



CUBIT

the natural estimator

Cubit User Guide



BUILD^{SOFT}

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Cubit is the natural estimating software developed by Buildsoft, using our 30 years of experience to combine state of the art 3D visualisations with powerful estimating and takeoff tools.

The **Job Manager** window is the first window you see when you open the application. In this window you have the ability to create Projects and Jobs, to backup and restore jobs and structure your filing system for Cubit. The **Job Manager** window can be accessed at any time by pushing the **Job Manager** button (the two books) on the **Quick Access Toolbar**.

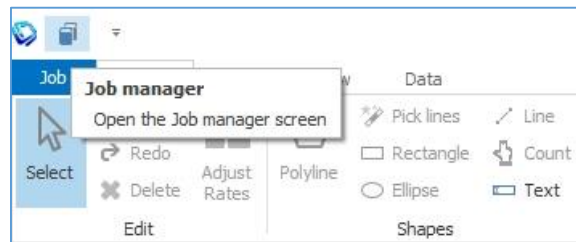


Figure 1. Job Manager button

PROJECTS

Projects describe a folder which contains Jobs having something in common, *ie* a client. A Project might contain multiple estimates for one construction site, or all the Jobs for a particular customer.

CREATE

Projects are created in the **Job Manager** window.

To create a new Project:

1. Enter **New Job** menu by clicking on the **New Job** label in the List group on the Home tab in the ribbon.
2. Click **Project**.
3. Enter the "Project name in the **New Project** window.

4. Click **Ok**



Figure 2 Create Project

DELETE

Projects can only be deleted if they contain no Jobs.

To delete a Project in the Job Manager window:

1. Select the **Project** you wish to delete.
2. Click **Delete** on the ribbon.
3. Click **Delete** in the **Delete Project(s)** window which asks you to confirm that you wish to delete the project.

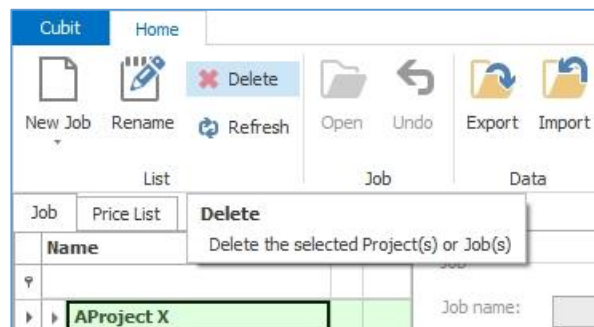


Figure 3 Delete Project

JOBS

After you have created a Project, you can create a Job, which is where you will work on your takeoff.

CREATE & OPEN

Jobs are created in the **Job Manager** window.

To create a Job:

1. Click on the **Project Name** where you would like to create your job.
2. Click **New Job** on the ribbon
3. The **New Job** window will open and you will be asked to enter the name of the Job and select whether you want to load a template into the Job. A new Job will generate in the **Job** list.
- 4.



Figure 4 Create Job

To start estimating straight away you can open your Job by double clicking on the Job name in the **Job** list or by clicking **Open** on the ribbon.

You can edit your metadata before you begin your estimating. Select your Job and beside the **Job** list is your metadata information. This window allows you to enter information about the **Job**, the **Site Address**, and the **Client**.

FINDING A JOB USING FILTERING

If you are having trouble finding the Job you want in your **Job Manager** window you can use the **Auto Filter Row**. This row is placed at the top of the **Job** list, and when you enter information it searches and displays any jobs that match that data.

When filtering your jobs ensure that you enter what you're searching for in the appropriate column, job name in the **Name** column, client name in the **Client** column or any of the customisable rows.

To add a new column:

1. Right mouse click on the title bars of the **Job** list.
2. Click **Column Chooser**.
3. Double click the row names from the **Customization** window.



Job	Price List	Name	Start Date	Client
		AProject X		

Figure 5 Job List



Figure 6 Job List Customization

DELETE

Deleting Jobs are done in the **Job Manager** window.

To delete a Job:

1. Click on the **Job** you wish to delete.
2. Click **Delete** on the ribbon.
3. Click **Delete** in the **Delete Job(s)** window which asks you to confirm that you wish to delete the job.

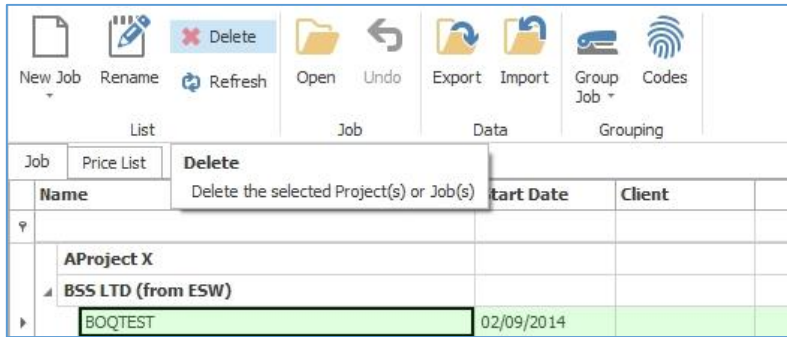


Figure 7 Delete Job

FOLDERS

You can manage large projects by dividing your jobs into separate folders, folder management is done in the **Job Manager** window.

CREATE

To create a new folder:

1. Right mouse click the **Project** that you want the folder to appear in.
2. Select **New Folder**.
3. In the **New Folder** window that opens name your folder.
4. Click **OK**.

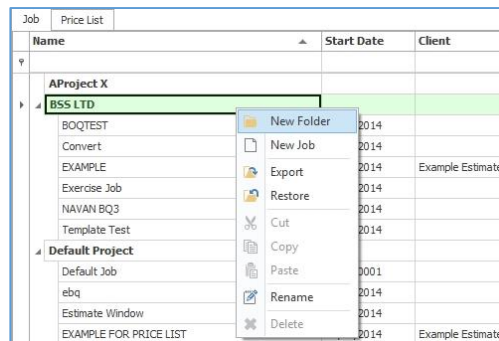
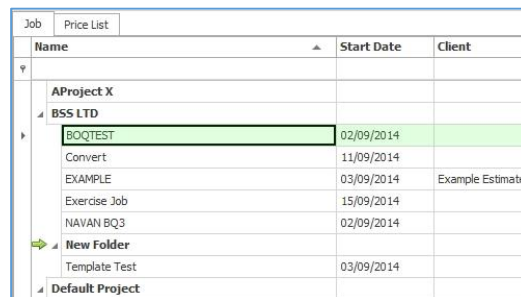


Figure 8 New Project Folder

MOVING JOBS INTO FOLDERS

Moving a job into a folder is achieved left mouse clicking on a job, and, while holding the mouse, dragging the job into the folder.



Name	Start Date	Client
Project X		
BSS LTD		
BOQTEST	02/09/2014	
Convert	11/09/2014	
EXAMPLE	03/09/2014	Example Estimate
Exercise Job	15/09/2014	
NAVAN BQ3	02/09/2014	
New Folder		
Template Test	03/09/2014	
Default Project		

Figure 9 Drag to New Folder Prompt

DELETE

Folders can only be deleted if they contain no Jobs.

Deleting Folders are done in the **Job Manager** window.

To delete a Folder:

1. Click on the **Folder** you wish to delete.
2. Click **Delete** on the ribbon OR click the right mouse button.
3. Click **Delete** in the **Delete Folder(s)** window which asks you to confirm that you wish to delete the job.

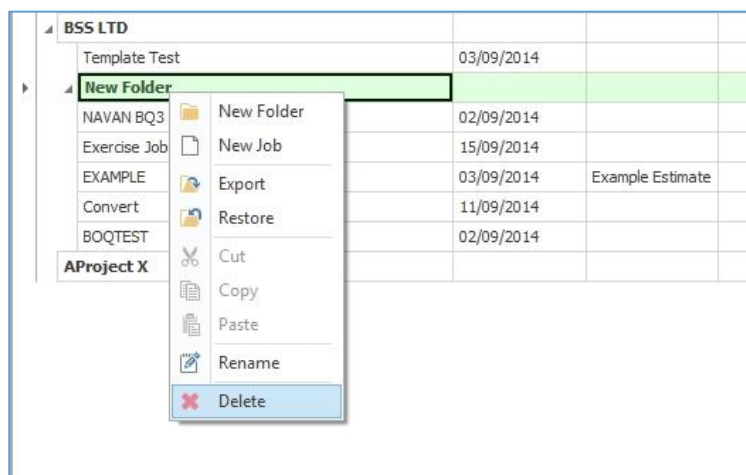
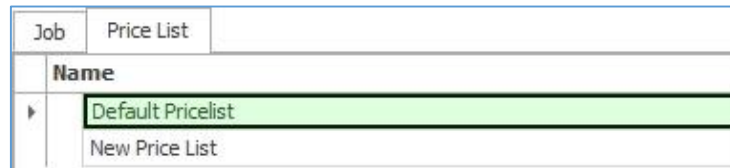


Figure 10 Delete Folder

PRICE LISTS

Price lists are used to simplify pricing a job. Price lists are stored in the **Price List** tab of the **Job Manager** window.

The New Price List will be created and be available through the **Price List** tab, you can open the **Price List** by double clicking it.



Job	Price List
	Name
	Default Pricelist
	New Price List

Figure 11 Price List Tab

To create a new Price List:

1. Click the **New Job** drop down menu on the ribbon.
2. Click **Price List**.
3. Enter in the name of your **Price List**.
4. Click **OK**.

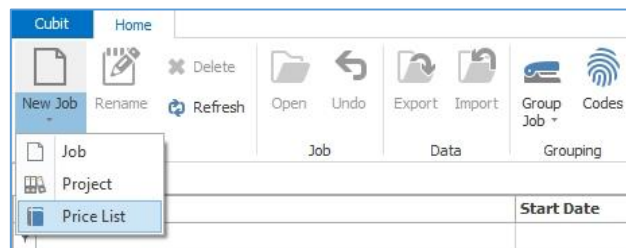


Figure 12 New Price List

EXPORT AND IMPORT

Cubit allows you to export and import your jobs. These options are on the **Data** group in the ribbon on the **Job Manager** window.

EXPORT

To export a job:

1. Click **Export** in the **Data** group on the ribbon.
2. Select the location that you wish to export your job to through the **Job export path** box.
3. Check whether you want to **include drawing(s), Include calculation sheet, Include rate sheet**.
4. Click **Export**.

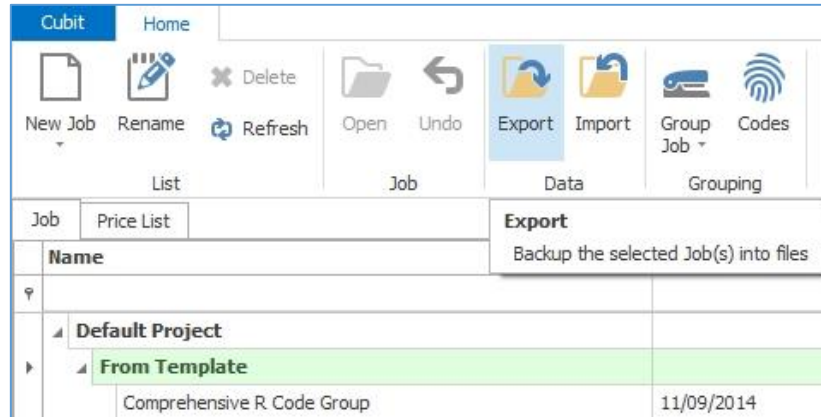


Figure 13 Export Job

IMPORT

To import a job:

1. Click **Import** in the **Data** group on the ribbon.
2. Browse through your computer to find file you wish to import.
3. Click **OK**.

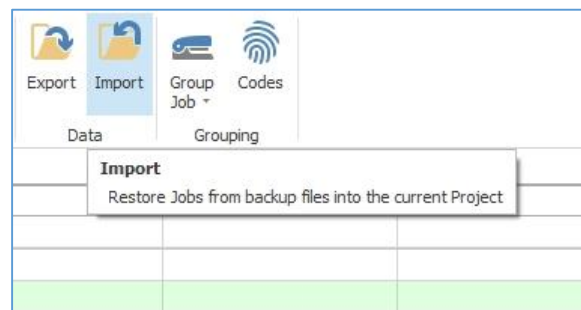


Figure 14 Import a Job

The Cubit User Interface is comprised of three main interactive components: the **Quick Access toolbar**, the **Ribbon**, and the **Panes**.

QUICK ACCESS TOOLBAR

The Quick Access Toolbar provides immediate commands that are commonly used through the estimating process. They are accessible regardless of the tab that is selected in the ribbon or the pane you are looking at. Click the arrow to expand the toolbar and uncheck whichever commands you want to hide.

At the top of the application window, the **Quick Access** toolbar displays frequently used tools.

Tools that extend past the maximum length of the toolbar are displayed in a drop-down button.

You can add unlimited tools to the **Quick Access** toolbar. One command button is available to you initially on the **Quick Access Toolbar**.

JOB MANAGER

This button will bring forward the **Job Manager** screen. The job you have open will stay open. It allows you to open a second job at the same time. If you wish to return to the original job, highlight the job again in the **Job Manager** and choose **Open**.

To add a ribbon button to the Quick Access toolbar:

1. Locate the group that contains the button you want to add to the **Quick Access** toolbar.
2. Right-click the button on the ribbon and select **Add to Quick Access Toolbar**.

To remove a ribbon button from the **Quick Access toolbar** right-click the button on the **Quick Access** toolbar and select **Remove from Quick Access Toolbar**.

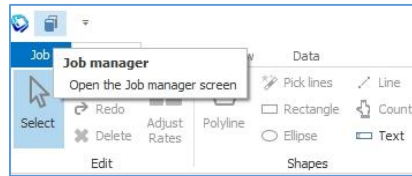


Figure 15 Job Manager button

RIBBON

The ribbon organises all the commands needed to complete a job. The commands on the ribbon will change depending on which tab is selected. The default tab is **Home**, the other tabs are **Plans**, **View**, and **Data**.

HOME TAB

The default tab is **Home**, and where you will do most of your takeoff, it houses your drawing and shape tools, openings library and where you insert price lists and templates.

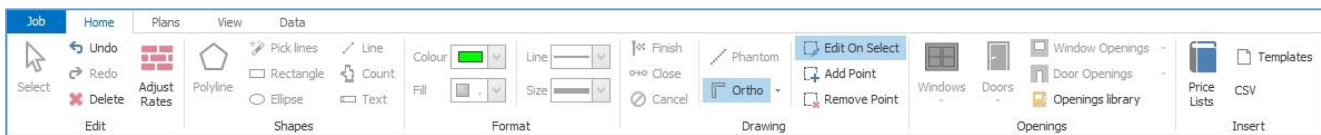


Figure 16 Home Ribbon

PLANS TAB

The **Plans** Tab is where you control the elements of your plan, specifically scaling and rotating your plan and managing your revisions.

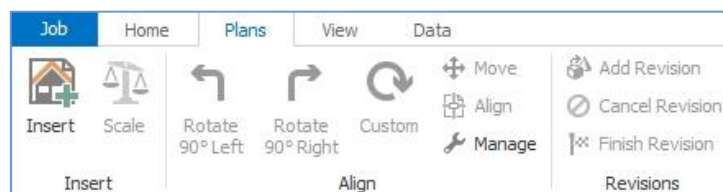


Figure 17 Plans Ribbon

VIEW TAB

The **View** Tab is where you control the layout of your screen, what information is displayed and whether you're looking at your plan in 2D or 3D.

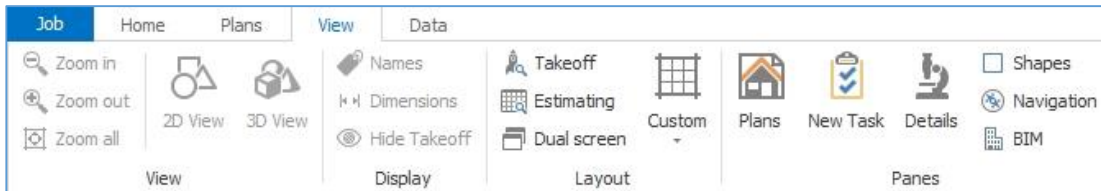


Figure 18 View Ribbon

DATA TAB

The **Data** Tab is where you will find your reporting information, and where you can integrate other programs, rates and codes into your plan.

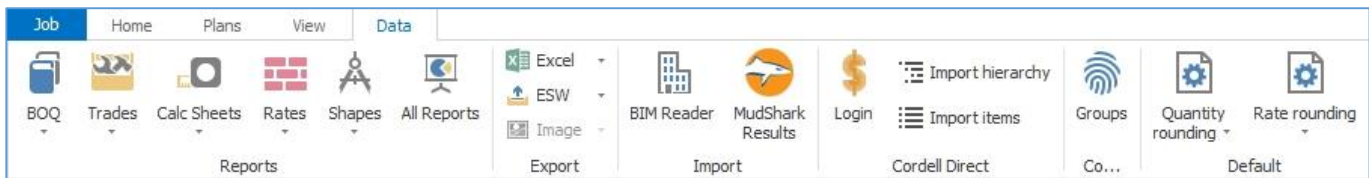


Figure 19 Data Ribbon

PANES

The **Panes** are designed to simplify and specify the data you see and interact with, they are moveable and you can control how they are organised.

In the **Layout** group on the **View** tab of the ribbon you can manage how your screen(s) is (are) organised. To arrange the panes with a focus on takeoff click on **Takeoff**, to arrange the panes with a focus on estimating click **Estimating**. For users with two monitors click **Dual screen** to adjust the panes for optimal view. To set your own preference, arrange the panes to your own liking then use **Custom** to save your preference. Multiple **Custom** layouts can be saved.

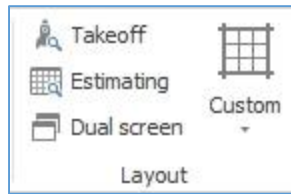


Figure 20 Layout Group

ESTIMATE PANE

The **Estimate Pane** defaults to the left of the screen under the ribbon, and breaks down in the Estimate takeoff data, broken down by trade. This window allows you to interact directly with the takeoff by choosing how you measure your shapes and lines. The upper window is also where you can adjust your rate per trade and view your totals. The lower window of the **Estimate Pane** is dedicated to the **Calculation sheet** and **Rate sheet**, which gives you even more specific details and control over calculations and rates.

ESTIMATE WINDOW BUTTON BAR



Figure 21 Estimate Bar



- **Heading**-Make the selected row(s) a heading.



- **Item**-Make the selected row(s) an item for measurement and/or pricing.



- **Unindent (CTRL + >)**-Unindent the selected row(s).



- **Indent (CTRL + <)**-Indent the selected row(s).



- **Insert New**-Insert a new item before the current row.



- **Add New**-Add a new item to the end of the current heading.

VIEWPORT PANE

The **Viewport Pane** is the main window you will use for your takeoff, inside this window you will draw shapes, create openings and view your 3D plan. The **Viewport Pane** defaults to the middle of the screen, if you use dual screens it is advised to give this pane its own screen. At the footer of the **Viewport Pane** will also display tabs for the various plans you have imported, allowing you to easily switch between plans.

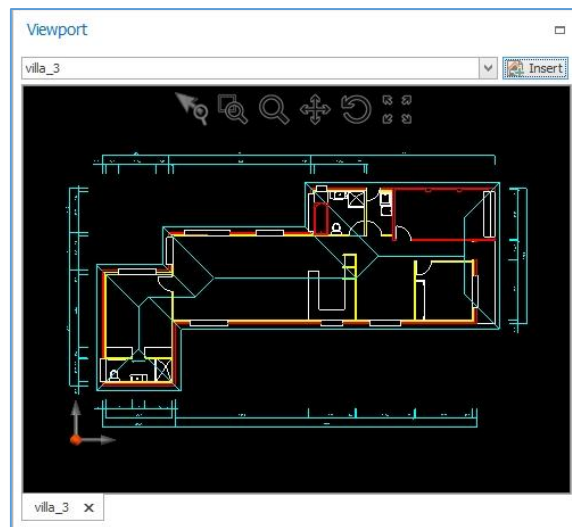


Figure 22 Viewport Pane

PLANS PANE

The Plans Pane is an extension of the **Viewport Pane**. In this pane you will be view all the plans you have inserted into the job, have the ability to turn on/off layers off in appropriate Vector file plans. Hide or displays plans in the Viewport. The right mouse button will display a list of all the plan commands possible in this window.

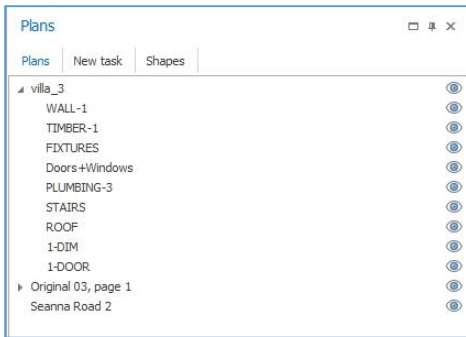


Figure 23 Plans Pane

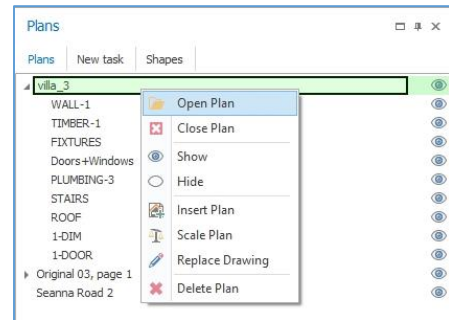


Figure 24 Plans Pane Options

DETAILS PANE

The **Details Pane** is the window that offers more detailed information about any selected shape or line used in your takeoff. In the **Details** tab you can edit information like shape description, wall height, trench width and volume depth, among others. To view the details of a shape or line, highlight the item in the **Estimate Pane** then highlight the shape you want to edit in the **Calculation Sheet Pane**. The Details Pane will then display the detail of the shape.

The result type selected for the shape when it was drawn will govern what will be displayed for editing in the **Details Pane**.

Area results can have a pitch applied

e.g. a vaulted ceiling.



Figure 25 Details Pane – Area

Length results can have the slope $^{\circ}$ and factor applied or altered

e.g. roof members, rafters.

Details
 Details | Navigation
 Result: Playroom
 General

Property	Value
Slope (°)	0

Lines

Description	Slope, °	Factor	Total (m)
Line 1	0	1	4.097
Line 2	0	1	3.468
Line 3	0	1	0.356
Line 4	0	1	1.013
Line 5	0	1	0.529
Line 6	0	1	0.21
Line 7	0	1	3.924
Line 8	0	1	4.69

Figure 26 Details Pane - Length

Volume results can have a depth applied or altered

e.g. a slab depth

Details
 Details | Navigation
 Result: Playroom
 General

Property	Value
Depth (mm)	125

Figure 27 Details Pane - Volume

Volume by Length results can have a trench width, depth, slope $^{\circ}$ and factor applied.

Details
 Details | Navigation
 Result: Playroom
 General

Property	Value
Trench width (mm)	400
Trench depth (mm)	600
Trench slope (°)	0

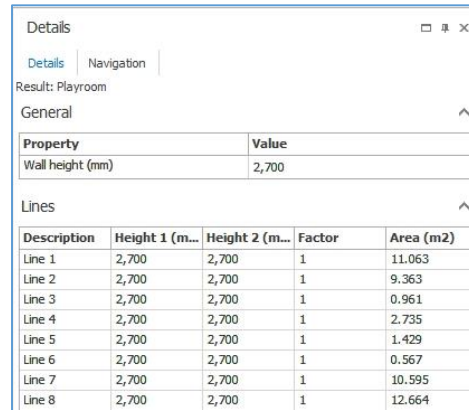
Lines

Descripti...	Trench sl...	Trench w...	Trench d...	Factor	Volume (...)
Line 1	0	400	600	1	0.983
Line 2	0	400	600	1	0.832
Line 3	0	400	600	1	0.085
Line 4	0	400	600	1	0.243
Line 5	0	400	600	1	0.127
Line 6	0	400	600	1	0.05
Line 7	0	400	600	1	0.942
Line 8	0	400	600	1	1.126

Figure 28 Details Pane - Volume by Length

Vertical results can have a wall height at each end of the line

e.g. raking wall and a factor applied.



The screenshot shows a software interface window titled 'Details'. It has two tabs: 'Details' and 'Navigation'. Below the tabs, it says 'Result: Playroom'. There are two expandable sections: 'General' and 'Lines'. The 'General' section contains a table with two columns: 'Property' and 'Value'. The 'Lines' section contains a table with five columns: 'Description', 'Height 1 (m...)', 'Height 2 (m...)', 'Factor', and 'Area (m2)'. The 'Lines' table lists eight lines with their respective heights, factors, and areas.

Property	Value
Wall height (mm)	2,700

Description	Height 1 (m...)	Height 2 (m...)	Factor	Area (m2)
Line 1	2,700	2,700	1	11.063
Line 2	2,700	2,700	1	9.363
Line 3	2,700	2,700	1	0.961
Line 4	2,700	2,700	1	2.735
Line 5	2,700	2,700	1	1.429
Line 6	2,700	2,700	1	0.567
Line 7	2,700	2,700	1	10.595
Line 8	2,700	2,700	1	12.664

Figure 29 Details Pane - Vertical

NAVIGATION PANE

The **Navigation Window Pane** allows you to highlight a zoomed in section of the drawing and navigate around the drawing whilst zoomed in. Hold down the mouse button to move the highlighted section around the plan in the navigation pane.

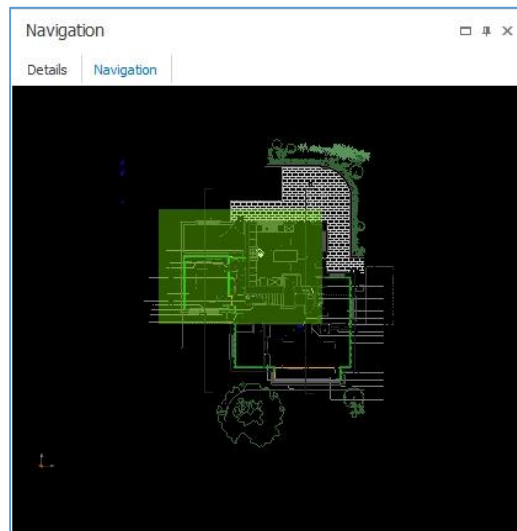


Figure 30 Navigation Pane

USING THE VIEWPORT PANE

The **Viewport Pane** is the main window you will use for your takeoff, inside this window you will draw lines, shapes and create openings.

NAVIGATION

The **Viewport Pane** is navigated with the mouse. To move the plan in any direction, push and hold the centre scroll wheel then move your mouse to move your plan. To zoom in, scroll the wheel forward. To zoom out, scroll the wheel backwards.

VIEWPORT TOOLBAR

The Viewport toolbar is a selection of tools that hover at the top of the plan. **Zoom Selected** zooms to any selected shapes. **Zoom Window** lets you select a box on your plan and zooms to fit that box. **Zoom** allows you to zoom into and out of the plan. **Pan** allows you to drag the plan in any direction. **Rotate** allows you to move around a plan when it is in 3D. **Zoom Fit** snaps fit your plan into the **Viewport**, whether you are zoomed in or zoomed out.



Figure 31 Viewport Toolbar

SELECTION

There are two main ways to interact with your **Viewport Pane**, drawing and selection. To enable selection, on the **Home** tab, in the **Edit** group, click **Select**.

DRAWING

There are two main ways to interact with your **Viewport Pane**, drawing and selection. To enable drawing, on the **Home** tab, in the **Shapes** group, ensure one of the takeoff methods is selected.

POLYLINE

The Polyline tool is how you will perform most drawing.

To draw a line:

1. Left click where you want to start your line. (If you are drawing on an applicable vector plan, before you click to draw, if you hover over the end of already drawn line an orange box appears around your cursor indicating that you're taking off from the exact point on the plan.)
2. Left click when you want to end your line. (An orange box will appear again if using an applicable vector plan.)
3. Right click to finish the task.

To draw a shape:

1. Left click where you want to start your line. (If you are drawing on an applicable vector plan, before you click to draw, if you hover over the end of already drawn line an orange box appears around your cursor indicating that you're taking off from the exact point on the plan.)
2. Left click when you want to line to change direction, such as a corner. (An orange box will appear if using an applicable vector plan.)
3. Repeat Step 2 for every corner or direction change.
4. To complete your shape left click at the beginning point of the shape. (An orange box will appear if using an applicable vector plan.)

USING GRIDS AND LISTS

Not all grids and lists behave the same. Some have been customised to provide a more helpful user experience. However the following interaction mechanisms will be applicable to many grids and lists in Cubit.

Most columns in the grids are expandable, so you can expand the information that is important and applicable to the job that you're on and minimise the fields where you need to view less. By right mouse clicking the title bar of a grid you can access the **Column Chooser** where you can customise, to some degree, the columns that are shown. Some of the default columns are un-removable.

Most columns and lists are expandable. To expand a list or column click the triangle next to the item you wish to see.

APPLICATION MENU

To access the Application menu click **Job** on the ribbon.

Through the Application menu you can easily access the **Job Manager**, close the program or access the **Cubit Options** window.

OPTIONS WINDOW

The **Cubit Options** Window is where you control factors of Cubit that affect the entire program.

The tabs are **General**, **Viewport**, **Dimensions**, and **Reports**.

GENERAL

The options in the **General** Tab concern mainly the defaults that affect the program.

The **Plans** group sets the options for when opening a plan, here you can check **Prompt for scaling after insert** and select the default file type when **Import PDFs as:**

The **Panes** group allows you to check whether you want your panes to be **Movable** or **Collapsible**.

The **Default adjustment and sales tax** does exactly as it describes, setting the default adjustment and tax for your plan.

VIEWPORT

The options in the **Viewport** tab concern mainly colouring for the viewport pane and other interactive elements.

The **Viewport** group allows you to check whether you want snapping on or off.

DIMENSIONS

The **Dimensions** tab is where the default dimensions are set and changed, and where you select your **Default measurement units**.

The **Default metric dimensions** group is where you enter the dimensions in mm of what you want your **Vertical area height**, **Volume depth**, **Width**, and **Depth**.

The **Count Results** group allows you to set your **Default count unit**.

REPORTS

The **Reports** tab is where you control the options for your reporting.

The **Logo** group allows you to select an image you would like to use as your logo in your reporting.

The **Storage** group allows you to locate a folder where you'd like your reports to be exported to.

Clicking the **System BOQ Settings** button in the **BOQ Settings** group is where you access the setting for your Bill of Quantities reporting.

Templates give you a facility to rapidly build up descriptions and rates for your estimates. You can:

- Base new Jobs or Pricelists on templates
- Insert specific rows or values from a Template into a Job or Pricelist.

CREATE A TEMPLATE

Templates are created using an existing Job or Pricelist.

To create a template from a Job:

1. In the **Job Manager** window click on the Job in the Job list that you want to use as a template
2. Click **Use as template** in the details pane. This Job is now a Template.

The process for creating a Template from a Pricelist is similar except you select the Pricelist from the list of Pricelists. You can start a brand new Template by first creating it as a Job. Once you have marked your Job as a Template you can still use that as a normal Job. Any edits you make in this Job will be reflected when you next use the Job as a Template.

The screenshot shows a form titled 'Job' with the following fields and values:

- Job name: Estimate Window
- Description: (empty)
- Start date: 02/09/2014
- ESW Project: (empty)
- ESW Job: (empty)
- Use as template
- Site Address: (empty)
- Street: (empty)

Figure 32 Use as template option

USING A TEMPLATE WHEN YOU CREATE A NEW JOB

When creating a Job you do not need to use a Template. If you don't use a template the Job will be empty. If you are using a template the new Job will come prepopulated with estimate sheet information from the template. It copies over all the information that is not Job specific. That is Plans and calculated quantities for a specific Job will not be brought across. This allows you to quickly measure these in your new Job.

To create a new Job using a Template simply select the Template you want to use when creating a new Job.

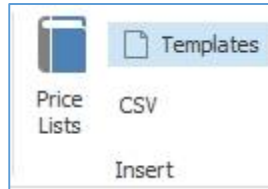


Figure 33 Insert Template

USING A TEMPLATE IN AN EXISTING JOB

You can use Templates at any stage of a Job and you can insert data from as many Templates as you require. At any time during an estimate you can quickly copy in information allowing you to get at descriptions, rates and markups.

If you want to insert from a Template you can at any time from inside your Job click **Templates** on the **Home** tab in the **Insert** group. The **Insert from Template** gives you a number of options with how to update your Job. You select which Items you would like to bring across by clicking the checkbox next to that item. You can then use these selected items in a number of ways.

There are a number of options for how to select your items and it is quick and easy to copy across individual items, hierarchies or multiple trades.

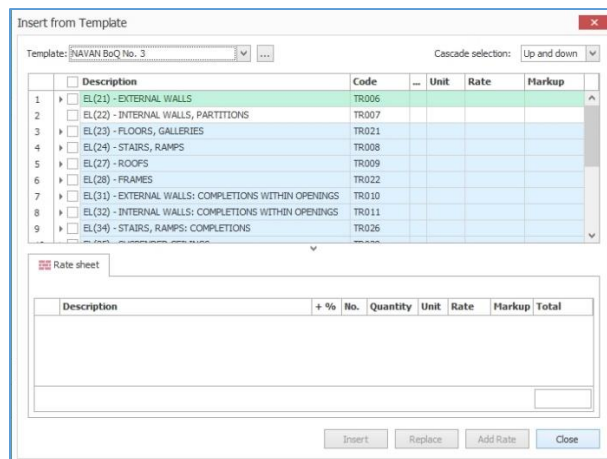


Figure 34 Insert from Template

As well as directly clicking the checkbox next to each item you want to bring into the Job you can control how Cubit interprets your selection with the **Cascade selection** dropdown. There are four possible values as outlined below.

Down Use this to bring across whole Trades or all the items under headings. For every heading or trade you select, Cubit will bring across all of the Items contained in that heading.

Up Use this option if you would like the headings of selected Items to be brought into the new Job. This allows you to select only the Items you want but still ensures the heading hierarchy you enter is carried across into the new Job without you having to explicitly select those headings.

Up and Down Both of the options applied together. All child Items will be brought into the Job and all heading hierarchies are maintained.

None Only the rows that you have selected yourself will be brought into the Job.

Once you have the selection you want to use you can choose to use that selection in a number of ways:

Insert The selected rows will be inserted as new Items at the current position of the active row in the estimate sheet.

Replace The selected Rate will update the currently active row Rate.

Add Rate The selected Rows will be added to the Rate sheet for the currently active Row.

PRICE LISTS

Price lists contain a collection of price information collated together for use within one or more Jobs. You can have as many Price Lists as you want. Price Lists can then be nominated as Templates or called up from within a Job to use the prices.

CREATE NEW PRICE LIST

Price Lists are created in the **Job Manager** window.

To create a new Price List:

1. Enter the **New Job** menu by clicking on the **New Job** label in the **List** group on the **Home** tab on the ribbon.
2. Click **Price List**
3. Enter the "Price List" name in the **New Price List** window and click **OK**.

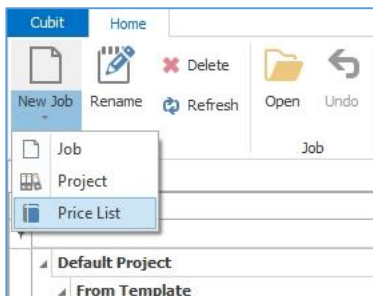


Figure 35 Create Price List

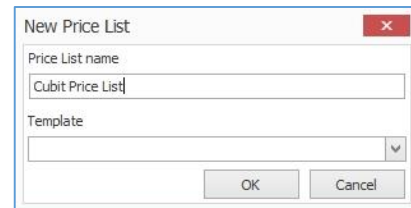
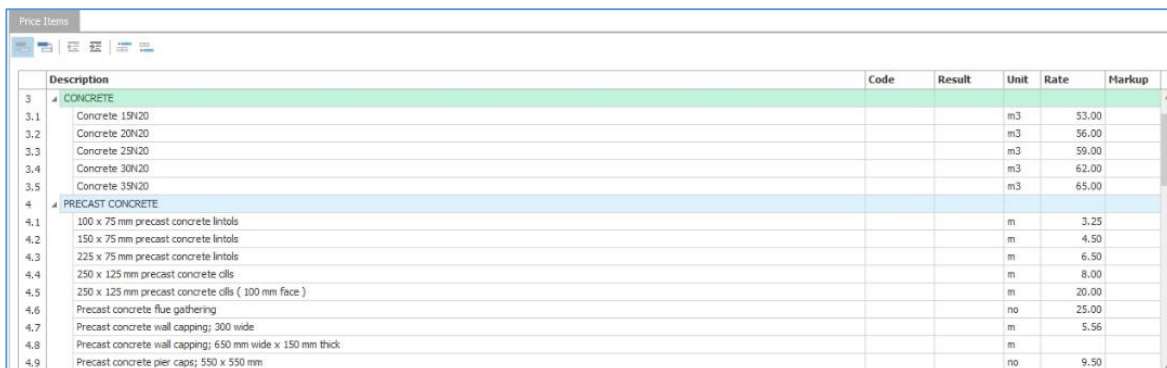


Figure 36 New Price List



	Description	Code	Result	Unit	Rate	Markup
3	CONCRETE					
3.1	Concrete 15N20			m3	53.00	
3.2	Concrete 20N20			m3	56.00	
3.3	Concrete 25N20			m3	59.00	
3.4	Concrete 30N20			m3	62.00	
3.5	Concrete 35N20			m3	65.00	
4	PRECAST CONCRETE					
4.1	100 x 75 mm precast concrete lintols			m	3.25	
4.2	150 x 75 mm precast concrete lintols			m	4.50	
4.3	225 x 75 mm precast concrete lintols			m	6.50	
4.4	250 x 125 mm precast concrete cills			m	8.00	
4.5	250 x 125 mm precast concrete cills (100 mm face)			m	20.00	
4.6	Precast concrete flue gathering			no	25.00	
4.7	Precast concrete wall capping; 300 wide			m	5.56	
4.8	Precast concrete wall capping; 650 mm wide x 150 mm thick			m		
4.9	Precast concrete pier caps; 550 x 550 mm			no	9.50	

Figure 37 Price List

The structure of a Price List is very similar to that of a Job's estimate. Except there is no quantity information.

The upper window **“Price Items”** is where you can adjust your rates per price list trade. The lower window, the **Rate sheet** gives the ability to build up complex rates for specific items.

The screenshot shows a software interface with two main sections. The top section is a tree view of a price list:

- 31 BRICKWORK AND BLOCKWORK
 - 31.1 Damp Proof Course
 - 31.1.1 150 mm thick concrete slab (highlighted in green)

The bottom section is a 'Rate sheet' window. It has a title bar 'Rate sheet' and a toolbar with icons for print, save, and other functions. Below the toolbar is the text 'BRICKWORK AND BLOCKWORK > Damp Proof Course > 150 mm thick concrete slab'. The main area contains a table with the following data:

	Description	+ %	No.	Quantity	Unit	Rate	Markup	Total
1	20 N 20 Concrete 150 mm thick			0.15	m3	56.00		8.40
2	Hardcore 100mm thick			0.10	m3	24.00		2.40
3	Sand Blinding 50mm thick			0.05	m3	16.00		0.80
4	Damp Proof Membrane			1.00	m2	2.00		2.00

Figure 38 Price List Rate Build up

BUILDING UP A PRICE LIST

There are a number of ways of entering items into Price Lists. You can if you like build up a new price list from scratch entering in all the items and prices yourself. Alternatively you can transfer an existing price list.

Cubit allows you to transfer Pricelists from:

- Offsider and Global Estimating
- CSV (or Microsoft Excel) file
- Cordell Direct

PRICE LIST WINDOW BUTTON BAR

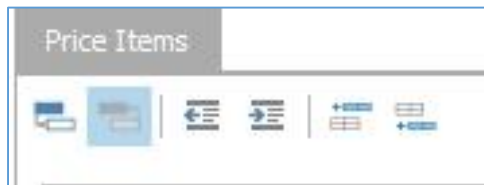


Figure 39 Price List Button Bar

The Price List Window button bar is used to format the text when a price list is typed in.



- **Heading**-Make the selected row(s) a heading.



- **Item**-Make the selected row(s) an item for pricing.



- **Unindent (CTRL + >)**-Unindent the selected row(s).



- **Indent (CTRL + <)**-Indent the selected row(s).



- **Insert New**-Insert a new item before the current row.



- **Add New**-Add a new item to the end of the current heading.

IMPORT A CSV FILE

To import a CSV file:

1. Click **CSV** in the **Insert** tab on the **Home** ribbon.
2. Left click the mouse on the **File:** field.
3. Locate the CSV file in your computer and click **Open**.
4. One of the following options need to be checked: **Header in first row**, **Skip rows with no description**, or **Skip empty rows**.
5. Source column fields can be one of the following: 'Description', 'Unit', 'Rate', 'Markup', 'Code', or 'Heading'.
6. Click either **Insert** to convert a new price list or **Update** to update an existing price list.

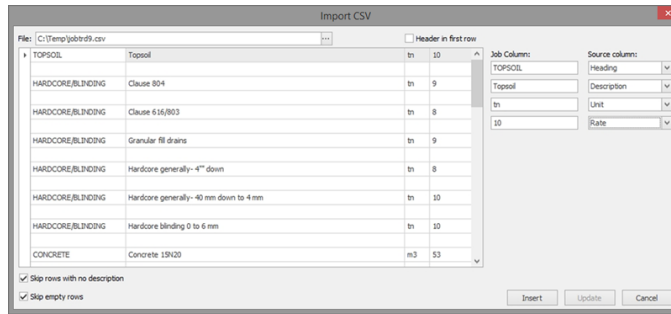


Figure 40 Price List CSV

USING VALUES FROM A PRICE LIST IN A JOB

In the **Insert from Price List** window, click on the Price List name you wish to use.

Inserting data from Price lists operate like Templates, descriptions and rates and be copied over from the Price List.

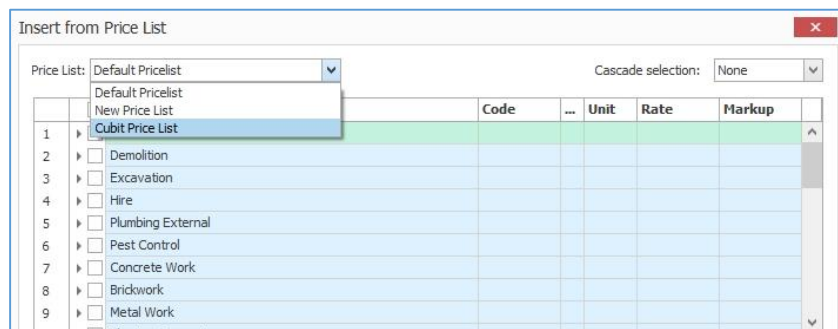


Figure 41 Insert from Price List

ADD RATE

The majority of the time you will want to insert a rate only from the Price List.

To add a rate click **Add Rate** on the **Insert from Price List** window. The cascade selection should be set to **None**.

Insert from Price List

Price List: Default Pricelist Cascade selection: None

Description	Code	Unit	Rate	Markup
<input type="checkbox"/> Traxcavator Minimum		Item		
<input type="checkbox"/> Traxcavator Per Hour		Hr		
<input type="checkbox"/> Traxcavator Float Fee		Item		
<input type="checkbox"/> Bobcat				
<input checked="" type="checkbox"/> Bobcat Hire Per Hour		Hr	90.00	
<input type="checkbox"/> Bobcat With Borer		Hr		
<input type="checkbox"/> Bobcat With Truck (SM3)		Hr		
<input type="checkbox"/> Bobcat Float		Item		

Rate sheet

Hire > Bobcat > Bobcat Hire Per Hour

Description	+ %	No.	Quantity	Unit	Rate	Markup	Total
1 Bobcat per Hour			1.00	hr	55.00		55.00
2 Driver			1.00	hr	35.00		35.00
							€90.00

Insert Replace Add Rate Close

Figure 42 Insert Rate from Price List

The way you first structure your estimate or Bill of Quantities is not necessarily the only way you want to view your information. Job Grouping is incorporated into Cubit and allows you to group similar information together using resource codes. This can be done using a set of user defined codes, sometimes called 'Code Files'.

Each set of codes can comprise of 1 or more coding values that can be applied to your estimate, or Bill of Quantities for grouping like items together later. This is a flexible solution for modifying data presentation.

WHAT IS JOB GROUPING?

There are two separate code groups available: **Quantity codes** and **Rate codes**. Both code group types can be used to apply codes in the **Estimate Pane**.

Quantity codes can also be used in the **Calculation Sheet** tab in the **Estimate** pane where the quantity calculated for a specific item needs to be subdivided and assigned to two or more quantity codes e.g. Block A, Block B, Block C etc.

Rate codes can also be used in the **Rate Sheet** tab in the **Estimate** pane where the rate calculated for a specific item needs to be subdivided and assigned to two or more rate codes e.g. Material Type, Labour Type, Plant Type, Subcontract Type etc.

Rate codes can also be used in the same way in **Price Lists**. If this is done, when rates are inserted into an estimate or BoQ the rate codes are transferred with the rate.

Each code added in any of the code groups, can have up to 25 characters. There is no character limit on the descriptions of each code.

QUANTITY CODE GROUP EXAMPLE USAGE

An example of the use of this coding ability is if you were to employ subcontractors to do some of the work and you wanted to separate this work so a quote could be calculated, say for just the concrete component.

When estimating each item can be coded for this example all concrete items could be coded CO from a Quantity Code Group.

Then when the Estimate is finished the Job can be grouped where a separate trade will be created called **Concrete**. This trade can then be printed as a separate item and handed to the subcontractor to quote on.

This sorting of the Estimate could also be used to calculate the percentage of one or more materials compared to the whole job.

RATE CODE GROUP EXAMPLE USAGE

It is normal practice to group together the labour content on a project according to 'Trade' type and to group the materials according to 'Material Type'.

When estimating, each type of labour could be coded. For example, subcontractor labour could be coded SUB01, while your labour could be coded OWN01 from a Rate Code Group. Each individual Material could be coded with a unique code to identify it, too. For example concrete supply could be CONC01, and concrete testing could be CONC02.

When the Estimate is finished the Job can be resorted with separate trades created for each code assigned, grouping together all items given the same code. This could then be used as a method of performing a detailed tender analysis on the job.

CREATE A NEW CODE GROUP

New Code Files are created at the **Job Manager** window.

To create a new Price List:

1. Click **Codes** in the **Grouping** tab on the ribbon.
2. Choose the appropriate code type by clicking either the **Quantity** tab or **Rate** tab.
3. Type a code file name in the **Code** column.
4. Type a code file description in the **Description** column
5. In the right window pane, type your **code** and **code description**

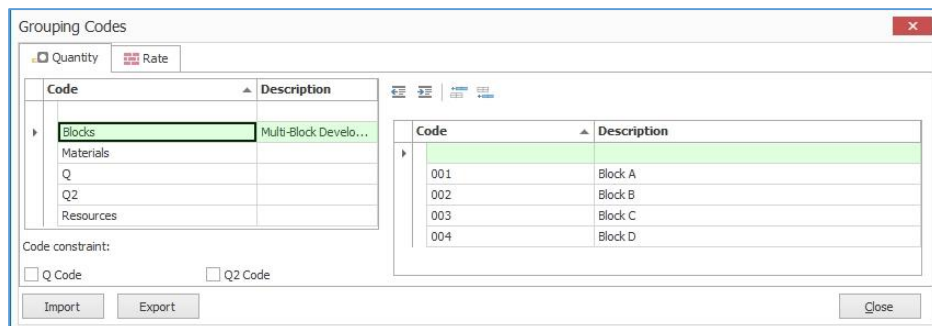


Figure 43 Grouping Codes

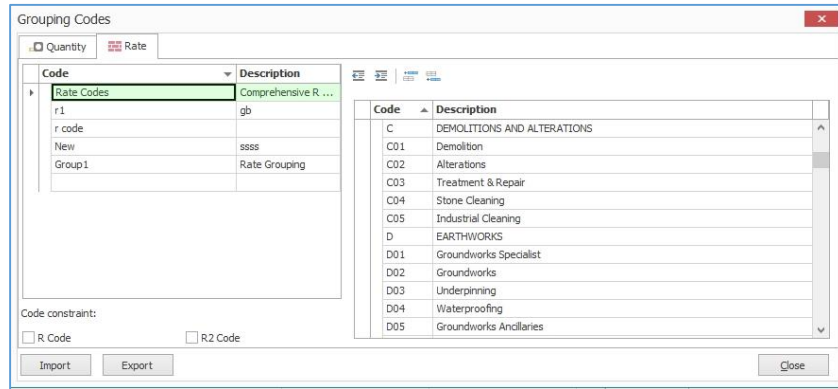


Figure 44 Grouping Code Example

ADD A CODE GROUP TO YOUR ESTIMATE

To add a code group to your estimate:

1. Make sure your estimate is open.
2. Click **Groups** in the **Codes** group on the **Data** tab.
3. Chose the code file(s) to map the estimate by checking the box to the right of the **Group** name.
4. Click **Ok**.

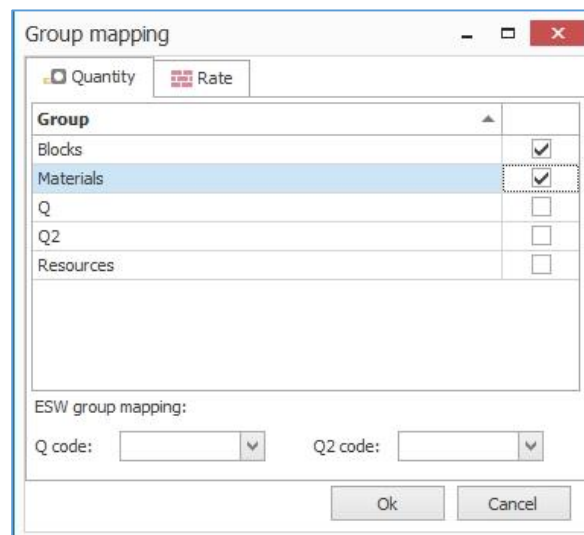


Figure 45 Group Mapping

Multiple Quantity and Rate code files can be assigned to the single estimate, allowing the user to perform a variety of group analysis on the estimate.

When a group is assigned to the estimate a column for that group is added to the Estimate Window.

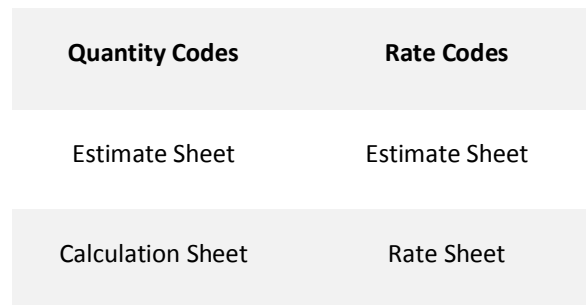
If a Quantity group is added a column is also added to the **Calculation Sheet**. If a Rate group is added a column is also added to the **Rate Sheet**.

	Bill Reference	Description	Blocks	Materials	R...	Quantity	Unit	Rate	Markup	Total
1		EL(21) - EXTERNAL WALLS								
1.1		CONCRETE WORK								
1.1.1		IN-SITU CONCRETE								
1.1.1.1		Concrete (RG35 to B5328); as specified:-								
1.1.1.2	1/1A	walls / columns; in short lengths (15%); > 150mm thick; reinforced				60.00	m3	90.00		5,400.00
1.1.1.3	1/1B	columns; ≤ 0.10m2				1.00	m3			
1.1.1.4	1/1C	columns; > 0.10m2				1.00	m3			

Figure 46 Estimate Group Column

ASSIGN A CODE TO AN ITEM IN YOUR ESTIMATE

Codes can be assigned at various points inside your Estimate. Typically the codes are managed inside the **Estimate sheet** itself, but you can assign codes inside the **Calculation Sheets** and **Rate Sheets**.



To assign a code to an item double click the mouse in the column of the row to be assigned the code and pick the relevant code from the list displayed.

reference	Description	Blocks	Materials	R...	Quantity	Unit	Rate	Markup	Total
1	EL(21) - EXTERNAL WALLS								
1.1	CONCRETE WORK								
1.1.1	IN-SITU CONCRETE								
1.1.1.1	Concrete (RG35 to B55328); as specified:-								
1.1.1.1.1	Concrete (RG35 to B55328); as specified:-								
1.1.1.1.2	1/1A walls / columns; in short lengths (15No.); > 150mm thick; reinforced				60.00	m3	90.00		5,400.00
1.1.1.1.3	1/1B columns; ≤ 0.10m2								
1.1.1.1.4	1/1C columns; > 0.10m2								
1.1.2	REINFORCEMENT								
1.1.2.1	High yield reinforcement; as specified								
1.1.2.2	Bar; straight or bent								
1.1.2.3	1/1D 12 - 25mm diameter (provisional)								
1.1.2.4	Bar; links								

Figure 47 Estimate Group Column Select

IMPORT A CODE GROUP

If you have a Code Table in Offsider or Global Estimating, or a CSV with a list of names and codes to import you can use the **Import Grouping Code** function in Cubit.

To import a code group:

1. Click **Codes** in the **Job Manager** window, in the **Grouping** group.
2. Click **Import** in the **Grouping Codes** window.
3. Browse to the location of the CSV file using the **File** field browse button.
4. Select either **Quantity Group** or **Rate Group** from the **Category** from down menu.
5. Enter a name and description for the code in the **Group** and **Description** fields.
6. Click **Import**.

Import grouping codes ✕

File: ...

Category: ▼

Group:

Description:

Figure 48 Import grouping codes

USING CODE GROUPS CREATED IN OFFSIDER OR GLOBAL ESTIMATING

There are a number of restrictions in Offsider and Global Estimating that are not in Cubit. Codes in Cubit can be longer than those supported in Offsider or Global Estimating, and there can be more Code Groups assigned to an estimate.

To export codes from Global/Offsider Estimating:

1. Ensure the job you want to pull your codes from is open.
2. Access the **File** menu.
3. Click **View Code File**.
4. Click **Export** on the **Codes** menu.
5. Browse to the location you want to save your codes at.
6. Enter the name of your codes in the **File name:** field.

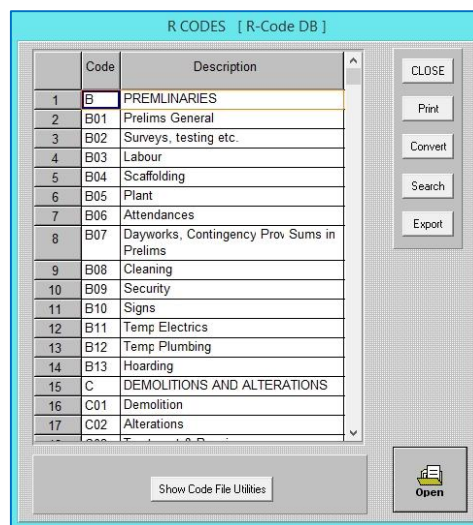


Figure 49 Estimating Codes Menu

If you intend to keep the code file interchangeable between Global or Offsider and Cubit ensure the code constraint options are ticked when imported into Cubit. This will ensure that any new codes added in Cubit conform to the Global or Offsider constraints. These options appear on the bottom of the **Group Codes** window.

Code constraint:

R Code R.2 Code

Figure 50 R Code Constraint

SUPPORTED FORMATS

Cubit allows you to extract quantities from Vector or Raster plans and drawings.

Supported Vector files include PDF, CAD (DWG, DXF) and BIM (DWFx) these can be exported from applications like AutoCAD™ and Microstation™. Supported Raster files include PDF, JPG, BMP, PNG and TIFF, these can be taken from plan files.

Cubit prefers CAD plans (DWG, DXF) as they typically have both better layer data and more accurate lines when taking off. Vector PDFs are the next best, as they are typically created from a CAD document. Vector based plans are preferred as they have additional functionality, specifically around accuracy.

HOW TO INSERT A PLAN

To insert a plan:

1. Click **Insert**, in **Insert** group on the **Plans** tab on the ribbon
2. In the **Open** window that appears, search for the plan you want to use.
3. Select your plan and then click **Open**.

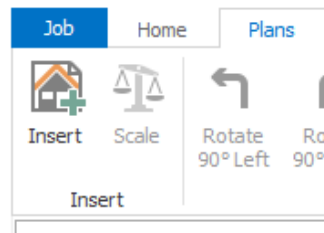


Figure 51 Insert a Plan

INSERT A RASTER PLAN

Raster plans are single layered, flattened images, and will require a drawn scale. Typically these are image files or flat PDF files.

INSERT A PDF PLAN

PDF plans are one of the most commonly used file type, and can be both a flat raster plan (ie scanned plan) or a smart layered, vector plan (ie from CAD). PDF plans will need to be scaled.

INSERT A CAD PLAN

CAD plans will typically have the correct scale already inside the file, and won't require scaling, although always check and validate the scale.

ROTATING YOUR PLAN

To rotate your Plan to the left, click **Rotate 90° Left** in the **Plans** tab in the **Align** group on the ribbon.

To rotate your plan to the right, click **Rotate 90° Right** in the **Plans** tab in the **Align** group on the ribbon.



Figure 52 Rotate Plan

ROTATE PLAN BY ANY ANGLE

For any other rotation click **Custom**. A new window will open and allow you to rotate your plan left 90°, right 90°, or select a rotation percentage.

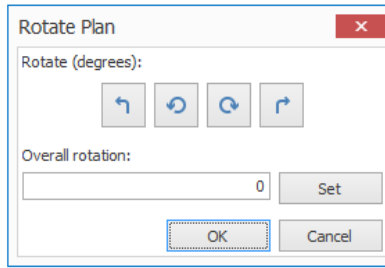


Figure 53 Rotate Plan Window

SCALING YOUR PLANS

By default **Prompt for scaling after insert** is checked in Cubit **Options**. Whenever you import a plan into Cubit for the first time, the **Scale Plan** window should automatically open. This window gives you the options for scaling your plan.

You can change your scale at any time by clicking **Scale** in the **Insert** group on the **Plans** tab in the ribbon.

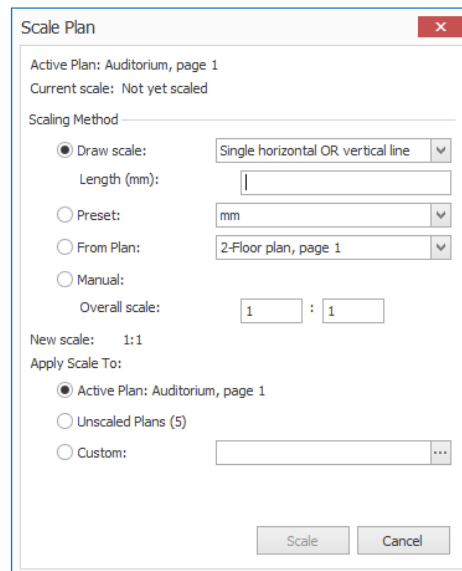


Figure 54 Scale Plan

CREATE A SCALE FROM A REFERENCE LINE

By default **Draw Scale:** is already selected, along with the option **Single horizontal OR vertical line**.

To create a scale from a reference line:

1. In the **Viewport Pane**, and using any line from the legend, left click the mouse at one end and left click at the other.
2. In the **Length (mm)** field, enter the length in mm from the legend.
3. Click **Scale**.

The process is the same using the **Single diagonal line** option from the 'Draw Scale'.

The process is the same when you use the **Horizontal AND vertical lines** option, except you must scale off both a horizontal and vertical line. This is done for maximum accuracy, and provides the most accurate scale achievable in Cubit.

ENTER A CUSTOM SCALE

You can custom scale from the **Scale Plan** window by clicking **Manual** and entering your scale into the **Overall Scale** option.

USE A SCALE FROM AN EXISTING PLAN

You can scale a plan from another plan as long as that plan is previously scaled. When the **Scale Plan** window opens you need to select "From Plan:" and select the name of the existing Plan you wish to scale from.

INTERACTING WITH YOUR PLANS IN A JOB

SEEING A PLAN IN THE VIEWPORT

To open a plan through the Viewport:

1. Click **Insert**.
2. In the **Open** window that appears, search for the plan you want to use.
3. Select your plan and then click **Open**.

VIEWING MULTIPLE PLANS AT ONCE

You can view more than a single plan at any one time. By default you can view up to 2 plans, but through [Cubit Options General tab](#) you can change this figure. The default option is set to cater to standard computers, only change this for more powerful machines.

PLAN PANE

The 'Plans' pane is a snapshot of the plans you have imported and it allows you to choose what layers of that plan you view.

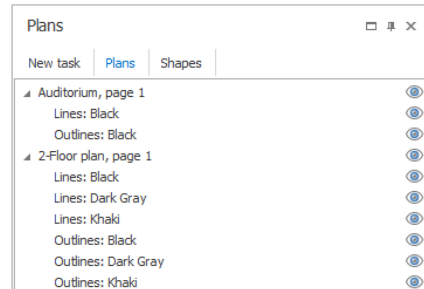


Figure 55 Plans Pane

LAYERS

Vector plans can store layer information, including outlines, text, walls, room names, etc. You can access the various layers, and chose the ones you wish you view inside the **Viewport** pane by clicking the arrow beside the plan name. Beside each layer is an eye, clicking an eye will turn the layer off, clicking the eye again will turn it back on

PLAN REVISIONS

Plan revisions allows you to import revised plans and compare the differences between the plans. It makes viewing changes like walls, floor space or openings easy to do.

ADDING A REVISION

To add a plan revision:

1. Click **Add Revisions** in the **Revisions** group on the **Plans** tab in the ribbon.
2. In the Open window that appears, search for the plan you want to use.
3. Select your plan and then click Open.

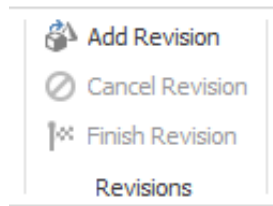


Figure 56 Add Revision

MANAGING CHANGES

When the revised plan is imported into your estimate, the **Viewport** pane will highlight the difference between the original and revised plan. Added elements not in the original plan will appear in green, while removed elements will appear in red. Unchanged elements of takeoff will appear in grey.

In the **Plans** pane you can manage both the original plan and revised plan, select the eye beside either plan to toggle viewing it on the **Viewport** pane. Through the **Revisions** tab on the **Plans** pane the plan is divided up into three categories which help to easily manage your job: new, deleted or unchanged.

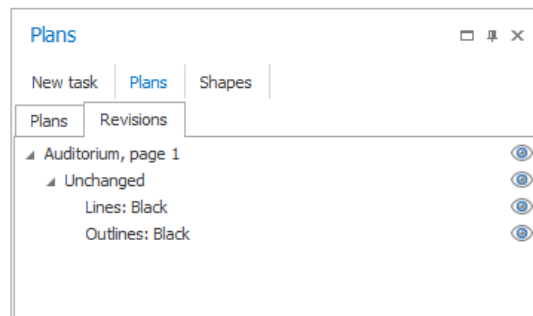


Figure 57 Revisions Tab

FINALISING YOUR REVISION

You can choose to keep or discard your changes. On the **Plans** tab on the ribbon, click **Cancel Revision** to discard changes or **Finish Revision** to save them. If you discard your changes they will be gone and irretrievable.

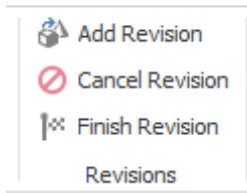


Figure 58 Finish Revision

The term “takeoff” describes the process and results of digitizing elements of a plan.

In Cubit performing takeoff creates **Shapes** which create **Results** that are assigned into items in the **Estimate**. The type of result assigned to the selected estimate item(s) will depend on the **Result Type(s)** that is selected for the selected rows.

Each **Result** has values separate from its underlying shape allowing control over how you reuse your shapes. Such that you can use the same base shape for many different types of takeoff. Even though you can have different wall heights, names and so on based off the same shape changes to the base shapes geometry are reflected in all of its results. Such that when there is a change to the base shape you change the shape in your estimate and those changes are reflected everywhere.

RESULT TYPES

Cubit is the first program where you perform your takeoff directly into your estimate, rather than a list. You use your estimate to control what quantities you are taking off. After your plan is inserted and scaled, you will need to have an estimate item setup with a **result type** defined before you can start your take off.

ASSIGNING A RESULT TYPE TO AN ITEM

Everything you takeoff in the application can have a number of different results derived from them. You need to specify which result you want to use for your estimate item. Save time by assigning result types to a heading. Newly created items underneath that heading will use that result type by default.

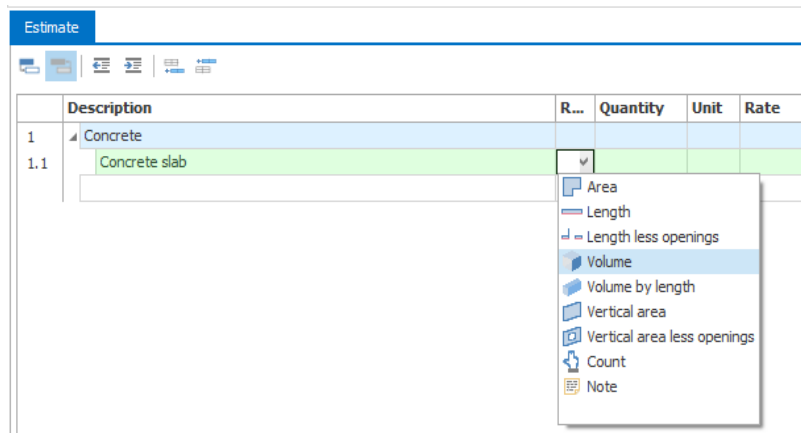


Figure 59 Result Types

AREA

Area calculates the top down projection of a shape. It is useful for calculating the area of floors, ceilings, roofs and gardens and so useful often by tilers, carpenters, painters, landscapers, among others.

LENGTH

Length calculates the length of a line or a shape. Length is useful for guttering, pipes, corners and edge from concrete, and so often used by plumbers, concreters and roofers among others.

LENGTH LESS OPENINGS

Length less openings calculates the length of a line or shape, minus any openings that intersect. It is useful for measuring skirting and useful for carpenters among others.

VOLUME

Volume calculates the volume of a shape. Volume is useful for concrete slabs and concreting pilings among others.

VOLUME BY LENGTH

Volume by length calculates the volume based off the shape length. It is used for calculating trenching, strip footings and beams, and useful for concreters and excavators among others.

VERTICAL AREA

Vertical area calculates the vertical area of a shape or line. It is a very common result type used for walls, and often used by carpenters, brick layers and plasterers among many.

VERTICAL AREA LESS OPENINGS

Vertical area less openings calculates the vertical area of a shape or line, taking out any openings on that area space, such as doors or windows. It is used for getting specific wall areas and used by painters, carpenters and many others.

COUNT

Count is used for counting specific objects used on a plan. It is used for counting objects such as lighting fixtures, power points, taps and toilets and useful for any trade that has a desire to count a number of objects.

WINDOW

Window calculates the number of windows inserted in the plan.

DOOR

Door calculates the number of doors inserted in the plan.

NOTE

Note is a custom field, where you can insert any information you want that isn't listed in any other result type.

TAKEOFF TOOLS

There are two main types of quantity takeoff:

1. **Drawing** is the process where you trace or create shapes that define elements of your Job.
2. **Counting** is the process where you are able to calculate how many times an item is in your Job.

In Cubit you can get quantities from BIM files, and from other applications.

DRAWING TAKEOFF

We have a variety of drawing tools that can be used in your take off.

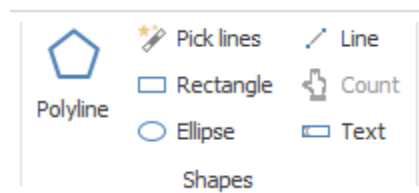


Figure 60 Drawing Tools

POLYLINE

The **Polyline** Tool allows you to draw lines (straight or curved) and create shapes that can be used to extract quantities from.

When using the **Polyline** tool ensure:

1. Your plan is scaled off.
2. That an estimate item with a valid result type is active.
3. That you are in Polyline mode, **Polyline** tool will be highlighted in the **Shapes** group in the **Home** tab of the ribbon.

DRAW STRAIGHT LINES

Straight lines are done by left mouse clicking to start the line and left mouse clicking to finish the line. You can complete the shape at any time by right mouse clicking after completing a line or bringing your shape to close with a left mouse click to the starting point.

DRAW ARCS

Arcs are drawn by left mouse clicking to start the line and when finishing the line clicking and holding down left mouse button, then (while holding the mouse button down) moving the mouse cursor where you want the line to curve.

PICK LINES

The **Pick lines** tool allows you to select lines from a plan for any DWG and PDF vector with layer information. This tool is used by clicking on a line from the plan and transforming that line into a shape or line.

RECTANGLE

The **Rectangle** tool is selected by clicking **Rectangle** in the **Shapes** group on the **Home** tab in the ribbon. This tool is used by left clicking at one corner and dragging the shape to the opposite corner and left mouse click again.

ELLIPSE

The **Ellipse** tool is used for making complete circles or ovals. To use it click **Ellipse** in the **Shapes** group on the **Home** tab in the ribbon. Left mouse click to start the shape, move your cursor to generate the shape you need and left mouse click to complete.

LINE

The **Line** tool is used to draw just a line. To use, click **Line** in the **Shapes** group on the **Home** tab in the ribbon. When selected left mouse click to start the line and left mouse click to finish the line.

COUNTING TAKEOFF

Although most of your calculations will be pulled from shapes and lines you create and control, when you need to count specific items you would use the **Count** tool. This tool is used by clicking **Count** in the **Shapes** group on the **Home** tab of the ribbon.

On raster plans or any plans without layer and object information, you would start by picking the line which you need to calculate the counts for that has the **Result** type of **Count** and then click on every applicable

The **Count** tool requires even less effort on any CAD file or intelligent PDF. When you select objects on one of these applicable plans, your count will automatically select all the objects.

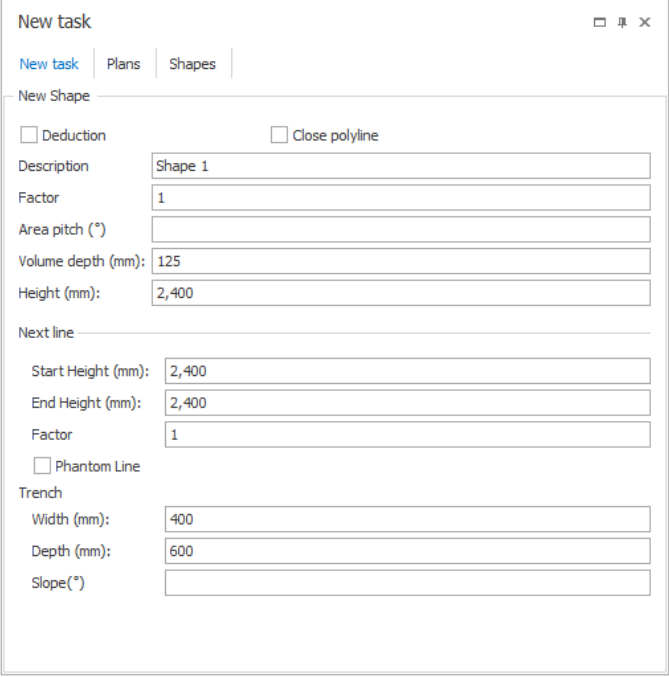
ANNOTATION

You can annotate on your plans by clicking **Text** in the **Shapes** group on the **Home** tab of the ribbon. This creates a new shape that is grouped as **Text**. By double clicking into the shape you can change the text you type.

DEFINE SHAPE INFORMATION

Before you draw your takeoff setup the dimensions you want to use for the shapes you are drawing. These values control the results that are created. Selecting this information is done in the **Plans** pane in the **New task tab**.

Information on the **New task** tab will only be accessible if you have a takeoff tool selected (ie, **Polyline**, **Rectangle**, etc) and if you have selected an item from the **Estimate** pane that you are taking off.



The image shows a software dialog box titled "New task" with a "Shapes" tab selected. The dialog is divided into several sections for configuring a new shape:

- New Shape**: Includes checkboxes for "Deduction" and "Close polyline".
- Description**: A text field containing "Shape 1".
- Factor**: A text field containing "1".
- Area pitch (°)**: An empty text field.
- Volume depth (mm)**: A text field containing "125".
- Height (mm)**: A text field containing "2,400".
- Next line**: A section with three text fields: "Start Height (mm)" containing "2,400", "End Height (mm)" containing "2,400", and "Factor" containing "1".
- Phantom Line**: A checkbox that is currently unchecked.
- Trench**: A section with three text fields: "Width (mm)" containing "400", "Depth (mm)" containing "600", and "Slope(°)" which is empty.

Figure 61 New task tab

NEW SHAPE VALUES

There are multiple values that you can enter into the **New Shapes** pane, many of these have default information, many is changeable in the [Cubit Options](#).

DEDUCTION

By checking the **Deduction** check box option, the next shape will be drawn as a deduction this will mean that values returned from the Shape will default to negative. After you have completed your shape you can change whether a shape result is a deduction or not by clicking the relevant **Deduction** check box in the **Calculation Sheet**.

CLOSE POLYLINE

For drawing shape results that don't require a closed area like **Length**, **Length less openings** and **Volume by length** you can click this checkbox to either allow an open shape or force a closed shape.

DESCRIPTION

The description is applied as the default description for any created Shape results. The values for shape results can be modified at any time in the relevant **Calculation Sheet**.

To change the shape description for an already created Shape:

1. Select 1 or more Shape(s)
2. In the **Viewport** right click one of the Shapes
3. Click **Rename**
4. Enter a new name and click **OK**

FACTOR

Factor can be used if you want to draw a single shape to represent a number of entities or if you want to introduce some form of wastage factor. Factors used in the Shape can be overridden for individual Shape results.

AREA PITCH

Area Pitch sets the angle that an area is tilted at and affects the value returned for the Area result type and will return the true area rather than the projected top-down one.

VOLUME DEPTH

Volume depth is the depth to use when using the volume result type.

HEIGHT

Changing the **Height** value will change the individual heights of the corners of any shapes that are yet to be drawn. For any corners you have already drawn it is assumed that they were entered at the correct height and so are not changed.

To modify the height used in a shape result that is already entered requires going to the relevant Calculation sheet to select the shape result then modifying the values in the Details pane.

NEXT LINE VALUES

You can control not only the values of the shape but you can control specific elements of the next line.

START AND END HEIGHT

Start / End Height calculates the height details for the next line drawn, this doesn't affect any completed line.

All your takeoff work is done to simplify and speed up the time it takes you to accurately and thoroughly generate an estimates for a Job. Your quantities and trades are updated as you takeoff, so your estimates are done in real time.

An estimate is divided into a number of different sheets; unlike our older software we do not separate Trade (Job Summary) and Item (Trade Breakup). Cubit uses a single **Estimate sheet**.

In the Estimate sheet every top level item is a **Trade** which can contain an unlimited number of headings and items. Items enable you to identify, categorise and manage all of your costing and note information for your Job. You can expand or collapse Trades and Headings so you can see or hide what you want.

Each **Item** inside a **Trade** have a **Quantity** and a **Rate**, these are the base units of pricing your Job. There are a number of other columns many of which are self-explanatory. These fields can accept a number of mathematical operations and the quantity and rate can have their values determined in their own separate sheet.

Every Quantity in a Job can contain a **Calculation sheet** and every Rate can be built up using a **Rate sheet**, so you can handle complex estimating scenarios in a specific, easy to access section.

Estimate

	Description	Result	Quantity	Unit	Markup	Rate	Total	
1	Concrete							
1.1	Trim and grade under slab	Area	281.00	m2	0%	3.00	843.00	
1.2	Exc Strip footings	Volume by length	25.00	m3	0%	95.00	2,375.00	
1.3	125 mm Slab on ground	Volume	36.00	m3	0%	280.00	10,080.00	
1.4	125 mm Edge form to slab	Length	104.00	m	0%	68.00	7,072.00	
2	Brickwork							
2.1	Common Bricks to ext walls	Vertical area less openings	231.00	m2	0%	95.00	21,945.00	
2.2	E/o for Face brickwork	Vertical area less openings	231.00	m2	0%	22.00	5,082.00	
2.3	Expansion joints	Length		m	0%	18.50		
2.4	BOE Sills	Length		m	0%	32.50		
3	Carpentry							
3.1	Subfloor framing and sheet flooring	Area	269.00	m2		90.00	24,210.00	
3.2	Ext wall frames	Vertical area	239.95	m2		45.00	10,797.79	
3.3	Supply and install studs to external walls	Length	89.00	no		15.00	1,335.00	
3.4	Internal wall frames	Vertical area less openings	210.00	m2		36.00	7,560.00	
3.5	Roof truss frame	Area		m2		230.00		
3.6	Supply and install 2040 x 820 timber door	Count	3.00	each		247.00	741.00	
4	Plaster							
5	Tiler	Volume by length						
6	Door	Door Counts						
7	Windows	Window Counts						
							118,092...	

Figure 62 Estimate Pane

CREATING TRADES

Your estimate should be divided into Trades to simplify and organise an estimate.

To create a Trade:

1. In your **Estimate Pane** double left mouse click the most left text box.
2. Enter into that text box the trade you would like to create, ie. Concrete, Brickwork, Painter.
3. Press enter key.
4. Select the line trade line you just created
5. Click **Heading** on the **Estimate** toolbar.



Figure 63 Estimate toolbar

CREATING HEADINGS

To organise each trade even further you can have additional headings within each trade, this process is very similar to creating trades.

To create a heading:

1. In your **Estimate Pane** double left mouse click the most left text box underneath your trade.
2. Enter into that text box the heading you would like to create, ie. Feature Wall, Rompus, Ensuite
3. Press enter key.
4. Select the line trade line you just created
5. Click **Heading** on the **Estimate** toolbar.

COLUMNS

DESCRIPTION

The item **Description** column will hold the name of the item being added to the estimate and can be inserted from both Price lists and Templates. While a full description is not required, we recommend storing enough information so that it is clear as to what the Item refers to.

QUANTITY

The **Quantity** column reflects the total number of items in the **Description**. This value can be typed or calculated using a formula, or returned from its **Calculation Sheet**. If a value is returned from the **Calculation Sheet** it will be written in blue text and cannot be changed on this sheet. To change this value you need to go directly to its **Calculation Sheet** or remove the value.

UNIT

The **Unit** column displays the unit of the item in the **Description** field. There is not set unit, and the column will accept any short description that is required. A default unit is setup for each **Result Type** as described in the takeoff section but these do not need to be used.

RATE

The **Rate** column contains the cost of the item named in the **Description** field. Like quantity, the rate can be typed directly or calculated from a formula. However the rate will not return a value from a calculation sheet, it uses a **Rate Sheet**. If a value is returned from the **Rate Sheet** it will be written in blue text and cannot be changed directly in this sheet. Instead you will have to go into the **Rate Sheet** to alter the values.

MARKUP %

The **Markup** column is used to add a mark-up to the cost of an item. It can be used to designate either a markup or a discount.

TOTAL

The **Total** column shows the total cost of the item. Although this column is automatically calculated by Cubit from your takeoff, you can also set a manual total by typing over the total.

CALCULATION SHEET

The **Calculation Sheet** allows you to calculate complex quantities for every item in a Job. This sheet replaces your notepad and calculator and allows you to work out quantities in an easily auditable way.

Every Item in a Job can have a **Calculation sheet** and the total value is returned into the quantity for that Item.

Description	Factor	Length (m)	Width (m)	Subtotal	-	Total
Ldy	1			9.829	<input type="checkbox"/>	9.829
Ldy	1			8.421	<input type="checkbox"/>	8.421
Ldy	1			2.856	<input type="checkbox"/>	2.856
Bed 3	1			29.455	<input type="checkbox"/>	29.455
Bed 3	1			2.754	<input type="checkbox"/>	2.754
Bed 3	1			1.525	<input type="checkbox"/>	1.525
Bath	1			12.971	<input type="checkbox"/>	12.971
Bath	1			1.055	<input type="checkbox"/>	1.055
WC	1			6.341	<input type="checkbox"/>	6.341
garage	1			8.124	<input type="checkbox"/>	8.124
hall	1			18.272	<input type="checkbox"/>	18.272
Study	1			1.221	<input type="checkbox"/>	1.221
Study	1			7.436	<input type="checkbox"/>	7.436
Study	1			8.021	<input type="checkbox"/>	8.021
Study	1			4.022	<input type="checkbox"/>	4.022
WIR	1			25.875	<input type="checkbox"/>	25.875
Ensuite	1			5.856	<input type="checkbox"/>	5.856
Ensuite	1			9.811	<input type="checkbox"/>	9.811
Bed 2	1			1.433	<input type="checkbox"/>	1.433
				209.02		m2

Figure 64 Calculation Sheet

DESCRIPTION

The **Description** column allows you to identify each line in a **Calculation Sheet**. Be specific to make referring to your estimate is easier. e.g. "less window area", "Waste 10%" etc.

FACTOR

The **Factor** column is a multiplier for the **Length**, **Width** and **Depth** columns. You are able to directly type numbers and formulas into this cell as well as drag and drop takeoff shape results from the **Shape** pane.

LENGTH, WIDTH AND DEPTH

Length, **Width** and **Depth** columns define the dimensions of an item or part of an item. You do not need to use all of the columns and which columns are visible are dependent upon the **Result Type** of the current item.

MARKUP

The Markup applies a percentage factor to the current result before populating the total. This can be useful for applying wastage and other factors to your measurements.

TOTAL

Displays the total for each calculation item. This value cannot be changed directly, it is calculated based on the other columns in the sheet. The sum of the **Total** column is displayed at the bottom of the **Calculation sheet**.

ROUNDING

The final result of a **Calculation sheet** can be rounded based on a number of Presets. These are all accessible in the **Details** pane of the Calculation sheets parent Estimate Item.

RATE BREAKUP SHEET

The **Rate Sheet** is the sheet where the cost of an assembly can be built up from the separate components, e.g. an internal door assembly, a concrete slab, a wardrobe, or anything that is made up of more than a single component. If an item is made up of only one component, consider entering the rate directly into the **Estimate sheet**. The **Rate sheet** is sometimes called a Composite rate sheet, as it is composed of multiple item. Rates can be built up from a mixture of materials and labour or materials only.

Calculation sheet | Rate sheet

Carpentry > Supply and install 2040 x 820 timber door

	Description	+ %	No.	Quantity	Unit	Rate	Markup	Total
1	door supply			1.00	ea	135.00		135.00
2	hinges			2.00	ea	3.00		6.00
3	lock			1.00	ea	5.00		5.00
4	arch		2.00	5.40	m	7.50		81.00
5	labour			0.50	hr	40.00		20.00

\$247.00

Figure 65 Rate sheet

DESCRIPTION

The description of the item to be included in the composite rate. There is no need to type in the full description of an item, but you might not be the only person to read this information. This description can be copied from the price list.

THE + % COLUMN

If you click on the + sign the total of the quantity column will be divided into the total of the line total column, this will give the resulting composite rate.

A common use of this +% column is for calculating a rate per m2 of flooring. Build up a rate of all the items that would be used in a 50m2 area of flooring, then by adding a + sign and a quantity of 50 the **Composite Rate** will be displayed for 1m2 of flooring. If you click on the % sign the line item will calculate as a percentage of the line directly above. Such that if the Total of line 1 is 50 and line 2 has a value of 10 in the **Qty** field then the total would be 5.

MARKUP (%)

This adds a markup to the cost of the item. This can be used to give a discount to one item by typing a negative number. This field will be blank if no markup or discount is required for an item. This markup is applied before subsequent markups and adjustments in the **Estimate** sheet and for the overall Job.

MATHEMATICAL OPERATORS

With mathematical operators, you can add (+), subtract (-), multiple (*) or divide (/) the expression. The result of using mathematical operators is a value. The results of these formula are, as tradition demands, displayed in Pink.

Expressions follow the normal algebraic rules:

1. Operations are performed from left to right.
2. The value between parentheses will be calculated first.
3. Multiplication and Division are performed.
4. Addition and subtraction operations are performed.

These can be entered in most numeric fields across the Estimate and its various sheets.

Operators	Expression
+	addition
-	subtraction

* multiplication

/ division

() parenthesis

Figure 66 Mathematical Operators

JOB MARKUP, ADJUSTMENTS AND SALES TAX

Default values can be setup for these in the Options window in the General tab. However they can also be overridden for each Job. These will apply factors or add values onto the overall value for a Job and can be shown or be hidden in your reports.

How to open the Adjustment and sales tax window inside a Job:

1. Open your Job from the Job list in the Job Manager window
2. In the status bar of the Opened Job click on the number next to the **Adjustment** or **Total after tax** label.
3. Make any changes then click **OK** to confirm or **Cancel** to restore the previous value.

The Job **Adjustment** can be set as markup or discount by entering a positive or negative number as the **Amount**. You can also choose the **type** of adjustment and calculate the total value using a **Percent** or a **Fixed** value.

The **Sales tax** is set as a percentage of the total Job value you are even able to give the Sales tax a custom **Name** that will appear in the interface and on reports.

Adjustment	
Type:	Percent
Amount:	15

Sales tax	
Name:	G.S.T
Rate (%):	10.00

Summary	
Subtotal:	\$61,452.17
Adjustment:	\$9,217.83
Total:	\$70,670.00
G.S.T:	\$7,067.00
Total after tax:	\$77,737.00

Cubit provides different ways for using data once you have finished inputting your Job, including standard and parametric reports.

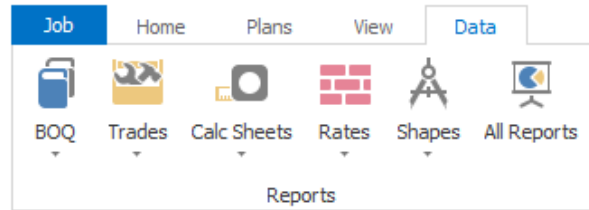


Figure 67 Reports Group

STANDARD REPORTS

Cubit contains prebuilt reports that report at many different levels of an estimate, and tailored to Trades and Items, Rate Sheets, Calc Sheets and takeoff. All different categories of reports come with a number of present options with the option to include professional charting and images of the Viewport.

Name	Category	Header	Footer	Show in ribbon	Built in
Trade report	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Trade summary	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Markup rate report	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Trade report with blank...	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unpriced items report	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Trade summary pie chart	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Trade summary bar chart	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Trade summary doughn...	Trade	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rate breakup sheets	Rate	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rate breakup sheets w...	Rate	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Takeoff report	Shape	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Takeoff report with all ...	Shape	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Takeoff report without ...	Shape	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Calculation sheets report	Calc	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Calculation sheets repr...	Calc	Default	Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Figure 68 Reports Window

ALL REPORTS

To see all the reports that are in the system click the **All Reports** button in the **Data** tab on the ribbon.

Here you can Preview, Print or Customise the inbuilt reports and set which of your customised reports you want to have directly accessible in your ribbon.

CHANGE WHICH REPORTS ARE SHOWN IN THE RIBBON

From the **All Reports** window in the list of reports click on the Checkbox in the **Show in ribbon** column so that it is showing a checkmark for the report you want to access directly in the ribbon.

REPORT PREVIEW

To open a Preview of a Standard report in the **Data** tab in the **Reports** group on the ribbon click on one of the Report categories.

You will get a view of what your report will look like once printed. From here you can set a number of different options and are able to export, print or directly email in a variety of formats including PDF and Microsoft Excel.

From the report preview there are a number of options that you can quickly define on the fly. We call this parametric reporting and this is explained in the next section.

PARAMETRIC REPORTING

If you don't have access to or don't want to invest the time in full-blown Custom reports. There are a number of commonly customised settings that you can tweak for different sort of reports.

These are predominately located inside the Preview for each report. From here you can quickly hide and show totals, markups, rates different item levels, change the title and so on.

HEADERS AND FOOTERS

You can define a number of customised headers and footers for your reports and can use different templates for your different reports should you wish.

To modify the header:

1. From within a Job click the **Job** tab in the ribbon
2. In the **Cubit Options** window click **Reports**
3. In the **Logo** group click **Select...** to find the file you want to use on your reports.
4. Click **OK** to close the **Cubit Options** window.
5. Click **All Reports** in the **Reports** group on the **Data** tab of the ribbon.

6. Choose a **Default header** template to use. The header templates that come preloaded are setup to position your logo on different sides of the report. You can use one of these or create your own.

To create your own Header template:

1. From the **All Reports** window click ... to open the **Report headers** window.
2. Click on the Header template in the list that you wish to customise.
3. Click **Customise**.
4. Make your changes in the Report designer, and save the template with a new name.
5. Click Close in the **Reports header** window.
6. Assign the header template that you have created. This can be as the default header, or you can override the default header by selecting a new value in the Header column for one of the listed reports.

Modifying or creating your own custom footer template follows the same process.

CUSTOM REPORTS

Each of the inbuilt reports can be customised with our report designer.

To edit a report:

1. Click **All Reports** in the **Repots** group in the **Data** tab on the ribbon.
2. In the **Reports** window click on the report you want to edit then click the **Customise** button
3. After making changes in the report designer you can save the report or save the changes as a new report.

If you make a mistake with a report, you can select the report in the **All Reports** window and click **Restore default**.

For further information on our comprehensive custom report designer please see our reporting user documentation guide.

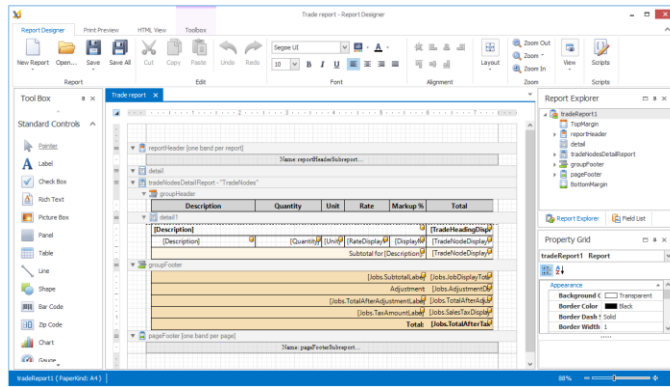


Figure 69 Report Designer

Bill of Quantities (also known as the Bill or BOQ) is a specially formatted report which generates unique bill reference numbers for items in your estimate. The reference will depend on a number of configurable options that control how a bill is presented.

CONFIGURING OPTIONS

Due to the special nature of the bill of quantities reporting it has its own extensive range of customisation options. These can be set for all new Jobs in the Cubit Options window or modified on a Job by Job basis from within a Job.

To set default options for your Bills:

1. In the **Job Manager** window click the **Cubit** application menu tab.
2. Click **Options**
3. Click the **Reports** tab
4. Click **System BOQ Settings** in the **BOQ Settings** group.

To change options on a Job by Job basis:

1. Open up the Job you wish to modify the options on
2. In the **Data** tab click the **BOQ** tool dropdown
3. Click **Options**

The screenshot shows the 'BOQ Options' dialog box. It is divided into several sections. The 'Numbering' section has three radio button options: 'Number sequence I/I' (selected), 'Character sequence A/I', and 'Constant character'. The 'Constant character' option has two input fields containing 'BOQ' and '1'. Below this is a 'Separator' field with a slash '/' character. The 'Trade name' section has a dropdown menu set to 'Once at start of trade' and a checked checkbox 'Print trade name in page header'. The 'Total' section has a checked checkbox 'Print "Nil." for page totals with no value'. The 'Margins' section has two input fields: 'Top (lines): 3' and 'Left (chars): 3'. The 'Header/Footer' section has a checked checkbox 'Show Company name', three text input fields for 'Line 1: BOQ Info', 'Line 2:', and 'Line 3:', and a checked checkbox 'Show date of printing'. At the bottom right are 'OK' and 'Cancel' buttons.

Figure 70 BOQ Options

PREVIEW

You can preview the BOQ for the currently opened Job, and modify the options for that job within the preview.

The screenshot shows a software window titled "BOQ Print Preview" with a ribbon menu at the top. The main area is split into two panes. The left pane displays a table with the following data:

Buildings	Quantity	Unit	Price
Form and grade under slab	225.00	m ²	6,450.00
Reinforcing steel	33.00	m ³	3,924.00
Form edge for concrete	44.00	m ²	12,740.00
Form edge for slab	30.77	m ²	1,397.00
Form 4 Day	30.77	m ²	1,287.00
BOQ Total			27,898.00

The right pane displays a table with the following data:

CONCRETE	Quantity	Unit	Price
Concrete quantity by summary			27,898.00
BOQ Total			27,898.00

Figure 71 BOQ Print Preview

To open a preview, click **BOQ** in the Data tab on the ribbon. Click **Print** to output the report to your printer, or other output device.

Once a BOQ preview has been opened, bill references will be generated for all of your items. These are visible in the details pane for each selected item. Alternatively you can turn the Bill reference column on so it is visible.