Regionalisation helps businesses who work across *multiple Regions* to have fewer sources of data, which results in improved efficiencies, easier data administration, improved business reporting and improved integration between Benchmark and other business systems.

The Regionalisation feature also allows businesses to improve the consistency and control of their estimating processes.

This chapter describes how to set up Regionalisation by following these steps:

1. **Set up Regions and database defaults** (see "**Set up Region**" on page 422).
2. **Assign each Estimator a default Region** (on page 424).
3. **Assign each Estimator Depot-specific Access permissions** (on page 425) according to their seniority and/or position.
4. **Set up your Resource Library for Regionalisation** (on page 426)
5. **Set up a Regionalised Item Library** (on page 430).
6. Set up other Libraries - **Libraries impacted by Regionalisation** (on page 426)

Set up Region

Geographical location is the most obvious definition of *Region*. Use definitions that best suit your business. Some examples are North, South, East and West; City and Rural; as a default such as Rest of Country with named areas specified such as London or Scotland; or in any format.

A *Region* could also be defined as a *business area* – perhaps different business areas use different *Resources*, or have *different pricing* due to *sourcing differences*.

Deciding how to structure your Regions is a critical decision to make during the Benchmark set up process.

Once you decide on your *Regions*, add your *Regions* in the **Codes** window. For more information, refer to **Set up Codes** (on page 284).



A user with access to the **Codes** window can add new *Regions* at any time. Once a *Region* has been *defined and used anywhere* (for example, assigned to an Estimator or used in the **Resource Library**) the *Region* cannot be deleted.

Set up Regionalisation Defaults

Administration settings are covered in **Customise Administration Settings** (on page 288). The key areas where the Regionalisation features are impacted are listed below:

- **Quote Defaults** – The Quote defaults can be varied by Region.
- **Quote Logo** – Different company logo(s) can be set for different Regions.
- **Extras and Spread** - User specified default Profit and Indirect Cost percentages can be varied by Region.
- **Budgets** – Used in the Forward Order Report, the budget Revenue for each Region can be set here.

There is also a checkbox called Fallback to Global Rate when Regional Rate is Zero on the General tab of the **Administration** window. Checking this acts as a fail-safe measure so that in the case where a *Depot-specific Resource* is used in a Project and has a *Rate of Zero*, the *GLOBAL (or default) Rate* is used.

Default Extras per Region

In the **Administration** window, Extras and Spread tab, check the checkbox Allow different Extras defaults per Region. For more information, refer to **Extras Screen Defaults** (on page 308)

The *Region* field in the **Project Details** window defines the *Region* for the *Project* and thus the *default Extras*.



Professional edition user only

This functionality already exists in the Corporate edition. Corporate, however, applies *Extras values by Region* as a *default* and does not, therefore, have the Administration checkbox referred to below. The information below is therefore only for users of the Professional edition who wish to set up and use this feature.

Set up Regions for your Estimators

You must complete these four steps in order to set up Default Extras per Region for your estimators:

1. Ensure you have Regions set up in your **Codes** window.

2. Enable the feature in [Administration](#) window, Extras and Spread tab; check the checkbox Allow different Extras defaults per Region.
3. Set the Extras Defaults. For more information, refer to [**Extras and Spread**](#) (on page 308).
4. Open the [Estimator Library](#) and assign a Region to every Estimator. For more information, refer to [**Set up Estimator Accounts**](#) (on page 335).

Impact of using Default Extras per Region

When you have set up Default Extras per Region your users will experience the following changes:

1. Whenever an Administrator adds a new Estimator (or edits an existing one) Benchmark will now check to ensure the Region field is filled in. This becomes a mandatory field now in the [Estimator Library](#).
2. When an Estimator adds a new Project, the Region field is filled in by default, with the Region assigned to the Estimator in the [Estimator Library](#).
3. When a user adds a new Project and when they select OK in the [Project Details](#) window, the default Extras values are applied to the Project based on the Region assigned to the Project and the default values in [Administration](#).
4. When a user edits a Project in the [Project Details](#) window and if they change the Region, they are presented with the following message asking them if they wish to apply new Extras values from the new Region.

Set up Estimators for Regionalisation

It is very important to ensure that Estimator account settings are set up for Regionalisation. By doing this you ensure users have access to information relevant to their estimating needs, and you also ensure that users without the appropriate authority cannot edit data in the Libraries that is outside of their Region.

The set up of User permissions for Regionalisation involves:

1. Assigning each Estimator a default Region, and
2. Setting access permissions for each Estimator to Libraries and Projects.

Assign each Estimator a default Region

Once the Regions have been set up in the [Codes](#) window, the next step in Regionalisation set up is to set a default Region for each User. Users are set up in the Estimator Library. For more information, refer to [**Set up Estimator Accounts**](#) (on page 335).

The Region selected for each User/Estimator is recommended to be the Region where the User does most of their estimating. The Estimator's Region field is used throughout the program as follows:

- **Adding a new Project** - All new Projects created by a User are set to the Estimator's Region by default. This means that all Resources used in a Project will use the Rate based on the Project's Region. The Project Region will also dictate which Items and Routines are available for the Estimator when pricing the Project.
- **Library data** – Estimators can be given access to certain Libraries in the Estimator Library. For more information, refer to ***Set up Estimator Accounts*** (on page 335). By default these Estimators can only see data relevant to their default Region.



Note: Some Estimators may be given permission to change the Region field when in a Project. For more information, refer to ***Assign each User Regional Access Permissions*** (see "***Assign each Estimator Depot-specific Access permissions***" on page 425).



Note: Some Users (this may be the System Administrator or *super-users*) can be given access to Library data for all Regions. For more information, refer to ***Assign each User Regional Access Permissions*** (see "***Assign each Estimator Depot-specific Access permissions***" on page 425).

Assign each Estimator Depot-specific Access permissions

After selecting a default Region for a User/Estimator, you are required to set the level of access the User has to both Libraries and Projects. This allows better control over the estimating process, recognizing differential levels of expertise.

Set up Depot-specific Library access

Users can be given access to all Region information for all Libraries or access to Libraries for the Estimators default Region. In the **Estimator Library** window, access levels can be set up for each Benchmark feature.

To set up Library access for Estimators to access all Regionalisation information you are required to set the *Display Library Data for All Region* access level to 1.

To restrict the User access to Libraries for the Estimators default region only you are required to set the *Display Library Data for All Region* access level to 0.

Set up Depot-specific Project access

Users can be given access to All Projects, Projects from one or more Regions or only Projects created by them or assigned to them. In the **Estimator Library**, you can set these Project Access levels in the Project Access Tab.

This setting for each Estimator will determine:

- Which Projects the Estimator has access to.
- In the **Project Browser** window, it will determine which Regions are listed under the Region field in the Find feature.

- When undertaking marketing data entry/analysis in the [Update Marketing Data](#) and [Project Analysis](#) windows respectively, this setting will dictate which projects can be edited and/or reported on.

Libraries impacted by Regionalisation

Regionalisation impacts on most of the Benchmark Libraries. In these affected Libraries, information (a record) can be saved and marked as either **Global** or as **Local** as defined below:

- A Global record is one that can be used in a Project in any Region.
- A Local record can only be used in a Project whose Region is the same as the Region of the Local record.

The Libraries impacted are as follows:

- **Resource Library** - It is in the Resource Library where the Regionalisation feature has most impact. In the Corporate Version a Resource can have one of three statuses:
 - **Global** – A Global Resource is one that is identical in all Regions.
 - **Local** – A Local Resource can only be seen or used in the Regions it is based.
 - **Depot-specific** – This type of Resource has an identical code/description in all Regions, but there can be a different Rate, Subcontractor/Supplier, Date Updated and Plugged status per Region.
- **Routine Library** – Routines can be marked as **Global** or **Local**.
- **Client Library** – Clients can be marked as **Global** or **Local**. This enables the easy access to the relevant Client's information, and for different addresses to be maintained for contacts from the same client in different Regions.
- **Subcontractor/Supplier Library** – Subcontractors and Suppliers can be marked as **Global** or **Local**. As for Clients, this enables the easy access to the relevant Subcontractor/Supplier's information. It also allows for Resources to be linked to the appropriate branch of a Supplier.
- **Conditions Library** – Conditions can be marked as **Global** or **Local** as different quote conditions may be relevant in different Regions.



Client Library Example

Client A may have a central contact point which is used by all your Estimators. They would be set up as a **Global** client in the Client Library. However, Client B may have different contact points in the North, South, East and West. In this case, each contact point would be set up in the Client Library and each office set as a Local Client, with the appropriate Region.

Set up your Resource Library for Regionalisation

Resource Rates are fundamental to any Estimate, and so it is in the Resource Library where the Regionalisation feature has the most impact. In the Corporate Version a Resource can have one of three statuses:

Global – A Global Resource is one that is identical in all Regions. This is the default state of a new Resource added by an Estimator with access to all Regions. A Global Resource can be used in all Projects, added to all types of Items and Routines and is available to all users when preparing an estimate.

Local – A Local Resource can only be seen or used in the Region it is based. This is the only available state of a new Resource added by an Estimator without access to all Regions. Local Resources that belong to Region A, for example, can only be added to Projects being constructed in Region A and Local Items/Routines that are specific to Region A.

Depot-specific – This type of Resource has an identical code/description in all Regions, but there can be a different Rate, Subcontractor/Supplier, Date Updated and Plugged status per Region. When this Resource is used in a Project the Rate used is the Rate applicable to the Project's Region. A Depot-specific Resource can be used in all Projects and added to all types of Items and Routines.

There two ways to set up your Resources for use with Regionalisation:

1. Importing Resources from Microsoft Excel
2. Adding or editing Resources within the Resource Library.

Add and Edit Region Resources in the Resource Library

Estimators can *add, edit and delete Resources in the Benchmark Resource Library*. When you create a *Resource* in Benchmark you must decide which Regions the Resource can be used in and check the appropriate checkbox.

- A *Local Resource* is only available in a *single Region and can not be used for any Project in any other Region*.
- A *Depot-specific Resources* may be used in different *Regions* and may have different prices for each *Region*.
- A *Global Resource* is available to *all Regions and uses a one*. Select the *Region* or select *Global*.



Figure 193: Resource Regional Options

For estimators who do not have access to Library data in all *Regions*, the new Resource is a **Local** Resource defaulted to their assigned *Region*.

Estimators with access to Library data in all *Regions* must select the *Region* status. The new Resource, in this case, defaults to **Global**. The Estimator can leave this or select **Depot-specific** or **Local**.

If the Resource created is **Depot-specific** then it should be defined as usual. Once the Resource has been created, the **Region Data** box is highlighted. Clicking on this gives the range of rates (and other data) for the different Regions. An example of this is shown in the image below.

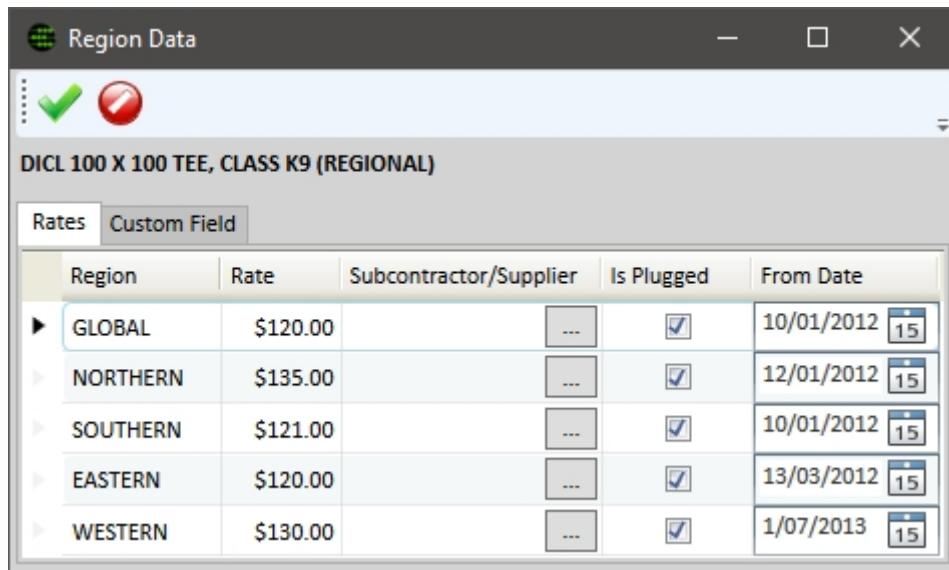


Figure 194: Resource Region Rates

The data in this window can then be amended for all *Regions*. The GLOBAL rate shown is the default rate and is used to populate the table initially. The GLOBAL rate is a default value that can be used as a fail-safe measure for Depot-specific Resources – additional information related to this setting is covered in **General Options** (on page 290).

Import Resources from Microsoft Excel

Benchmark provides a feature to import Resources from Microsoft Excel. This provides users with an alternative to adding/editing Resources in the Resource Library. This is often used during the set up and implementation process or when large numbers of Resources are required to be imported or updated.

The figure below is an example of a Resource exported to Microsoft Excel from Benchmark. Exporting at least one Resource from your Resource Library is recommended in order to obtain the required file format. For more information, refer to **Export or Import Libraries** (on page 402). In this figure you can see there are Regions set up for Northern through to Western, and for each Region there is a regional specific rate.

A	B	C	D	E	F	G	H	I	J	
1	META	META	META	[DATA TYPE]	Code	Description	Rate	DateUpdate	Crewsize	IsPlugged
2	d:ResourceLibraryDor	ResourceLibrary	100*100T	DICL 100 X 100 TEE, CLA	120.00	10/01/2012	0.00	TRUE		
3	c:ResourceRateList	ResourceLibraryRateD	[DATA TYPE]		Resource	RegionId	RangeId	Rate		
4		d:ResourceLibraryRateDomain	ResourceLibraryRate	100*100T	NORTHERN			135.00		
5		d:ResourceLibraryRateDomain	ResourceLibraryRate	100*100T	SOUTHERN			121.00		
6		d:ResourceLibraryRateDomain	ResourceLibraryRate	100*100T	EASTERN			120.00		
7		d:ResourceLibraryRateDomain	ResourceLibraryRate	100*100T	WESTERN			130.00		

You could duplicate the lines above and enter new information to create new Regional Resources for importing into Benchmark.

To insert a Global resource, the same principle applies, except that all Regions will have the same Rate and the Region Scope in Column AL, must be set to '*AllRegion*'.

To insert a *Local resource*, the same principle applies, except that all Regions will have the same Rate and the Region Scope in Column AL, must be set to *RegionSpecific*. A Region must be entered in the RegionId Column (Region entered must already be one of the Regions that exist in the Codes window).

To insert a Regional resource, the Region Scope must be set to '*Regional*'. For regional resources, additional rows should be added for each region. It is recommended that you create a resource in the Resource Library and set this Resource to regional. You can then export this resource to get the required formatting for regional resources.

Set up a Regionalised Item Library

In Benchmark's Item library, users create predefined Items for use in Projects. Regionalisation effects the Resources within Items and can result in changes in Item costs per Region.

Items in the Item Library can be one of two types when using Regionalisation:

- **Local** Items – This type of Item can only be used in Projects that are constructed in the Region assigned to the Item. You may do this if the Item is only provided in a particular Region, or if your method of construction varies significantly in different Regions. To create a Local Item you check the *Local* checkbox and select the Region.
- **Global** Items – A Global Item can be used in any Region. To create a Global Item you do not check the *Local* checkbox, so it is just like adding a normal Item.



Global Items

When a Global Item is created using Regionalisation, behind the scenes the system actually creates and stores in the database an Item for every Region in the database. If you have 20 Regions therefore and create a new Global Item, you are effectively creating 20 new Items in the system in one operation. Each Item, however, can have different Costs dependent on the Resources that are added to it.

Add Resources to Items in the Item Library

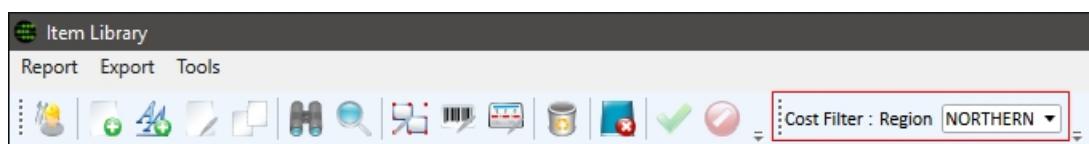
When you are creating Items in the Item Library and using Regionalisation, some simple rules are applied when adding Resources to Items. These rules are:

- **When creating Local Items** – All three types of Resources can be used : Global, Depot-specific and Local Resources from the same Region as the Item.
- **When creating Global Items** - Global and Depot-specific Resources can only be used when creating a Global Item.

Item Cost Filter

In the Item library a user with access to view Library data in all Regions can view the Item costs for a different Region by selecting a different Region in the Item Cost Filter.

This will change the rates used for all Depot-specific Resources to the selected Region rates. So if a Resources rate for the Northern Region is \$10.00 and Southern Region is \$8.00, and the user changes the Item Cost filter to Southern, then the costs for Items which contain this Resource will change to reflect this.



Part Four - Template Projects

Template Projects

Template Projects as the name suggests allows you to setup project templates. These Templates can be setup per client or per project or however you would like. The templates can also be used as a source of items when adding an item from existing Projects. For more information, refer to **Add Items from existing Projects** (on page 101).

Template Projects is an *Add-On module* and must be purchased from Benchmark. Please contact sales@BenchmarkEstimating.com (<mailto:sales@BenchmarkEstimating.com>) if you are interested in the Template Projects Add-On module.

This sections documents:

- The **Template Project Library** window
- Information on Template Project analysis data
- How to create and manage Template Projects
- How to create a new Project based on a Template
- How to restrict access to the **Template Project Library**
- How to use the Item and Resource data in Template Projects within other projects, and
- Information about the reports modified which will not show Template Projects.

Create and manage Templates

The **Template Project Library** lists all your existing templates and lists the number of projects that have been derived from them. Users must have access to the **Template Project Library** to create and manage templates. This access is set up in the **Estimator Library**. For more information, refer to **Set up Estimator Accounts** (on page 335).

To create a Template Project:

1. Click the Libraries menu at the top of the window and select Template Project.
2. In the **Template Project Library** right click and select Add.

The **Project Details** window will open.

3. Enter the Project information as required.
4. Right click and select OK.



Project Template Checkbox

In the Project Details window, there is a check box that indicates if the current project is a Template Project.

To edit a Template Project:

1. Click the Libraries menu at the top of the window and select Template Project.
2. In the **Template Project Library** right click and select Edit.

The **Project Details** window will open showing the selected Projects details.

3. Modify the project details as required.
4. Right click and select OK.

You can also make changes to Section, Item and Resource as required.

Marking an existing Project as a Template Project:

1. Open an existing *normal* Project from the **Project Browser** window (or add a new normal Project)
2. Right click and select Edit
3. Check the Template Project checkbox.
4. Right click and select OK.



Template Projects

Template Projects are not shown in the list of Projects in the Project Browser and are not included in marketing reports.

Depending on your own circumstance, you may want to consider duplicating an existing Project first before converting it to a template.

Control access to the Template Project Library

The Template Project Library access level setting in the Estimator Library determines whether an estimator has access to the **Template Project Library**. Select the estimator and set the Template Project Library access level to Read, Edit, Add to allow them to create and edit templates.

Only estimators with at least *Read, Edit, Add* access to the **Template Project Library** can create new Template Projects. This includes converting an existing project to a Template Project.

Create a Project from a Template

There are three windows where you can create a new Project from a template Project using Add Project from Template, these include:

- Selecting Add Project from Template from the context menu in the **Project Details** window, or
- Assuming you have at least Read-Only access to the **Template Project Library**, you can open this library, select a template and click Add Project from Template, or.
- Selecting Add Project from Template from the context menu in the **Project Browser** window, or from the icon in the toolbar.

To create a Project from a Template Project:

1. In the **Project Browser** window, right click and select Add Project from Template.
2. You will be prompted to select the template in the **Select Template Project** window.

3. Highlight the template project you wish to use and click **Select**.

The **Project Details** window is displayed for the new project created from the template, in *edit mode*.

4. Edit the fields required and select **OK**.

The new project is created by duplicating the template including any underlying data (Section, Items, Resources, etc.). You can then edit your new Project as required.

Template Project analysis data

When a Project has been created based on a Template Project, Benchmark will record additional information in the Project Details window Analysis tab. This additional information includes the Quote number of the Template Project. This is then used by Benchmark to calculate the number of projects created from each template.

Control Template Project data and processes

In the **Administration** window are three options to control how Template Projects function within your business:

- Define which fields from the Template Project will be cleared when the new Project is created.
- Prevent estimators from adding Projects from Templates for regions they don't have access to.
- Define where users can Add/Allocate/Auto Allocate Items from:
 - Templates Only
 - Projects Only
 - Templates and Projects

Clear data fields

In the **Administration** window, you can nominate which fields will be cleared when using the Add Project from Template feature. For more information, refer to **Template Projects** (on page 331).

For example, your Template project may have the title *Template Subdivision project*. If you want users to enter a new *Project Title*, you can elect to clear the *Project Description* field.

Regional access for "Add Project from Template"

If you use the Benchmark *Corporate* edition, you can control which Template Projects a user can select from, according to the Regions they have access to. You can allow estimators to select any Template Project or restrict them to only select Template Projects from their permitted regions (as configured in the Estimator Library. For more information, refer to **Set up Estimators for Regionalisation** (on page 424)).

Use Item data from Template Projects

You can reuse the *Item data* from Template Projects in *normal* Projects. You can use the Template Project data with the following list of features:

- Add Item from Project or Template Project,
- Allocate Resources from Project or Template Project Item, and
- Auto Allocate from Project or Template Project.

[^] **Note:** When you are using Template Projects, some *feature names* are altered. For example, Auto Allocate from Project becomes Auto Allocate from Project or Template Project.

In the [Project Selection](#) window, you will now see a new filter function as shown below. This allows you to easily control the list of Projects to select from when using the above functions. The Administration options in the Template Projects Tab. These options allows you to limit the Projects a user can add/allocate from, to *Templates Only*, *normal Projects Only*, or both *Templates and Projects*. For more information, refer to [Template Projects](#) (on page 331).

Default Project duplication settings

When you duplicate a template project, Benchmark duplicates the template Project following the same logic/business rules as if a normal Project was duplicated. During duplication of a template project, however, default duplication options are automatically applied.

Default duplication options are:

Option	Default setting applied during duplication of Template Project
Duplicated Project is a new Job/Quote	A Project duplicated from a Template will always be treated as a new Quote; its Quote No will always be the next one in the system, and the incremental duplicates numbering system will not be applied.
Link Duplicated project for Market Share analysis	For Market Share Analysis, a Project duplicated from a Template will not be linked back to the Template Project from which it originated. The system does maintain a link between the Template Project and all Projects which are derived from it. For more information, refer to Template Project analysis data (on page 435).
Retain Job Number details for duplicated Project	A Project duplicated from a Template will always have its Job Number field cleared.
Enable Forecast Quantities in duplicated project	A Project duplicated from a Template will always have its Forecast Quantities status reset to false.

Option	Default setting applied during duplication of Template Project
Calculate Item Submission Rates/Amounts based on Resource Category or Group values	This option is not applicable during duplication of a Template Project. A Project duplicated from a Template will therefore have its Item Submission Rates calculated based on the same Spread algorithm as the original Template Project.
Retain Resource Rates in duplicated project	This option is not applicable during duplication of a Template Project. Linked Resources will always be updated from the Resource Library when a Project is created from a Template Project.
Re-link and update all unlinked Resources in the duplicated Project from the Resource Library	This option is not applicable during duplication of a Template Project. Unlinked Resources will remain unlinked.
Apply percent increase to Submission Rates	This option is not applicable during duplication of a Template Project. A Project duplicated from a Template will not have any percentage applied to Submission Rates.
Duplicate Progress Claims	This option is not applicable during duplication of a Template Project. If the Template Project has Progress Claims they will not be duplicated.
Duplicate On-Screen Takeoff links	This option is not applicable during duplication of a Template Project. If the Template Project has links to an OST bid they will not be duplicated.
Duplicate Project and Item Documents	If a Template Project has Project or Item Documents linked/attached, these records are duplicated. The additional duplicate option <i>Create copy of attached files</i> is the default so that any <i>attached</i> documents are copied rather than referenced by a hyperlink.

Table 41: Table : Default Project duplication settings

^ All these options are the same ones that can be applied when duplicating a normal Project. Additionally, all these options are not always relevant to each user, and some also depend on your company's configuration of Benchmark.

Reports that exclude Template Projects

All Marketing graphs and reports exclude *Template Projects*. These comprise the following graphs/reports accessed from **MY Benchmark** or the **Project Analysis** window:

- Won/Lost/Pending
- Won/Lost/Pending by Region
- Won/Lost/Pending by Project Type

- Won/Lost/Pending by Client Type
- Reason For Loss
- Reason For Loss by Region
- Reason For Loss by Project Type
- Reason For Loss by Client Type
- Competitor
- Competitor by Region
- Competitor by Project Type
- Competitor by Client Type, and
- Forward Order.

The Marketing information is shown in the [Update Marketing Data](#) window and also the My Data panel of [MY Benchmark](#) both exclude Template projects.

Other management reports which analyse information across all projects also exclude *Template Projects*. These reports, all accessed from the [Project Browser](#), comprise:

- Listed Projects
- Approved Projects
- Pending Projects
- Won Projects
- Lost Projects
- Status and Approval Dates
- Project Details Spreadsheet
- Follow Up Summary
- Projects by Estimator
- Projects by Estimator (Detailed)
- Winner Not Registered , Quote >= 60
- Winner Not Registered , Quote >= 30
- Won / Lost / Expired
- Service Level KPI
- Excel Items By Key
- Items By Market Share To Excel, and
- Progress Claim Summary.

Part Five - Multi- Currency

Use Multiple Currencies

The Multi-Currency feature includes:

1. A wizard to enable Multi-Currency in a database
2. The ability to nominate your *base currency* for your database
3. The ability to setup and maintain *additional currencies* including *exchange rates* and *currency formats*
4. The ability to create a Resource with an associated currency in the [Resource Library](#) and in a Project
5. The ability for a user to nominate *Resource-specific exchange rates* for cases where you have contracted exchange rates with certain Suppliers
6. The ability for a user to *adjust exchange rates* to suit a particular bid; you may do this to make your bid more competitive and/or reflect the forecast fluctuation in exchange rates
7. Additional estimator access levels, and
8. Additional reports and improved reports.

Multi-Currency settings can be reviewed and setup in the [Administration Tax System](#) and [Currency](#) tab. For more information, refer to [**Multi-Currency Settings**](#) (on page 306).



Multi Currency Addon

The Multi-Currency feature is not available in the Lite edition. It is available as an Add-on to the Professional and Corporate editions. Please contact sales@BenchmarkEstimating.com (<mailto:sales@BenchmarkEstimating.com>) if you are interested in the Multi-Currency module.

Multi-Currency Key terminology

Term	Description
Base Currency	The main Currency you work in; this is also the Currency of your default Region that you set up in the Administration window.
Currency Resource	A Resource that has a Currency different to your Base Currency
Non Currency Resource	A normal Resource that is in your Base Currency.

Term	Description
Locked Exchange Rate	An Exchange Rate can be locked or left unlocked: <ul style="list-style-type: none"> ➤ In the Resource Library a Locked exchange rate means that the exchange rate is locked to the default value stored in the Administration window ➤ In a Project, a Locked exchange rate means that the exchange rate is locked to the value stored in the Currency Settings window, and ➤ A Resource with an Unlocked exchange rate means that the exchange rate for this Resource is specific to the Resource.

Set up Multi-Currency and Estimator permissions



Read this before enabling Multi Currency:

1. There is no option to reverse or remove Multi-Currency from a database once enabled.
2. Select your *Region* (and thus *Base Currency*) carefully. Once you nominate a *Base Currency* and complete the *Multi-Currency* wizard, you can only change your *Region* to one that has a matching currency.

Enable a database for Multi-Currency

To enable Multi-Currency we have introduced a wizard via the File → Utilities menu, called Enable this database for Multi-Currency. This wizard can only be run if the logged in user is a Benchmark Administrator. For more information, refer to [Set up Estimator Accounts](#) (on page 335).

As well as enabling your database for Multi-Currency, this wizard will invite you to confirm various important settings including your Region and your Base Currency for the database.

To enable *Multi Currency* for your Database:

1. Select the File menu, then select Utilities and Enable this database for Multi-Currency.
2. Answer Yes, to the confirmation prompt/
3. Select your Region and in doing so select your *Base Currency*.
4. Click Next to accept your region and base currency.
5. Select Add and select a Currency Code, enter the default exchange rate and override any currency formatting settings as required (Add at least one currency).

6. Once you have set up at least one Currency select the Complete Multi-Currency set-up.



Currencies

Once you add a Currency there is no option to delete it or to disable it. Please ensure you only add the Currencies you will be working with.

You can edit the exchange rates and formatting settings in the [Administration](#) window, Tax System and Currency Tab. For more information, refer to [**Multi-Currency Settings**](#) (on page 306).

Set up new currencies within Benchmark

After Multi-Currency is enabled, the Tax system and Currency tab in [Administration](#) shows a new Multi-Currency Settings section. Here you can *add additional currencies* at any time and *Maintain existing ones*.

For more information, refer to [**Tax System and Currency**](#) (on page 303).

Project Reports with multiple currencies

The following reports show additional currency data:

- Project Review
- Project Summary
- All Resources by Group reports, and
- All Resources by Item reports.

Multi-Currency estimator access levels

Two additional *access levels* have been included in the [Estimator Library](#) for companies using the Multi-Currency feature. We recommend that you edit each of your users to give them the appropriate permissions.

The multi currency access levels are:

1. *Multi-Currency – Adjust Exchange Rates within Project Exchange Rates* window; if enabled this allows the estimator to change the exchange rate over the *entire project for each currency*.
2. *Multi-Currency – Unlock Exchange Rate for an individual Resource in a Project*; if enabled this allows the estimator to *change the exchange rate Locked flag* so they can *alter the exchange rate for an individual resource*.

For more information, refer to [**Set up Estimator Accounts**](#) (on page 335).

Direct Costs, Submission Rates, and Multi-Currency

When you first add a Project the *default exchange rate* values will be loaded into the Project from the [Administration](#) window. Each Project maintains its own list of *exchange rates*.

As an estimator builds an estimate:

- the rate of all Currency Resources with locked exchange rates will be automatically recalculated based on the value of the exchange rate in the [Project Currency Settings](#) window, and
- for Resources with unlocked exchange rates, they will be added to a Project based on their specific exchange rate value.

At any time in the estimating process, and assuming you have the estimator access level permission, you can modify the Project exchange rate values. When you do this it will automatically update the exchange rate and the resultant Rate (in base currency) of all Currency Resources in the Project with Locked exchange rates.

Project Currency Settings Window

The [Project Currency Settings](#) window allows the estimator to view and analyse the total cost breakdown by *Currency* for a Project.

More importantly, it also allows the Estimator to *amend the exchange rates* for the currencies used in the Project.

To open the [Project Currency Settings](#) window and *edit an exchange rate*:

1. Open the [Project Currency Settings](#) window. You can do this:
 - From the [Project Details](#) window, right click and select **Currency Settings**, or
 - Click on the **Exchange Rates** icon, or
 - From the [Project Sections/Items/Resources/Sub Items](#) windows, right click and select **Go To → Currency Settings**
2. Right click and select **Edit** (note that the logged in user must have the appropriate access privileges to edit this window. For more information, refer to [Library and Feature Permissions](#) (on page 337)).
3. The New Exchange Rates column will now be in *edit mode* and the user can edit *the cells highlighted in yellow*. Note that the first currency displayed will be your Base Currency.
4. Enter your new exchange rates.
5. **Note:** When you press TAB or click out of one of the input cells, the new exchange rate will be applied and you will be able to see the impact of this change before committing it.
6. Click **OK** to accept/commit the new exchange rates.

When you do this Benchmark will automatically update the relevant Currency Resources in the Project which have a Locked Exchange Rate. Note this will update Resources in both complete and incomplete Project Items.

When you close the [Project Currency Settings](#) window, Benchmark automatically recalculates the Project's submission price.

Project Resources and Project Sub Item Window

The following currency fields have been created at the Resource level in a Project.

Field name/checkbox	Description
Currency	When checked, this checkbox will enable all other currency fields and will also change the behaviour of the Rate field as follows: <ul style="list-style-type: none"> ➤ The Rate field for a currency resource becomes a calculation of the values in the Exchange Rate and Currency Rate fields, and ➤ The Rate field becomes dimmed when the Currency checkbox is checked.
Currency (Code)	A drop-down selection of all currencies as setup in the Administration window.
Currency Rate	This is the Resource's Rate in the selected Currency (Code).
Exchange Rate	This is the exchange rate for the selected Currency. When the Locked checkbox is not cleared then the exchange rate can be amended to be specific to the Resource.
Locked	In a Project, a Locked exchange rate means that the exchange rate is locked to the value in the Project Exchange Rates window.

Add a Currency Resource to a Project

When you add a currency resource to a project by any means, and if the Exchange Rate is Locked:

- The Resource will be unlinked from the [Resource Library](#)
- The Exchange Rate will be automatically updated to what is stored in the [Project Currency Settings](#) window, and
- The Rate for the Resource will be recalculated and the Project cost updated.

If the Exchange Rate is not Locked, the Exchange Rate will be added to the Project at its appropriate value following normal Benchmark business rules.



Linked and Locked

A Currency Resource with a Locked Exchange Rate cannot be linked to the Library; this is because its exchange rate (and therefore Rate) will be dictated by the value in the [Project Currency Settings](#) window.

A Currency Resource which does not have a Locked exchange rate can be Linked to the Library.

Edit a Currency Resource

A Resource must be unlinked from the [Resource Library](#) to edit the Currency values. Once the Resource is unlinked, estimators with the appropriate permission can unlock and edit the Exchange Rate for the Resource.

To Edit a Currency Resource:

1. In the [Project Resource](#) Window, or [Project Sub-Item Resource](#) window, select a Resource from the list of Resources.
2. Right click and select Edit.
3. If your Resources is linked to the RSource Library; un-check the Linked check box.
4. You can:
 - Edit the Currency Code,
 - Edit the Currency Rate.
 - Unlock and edit the Exchange Rate. (requires permission. For more information, refer to [Library and Feature Permissions](#) (on page 337)).
5. Right click and select OK.

Item Library Rates

Note that the rates in your [Item Library](#) are all displayed in your *Base Currency*. The [Item Library Resource](#) window displays *currency data* in additional columns.

Line	Code	Description	Category	Quantity	Unit	Rate	Cost	CrewSize	Currency Rate	Currency	Exchange Rate
1		PREPARE AREA INCLUDING ANY MINOR DEMOLITION,	TEXT								
2	BOLLARDSDEMOUNT	BOLLARDS - STREET FURNITURE (B2) DEMOUNTABLE	MATERIALS	1.00	Each	\$348.40	\$348.40	0.00	US\$260.00	USD	1.34000
3	MONETARYALLOWANCE	MONETARY ALLOWANCE	MATERIALS	20.00	S	\$1.00	\$20.00	0.00			
4	CARPENTER	CARPENTER	LABOUR	4.00	Hours	\$50.00	\$200.00	0.00			
5	LAB	LABOURER	LABOUR	4.00	Hours	\$45.00	\$180.00	0.00			

Figure 195: Item Library Resources - Currency Columns

Exchange Rates in duplicated Projects

When you use the Duplicate Project feature you can control whether Exchange Rates are to be updated in the duplicated Project.

If you select this option, the exchange rates in the [Project Currency Settings](#) window for the duplicated Project will be updated and Currency Resources with Locked exchange rates will also be updated.

Cost Check

When Multi-Currency is enabled and you use the Cost Check feature (For more information, refer to [Cost Check \(Resource Rates\)](#) (see "Cost Check (Resource Rates)" on page 259)), it uses the Currency Rate value when comparing Currency Resources, not the normal Rate value.

Project Currency Analysis Report

The Project Currency Analysis report summarises the total costs of each currency in your project and also provides a detailed list of all the Currency Resources in your project.

Access this from the [Project Details](#) window, Report → Project Total → Resources → Currency Analysis.

Part Six - Integrate with other applications

Export to Workbench

Benchmark contains an Export to Workbench which creates .csv files ready for import into Workbench project management software. This feature is designed to transfer the budget data from Benchmark to Workbench for a *won* project.

These instructions are not designed to provide detailed information on how to use each piece of software, rather they are focused on the main elements required to setup Benchmark and create the export to Workbench. Where required, some important elements will be expanded on, but we assume you have an intermediate level of knowledge in Benchmark Estimating Software and Workbench.

WorkBench Cost Codes

When you win a project that you have quoted in Benchmark Estimating Software, you now need to assign the appropriate *Cost Codes* to the Project *Items*. *Only then can you create the export to Workbench*. For more information, refer to **Assign Cost Codes within a Project** (on page 226)



Composite Items

This feature is not supported in Workbench. This is not an issue for the Export to Workbench as long as you follow these guidelines below.

Each *Composite Item* that is at the 1st level (i.e. the *Composite Item* appears in your *Quote*) requires a *Cost Code*.

Every *Item* beneath a 1st level *Composite Item* will have its *Resources* expanded and exported underneath that *Composite Item*.

To assign a Cost Code to a Composite Item:

- Select one or more 1st level *Composite Items* and select the Assign Cost Code function via the right click menu or from the toolbar Assign menu.
 - Alternatively, you can assign a Cost Code to the Section and this cost code will then be used by all the Items within the Section, including Composite Items
-



Missing Cost Code Report

The Items with Cost Codes report will show you which *Items/Composite Items* do and do not have a cost code. This may help you in ensuring that your *Cost Codes* are complete before exporting to Workbench.

To run the report:

1. In the **Project Details** window, select the Report menu
2. Select Project Total, then select Items.
3. Select Items with Cost Codes.

Create Workbench export files

After you have won a quote/project, and assigned your *Cost Codes*, you can export it to Workbench. To create the Workbench export files, open the **Project Details** window and select Report → Job Costing → Export to Workbench. A .csv file will be created for each *Direct Cost Section* (so if you have 20 Sections you will get 20 csv files). This occurs because Workbench can only import one at a time.

Import files into Workbench

Within your Workbench Project:

1. Create a *Cost Sheet* for each Benchmark *Direct Cost Section* (if you haven't done so already)
2. Import the matching csv file (that Benchmark has created) for every *Cost Sheet*. You will note that Benchmark names each csv file with the *Section name* to help you import the appropriate csv file into the correct *Cost Sheet*.

If you need assistance, refer to *Workbench documentation* on how to do any of the steps above.

Maintain the integration



If you change Workbench codes

If you modify your Cost Codes in Workbench, you must remember to make the same changes within Benchmark Estimating Software.

Resource data mapping details

A key rule used in this export file to Workbench relates to how Resources are classified and *mapped* between the two systems. This table below explains this mapping and is provided for your information:

Benchmark Resource Category	Workbench Line Type
LABOUR	L
MATERIAL	A
SUBCONTRACT	A
PLANT	P

Here are details about how each row in the export is formed:

Column	Heading	Data Type	Data Length	Required	Data Exported by Benchmark
1	Schedule Code	text	20	Y	Sequential Number of the Item within the Section
2	Schedule Description	text	100		Project Item Description
3	Quantity	number		Y	Project Item Quantity
4	Unit	text	10		Project Item Unit
5	Sell Rate	number		Y	Project Item Submit Rate
6	Line Reference	number			Project Item Line Number
7	Schedule Work Centre Code	text	10	Y	Project Item Cost Code
8	Process Flag	text	2		blank
9	Header Code	text	20		Project Quote Number
10	Details	text	2000		Project Item Description
11	Line Type	text	1	Y	Project Resource Category Abbreviation L,A, or P.
12	Line Code	text	20		blank
13	Activity Code	text	10	Y	Project Resource Code

Column	Heading	Data Type	Data Length	Required	Data Exported by Benchmark
14	Work Centre Code	text	10		Project Resource Cost Code
15	Employee Class Code	text	10		blank
16	Rate Code	text	10		blank
17	Line Description	text	50		Project Resource Description
18	Line Process Flag	text	20		Blank
19	Line Quantity	number			Project Resource Quantity
20	Cost Rate	number		Y	Project Resource Rate
21	Line Details	text	2000		Project Resource Text

LDAP Integration

You can integrate your Benchmark database(s) with a *Lightweight Directory Access Protocol (LDAP)* server. This increases the security over your Benchmark database(s) and it also means that your estimators do not need to enter their login code or password.



LDAP Setup

It is strongly recommended that you set up LDAP in a test environment first to validate that the integration works in your environment.

The LDAP authentication process is very precise and if just one of the options is incorrect the login process may fail and may result in all users being unable to log in.

If you do not have a *Test Database* to use you can easily create one. For more information, refer to ***Back Up your Database*** (on page 280), For more information, refer to ***Working Offline*** (on page 272).

Supported LDAP systems

LDAP systems supported by Benchmark Estimating Software are:

1. Microsoft's Active Directory (AD)
2. Oracle Internet Directory (OID), and
3. Oracle Unified Directory (OUD).

You can use *any LDAP server* that is compatible with the supported network parameters.

LDAP setup process overview

There are five steps to setting up Benchmark with a LDAP server.

1. Each estimator in the **Estimator Library** must be set up with the *exact name of their Windows' user account*. Typically Windows' user accounts are managed within *Active Directory* for the network's domain.
 - a. If Oracle is being used then the *uids of the user accounts* need to be the *same as the windows user accounts*.
 - a. If *Active Directory* is used then the user accounts will already be setup in *Active Directory (AD)*.
2. The *LDAP Server's certificate* must be installed on each computer which has Benchmark installed.
3. Create a *Group* within your *LDAP server* and *add all users as members of that group* that are granted access to the Benchmark database(s).

4. Set up the *LDAP network settings* within the Benchmark database(s).
5. *Test* to ensure users can gain access to the database.

If you have *multiple Benchmark databases* you will need to *test and set up the LDAP integration in each database*.

Step 1 - Login Codes of Estimators in the Estimator Library

Within each Benchmark database(s) you have set up, you must ensure that the *Login Code* for each estimator corresponds to the *User logon name (username)* of their Windows computer (i.e. *DOMAIN\UserLogonName*). This means that you may need to edit the *Login Code* values for some or all of your Estimators within Benchmark's Estimator Library to match. For more information, refer to **Set up Estimator Accounts** (on page 335).

When setting up *LDAP* in your Test environment, we suggest you do this only for a few users for the purposes of the testing, however, when you are doing this in production you will need to do this for **all** Benchmark users.

Typically, within a corporate environment, *Active Directory* is used to manage these usernames within a company's network. This username will be used to validate that the user is valid within the *LDAP Server* and that the user has access to Benchmark. When using this *LDAP function* a user cannot enter a *Login Code* into the *Login* window, they will always open Benchmark using their *username*. When using *Oracle OUD/OID* the *uid* of the corresponding user within the *Oracle LDAP Server* must be *the same as the username*. (i.e. uid=Fred,ou=People,dc=example,dc=com).

Step 2 – Install the LDAP server's SSL certificate

Install the *LDAP server's SSL certificate* within the *Trusted Root Certification Authorities* folder within the *windows certificate manager* for each computer Benchmark is installed on. This must be the *exact certificate* that the *LDAP server* sends as part of the initial request as it will only succeed if the certificate received from the *LDAP server* can be validated *from a certificate within the computer's certificate store*.

To install a certificate:

1. Obtain the *certificate* from your IT Administrator or whoever is in charge of the *LDAP server*.
2. Double click on the certificate.
3. Click on the Install Certificate button.
4. Click on either Current User or Local Machine and click Next.
5. Click on Place all certificates in the following store and select Trusted Root Certification Authorities then click Next.
6. Click on Finish.

The message *The import was successful* should display.

Step 3 – Create a LDAP Group and assign users

Create or edit an existing group on your *LDAP server* (i.e. *Benchmark-Users*) and add all users which are to be granted access to the Benchmark database to that group. This group will need to be entered into the *LDAP Group* field in the [Integration Settings](#) window for each Benchmark database.

Step 4 – Enter the LDAP Integration settings for the Benchmark database

Setup the *LDAP integration settings* from within [Administration](#) — [Integration Settings](#) — [LDAP](#). Note that to access the *LDAP settings* in Benchmark you must have the following set up in the [Estimator Library](#):

- You must be a Benchmark Administrator, and
- Have the LDAP Administrator access level set to 1.

To enter your LDAP integration settings (the table on the following page will help):

1. Right click and select Edit.
2. Enter the *Server settings* and click Test Server Settings. Ensure the server connection works before proceeding.
3. Enter the *remaining settings*.
4. Set the *LDAP Status* to Active.
5. Right click and select OK.
6. Close the [Integration Settings](#) window.

Field name / checkbox	Description
LDAP Status	Check this checkbox to activate LDAP. Ensure you have tested all of the settings below with a copy of the database before activating LDAP, or you could be locked out of the database.
Use Password	Check this checkbox to require users to enter in their password to authenticate with the LDAP server. In most cases, this will be the Windows password that should be entered (when using LDAP integration the password in the Estimator Library is redundant). When this checkbox is cleared the user's name will only be required to authenticate and the user will have no option to enter a password. If valid they will simply be logged in using their Windows username.
Hostname URL	Enter the hostname of your LDAP server into this field. Ensure that the name does not contain the text "LDAP:\\" and only contains the name of the server. i.e. ldap.example.com, ad.example.com.

Field name / checkbox	Description
Port	Communication to the LDAP server always uses SSL so you must enter the port for SSL communication to your LDAP server. The default for AD and OID/OUD is 636.
Bind DN or User	<p>Into this field, enter an account name which has access to search the LDAP server for the user's name.</p> <p>For AD it will look like "Domain\username".</p> <p>For OID/OUD it will look like "cn=Directory Manager" or even "cn=service,ou=benchmark,dc=benchmarkestimating,dc=com"</p>
Bind Password	This is the password for the user account in Bind DN or User.
Test Server Settings	<p>The Test Server Settings button will only test that the following fields allow the system to search the LDAP server; it does not validate any specific user, that validation needs to be done in a copy of this database before officially activating LDAP.</p> <ul style="list-style-type: none"> • Hostname • Port • Bind DN or User • Bind Password <p>The test does not confirm that any of the other settings are correct. If the test is unsuccessful, fix the errors before proceeding.</p>
User Name Attribute	<p>Select the User Name Attribute for your LDAP server.</p> <ul style="list-style-type: none"> • AD uses sAMAccountName, and • OID/OUD uses uid.
User Base DN	<p>Enter the base domain name from where the search for the users should begin.</p> <ul style="list-style-type: none"> • For AD this should be in the form "cn=users,dc=benchmarkestimating,dc=com". • For OID/OUD this field could be in the form "ou=accessGroups,dc=benchmarkOracleLDAP,dc=com". <p>This field is required for AD but not for OID/OUD.</p>
Group	Into this field, enter the group that all users who have access to this Benchmark database will be in. i.e. "Benchmark-Users". This group name needs to match the one you have set up in your LDAP system.

Field name / checkbox	Description
Group Base DN	<p>Enter the base domain name from where the search for the group should begin.</p> <ul style="list-style-type: none"> • For AD this should be in the form "cn=users,dc=benchmarkestimating,dc=com". • For OID/OUD this field could be in the form "ou=accessGroups,dc=benchmarkOracleLDAP,dc=com". <p>This field is required for AD but not for OID/OUD.</p>
Member Attribute	<p>Select the member attribute for your LDAP server. Benchmark supports both member and <i>uniqueMember</i>.</p>

Step 5 – Ensure users can log in

Validate that the users can successfully log in to the Benchmark database with LDAP active. When using LDAP, the username field will not be editable but will default to the Windows or Oracle user. Ensure that users are able to login to the Database.

Troubleshooting LDAP integration

Below is a flow chart to illustrate the LDAP login process. If your login process fails, this flow chart may help diagnose which stage could be failing.

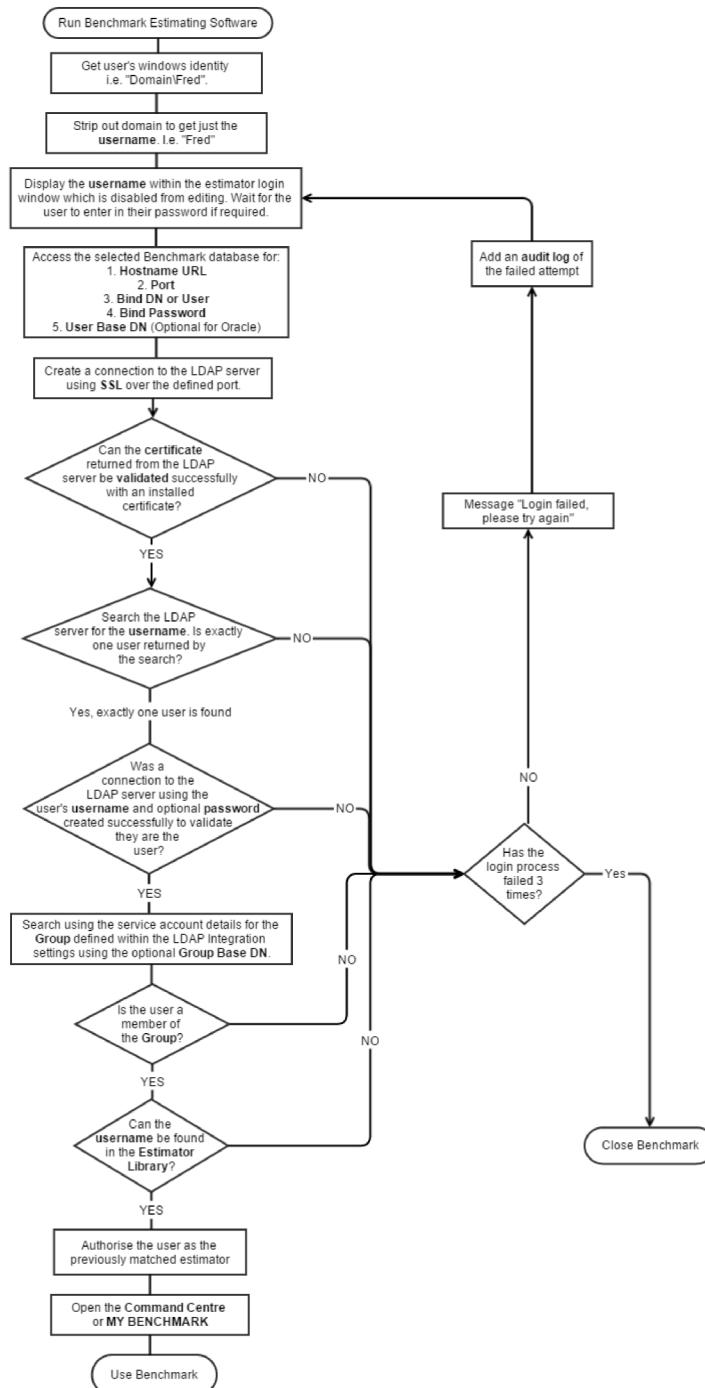


Figure 196: LDAP Troubleshooting Process

On-Screen Takeoff Integration

Benchmark Estimating is an authorised Integration Partner with On Center Software, developers of the quantity takeoff system On-Screen Takeoff (OST).

Benchmark includes an integration module which will:

1. Import a Bill of Quantities from an OST Bid into a Benchmark Estimating Software Project automatically.
2. Allow you to re-synchronise your Project (estimate) to the takeoff in your OST Bid so that any changes to the takeoff can be viewed in Benchmark, and your estimate updated automatically for you.

After you have imported your Bill of Quantities, you can use Benchmark's Auto Allocate feature to price the bill automatically.

Use On-Screen Takeoff Integration

You can access On-Screen Takeoff (OST) integration from the [Project Details](#) window.

1. To import your data from OST, on the menu bar select GoTo → Takeoff, then choose Import Quantities from On-Screen Takeoff.
2. You will then be prompted to select the Bid in OST that you wish to import from.
3. The next window will show you an overview of the information that can be imported into Benchmark from OST.
4. You will then be given the choice to import the data from OST by Area or by Condition
 - a. Area - will create sections in your Benchmark Project to match user-defined *Areas* in your OST bid.
 - b. Condition - will create sections in your Benchmark Project based on the standard *Condition Types* set up in OST (these are generally similar to Trades/Groups).

Viewpoint Integration

Benchmark Estimating Software includes an Export to Viewpoint feature which creates a comma delimited file (.csv) file ready for import into Viewpoint Vista using the generic import. This feature is designed to transfer the *cost data* from Benchmark to Viewpoint.

Setting up Cost Codes to match Viewpoint Phase Codes

Before you can use the Viewpoint Vista Export in Benchmark, you must ensure your Cost Codes are set up in Benchmark to match the *Phase codes* in Viewpoint Vista. This step is normally conducted by a Benchmark Administrator.

To set up Cost Codes:

1. Click on the menu option, Administration → Codes to display the **Codes** window
2. Select the *Code Type of Cost Code*
3. Add or Edit your Cost Codes to match your *Phases* in Viewpoint Vista.

Display Section and Item Cost Codes

1. Open the **Administration** window by selecting Administration from the menu bar and then Admin.
2. Click the General tab and find the checkbox Display Section and Item Cost Codes.
3. If this is not checked, Edit this window and check this checkbox.

Matching Cost Codes with Viewpoint Phase Codes

You must ensure that Benchmark contains the same Cost Codes that you have set up in Viewpoint Vista, by following this process:

1. In Benchmark, go to the **Administration** menu and select Codes.
2. Select the *Code Type Cost Code*.
3. Add all of your *Viewpoint Phases* to the *Cost Codes* list.



Note: If you set up *Cost Codes* in this format, **200.EARTHWORK**, when you export to Viewpoint V6, Viewpoint will separate the code from the description. i.e. **200** (*Phase Code*) and **EARTHWORK** (*Phase Description*).

Note: You can set up *Resources Types* with the same syntax as the *Cost Types* example above.

Setting up Benchmark's Integration Settings

Before you can use the Viewpoint Vista Export in Benchmark, you will need to setup the *integration setting* to allow Benchmark to map the correct values to Viewpoint.

This step is normally conducted by a Benchmark Administrator. To do this you need to:

1. Configure the **Integration Settings** window
2. Set up your Unit Mapping for Benchmark for Viewpoint Vista
3. Select your Cost Type Settings, from either Resource Category, Resource Group or Resource Type.
 - a. Set up your Resource Category or Resource Group Mapping if necessary for Viewpoint Vista.

Viewpoint Export Options

Users can *customise the exported information*, using the following Benchmark Viewpoint Vista Export options:

Create Subcontractor Procurement Records

- When enabled, all *Resources* with the category *SUBCONTRACT* will be exported into an additional *Subcontracts section* of the Viewpoint Vista Export. These Subcontract records can then be used in Viewpoint as part of the Subcontract Buyout Feature.

Create Material Procurement Records

- When enabled, all *Resources* with the category *MATERIALS* will be exported into an additional *Materials section* of the Viewpoint V6 Import. These *Material* records can then be used in Viewpoint as part of the Material Buyout Feature.



Note: Materials exported to Viewpoint must already exist within the Viewpoint V6. If these materials are not found within Viewpoint, the user must assign them during the import process.

Export Project details

When enabled, the following *project fields* will be exported:-

- Quote Number,
- Project Title,
- Project Client Phone No,
- Project Client Fax No,
- Project Client Address,
- Project Client Address2,
- Project Client City,
- Project Client State,
- Project Client Post Code and
- Project Notes.

Export Overhead sections

- When enabled, all *Items* within overhead sections will be exported as *Contract Items* and their associated costs will be exported into *special phase codes*.

Export Section Headings

- When enabled, *Section Headings* are included in the exported items with the selected unit.

Export Text Items

- When enabled, *Item text lines* are included in the exported items with the selected unit.

Selecting Cost Types

The selection of *Cost Type* will change the way Benchmark condenses the *Resources* for export.

- **Resource Category:** - When using *Resource Category*, the *Resources* will be condensed by *category* and then *mapped cost type values* will be used in the export.
- **Resource Group:** - If you select *Resource Groups*, the *Resources* will be condensed by *Resource Group* and then exported using the *mapped cost type value*.
- **Resource Type:** - When using *Resource Types*, the *Resources* will be condensed by *Resource Type*. For the export to Viewpoint, *Resource Types* can be delineated by a decimal point (.) so that you can combine your *Viewpoint Cost Type Code and Description* together into the one field in Benchmark. For example, *Code: 4, Description: Plant* in Viewpoint could be added to Benchmark's *Resource Types* as **4.Plant**. When the export is run, the **4** is exported as the *cost type* for the resources.

Assign Cost Codes to a Project

When you win a project that you have quoted in Benchmark Estimating Software, you will need to ensure all your *Resources* in the Project have *cost codes* assigned. For some users and depending on how you allocate *Cost Codes* (which differs from business to business) all of your *Resources* may already have *Cost Codes* assigned.

Within a Project, however, you can easily assign *Cost Codes* in one of three ways to suit your business:

- individually for each *Resource*;
- to a selection of *Resources within an Item*;
- to a selection of *Items*, or
- to an entire *Section*.

When you assign a *Cost Code* to an *Item* or an entire *Section*, Benchmark will ask you if you would like to allocate this *Cost Code* to *all the Resources* within that *Item/Section*.

For more information, refer to **Assign Cost Codes within a Project** (on page 226).

Create the Viewpoint export file

After you have won a Quote/Project, and assigned your *Cost Codes*, your Project can be exported to Viewpoint Vista.

To create the Viewpoint Vista export files:

1. Open the **Project Details** window and select Report then select Job Costing File Exports then Viewpoint Vista.
2. Enter a filename for your export and click Save.

A Comma Separated file (.csv) file will be created for the Project.

If you have any *Resources* with missing *Cost Codes*, you will be prompted to run the *Resources with missing Cost Codes* report – this allows the user to quickly identify those *Resources* that need *Cost Codes* to continue with the export to Viewpoint. Alternatively, you can continue the export and manually assign the *Cost Types* during the import process.



Provisional Items and Rate Only Items

Please note that all *Provisional Items and Rate Only Items* will be exported, however, their associated *Resources* are *not included in the Phases and Cost Type section* of the export.

Import the Project Export into Viewpoint V6

You can import the Export produced from Benchmark into Viewpoint V6 using the *Project Management Import Estimates* option.

To import the Benchmark export into the Viewpoint V6 Working Tables.

1. From the *Viewpoint Menu*, select Project Management, then select PM Project Setup. Within this window select PM Import Estimates.
2. When the Import window displays, select the Import Data button.

When this process is completed you can view the working tables for the import. This allows you to make any additional changes or assign any missing information before importing it into the *Project Management module*.
3. To view and edit the work tables select the Edit Work Tables button.
4. After clicking the button, the **PM Import Estimate Edit** window displays. From this window, you can view and edit, the *Contract Items, Phases, Cost Types, Subcontracts* and *Materials*.
5. When ready, you can select PM Import Upload to upload the Project information into the *Project Management module*.

iSeekplant Integration

iSeekplant allows for supplier selection for different stages of a project and caters for the plant hire information requirements at each stage.

Benchmark now provides a new export to iSeekplant specifically for the project resources which are categorised as Plant and Subcontract.

Integration Settings

The **Integration Settings** window has a tab (A) to allow an iSeekplant contact e-mail recipient and pro-forma to be defined (B). You can also configure which groups and resources are included in the export (C).

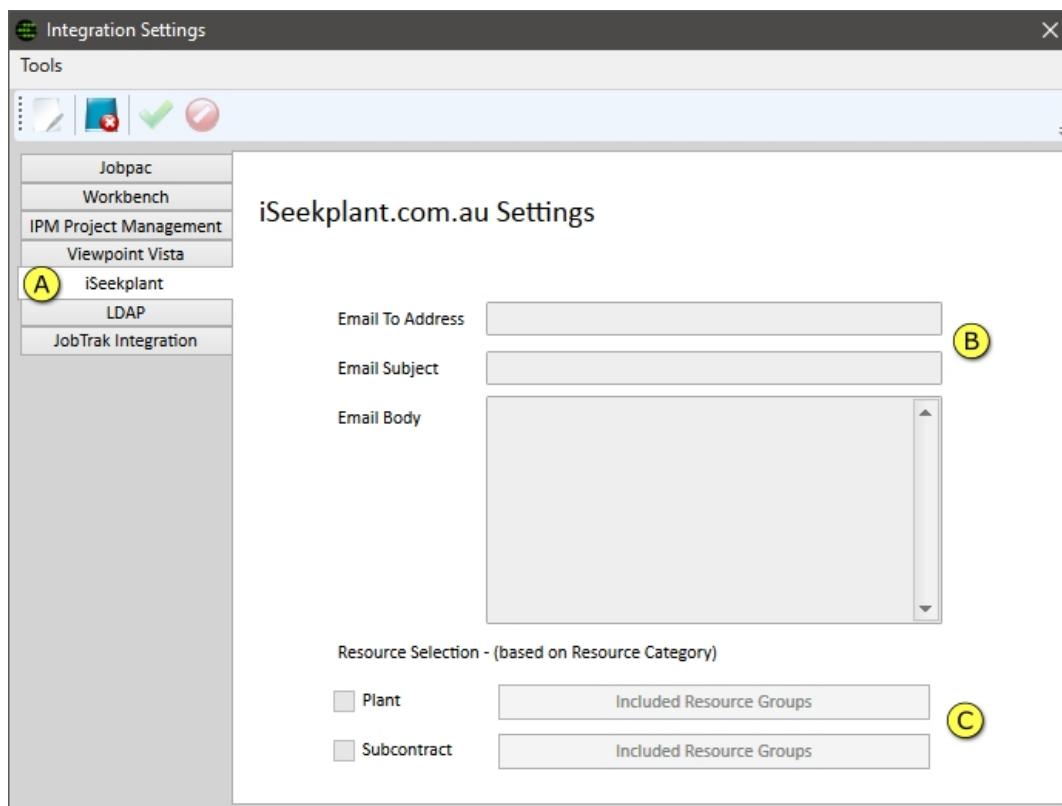


Figure 197: Integration Settings - iSeekPlant Settings

iSeekplant Export

You can access this feature from **Project Details** using the **Export to Excel → iSeekplant Export** or **iSeekplant Export and Email** menu items. You are prompted for the location to save the exported spreadsheet to. An Email window opens with the exported spreadsheet attached.

LEVESYS Integration

LEVESYS is an ERP software system used in many industries including civil engineering, infrastructure and construction.

You can find the *LEVESYS export feature* here:

- Project Details > Report > Job Costing File Export

Refer to Benchmark's *LEVESYS export user guide* for information on this export feature. This guide can be viewed and downloaded at the following web page:

- http://assets.Benchmarkestimating.com/assets/General/BenchmarkEstimatingSoftware_ExportToLEVESYS.pdf.

Part Seven - Configuration Settings

Benchmark Configuration file options



For Administrators only

These settings should only be modified by Administrators.

In some cases, the *Benchmark Estimating Software Support Team* may ask the System Administrator to make changes to this file.

Your Benchmark System Administrator can modify the Benchmark configuration file to customise your experience if required.

The configuration file is in your install folder and called `Benchmark.exe.Config`. For default installations, it is located here: `C:\Program Files (x86)\Benchmark v7\Benchmark.exe.Config`.

Hardware Rendering

Benchmark primarily will use your graphics hardware to render the windows within the software. However, should your graphics drivers be out of date or conflict with Microsoft's Windows Presentation Foundation (WPF) Benchmark can be set to render the windows using software rendering. This uses your CPU to render the windows rather than graphics specific hardware.

Setting	<code>DisableHardwareRendering</code>
Meaning	Disabled Benchmark from using Graphics specific hardware to render the windows within Benchmark.
Impacts	This affects how Benchmark screen is constructed and displayed.
Default Value	<code>False</code>
Notes	

Table 42: Legacy Features option

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and  
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```
<setting name="DisableHardwareRendering" serializeAs="String">  
  <value>False</value>  
</setting>
```

Legacy Features

Older features within Benchmark that are no longer used has been marked as Legacy and can only be enabled by editing the Benchmark configuration file.

Setting	EnableLegacyFeatures
Meaning	Some older features are turned off so that they are no longer displayed to the user
Impacts	This option affects the: <ul style="list-style-type: none"> ➤ Job Costing Data Entry Job Report ➤ Job Costing Export to Text ➤ Project Total - Estimate of Cost
Default Value	false
Notes	

Table 43: Legacy Features option

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and  
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```
<setting name="EnableLegacyFeatures" serializeAs="String">  
  <value>false</value>  
</setting>
```

Override SQL Command Timeout

You can use the `OverrideSqlCommandTimeout` to set the timeout value for many of the SQL transactions performed within Benchmark Estimating Software. By default, the timeout value is 30 seconds. In some scenarios this can cause the error message:

- *Timeout expired. The timeout period elapsed prior to completion of the operation or the server is not responding.*

If you receive this message frequently please contact Benchmark for advice or ask your system administrator to use the instructions below to modify the timeout setting.

Setting	OverrideSqlCommandTimeout
Meaning	This setting helps to warn the estimator that the Project Browser Export to Excel action they have requested may take a long time.

Impacts	<p>This change does not affect <i>all</i> SQL transactions, so it does not eliminate all timeout messages. The error message may still appear when a combination of the following criteria is present:</p> <ul style="list-style-type: none"> ➤ The database size is large (Over 4GB in size). ➤ The project is complex (> 2,000 Project Items, > 15,000 Project Resources). ➤ Server Resources are limited (Low CPU speed, RAM and slow disk access), so Benchmark reaches the time limit before the server can process the request. <p>A deadlock could be occurring because another process has locked the database.</p>
Default Value	empty (that is, <value />), which causes Benchmark to use the default timeout value of 30 seconds.
Notes	<p>If you specify a value other than 0, the SQL transactions will time out after the specified time. Note: Different database management systems (DBMS) may interpret this timeout value differently. Microsoft SQL Server interprets the value as seconds. If you use Oracle, please consult the corresponding documentation for clarification.</p> <p>SQL Server will interpret 0 (zero) as unlimited so if you use <value>0</value> Benchmark Estimating Software will wait forever to complete the overridden SQL transaction.</p>

Table 44: Override SQL command timeout option

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and  
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```
<setting name="OverrideSqlCommandTimeout" serializeAs="String">  
  <value />  
</setting>
```

Project Browser Number of Rows

Setting	ProjectBrowserMaxNumberOfRows
Meaning	This setting relates to the number of records that can be shown in the Project Browser window. This is important when displaying Item and Resources for projects.

Impacts	When set this will limit the number of records that will be displayed at one time in the Project Browser window. A value of 0 means that the check will not be performed and no warning is provided.
Default Value	0
Notes	The setting applies to clients that have a large number of projects in their database and is used to help ensure Benchmark remains responsive. It also ensures that the workstation and database server resources are not exhausted.

Table 45: Project Browser – Max Number of Rows displayed option

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and  
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```
<setting name="ProjectBrowserMaxNumberOfRows"  
serializeAs="String">  
    <value>10000</value>  
</setting>
```

Project Browser Export to Excel

Setting	ProjectBrowserExportMaxNumberOfRows
Meaning	This setting helps to warn the estimator that the Project Browser Export to Excel action they have requested may take a long time.
Impacts	The setting applies to clients that have a large number of projects in their database and is used to help ensure Benchmark remains responsive. It also ensures that the workstation and database server resources are not exhausted.
Default Value	0
Notes	A value of 0 means that the check will not be performed, and no warning is provided.

Table 46: Project Browser – Max Number of Rows exported option

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and  
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```

<setting name="ProjectBrowserExportMaxNumberOfRows"
serializeAs="String">
    <value>10000</value>
</setting>
```

Restrict Database Connection changes

To enable more security over your database connections, Benchmark allows administrators to disable the Edit a Database Connection and Delete Database Connection options.

To change the access to these CONNECTIONS options, refer to **Prevent Database Connection edits** (on page 470) and **Prevent Database Connection deletes** (on page 470).

Prevent Database Connection edits

Settings	DisallowEditDBConnection
Meaning	When set to <code>False</code> , users can click on the Edit Database Connections button in the Database Centre window. When set to <code>True</code> , the Edit Database Connections button in the Database Centre window is disabled.
Impacts	Enable or prevent users from editing database connections.
Default Values	<code>False</code>
Notes	In most cases connections are managed by an administrator and not by system users.

Table 47: Disallow / Allow - Edit Database Connection options

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```

<setting name="DisallowEditDBConnection" serializeAs="String">
    <value>False</value>
</setting>
```

Prevent Database Connection deletes

Settings	DisallowDeleteDBConnection
-----------------	----------------------------

Meaning	When set to False, users can click on the Delete Database Connections button in the Database Centre window. When set to True, the Delete Database Connections button in the Database Centre window is disabled.
Impacts	Enable or prevent users from deleting database connections.
Default Values	False
Notes	In most cases connections are managed by an administrator and not by system users.

Table 48: Disallow / Allow - Delete Database Connection options

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and  
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```
<setting name="DisallowDeletedDBConnection"  
serializeAs="String">  
    <value>False</value>  
</setting>
```

User Defined Licence Path

For customers that use *Citrix Provisioning Services*, the IT administrator can store licence files for multiple servers in a central directory with *write* access. This feature may also have applications for customers with other infrastructure.

Settings	LicencePath
Meaning	The value is a path to a location within the network that contains the license files for Benchmark.
Impacts	Benchmark will look for licenses in this location before checking the installation directory.
Default Values	<value /> (empty)
Notes	Licenses for many machines can be stored in this location. This is primarily used for Infrastructure where the installation directory is read only.

Table 49: License Path options

The code sample must be included within the element

```
<Benchmark.Rewrite.ApplicationSettings> and  
</Benchmark.Rewrite.ApplicationSettings>
```

Code sample

```
<setting name="LicencePath" serializeAs="String">  
  <value>D:\BMV7\BenchmarkLicence</value>  
</setting>
```

If you define a *Licence Path* in the configuration file, and if a user attempts to licence their installation of Benchmark Estimating Software, it will warn them and request that they contact their *System Administrator*.

Appendix

References

Benchmark Shortcuts

Desktop shortcuts save you time. Use Benchmark shortcuts to perform estimating tasks even faster.

Shortcut Keys

Shortcut function	Shortcut Key(s)
GENERAL	
Open Help System	F1
Quit Benchmark	Ctrl+Q
ADDING & EDITING	
Add new record	Ctrl+A
Edit record	Ctrl+E
Duplicate record	Ctrl+D
Open Calculator*	Ctrl+~
Delete a record	Delete
Move a record	Ctrl+M
Toggle Insert Mode On/Off	Insert
Toggle highlighted checkbox Checked/Cleared	Space
INPUT	
Accept (save) data	Enter
Cancel input/operation	Esc
Enter carriage return in multi-line text field	Alt+Enter
Paste clipboard text into field	Ctrl+V
Cut text into clipboard	Ctrl+X
Copy text into clipboard	Ctrl+C
VIEWING & SEARCHING	
Show All records	
Open Advanced Find	

Shortcut function	Shortcut Key(s)
Show My Projects in Project Browse*	Alt+Ctrl+M

Project navigation shortcuts	Shortcut key(s)
Open Project Details	F2
Open Project Section	F3
Close Project and open Command Centre	F8
Close Project and open Project Browser	F9
Move an Item/Resource to selected line*	Ctrl+M+Enter
Move selected line to bottom of list*	Ctrl+M+End
Drill down a level	Ctrl+1
Go up a level	Ctrl+2
Project Sections	
Open Project Items for high- lighted Section	F4
Project Items	
Open Project Resources for highlighted Item	F5
Next Section	Ctrl+3 or F6
Previous Section	Ctrl+4 or F7
Project Resources	
Open Project Items	F4
Next Item	Ctrl+3 or F6
Unlink/re-link Resources (only works in Edit mode)*	Ctrl+Plus
Previous Item*	Ctrl+4 or F7

PROJECT ESTIMATING FEATURES	Shortcut key(s)
Run a Routine	Alt+Ctrl+R
Load Spreadsheet	Ctrl+L
Auto Allocate	Alt+A

PROJECT ESTIMATING FEATURES	Shortcut key(s)
Auto Allocate from Project	Alt+Ctrl+A
Open Extras	Alt+X
Open Spread	Alt+S

Windows specific Shortcuts	Shortcut key(s)
COMMAND CENTRE	
Cycle between tabs in Command Centre	Tab
Open Project Browser	F9
ITEM LIBRARY	
View Resources for Item	Ctrl+1
Add Text Item	Ctrl+T
ROUTINE LIBRARY	
View Routine details	Ctrl+1
Routine Edit	
Return to Routine Library	Ctrl+2
Copy lines	Ctrl+C
Paste lines	Ctrl+V
Add from Resource Library	Ctrl+R
Move a Routine line*	Ctrl+M
PROJECT ITEMS	
Add Item from Library	Ctrl+I
Add Item from Project	Alt+Ctrl+I
Add Text Item	Ctrl+T
Allocate Resources from Item Library	Alt+I
Allocate Resources from Project Item	Alt+Ctrl+A
Indent an Item*	Shift+→
Outdent an Item*	Shift+←

Windows specific Shortcuts	Shortcut key(s)
PROJECT BROWSER	
Copy Section/Item	Ctrl+C
Paste Section/Item	Ctrl+V
PROJECT RESOURCE & ITEM LIBRARY RESOURCE	
Add from Resource Library	Ctrl+R
Add Group Total	Ctrl+G
Add Sub Total	Alt+Ctrl+S
Add Production Rate	Ctrl+P
Add Text line	Ctrl+T
Add Bold Text line	Ctrl+B
Assign Production Rate Group	Alt+Ctrl+P
Copy selected Resources	Ctrl+C
Paste copied Resources(only works within same Item)	Ctrl+V

Core Calculator Functions

The calculator in Benchmark maintains the rules of Order of Operation. As such, using parentheses to enclose your calculation will ensure that the order of operation you intend is maintained.

Function	Explanation
+, -, *, /	Addition, Subtraction, Multiplication, Division
#PI	Pi (8 decimal places).
pwr(x,y)	x raised to the power of y
int(val)	Returns the integer part of a number. int(23.786) returns 23.
rnd(val,dp)	Rounds a value to the number of decimal places (dp). e.g. rnd(34.675, 1) returns 34.7
rndup(val)	Rounds up to the nearest whole number.
rnddown(val)	Rounds down to the nearest whole number.

Function	Explanation
sqrt(val)	Returns the square root of the value.
cos(val)	Returns the cosine of the value in degrees.
sin(val)	Returns the sine of the value in degrees.
tan(val)	Returns the tangent of the value in degrees.
ASin(val)	Returns the Inverse of sine of the value.
ACos(val)	Returns the Inverse of cosine of the value.
ATan(val)	Returns the Inverse Tangent of the value.
Log(val)	Returns the Logarithm Base 10 of val.
Ln(val)	Returns Natural Logarithm of val.
exp(val)	Return the exponent of val.
min(val,val,n..)	Returns the minimum of the values within the parentheses.
max(val,val,n..)	Returns the maximum of the values within the parentheses.
ceiling(val, sig)	Returns value rounded up, away from zero, to the nearest multiple of significance. i.e. ceiling(4.42, 0.05) rounds prices up to the nearest 0.05 being 4.45.
floor(val, sig)	Rounds number down, toward zero, to the nearest multiple of significance. i.e. floor(4.37,0.05) rounds prices down to the nearest five cents being 4.35.

Built In Variables

Benchmark also defines some specific built in variables for use in Resource calculations.

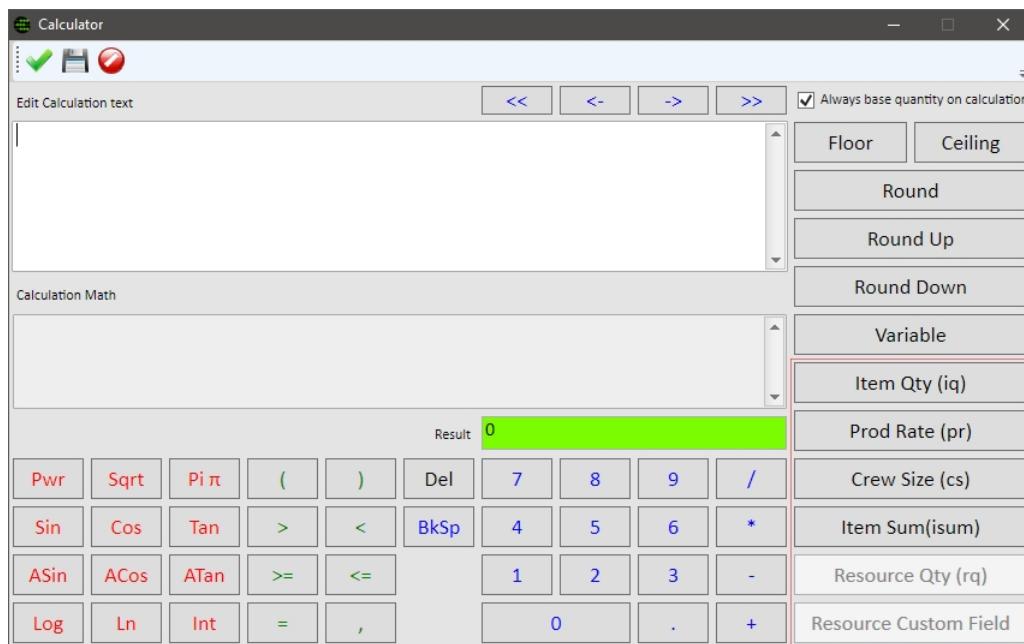


Figure 198: Built in Benchmark Variables

Item Quantity iq()

Defines the *Item Quantity*. This will be updated when the Item Quantity that this resource is contained within changes.

- iq() does not contain any value within the parentheses.
- example: iq()

Production Rate pr()

Defines either the *Item Production Rate* or the *Resource Production Rate* assigned to the Resource. This will be updated when either the Item Production Rate changes or the Resource Production Rate changes. If a Resource Production Rate is assigned, then this will be used instead of the Item Production Rate.

- pr() does not contain any value within the parentheses.
- A common use is iq() / pr() where the item quantity is divided by the production rate.

Crew Size cs()

Defines the *Crew Size* assigned to the current *Resource*. This will be updated when the crew size field is changed on the current *Resource*.

- cs() does not contain any value within the parentheses.

Resource Custom Field rcf("custom field name")

Defines the resource custom field. This will be updated when the custom field is changed on the current Resource or on the Resources included in the Item Sum.

- custom field name is the name of the field as defined in the [Administration](#) window.
- A common use is for assigning a density to a resource that can then be used in the calculator to get the weight or inversely the volume, i.e. `rcf("Density") * volume`.

Item Sum isum(val)

Defines the sum of all Resources above the current Resource.

- The value can be any calculation however it is most likely used with `rq()` and or `rcf()`. Resource Quantity can only be used with Item Sum.
- This can be used to get the total quantity of a group of resources.
- **Resource Quantity rq()**

Defines the *resource quantity*. This will be updated when the quantity is changed on resources included in the Item Sum.

- `rq()` does not contain any value within the parentheses.

Using `isum()`, `rq()` and *Resource Custom Fields* together offers a powerful tool. A good example of the use of these features is to automatically calculate the *painting cost for items of steel in a fabrication item*.

Example: Item Resources with a Resource Custom Field for *Surface Area*

Steel Circular Handrail

Steel Grate

Steel Square tube

Painting Steel

- Calculation = `isum(rq()) * rcf("Surface Area")`
- This calculation will sum all the resources above for Painting Steel by multiplying their quantity (`rq()`) with their custom field called surface area (`rcf("Surface Area")`).
- The result will be the total surface area to be painted.

Common Calculation Examples

1. **Calculating the hours of Labour based on the Item Quantity and a Resource Production Rate.**

$$\text{Hours of Labour} = \text{Item Quantity (m}^3\text{)} / \text{Production Rate (m}^3/\text{hr)}$$

Therefore, the calculation in Benchmark - *Labour Hours* = `iq() / pr()`

2. **Calculating the tonnes based on the Item Quantity, a depth of 1.25 metres and a custom field ("density") with a value.**

*Volume of Material (m^3) = Item Quantity (m^2) * depth (metres).*

*tonnes = Volume of Material * Density*

Therefore, the calculation in Benchmark - *tonnes = iq() * 1.25 depth * rcf("density")*

3. Calculating the No of Bags required based on the Item Quantity and the Amount per Bag 25kg.

No of Bags = Item Quantity (m^3) / Amount per Bag (m^3)

No of Whole Bags = round up (No of Bags)

Therefore, the calculation in Benchmark - *No whole bags = rndup(iq() / 25 kg)*

Localised Calculator

When using regional settings, the calculator can be setup to use a comma instead of a decimal point for separating whole numbers from fractional numbers. For more information, refer to **Regional Settings and Calculations** (on page 305). When this feature is enabled there will be changes to the formatting of the functions within the calculator.



Figure 199: Localised Calculator

Modified syntax for functions

The syntax for several common calculator functions also changes when the localised calculation is enabled. The following are some examples of the impacted functions in the calculator and how they are now displayed and need to be entered when the localised calculation is enabled.

Function	Example of normal syntax	Equivalent localised syntax
Ceiling	ceiling(X.X,Y)	ceiling(X,X;Y)
Floor	floor(X.X,Y)	floor(X,X;Y)
IF	IF(A>X.X,B,C)	IF(A>X,X;B;C)

Function	Example of normal syntax	Equivalent localised syntax
Power	pwr(X,X,Y)	pwr(X,X;Y)
Round	rnd(X,X,0)	rnd(X,X;0)
Round down	rndup(X,X,0)	rndup(X,X;0)
Round up	rntdown(X,X,0)	rntdown(X,X;0)

Routine Calculations

The following commands and operators can be used in all the *Calculation* fields within a Routine.

Command	Description	Example
#number#	Refers to the value of the line number in a Routine.	#3# refers to value of line 3
abs(number)	Returns the magnitude of a real number ignoring its positive or negative sign.	abs(1002) returns 1002 abs(-203.45) returns 203.45
acos(number)	Returns the arc cosine of a number in the range 0 to 180 degrees.	acos(sqr(2)/2) returns 45
asin(number)	Returns the arc sine of a number in the range -90 to 90 degrees.	asin(sqr(3)/2) returns 60
atan(number)	Returns the arc tangent of a number in the range -90 to 90 degrees.	atan(1) returns 45
atan2(y,x)	Returns the arc tangent of the point y, x coordinates.	atan2(1,1) returns 45
cos(number)	Returns the Cosine of a number where the number is in degrees	cos(60) returns 0.5
(Var1 Criteria Var2)	Evaluates the calculation (Var1 Criteria Var2) as true or false .	(#2#>=#4#) returns 1 if the value on line 2 is >= the value on line 4
exp(number)	Returns e raised to the power of a given number	exp(0.5) returns 1.6487
fact(number)	Returns the factorial of a number rounded to an integer first.	fact(4) returns 24, that is 4*3*2*1

Command	Description	Example
IF(Var1,Criteria,Var2,Var3)	Returns Var2 if the statement (Var1 Criteria) is true, otherwise returns Var3. Var1, Criteria, Var2 and Var 3 can be line numbers, numbers or calculations.	Value of #3# = 11. IF(#3#,11,0,1) returns 0 <i>Refer below for more examples of the IF statement</i>
int(number)	Returns the integer part of a number; it does not round to the nearest integer	int(23.1056) returns 23
ln(number)	Returns the log to base e (the natural logarithm) of a number; or -1e100 if number <= 0.	ln(exp(0.5)) returns 0.5
log(number)	Returns the log to base 10 of a number; or -1e100 if number <= 0.	log(100) returns 2
max(value1, value2...)	Returns the maximum value from a list of values. The values should all be numbers when numeric comparison is used.	max(3,6,2,7) returns 7
min(value1, value2...)	Returns the minimum value from a list of values. The values should all be numbers when numeric comparison is used.	min(3,6,2,7) returns 2
mod(number1, number2)	Returns the remainder of a number division, that is, when number 1 is divided by number 2 to produce a remainder; it is a true modulus function	mod(6,4) returns 2
not(expression)	The numeric value of an expression that evaluates to true is 1, therefore not(true) is 0. Similarly, not(false) is 1.	not(31<45) returns 0
pick(number,value0,v1,v2 etc..)	Selects an Item from a list of values (strings or numbers) depending on the value or result of the number argument.	pick(#2#,1100,2200,4500,6800) Line 2 = 2; returns 4500
pwr(number, power)	Returns the result of raising a number to a power.	pwr(2,5) returns 32
randintrng(number1, number2)	Returns a random integer between number 1 and number 2 inclusive.	randintrng(25,50)

Command	Description	Example
rnd(number,dp)	Rounds a number to a number of decimal places specified in dp.	rnd(2.105693,5) returns 2.10569
rndup(number,d p)	Rounds a number up to a number of decimal places specified in dp.	rndup(2.105693,0) returns 3
rnddown(number,dp)	Rounds a number down to a number of decimal places specified in dp.	rnddown(2.105693,0) returns 2
sin(angle)	Returns the Sine of an angle where the angle is in degrees.	sin(30) returns 0.5
sqr(number)	Returns the square root of a number. Benchmark defines the square root of a negative number X as $\text{sqr}(\text{abs}(X))$.	sqr(100) returns 10
tan(Angle)	Returns the Tangent of an angle where the angle is in degrees.	tan(45) returns 1

Operators	Description	Example
+	Addition	$3 + 1$ returns 4
-	Minus	$2 - 2$ returns 0
*	Multiply	$2 * 4$ returns 8
/	Divide	$16 / 4$ returns 4
>	Greater than (Left to Right)	IF(#3#,>1,1,2) returns 1 (true) if line 3 is greater than 1.
<	Less Than (Left to Right)	IF(#3#,<1,1,2) returns 1 (true) if line 3 is less than 1.
<>	Not equal to	$(3 <> 1)$ returns 1 (true)
>=	Greater than or Equal to	$(#3#>=3)$ returns 1 if line 3 is greater than or equal to 3
<=	Less than or Equal to	$(#3#<=3)$ returns 1 if line 3 is less than or equal to 3

Operators	Description	Example
&	And Operator (expression1 & expression2) Both expression must be true to return 1 (true) otherwise 0 (false) is returned	(IF(2,>1,1,0)& IF(8,<10,1,0)) Returns 1 (both statements are true)
	Or Operator (expression 1 expression 2) one expression must be true to return 1 (true) otherwise 0 (false) is returned	(IF(2,>1,1,0) IF(20,<10,1,0)) Returns 0 (Only one statement is true)

IF Statements Expanded

IF(Var1,Criteria,True,False)

Syntax

IF (number, Operator number, number, number)

The *number* can be a calculation or a line reference. Here are a number of Examples.

IF (#10#, > 15 , 18 , 9)

If the value of line 10 in the Routine is greater than 15 then return 18 otherwise, return 9.

IF(#3# , < #4# , #5# , #6#)

If Line 3 is less than Line 4 then return Line 5 otherwise return Line 6

IF (#3# , #4# , #6# , #8#) * IF(#4# , >#5#, #2# , #1#) etc.....

If Line 3 is Equal to Line 4 then return Line 6 otherwise return Line 8) * (If Line 4 is greater than Line 5, then return Line 2 otherwise return Line 1.

IF (#2#+2,<>#3#+1,#2#+5,#2#+8)

If Line 2 +2 is not equal to Line 3 +1, then return Line 2 + 5, otherwise return Line 2 + 8

You can multiply, add, subtract, divide IF statements or use the & or | operators (see below).

Logic Statements Expanded

Logical statements can be used in Routines to add additional functionality to calculations. A logical statement is a Boolean statement in that it will return either True or False. In Benchmark this is expressed as the number one for true and a zero for false. Because the logic statements return a numerical value they can be used to create complex calculations.

Syntax

(expression)

Example

(#3# >= #4#)

If Line 3 is greater than or equal to Line 4, then 1 is returned otherwise returns a 0

Complex Example

Line 2 = 10, Line 3 = 15, Line 4 = 12

(#2# >= #3#) * **IF(#3# , 15 , 1 , 0) & IF(#3# , >#4# , 1 , 0)**) returns 0

Statement One = (10 >= 15) returns 0.

Statement Two = (**IF(15 , 15 , 1 , 0) + IF(15 , >12 , 1 , 0)**) returns 2

(Statement one) * (Statement Two) = 0 * 1

An **IF** statement can be contained within parentheses I.E. (**IF(#2#,>#3#,20,40)**) however and **IF** statement cannot be contained within another IF statement.

Translations

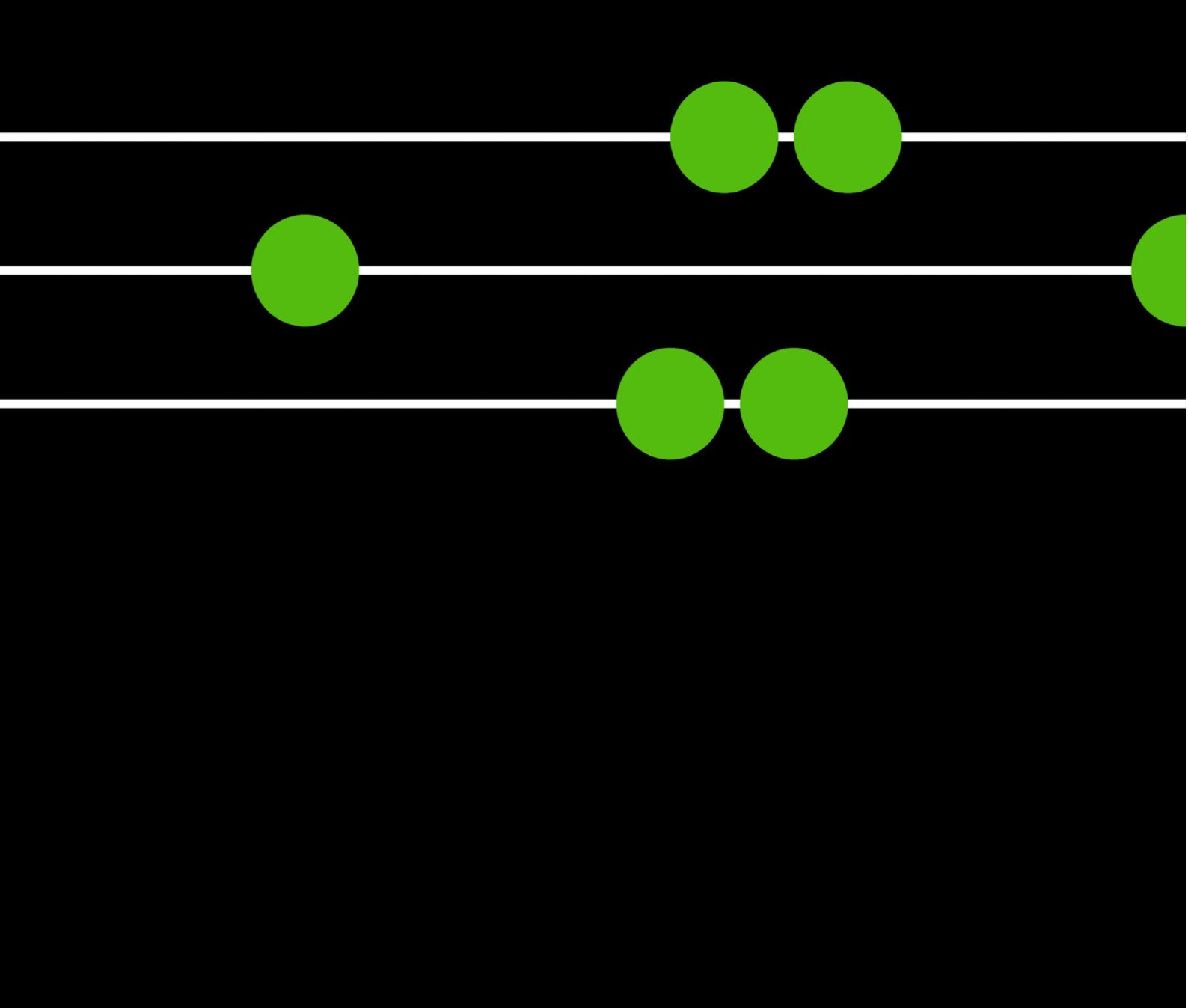
Application Language Translations

When you use the Load Spreadsheet function to *load Resources*, you *must* use the correct *application language translation*.

Language	Translations						
English	PLANT	LABOUR	MATERIALS	SUBCONTRACT	TEXT	BOLD TEXT	SUBITEM
Croatian	POGON	RAD	MATERIJALI	PODIZVOĐAČ	TEKST	PODEBLJANI TEKST	PODSTAVKA
Czech	MECHANIZACE	PROFESE	MATERIÁLY	SUB. SMLOUVA	TEXT	ZVÝRAZNĚNÝ TEXT	PODPOLOŽKA
Danish	ANLÆG	ARBEJDSKRAFT	MATERIALER	UNDERENTREPENØR	TEKST	FED TEKST	UNDERELEMENT
Dutch	INSTALLATIE	ARBEID	MATERIALEN	ONDERAANNEMING	TEKST	VETTE TEKST	SUBITEM
French	MATÉRIEL	MAIN D'OEUVRE	FOURNITURES	SOUS-TRAITANCE	TEXTE	TEXTE EN GRAS	SOUS-ITEM
Hungarian	GÉPKÖLTSÉG	BÉR JELLEGŰ KÖLTSÉG	ANYAGOK	ALVÁLLALKOZÓI SZERZŐDÉS	SZÖVEG	FÉLKÖVÉR SZÖVEG	ALTÉTEL
Polish	ZAKŁAD	PRACA	MATERIAŁY	PODWYKONAWCA	TEKST	TEKST POGRUBIONY	PODPOZYCJA
Slovak	STROJE A ZARIADENIA	PRÁCA	MATERIÁLY	ZMLUVA SO SUBDODÁVATEĽOM	TEXT	TUČNÝTEXT	PODPOLOŽKA
Slovene	STROJI	DELO	MATERIALI	PODIZVAJALSKA POGODBA	BESEDILO	KREPKO BESEDILO	PODPOSTAVKA

Language	Translations						
Spanish	MAQUINARIA	MANO DE OBRA	MATERIALES	SUBCONTRATISTA	TEXTO	NEGRITA	SUBELEMENTO

Table 50: Resource Translations



Australia - Sydney

Level 1, 83-89 Renwick Street
Redfern NSW 2016, Australia
+61 (0)2 8396 6555

Australia - Nowra

2/49 Berry Street
Nowra NSW 2541, Australia
+61 (0)2 4422 3444

Europe - United Kingdom

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Manchester M1 2HY, UK
+44 (0)161 228 3351