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1 Important principles for financial management

Financial management is one of the key priorities for project managers on any project. It is essentially the process of monitoring revenue vs. cost, including analysis of performance to date and forecasting the project to, and at completion.

1.1 Revenue

Revenue is created by submitting **progress claims**. A progress claim is created using the contract **schedule of rates** (even on lump sum contracts), which may be adjusted to account for **variations**.

In Civil Pro this corresponds to;

- Schedule Items (the contract schedule of rates)
- Variation Register (project variations)
- Progress Claim Register (claims for payment from the client)

1.2 Cost

In civil pro costs are monitored ENTIRELY through the **daycosts**. The Civil Pro daycost register is completed daily to record the resources used on the project.

It is not always possible to precisely record the costs progressively because of things like;

- Labour for which an approximate hourly or daily rate is used as it is not necessarily practical to adjust for overtime, allowances and oncosts each day
- Additional costs which may not be completely locked down until invoices are issued such as freight, discounts etc.
- Costs can be missed

For this reason, the daycosts are reconciled against **invoices**.

Prior to engaging a resource, the terms of the supply should be agreed. This is done using a **purchase order**. Then when goods or services are delivered, this can be progressively **receipted** and automatically added to the **daycost** register.

In Civil Pro this corresponds to;

- Purchase Orders (contracts for supply and the terms thereof)
- Daycost Register (an audited estimate of costs on a daily basis)
- Invoice Register (the actual costs paid to suppliers)

1.3 Reporting and Forecasting

A project's finances aren't just retrospectively monitored. Good project management also involves reviewing these costs and predicting future performance. This is completed using a **forecast**.

So that activities requiring attention can be identified, costs and revenue are broken down into **cost codes**. Cost codes can have a 1:1 relationship with the schedule (mirrored cost codes) or can be grouped and distributed.

In Civil Pro this corresponds to:

- Forecast register (a record of past and predicted revenue and cost)

1.4 Why measure costs using daycosts rather than invoices?

Daycosts have an advantage over invoices for calculating the true cost;

- Daycosts are current. Invoices can take as long (or longer) than 45 days. If you have a process or supply that is blowing the budget – it is way too late
- Daycosts can be estimated in the short term and their accuracy improved by reconciling against invoices
- Daycosts provide much finer resolution of resource activity which is essential in auditing submitted invoices.
- Daycosts can cover ALL project direct costs including internal labour and corporate cost distributions, these are not generally invoiced.

1.5 How hard is it to forecast? How quick is it?

It isn't hard and it's really fast.

In civil pro, a forecast can be created completely automatically from the information you have already provided in preparing your progress claim and recording daycosts. The accuracy of a forecast is increased by the project team reviewing the forecast and making simple adjustments if required by;

- Changing the method of forecasting individual cost codes
- Providing cost to complete first principle estimates for individual cost codes

2 Creating a New Project

2.1 Connecting to a new database

When you open Civil Pro, you will see the login screen. Normally you will just enter your username and password and continue into your project – but you don't have a project yet, so it is time to make one!

1. Click on the *Select Database* button in the top right



Figure 1 Selecting the Database

2. Then click *New Connection* at the top of the list.



3. Make sure the Civil Pro Data File option is selected then click on the *New Standalone file* link.

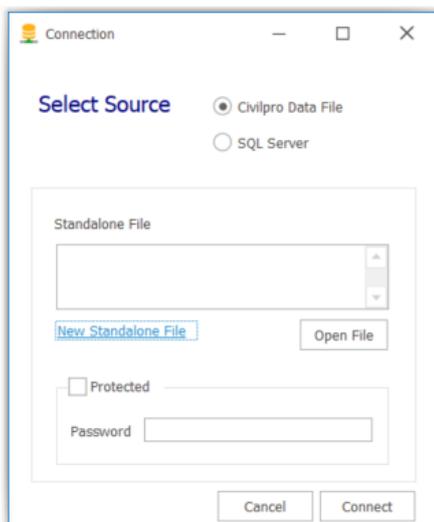


Figure 2 Selecting a New Standalone File

4. Select the location you want the new file to be saved and type a new name for the file
5. Click on *Connect*



It is generally unnecessary to password protect the Civil Pro database itself UNLESS it contains especially sensitive data and is in an unsecure location. We set access security for civil pro in the next step.

2.2 Initializing the database

1. You will be prompted to initialize the database. Click Yes

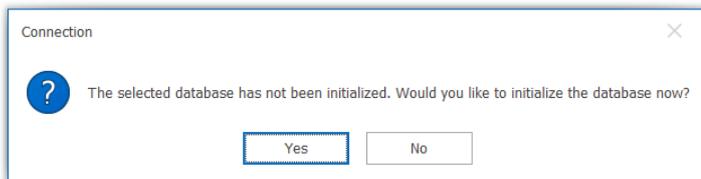


Figure 3 Initializing the Database

The New Database Wizard will start. The first step is to create a system administrator who will manage and administrative tasks and set up users. Some of the fields will be filled in by Civil Pro - fields with a blue background are compulsory.

Figure 4 Creating a Password

2. The username is set by default as **sysadmin**. Type in a password and email address. Click *Next*.

REMEMBER THE USERNAME AND PASSWORD AS YOU WILL NEED THESE TO LOG IN

3. Click *Finish*

2.3 Log in and create your project

1. After creating your database, you will be returned to the login screen. Enter your username and password from the previous step. Click *Log In*

As there is no project in our database yet, the new project wizard will begin. The first page in the wizard is the import page.

When you start a new project, much of the information may be similar to a project you have previously worked on, or your company may have a set of standards you need to reuse. You can copy the setup from any previous.

Simply select the type of connection (SQL Server or Civil Pro data file), or if you are not importing, or you prefer to import specific information later - select *Do Not Import*.

In this case, we are going not going to be setting up QA registers so select *Do Not Import*

2. Select the Civil Pro data file option and click *Next*

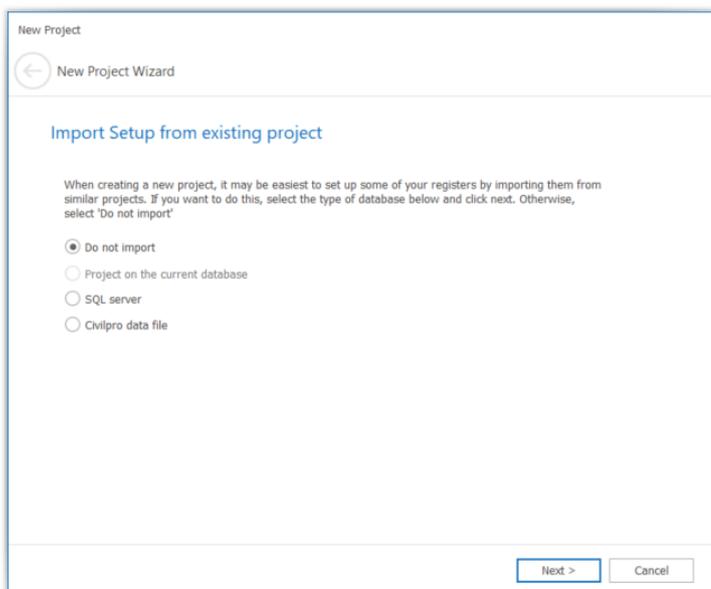


Figure 5 New Project Wizard

3. The next step is to collect key information about the project. This includes compulsory information (areas shaded blue) and optional information. When you are finished, click *Next*. If you don't have all the information needed at the moment, it doesn't matter, you can update it later.
4. Enter information from the Project Information Tutorial handout, and click *Next*



The date editor is very dynamic. When it is opened, if you click on the month then you can select a month directly. The same works for the year.

New Project

← New Project Wizard

Project Details

Contract No: Start Date:

Project Name: End Date:

Contractor Proj No: Superintendent:

Client Company: Principal:

Client Project No: Division:

Project Location:

Project Team:

Figure 6 New Project Details

On the next screen, you are required to select a user from your new database who will be assigned the records you create as part of the set-up process. In our case there is only the user we have created when we initialised the database (System Administrator).

5. Click on the *Create Project* button then *Finish*.

New Project

← New Project Wizard

Initialize Project

Records imported by:

You have completed the new project wizard. Click 'Create Project' to proceed.

Figure 7 Assigning Records

3 Schedule Items

The Schedule Items Register is a list of all of the payment items for a project. Here we will import the Schedule of Rates and format it.

1. Open the Schedule Item Register by clicking on *Financial Setup* from the main menu to the left of the screen and then *Schedule Items*

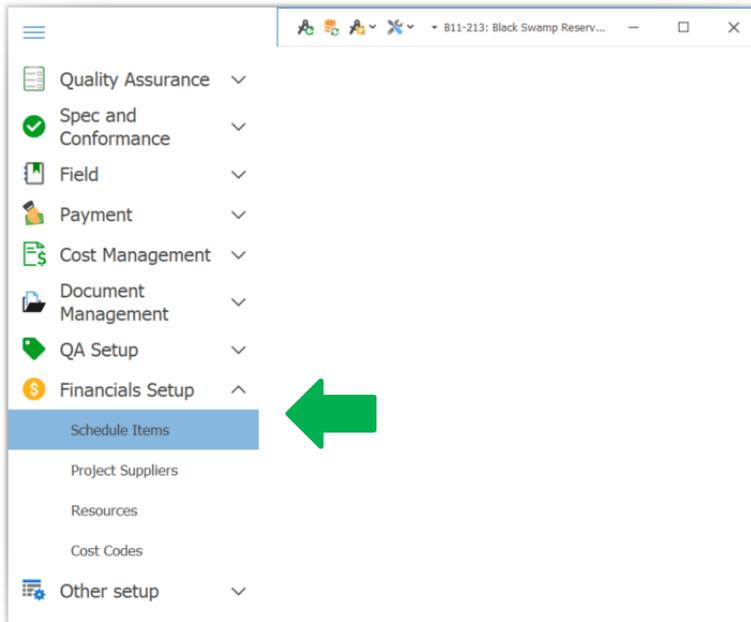
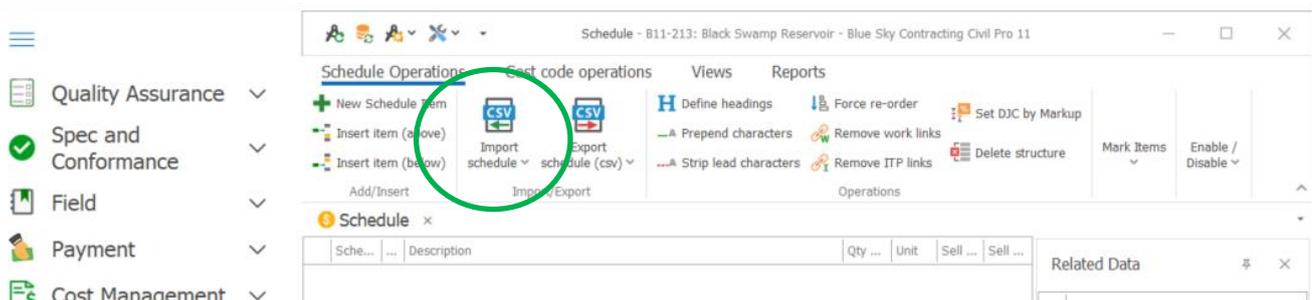


Figure 8 Opening the Schedule Register

2. From within the Ribbon Menu of the Schedule Register, under the Schedule Operations heading, select *Import schedule*. This function can also be accessed from the Context Menu – *Import/Export=>Import Schedule*



3. The import Wizard will open. Choose *Import data from a CSV*. Click *Next*

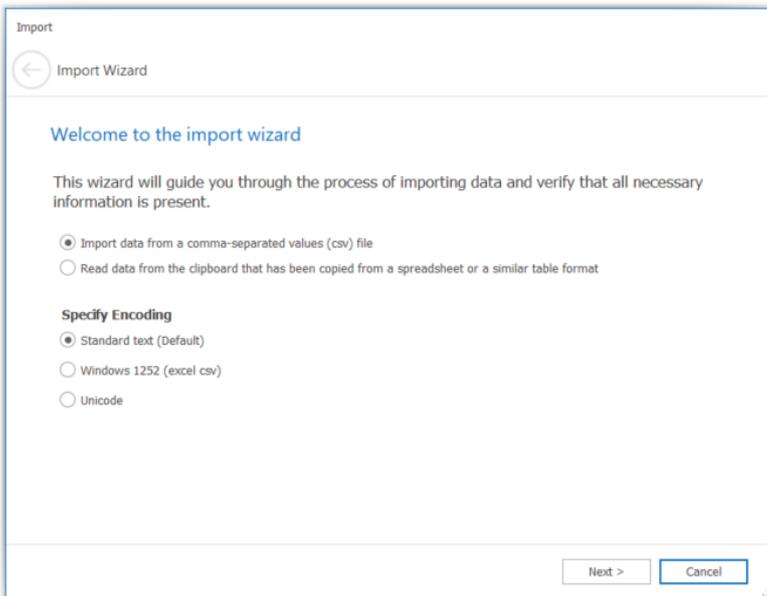


Figure 9 Importing the Schedule



Special characters (such as apostrophes) can be stored using many different formats. This can lead to strange substitutions when importing data especially when using Excel CSVs. When using "Save As" in Excel there is a "Tools" drop down Next to the cancel button. Selecting "Web Options" allows you to specify the encoding. If you find you get non-printing characters, we have had success selecting the UTF8 option when saving, then using the Windows 1252 import option in Civil Pro.

4. A file selector will open. Select the file containing your schedule (*Imports/B11-213 Schedule.csv*) and it will open in the import preview.

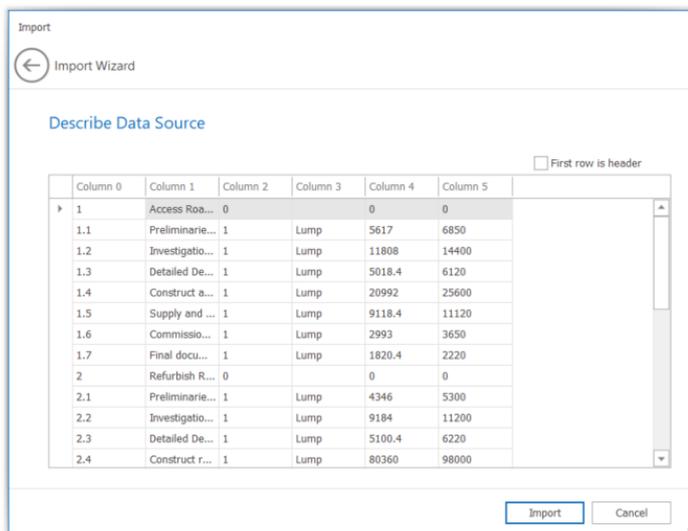


Figure 10 Import Preview

Assign headings by using the right click Context Menu on each column header (where it currently says Column 0, column 1 etc.). Right click on the heading containing the Schedule Number (Column 0) and in the menu that pops up, select *Schedule No.* The heading of the column will change to reflect the selected description. Do this for all remaining columns. When you have assigned all of the necessary column headings your grid should appear something like Figure 11

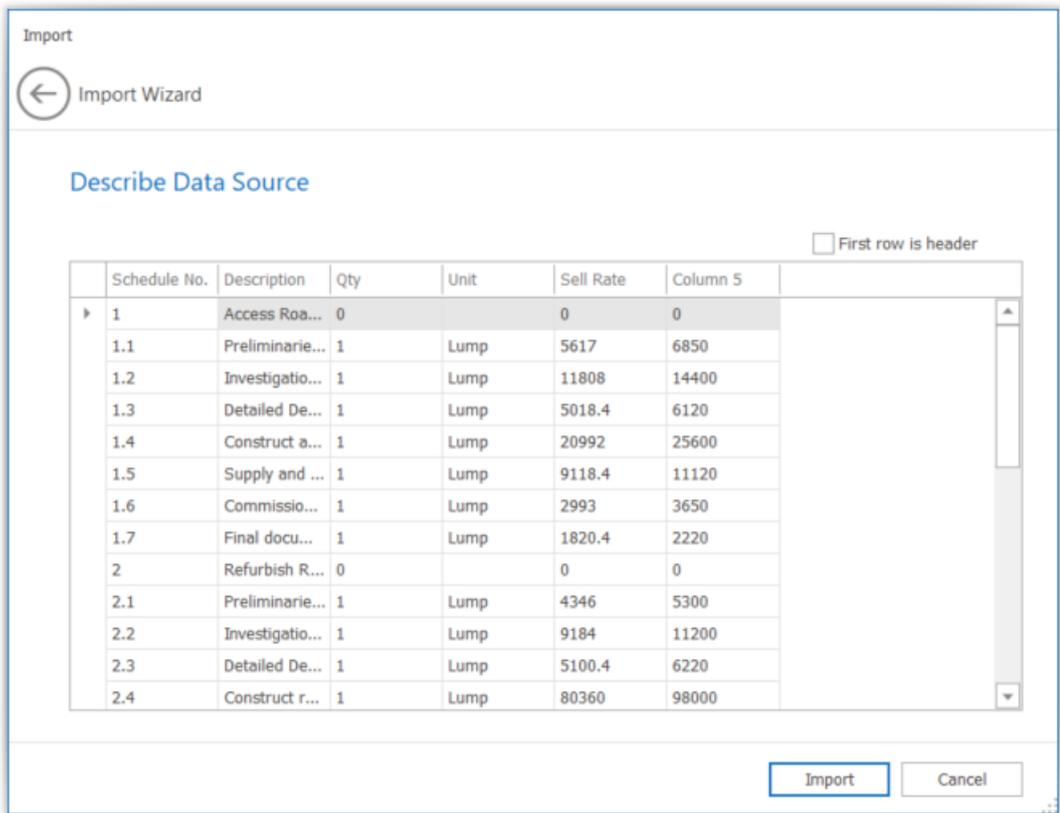


Figure 11 Headings Assigned

5. Click the *Import* button. Click on the *Finish* button in the next page.

You will be returned to the Schedule Register where the data has been imported. Your Schedule Register should look like Figure 12.

| Sched. No. | Tot... | Description | Qty Schedu... | Unit | Sell Rate | Sell Total |
|------------|--------------------------|---|---------------|------|-------------|-------------|
| 1 | <input type="checkbox"/> | Access Road to Water Reservoir | | | | |
| 1.1 | <input type="checkbox"/> | Preliminaries and General | 1 | | \$5,617.00 | \$5,617.00 |
| 1.2 | <input type="checkbox"/> | Investigation, detailed site inspection and measurement | 1 | | \$11,808.00 | \$11,808.00 |
| 1.3 | <input type="checkbox"/> | Detailed Design For Construction drawings | 1 | | \$5,018.40 | \$5,018.40 |
| 1.4 | <input type="checkbox"/> | Construct access roads to service water reservoir | 1 | | \$20,992.00 | \$20,992.00 |
| 1.5 | <input type="checkbox"/> | Supply and install safety barriers | 1 | | \$9,118.40 | \$9,118.40 |
| 1.6 | <input type="checkbox"/> | Commissioning | 1 | | \$2,993.00 | \$2,993.00 |
| 1.7 | <input type="checkbox"/> | Final documentation | 1 | | \$1,820.40 | \$1,820.40 |
| 2 | <input type="checkbox"/> | Refurbish Road in front of Processors 1 and 2 | | | | |
| 2.1 | <input type="checkbox"/> | Preliminaries and General | 1 | | \$4,346.00 | \$4,346.00 |
| 2.2 | <input type="checkbox"/> | Investigation, detailed site inspection and measurement | 1 | | \$9,184.00 | \$9,184.00 |
| 2.3 | <input type="checkbox"/> | Detailed Design For Construction drawings | 1 | | \$5,100.40 | \$5,100.40 |
| 2.4 | <input type="checkbox"/> | Construct roadway in front of processor 1 | 1 | | \$80,360.00 | \$80,360.00 |
| 2.5 | <input type="checkbox"/> | Supply and install safety barriers | 1 | | \$15,416.00 | \$15,416.00 |
| 2.6 | <input type="checkbox"/> | Commissioning | 1 | | \$2,706.00 | \$2,706.00 |
| 2.7 | <input type="checkbox"/> | Final documentation | 1 | | \$34,768.00 | \$34,768.00 |
| | | | | | | \$304,130 |

Figure 12 Schedule Register with Imported Data

3.1 Organizing your schedule

3.1.1 Creating structure

Multiple items in the tree view can be reordered above or below an item, or made into sub items of another.

To protect against accidental reorganization of your schedule, the ability to reorder is disabled by default. To reorder/rearrange - select the *Unlock Schedule* option in the Context Menu. You will also need to have editing enabled.

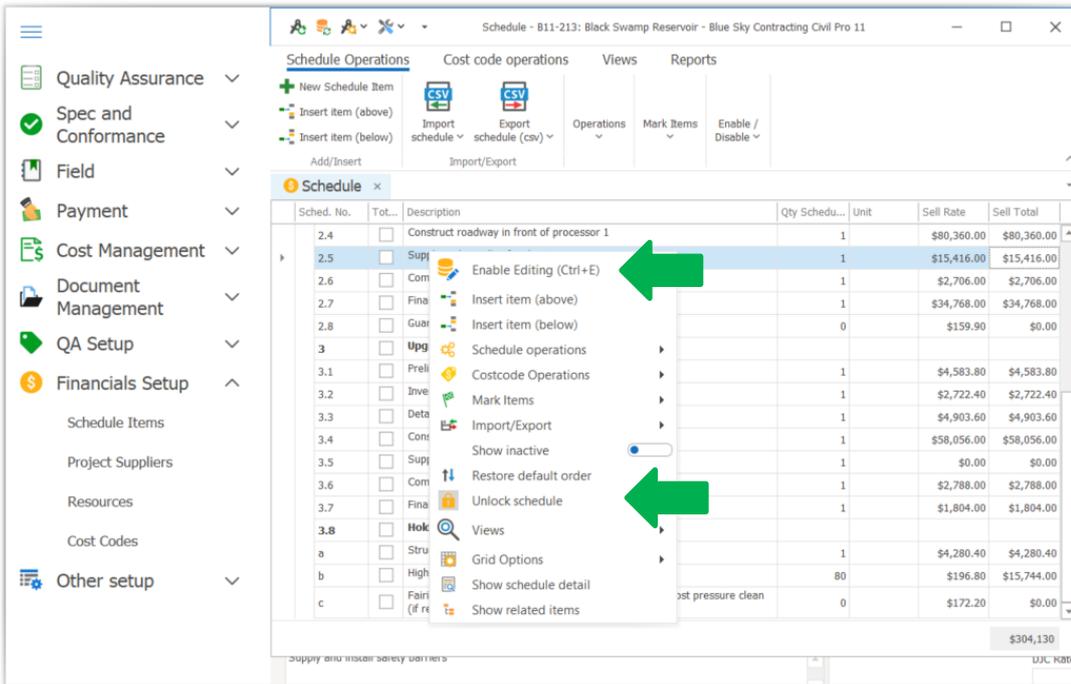


Figure 13 Unlocking the Schedule and Enabling Editing

1. Select one or more schedule Items. The easiest way to do this is to select, and then grab them using the record selector - the grey rectangle at the left of the text as in Figure 14.

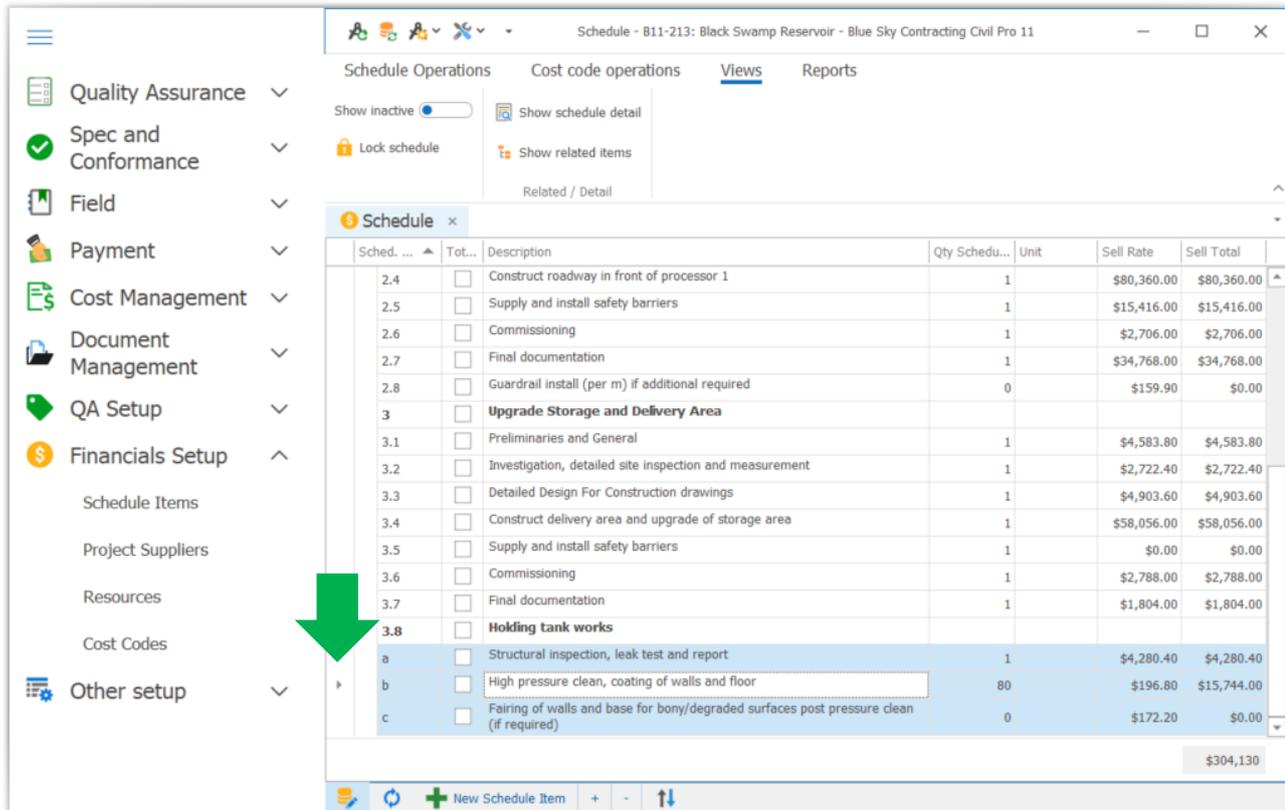


Figure 14 The Record Selector

2. Drag the schedule Items over another item. Depending where on the other item you are positioned, you will see either a blue arrow (reorder) or a green arrow (make sub item):
 - a. If you drop the selection when you have a green arrow, the items will be added as sub items.
 - b. If you drop when the arrow is blue the items will be reordered above or below depending on the direction of the arrow.
3. While drag and drop is useful, it is often quicker to use a keyboard shortcut. You can also indent/outdent a selection with the ctrl+[right arrow] / ctrl + [left arrow]. Try rearranging your items this way. When completed your schedule should look like Figure 15.

The screenshot shows a software window titled "Schedule - B11-213: Black Swamp Reservoir - Blue Sky Contracting Civil Pro 11". The interface includes a left-hand navigation menu with categories like Quality Assurance, Spec and Conformance, Field, Payment, Cost Management, Document Management, QA Setup, and Financials Setup. The main area displays a "Schedule" table with columns for Sched. No., Description, Qty Schedu..., Unit, Sell Rate, and Sell Total. The table is organized into two main sections: "1 Access Road to Water Reservoir" and "2 Refurbish Road in front of Processors 1 and 2". Each section contains numbered sub-items (e.g., 1.1 Preliminaries and General, 1.2 Investigation, detailed site inspection and measurement, etc.). The total sell value for the entire schedule is shown as \$304,130.

| Sched. No. | Description | Qty Schedu... | Unit | Sell Rate | Sell Total |
|--|---|---------------|------|-------------|-------------|
| 1 Access Road to Water Reservoir | | | | | |
| 1.1 | Preliminaries and General | 1 | | \$5,617.00 | \$5,617.00 |
| 1.2 | Investigation, detailed site inspection and measurement | 1 | | \$11,808.00 | \$11,808.00 |
| 1.3 | Detailed Design For Construction drawings | 1 | | \$5,018.40 | \$5,018.40 |
| 1.4 | Construct access roads to service water reservoir | 1 | | \$20,992.00 | \$20,992.00 |
| 1.5 | Supply and install safety barriers | 1 | | \$9,118.40 | \$9,118.40 |
| 1.6 | Commissioning | 1 | | \$2,993.00 | \$2,993.00 |
| 1.7 | Final documentation | 1 | | \$1,820.40 | \$1,820.40 |
| 2 Refurbish Road in front of Processors 1 and 2 | | | | | |
| 2.1 | Preliminaries and General | 1 | | \$4,346.00 | \$4,346.00 |
| 2.2 | Investigation, detailed site inspection and measurement | 1 | | \$9,184.00 | \$9,184.00 |
| 2.3 | Detailed Design For Construction drawings | 1 | | \$5,100.40 | \$5,100.40 |
| 2.4 | Construct roadway in front of processor 1 | 1 | | \$80,360.00 | \$80,360.00 |
| 2.5 | Supply and install safety barriers | 1 | | \$15,416.00 | \$15,416.00 |
| 2.6 | Commissioning | 1 | | \$2,706.00 | \$2,706.00 |
| 2.7 | Final documentation | 1 | | \$34,768.00 | \$34,768.00 |
| 2.8 | Guardrail install (per m) if additional required | 0 | | \$159.90 | \$0.00 |
| | | | | | \$304,130 |

Figure 15 Schedule Organised with Headings and Sub Items

Cost Codes

4.1 Creating Project Cost Codes

4.1.1 Cost Codes to Mirror Schedule

We are now going to create cost codes for our project.

1. Select *Financials Setup* from the Main Menu and from there click on the *Cost Codes*.
2. For a simple option you can use the project schedule as the basis of our cost codes. To do this select the *Create Cost Codes to Mirror Schedule* item from the Ribbon Menu.

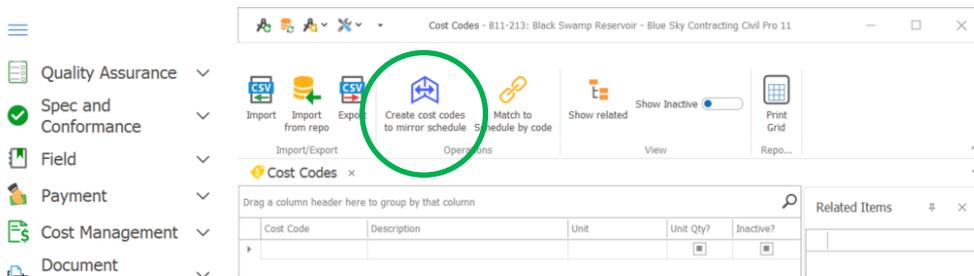


Figure 16 Creating Cost Codes to Mirror Schedule

3. Your project cost codes will now appear in the Cost Code Register and you can see by looking at the related items panel to the right, that each code directly correlates to your previously created schedule items as in Figure 17.

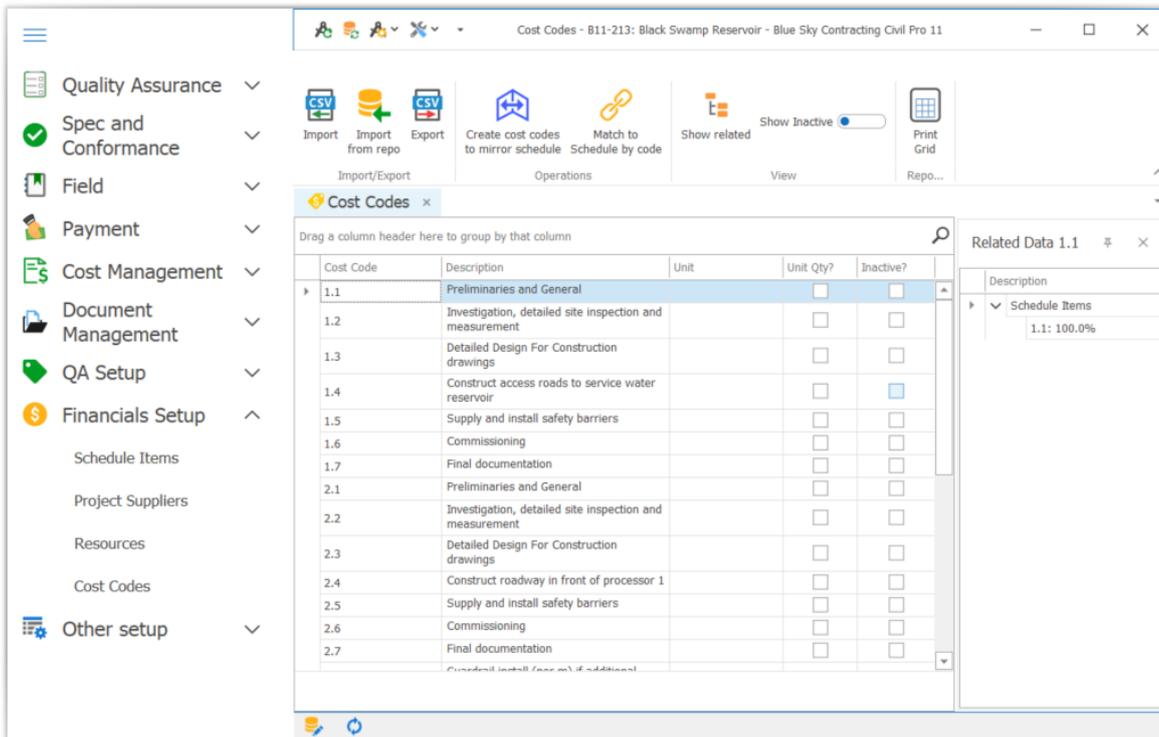


Figure 17 Newly Created Cost Codes in the Register

However, for this project we have cost codes already set up and saved which we are going to import.

4. Delete the cost codes we just created by enabling editing (right click to bring up the Context Menu and selecting *Enable Editing*), selecting all the cost codes in the register (short cut = Ctrl + A) and pressing the delete key.

4.1.2 Importing Cost Codes

We are now going to import the cost codes for our project.

1. From the Ribbon Menu select *Import*

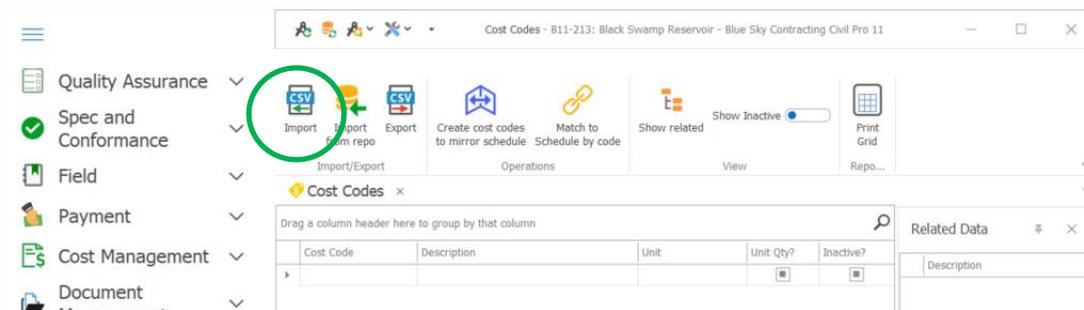


Figure 18 Import Option from the Ribbon Menu

2. You will then be taken to the Import Wizard screen. Make sure the *Import data from CSV file* option is checked then click *Next*
3. A file selector will open. Select the file containing your schedule (*Imports/B11-213 Cost Codes.csv*) and it will open in the import preview.
4. Assign headings by right clicking on each column header (where it currently says Column 00, column 01 etc.) and in the menu that pops up, select *Cost Code*. The heading of the column will change to reflect the selected description. Do this for all remaining column (heading name = *Description*). When you have assigned all the necessary column headings your grid should appear something like it does in Figure 19.

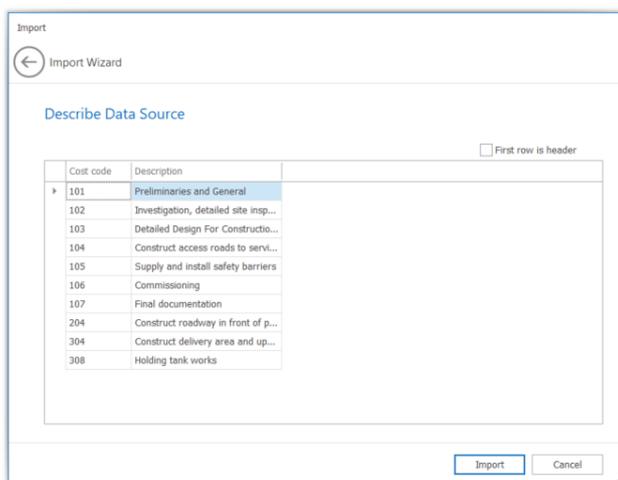


Figure 19 Assigned Headings

5. Click the *Import* button. Click on the *Finish* button in the next page.

You will be returned to the Cost Code Register where the data has been imported. The Register should look like Figure 20.

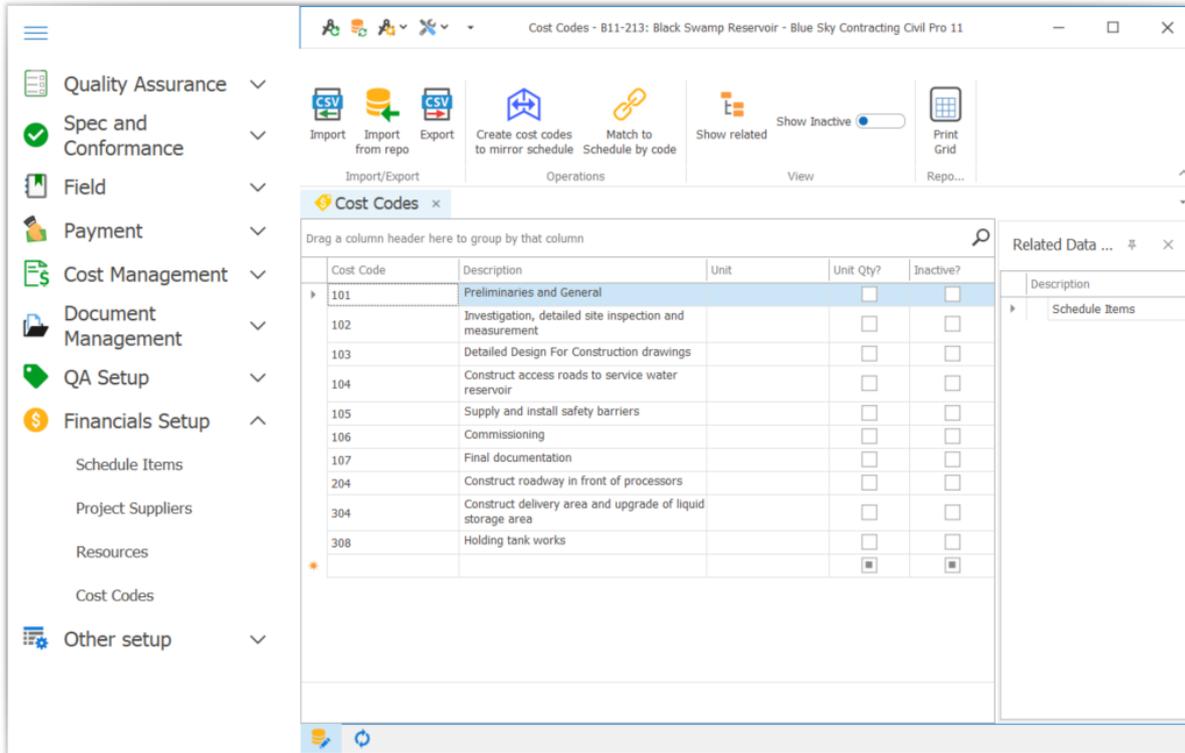


Figure 20 Imported Cost Codes in the Register

4.2 Assigning Cost Codes to Schedule Items

We are now going to assign cost codes to our schedule items.

1. Select the first cost code (*101 Preliminaries and General*)
2. Double click on *Schedule Items* heading in the related items tree on the right of the screen - Figure 21.

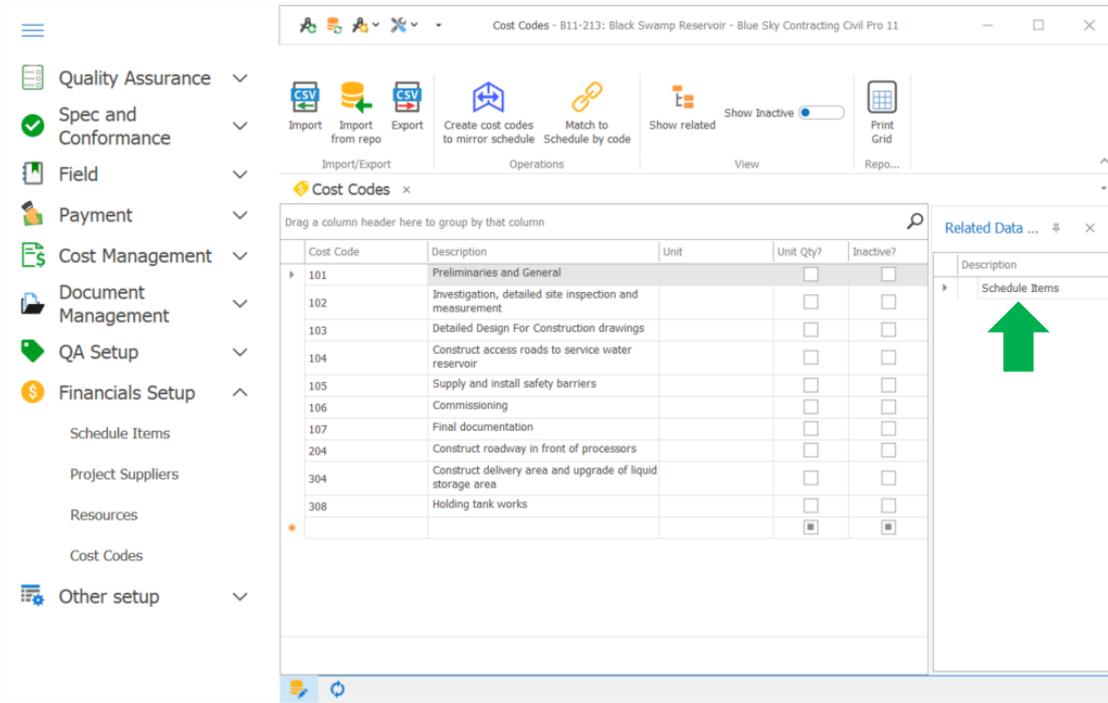


Figure 21 The Related Items Tree

3. The Schedule Items Selector screen will appear. Expand all the schedule items by clicking on the + at the bottom left of this screen.

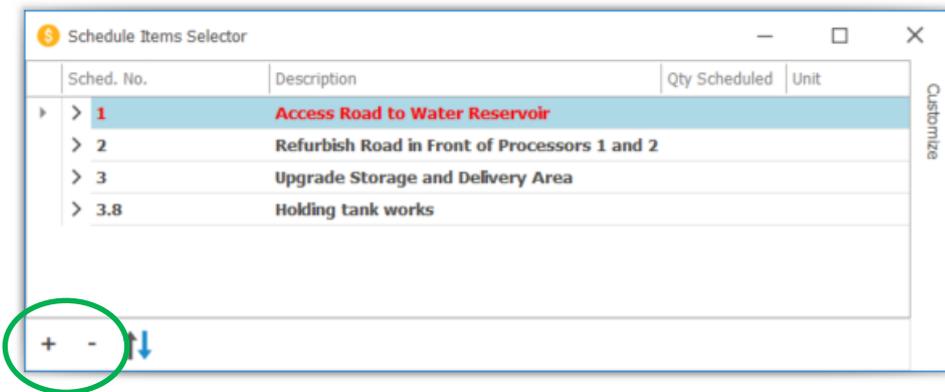


Figure 22 The Schedule Item Selector

4. We now want to select then drag and drop schedule (as previously described) items 1.1, 2.1 and 3.1 (all those relating to 'Preliminaries and General') over to the Schedule Items heading in the related items tree. Once you have done this the register should look like . This now shows that Cost Code 101 is linked to Schedule Items 1.1, 2.1 and 3.1.

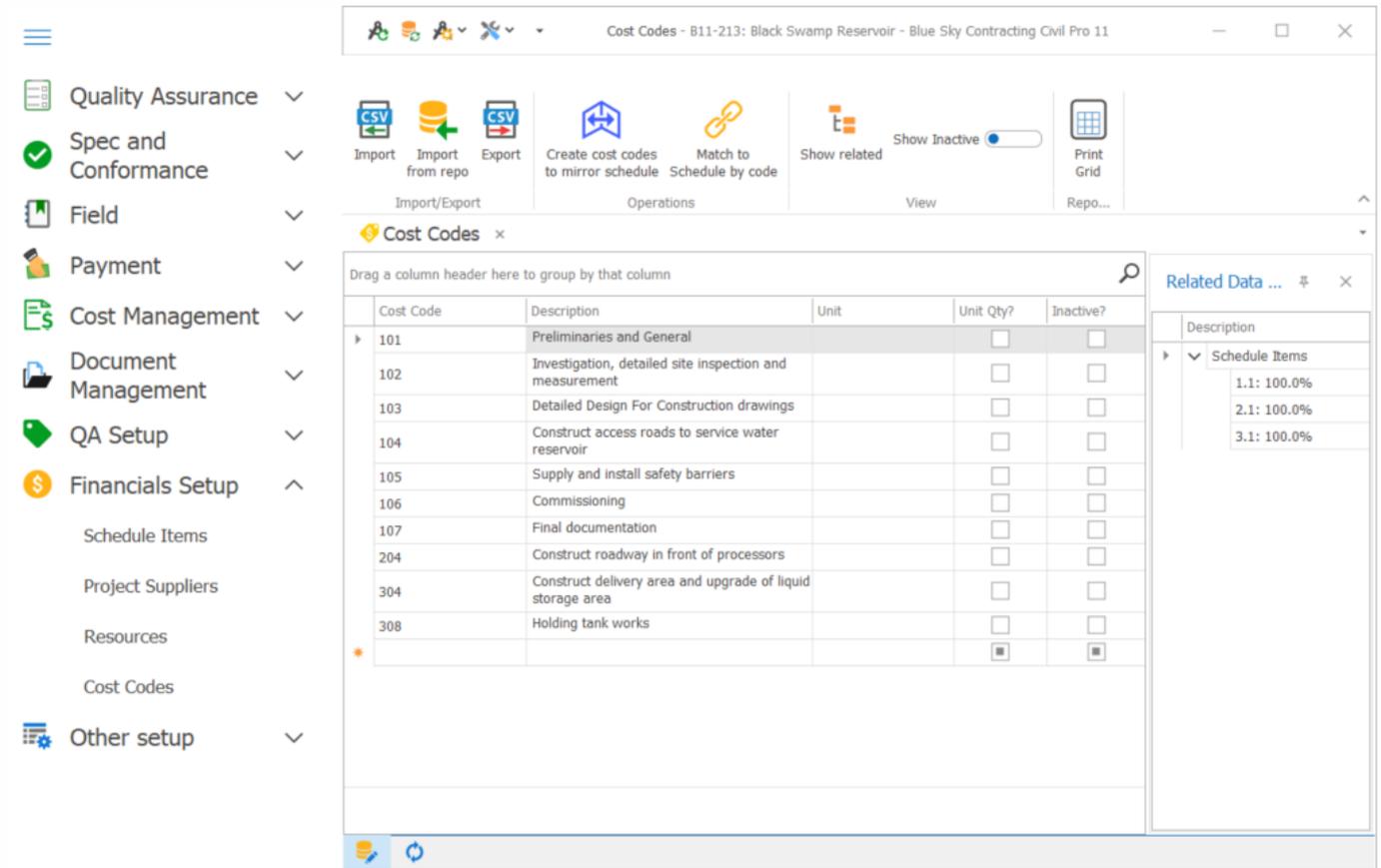


Figure 23 Schedule Items Allocated to a Cost Code

- Using the information from the Project Information Tutorial handout, link the remaining cost codes to the relevant schedule items using the same method.



Rather than dragging and dropping one item at a time you can select multiple items by selecting the first item holding down

- the Ctrl key and selecting additional items - this allows for multiple selection across different sections of the grid.
- The Shift key and selecting another item – all items in between will be selected

Then just drag and drop as usual.

To see which cost codes have been assigned to which schedule items quickly you can simply run the Cost Code Allocations report from the Schedule Register:

- Open the Schedule Register and click on the *Reports* heading from within the Ribbon menu. From the *Registers* button dropdown select the *Cost Code Allocations Report*.

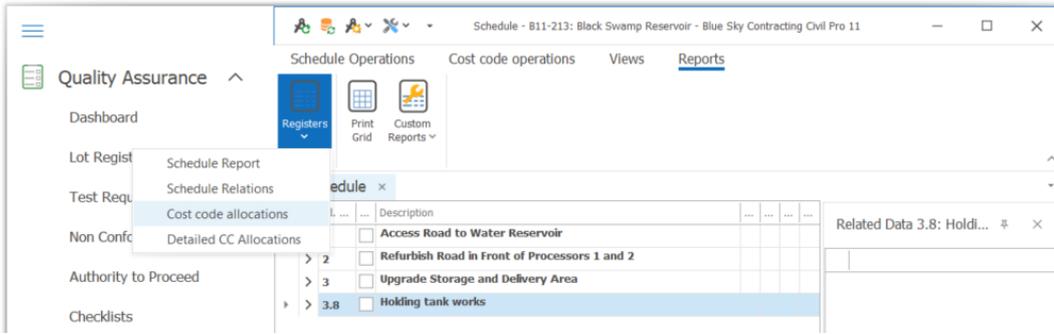


Figure 24 Accessing the Cost Code Allocations Report

From here you can print, convert to PDF, email and save using the options in the top menu bar of the report viewer. Your report should look like Figure 25.

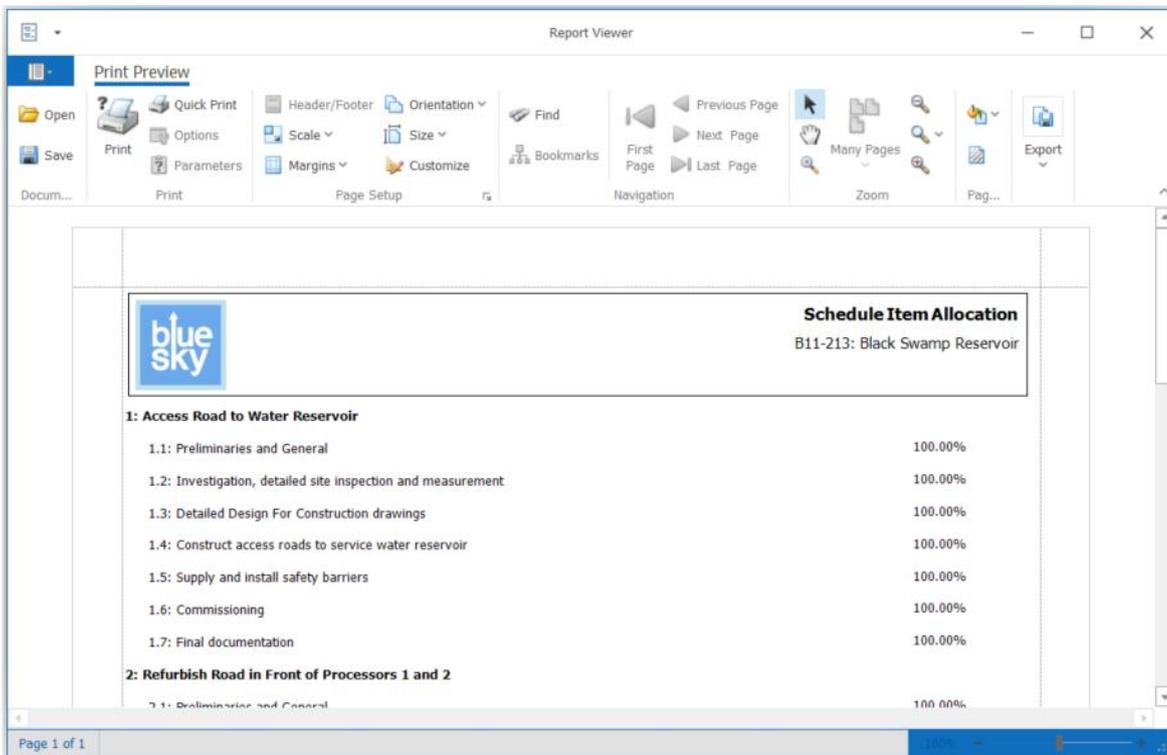


Figure 25 The Cost Code Allocation Report

5 Purchase Orders

5.1 Manual Entry of Purchase Orders

We will now create a purchase order for some materials required for the project.



You are currently logged in as a sysadmin on this training database so you have permission to add suppliers. Depending on your user role in your company's install, you may not have permission to add new suppliers. In this case you will need to have a new supplier added by a user with AddSupplier or Sysadmin permissions when using your company's system.

1. Select *Cost Management* from the Main Menu and from there click on the *Purchase Orders*.

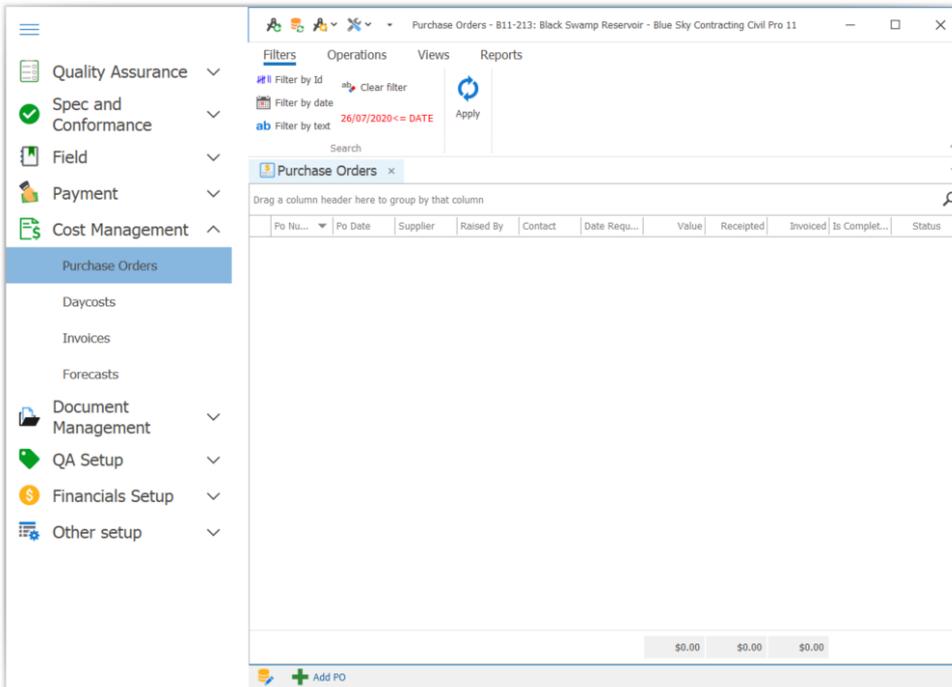


Figure 26 Accessing the PO Register

2. Within the Ribbon Menu open the *Operations* heading and click on the *Add PO* button.

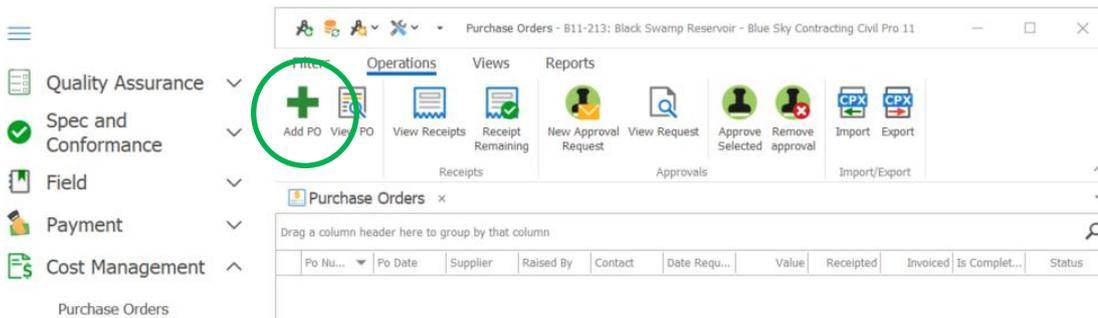


Figure 27 Adding a PO

3. The Purchase Order details screen will now appear. You will notice that the background of the purchase order is coloured red – this is because it is currently unapproved...more on this shortly.

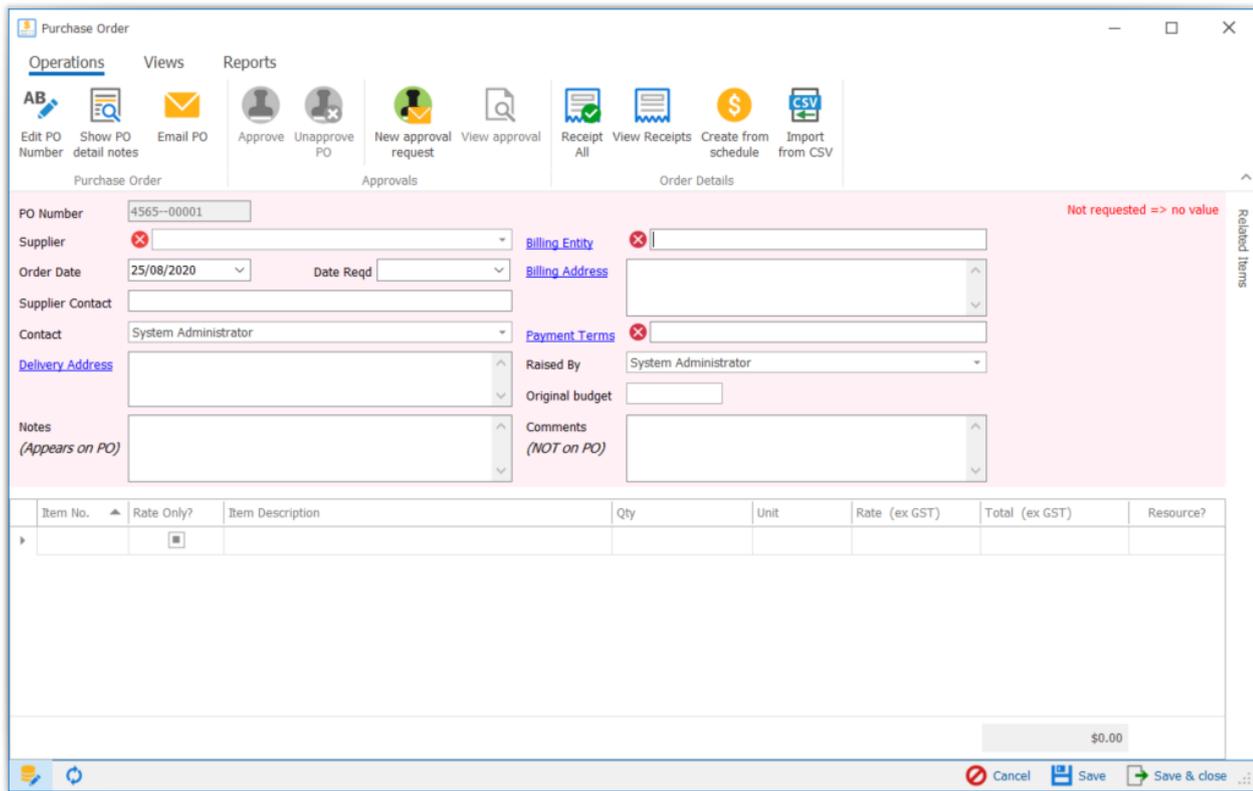


Figure 28 New PO Screen

4. Using the information from the Training Supplement enter in the required data.
 - a) You will need to add the new supplier when prompted. When you type in the supplier name the Unknown Supplier screen will appear. Click on the *New Supplier* button at the bottom left of the screen.

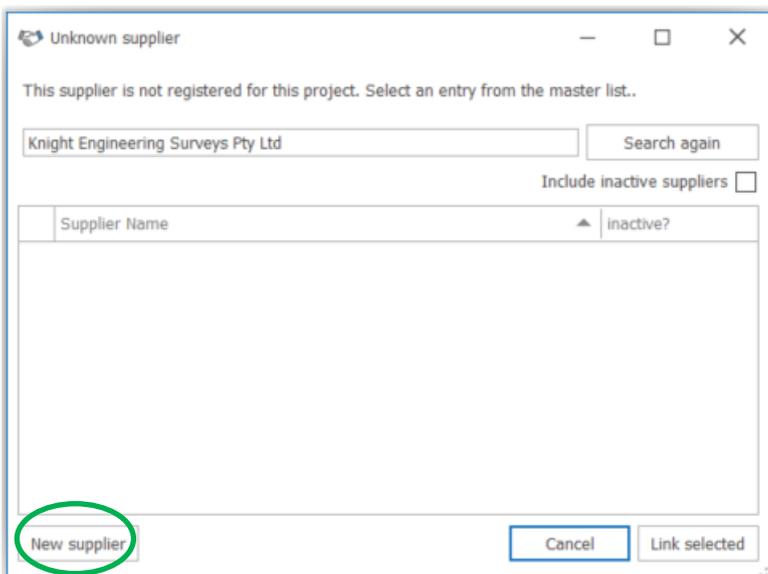
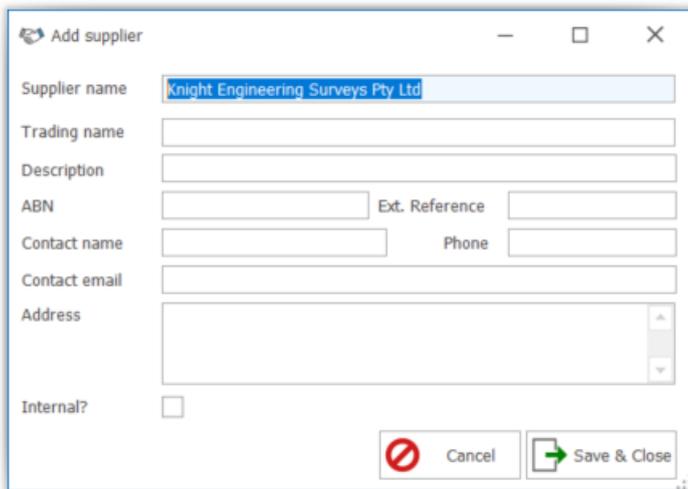


Figure 29 Unknown Supplier Dialog

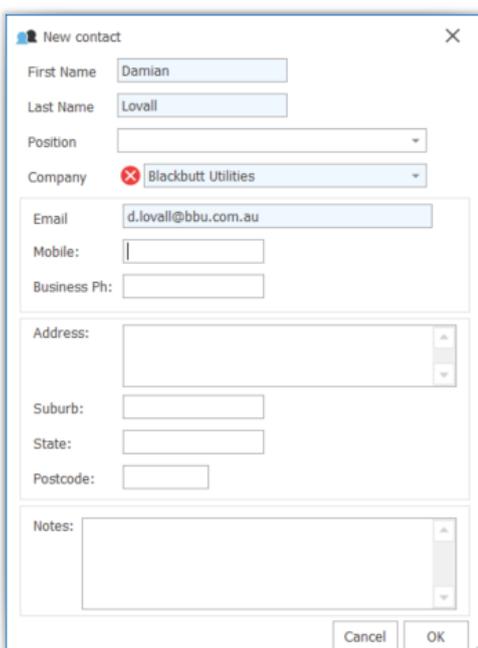
- b) This will bring up the Add Supplier screen. For the moment leave the information other than the name blank (you can add that detail later). *Click Save & Close.*



The screenshot shows a window titled "Add supplier". It contains several input fields: "Supplier name" (filled with "Knight Engineering Surveys Pty Ltd"), "Trading name", "Description", "ABN" (with an "Ext. Reference" field next to it), "Contact name" (with a "Phone" field next to it), "Contact email", and "Address". There is also an "Internal?" checkbox which is unchecked. At the bottom right, there are two buttons: "Cancel" (with a red prohibition icon) and "Save & Close" (with a green arrow icon).

Figure 30 Adding the New Supplier

- c) Choose the date from the drop down
Type in the supplier contact
- d) The [Contact] field is for the person in your organisation who can provide additional information or correspond with the supplier regarding the order. For our PO, we will need to add a new contact. When you type in the contact name, the New Contact screen will appear. Click *OK*. You will then be brought back to the Purchase Order screen where you can now select the new contact from the drop-down list.



The screenshot shows a window titled "New contact". It contains several input fields: "First Name" (filled with "Damian"), "Last Name" (filled with "Lovall"), "Position" (a dropdown menu), "Company" (a dropdown menu with "Blackbutt Utilities" selected), "Email" (filled with "d.lovall@bbu.com.au"), "Mobile", "Business Ph", "Address", "Suburb", "State", "Postcode", and "Notes". At the bottom right, there are two buttons: "Cancel" and "OK".

Figure 31 New Contact Dialog

e) Enter in the remaining details (delivery address/billing entity & address/payment terms)

You will have no doubt thought that having to enter in project details such as delivery address, billing entity, billing address and payment terms over and over for each new PO would get tedious. Civil Pro allows you to set this information project wide to avoid this – we will cover this shortly.

5. To enter the purchase orders details simply click in a cell and type. When all entered the screen should look like Figure 32.

Purchase Order

Operations | Views | Reports

AB Edit PO Number | Show PO detail notes | Email PO | Approve | Unapprove PO | New approval request | View approval | Receipt All | View Receipts | Create from schedule | Import from CSV

Purchase Order | Approvals | Order Details

PO Number: 4565--00001 Not requested => outside limit

Supplier: Knight Engineering Surveys Pty Ltd | Billing Entity: Blackbutt Utilities

Order Date: 4/04/2020 | Date Reqd: | Billing Address: 111 Wellington Road, Smithfield 4372

Supplier Contact: Rod Casey | Contact: Damian Lovall | Payment Terms: 45 days from end of month invoice

Delivery Address: 13 Hillview Road, Wimborne 4555 | Raised By: System Administrator

Original budget: \$2,300.00 | Comments: (NOT on PO)

| Item ... | Rate Only? | Item Description | Qty | Unit | Rate (ex GST) | Total (ex GST) | Resource? |
|----------|--------------------------|------------------|-----|-------|---------------|----------------|-------------|
| 10 | <input type="checkbox"/> | Survey - field | | 10 HR | \$115.00 | \$1,150.00 | Subcontract |
| 20 | <input type="checkbox"/> | Office calcs | | 10 HR | \$115.00 | \$1,150.00 | Subcon... |
| | | | | | | \$2,300.00 | |

Cancel Save Save & close

Figure 32 Completed PO

6. Click on *Save & Close* on the right of the PO screen. You will now be back on the Purchase Orders register. Your Purchase Order Register should look like . **NOTE: if your new PO does not appear in the register click on the Clear Filter button in the Ribbon Menu under the Filters heading then Apply.**

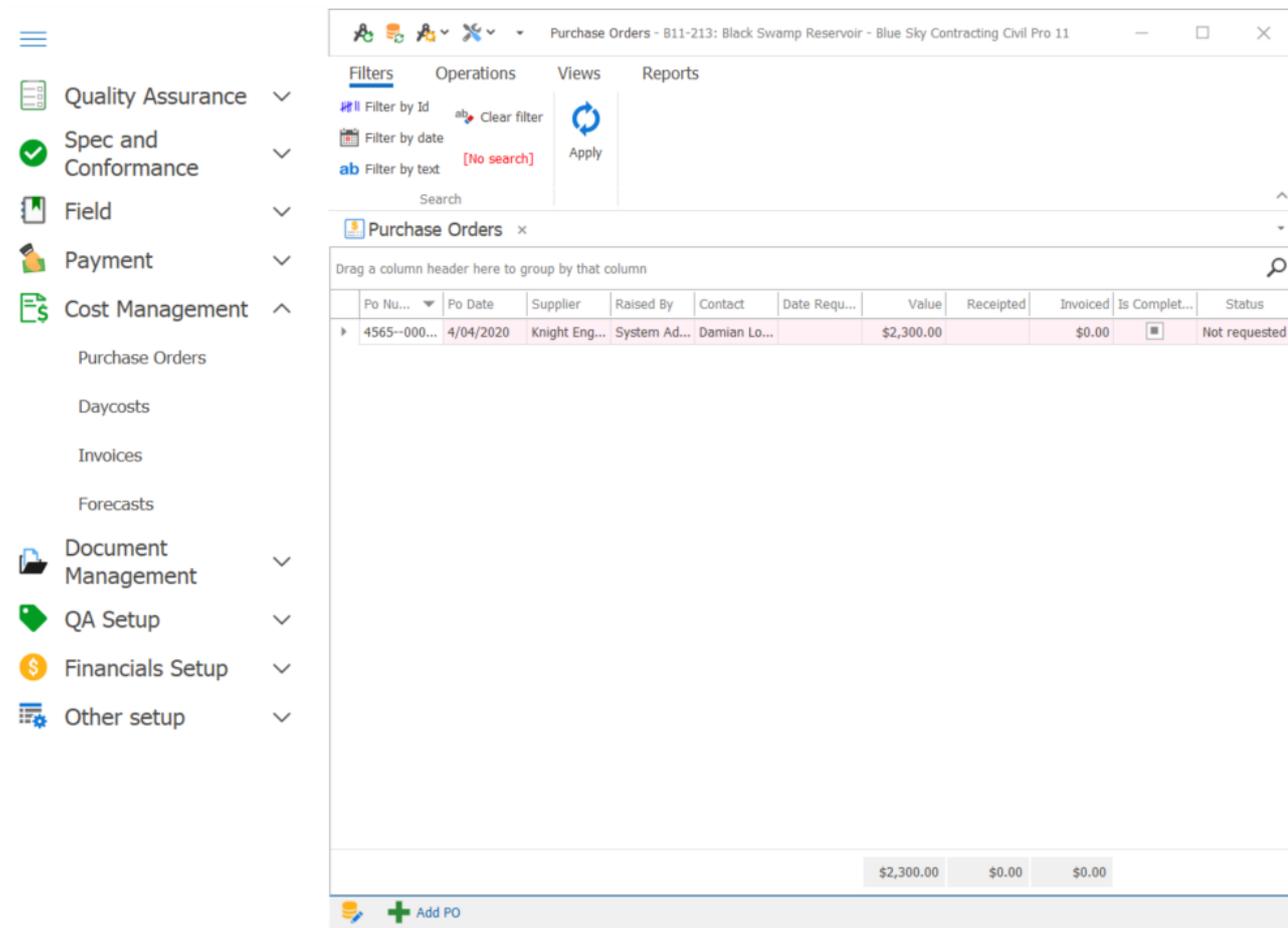


Figure 33 Purchase Order Register after first PO created

5.1.1 Setting System Wide and Project Wide Information

Civil Pro allows you to set system or project wide information such as billing entity, address and payment terms so that you don't have to manually enter it repeatedly. These options are available in the System Settings and Project Settings sections accessed from the *System=>Settings* menu. We are going to set project settings, but the process for system settings is analogous



Many civil pro settings can be set at both the project and system level. Where both a project and system value are set for the same setting, the project setting takes priority.

1. Within the menu bar at the top left of the screen select *System => Settings => Project Settings*

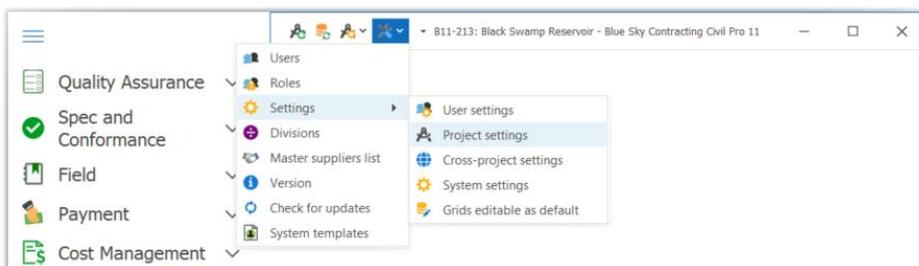


Figure 34 Accessing Project Settings

2. Within the Project Settings screen click on the Cost Control Tab.

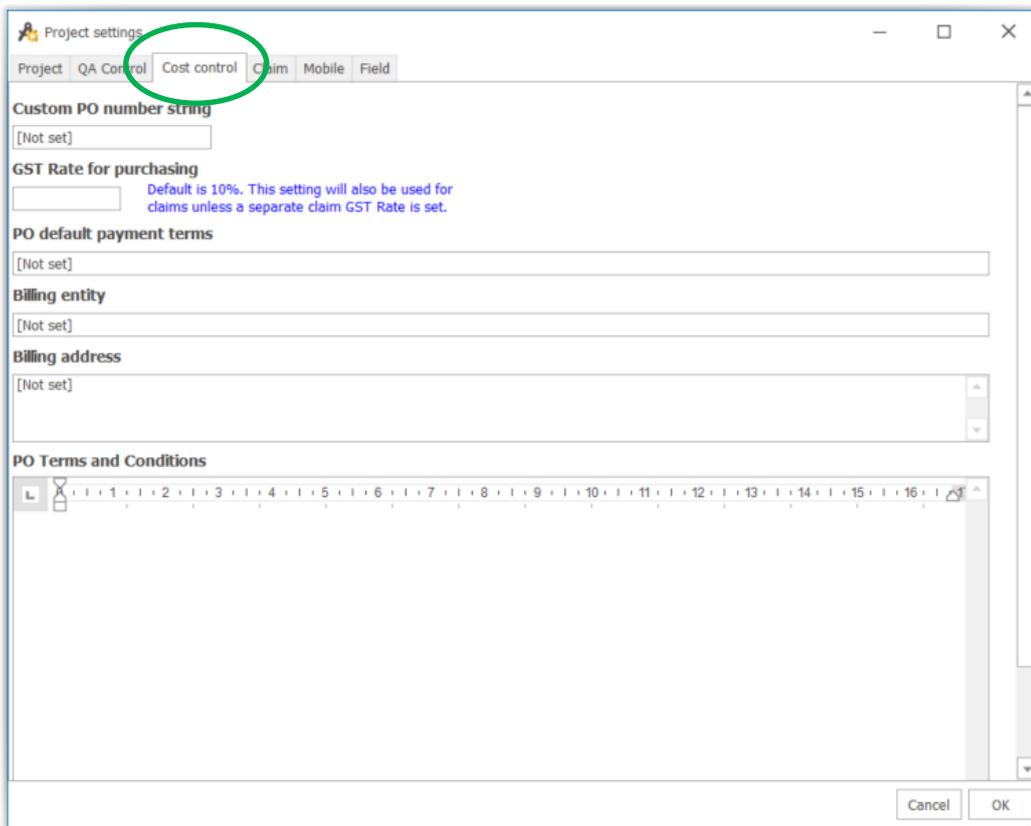


Figure 35 Cost Control Tab

3. Enter the cost control project settings as outlined in the training supplement.

- PO Default Payment Terms – 45 days from end of month invoice
- Billing Entity – Blackbutt Utilities
- Billing Address – 111 Wellington Road, Smithfield 4372

When completed your screen should look like that in **Error! Reference source not found.**

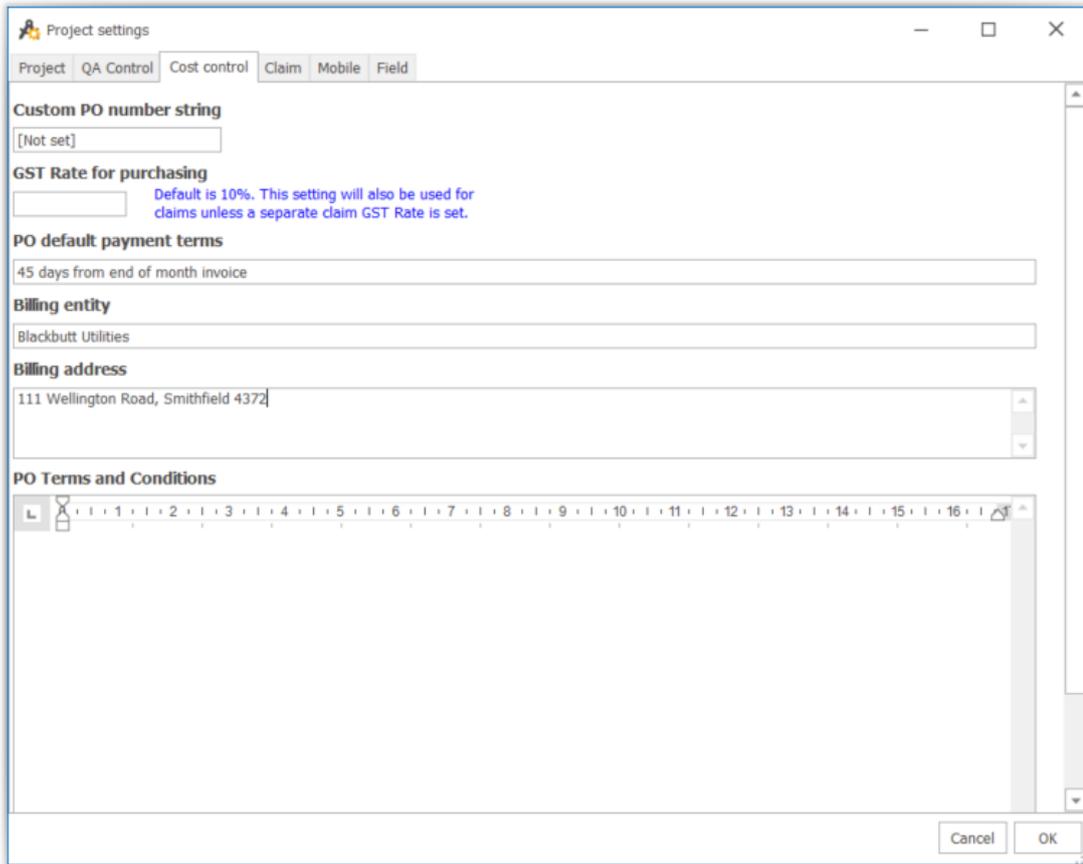


Figure 36 Cost Control Information Added

- While we are completing settings, we will also add a project logo to make our reports look better. Change to the Project tab, click on *Get Logo* and select the Blue Sky logo (or any other) from the training material ().

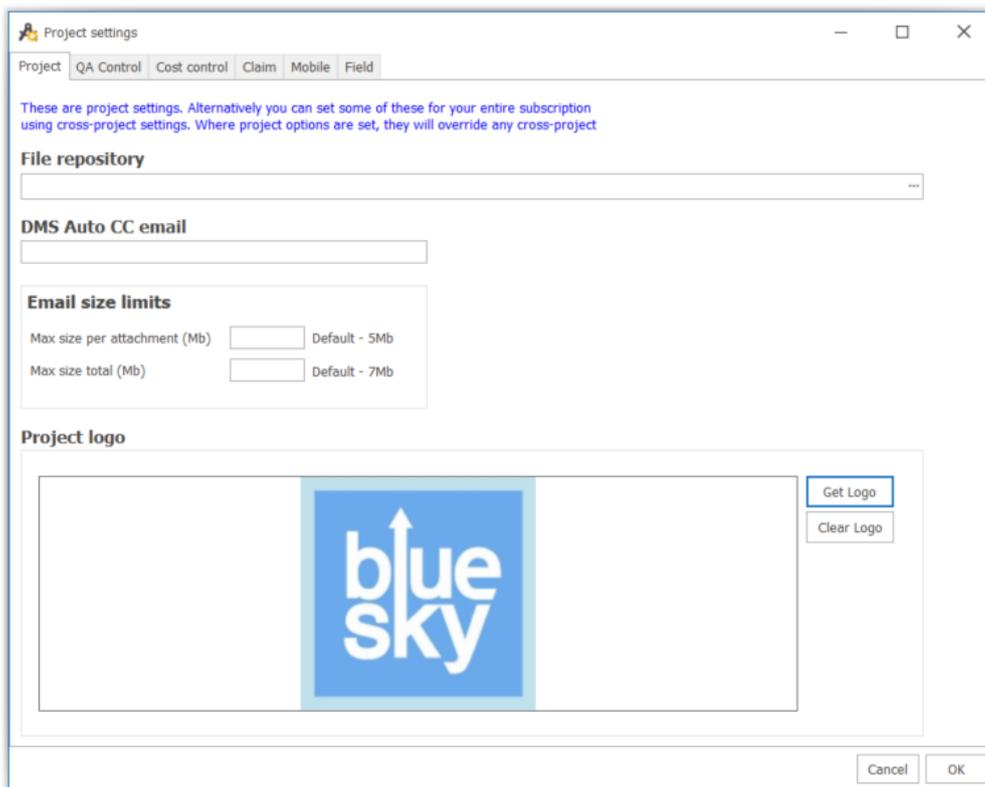


Figure 37 Setting the Project Logo

5. Click *OK*.
6. Now select *Project* from the System menu bar at the top left of the screen and click on *Project Administration*

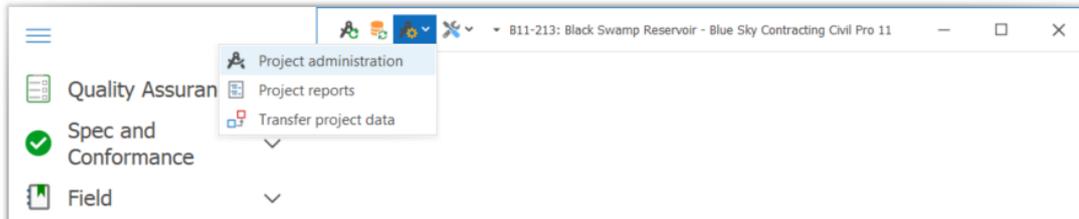


Figure 38 Accessing Project Administration

7. The *Projects* screen will now appear. Enable editing and enter the project address as outlined in the training supplement into the *Project Address* cell on the right of the screen.
 - 13 Hillview Road, Wimborne 4555

When completed your screen should something like Figure 39.

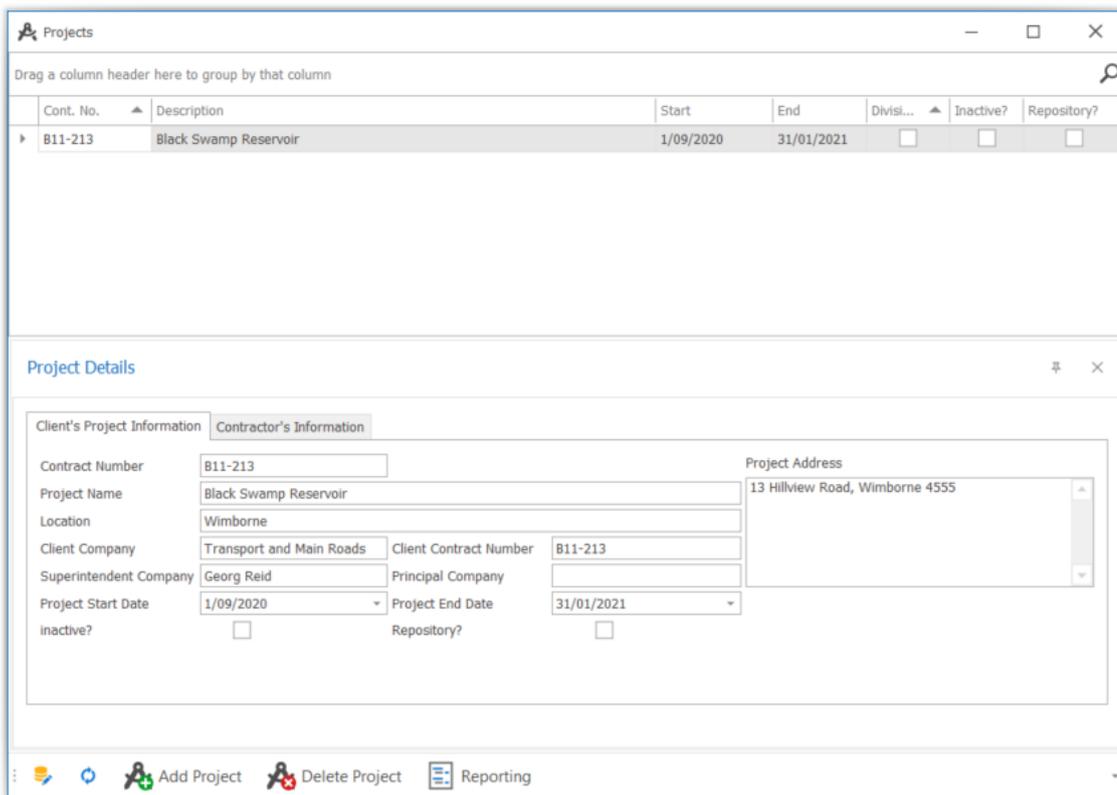


Figure 39 Project Address Added in Project Admin

8. Close this screen

5.2 An introduction to user accounts

You will notice in the previous purchase orders that the Raised By field has a value of System Administrator. This is because we are currently logged on with the *sysadmin* account that was created at the start of the project. Normally you will not be logged in with a sysadmin account. We will now create a new user account.



In the following section we are going to be managing users and roles and. The reason this is possible is that you are currently logged in as a sysadmin on this training database. In your company's database, you will need to get a sysadmin to change user levels and permissions.

5.2.1 Adding a user

1. From the menu at the top of the screen select *System=>Users*
2. The Users screen will appear. At the bottom left of the screen click on *Add User*.

The screenshot shows a web application interface for managing users. At the top, there is a table with columns: Firs..., Last..., Company *, Email *, Position, Phone, Mobile, Sy..., Inact..., and Win L... The table contains one row with the following data: System, Adminis..., None Specified, jen@bluesky.com, and several empty fields. To the right of the table is a 'Project Roles - s...' sidebar with a tree view showing 'Contract', 'Projects', 'B11-213: Black Swam...', 'Project Administrat...', and 'Global Roles'. Below the table is a 'User Details' form with the following fields: First Name (System), Last Name (Administrator), Company (None Specified), Position (empty), Communication (Phone, Mobile, Fax, Email: jen@bluesky.com), Address (empty), User Name (sysadmin), System Administrator (checked), inactive? (unchecked), and Notes (empty). At the bottom of the form are three buttons: '+ Add User', 'x Delete User', and 'Change Password'.

Figure 40 Adding a User

New User Wizard
New User Information

User Identification

First Name:

Last Name:

Position:

Company:

Email:

New User Wizard
New User Information

Security Information

Civil Pro Security
 Windows Security

System Admin?

Username:

Password:

Confirm:

3. In the new user dialog, enter your own details – blue fields are required.
4. Click *Next* – enter in a username and password. **REMEMBER THESE – you will need these to log in shortly**
5. Click *Next* – you can enter any additional info but it is not required.
6. Click *Next* and then *Finish*. The users register should now look like Figure 41.

Users

| Firs... | Last... | Company * | Email * | Position | Phone | Mobile | Sy... | Inact... | Win L... |
|---------|------------|------------------|----------------------|----------|-------|--------|-------------------------------------|--------------------------|--------------------------|
| System | Adminis... | None Specified | jen@bluesky.com | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jen | Gascoig... | Blue Sky Cont... | jen@blueskycivil.com | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Project Roles - s...

- Contract
 - Projects
 - B11-213: Black Swam...
 - Project Administrat...
 - Global Roles

User Details

First Name: Last Name:

Company:

Position:

Communication: Phone Mobile

Fax:

Email:

User Name:

System Administrator: inactive?:

Notes:

Figure 41 New User Added

5.2.2 Adding User Roles

While we have added a user, this user cannot currently log on to Civil Pro because they have not been assigned a role in a project. To assign a user a project role:

1. Select your user name
2. In the related items panel on the right, double click on your project.

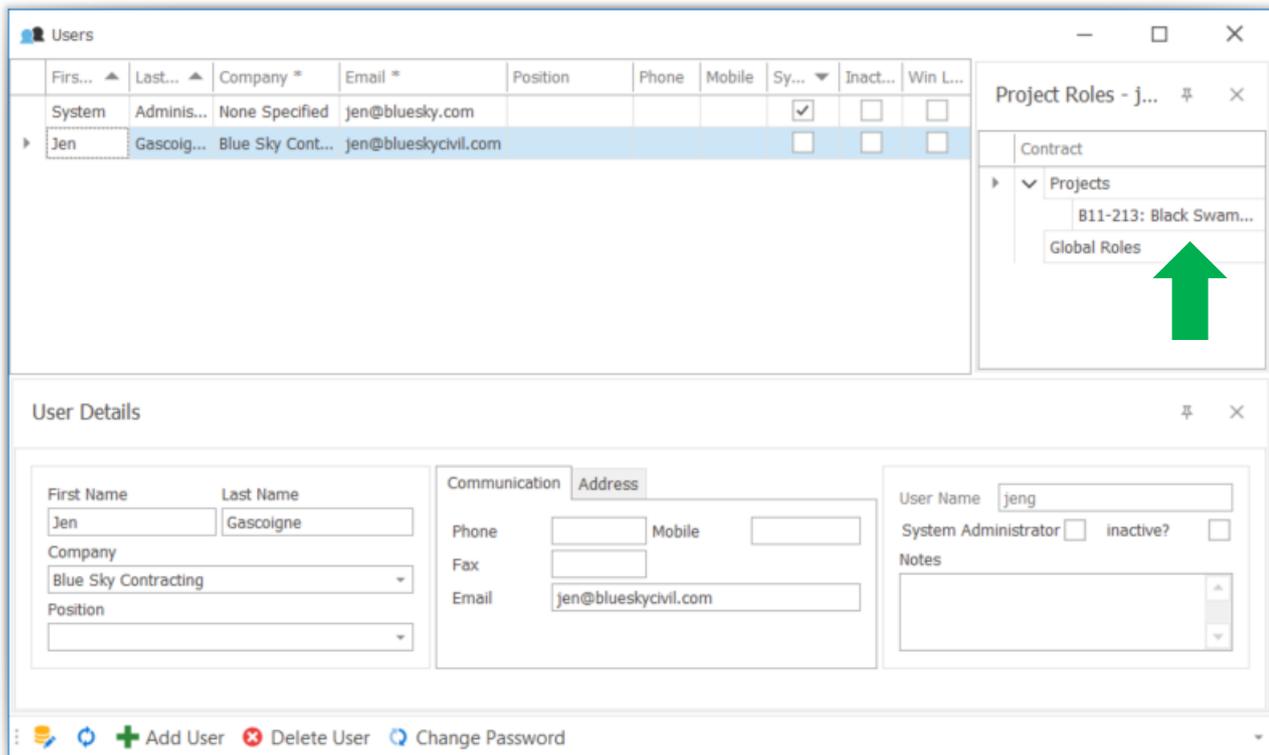


Figure 42 Adding a Users Role

3. In the Role Selector popup, either double click the Project Administrator role, or drag it onto your project.

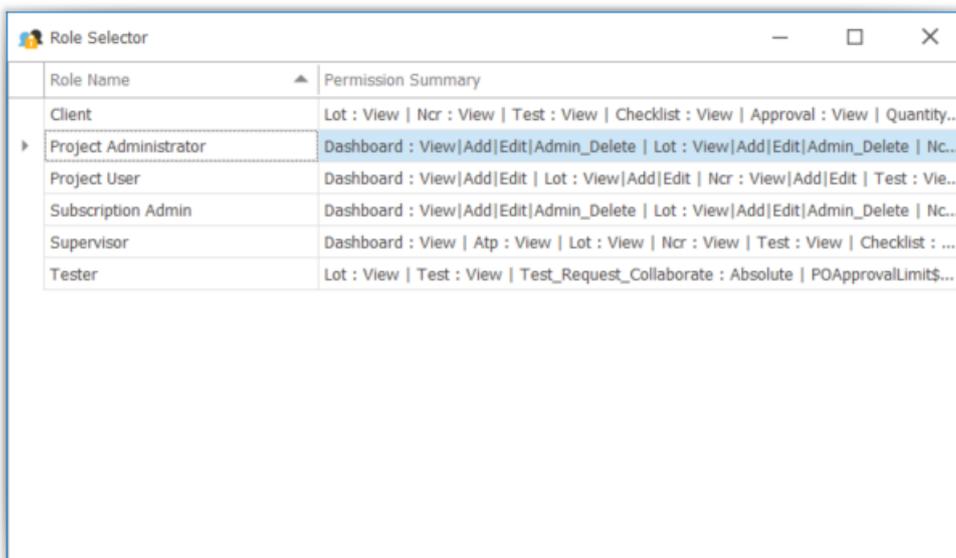


Figure 43 Role Selector



You can also set Global roles so users have a role across all projects. This is beyond the scope of the tutorial, but you can read more about it in our support documentation online.

4. You should now have the project administrator role for the B11-123 project listed in the Project Roles panel to the right of the screen.

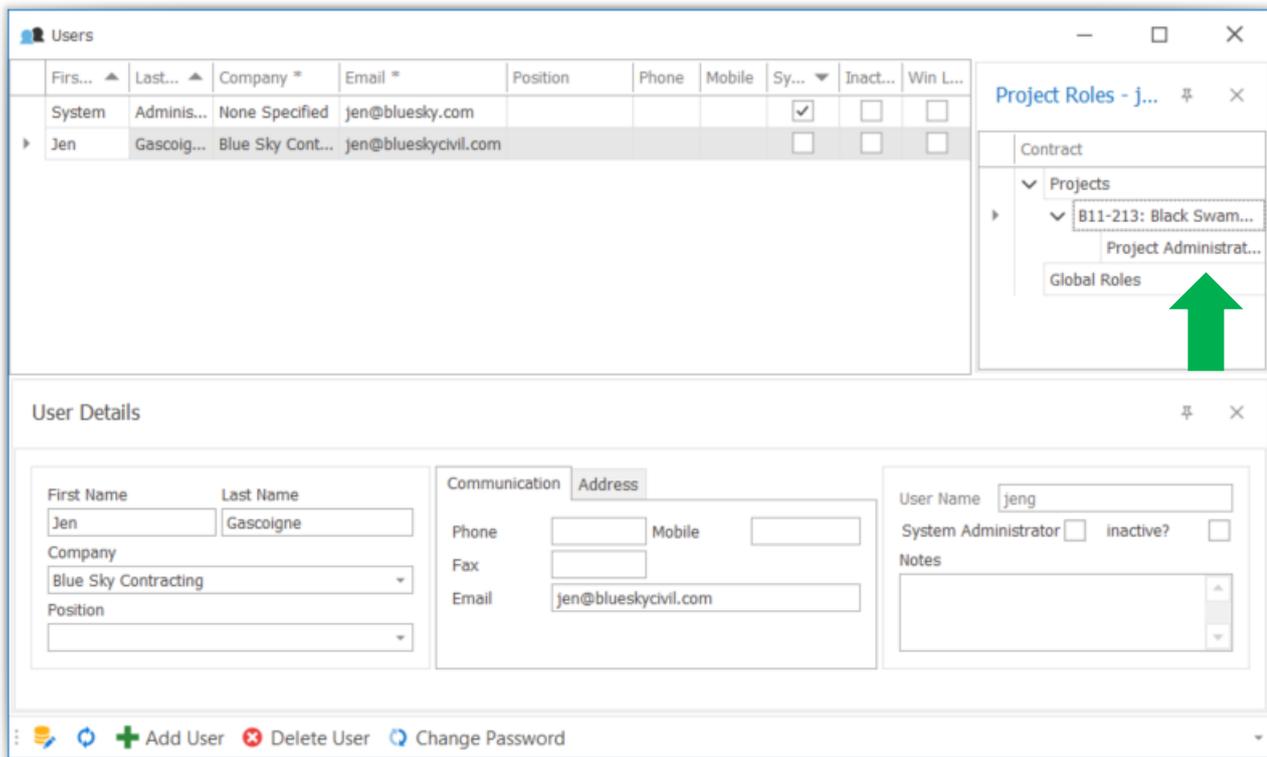
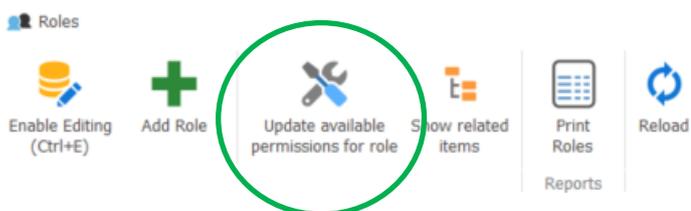


Figure 44 New Role Added

Note: There are some functions that are set globally (as mentioned) and not project specific, (i.e. not accessible to project administrators) such as adding and editing suppliers. However, for the purposes of this training we are going to give the project administrator (you) this access:

1. Close out of the Users screen
2. Open System=>Roles
3. Select Project Administrator then click on *Update Available Permissions for Role* from the Ribbon Menu



4. The Permissions screen will appear. Enable editing and scroll to the bottom to find *Master Supplier*
5. Check the corresponding *Add* and *Edit* boxes

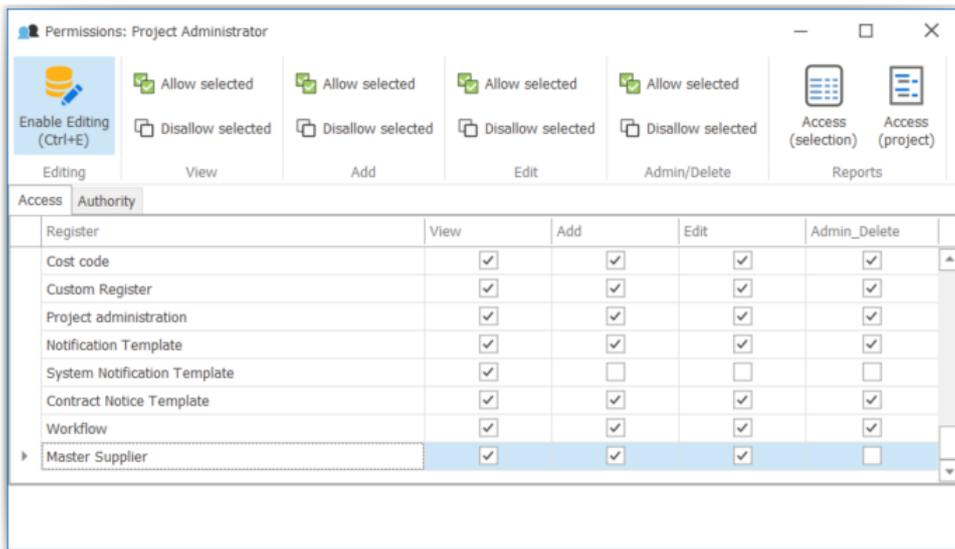


Figure 45 Updating Project Administrator Permissions

6. Close out of both of the Permissions and Roles screens.

Now that we have a user account for ourselves (and have updated some permissions), log out (Ribbon Menu *Project* => *Change Database*), and log in again using your newly created username and password.

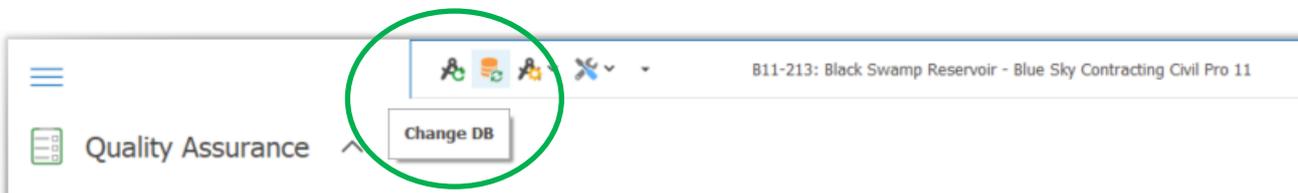


Figure 46 Selecting Change DB to Log Out

5.3 Importing Purchaser Orders Details from CSV

We are now going to create a new PO but instead of manually adding in all the detail we will import it from a CSV file.

1. Go back into your Purchase Orders Register (under Cost Management)
2. Create a new PO by clicking on the *New Order* icon at the bottom of the screen. This will bring up the new Purchase Order screen and you will see that the project details we just entered are now prefilled. The screen should look like that in below. You will also notice that the 'Raised By' is now set to our name.

The screenshot shows a software interface for creating a Purchase Order. The window title is "Purchase Order". The ribbon menu includes "Operations", "Views", and "Reports". The "Operations" ribbon has icons for "Edit PO Number", "Show PO detail notes", "Email PO", "Approve", "Unapprove PO", "New approval request", "View approval", "Receipt All", "View Receipts", "Create from schedule", and "Import from CSV". The form fields are organized into sections: "Purchase Order" (PO Number: 4565--00002), "Approvals" (Approve, Unapprove PO), and "Order Details" (Billing Entity: Blackbutt Utilities, Billing Address: 111 Wellington Road, Smithfield 4372, Payment Terms: 45 days from end of month invoice, Raised By: Jen Gascoigne, Original budget, Comments). A "Notes" field is also present. At the bottom, there is a table with columns: Item, Rate Only?, Item Description, Qty, Unit, Rate (ex GST), Total (ex GST), and Resource?. The total value shown is \$0.00. The bottom right corner has buttons for "Cancel", "Save", and "Save & close".

Figure 47 Prefilled PO

3. Enter the new supplier details following the steps previous described:
 - Supplier – MCM Engineering Pty Ltd
 - Order Date – 7/4/20
4. Once these details are added click *Save* (on the bottom right of the screen).
5. From the Ribbon Menu click on *Import from CSV*

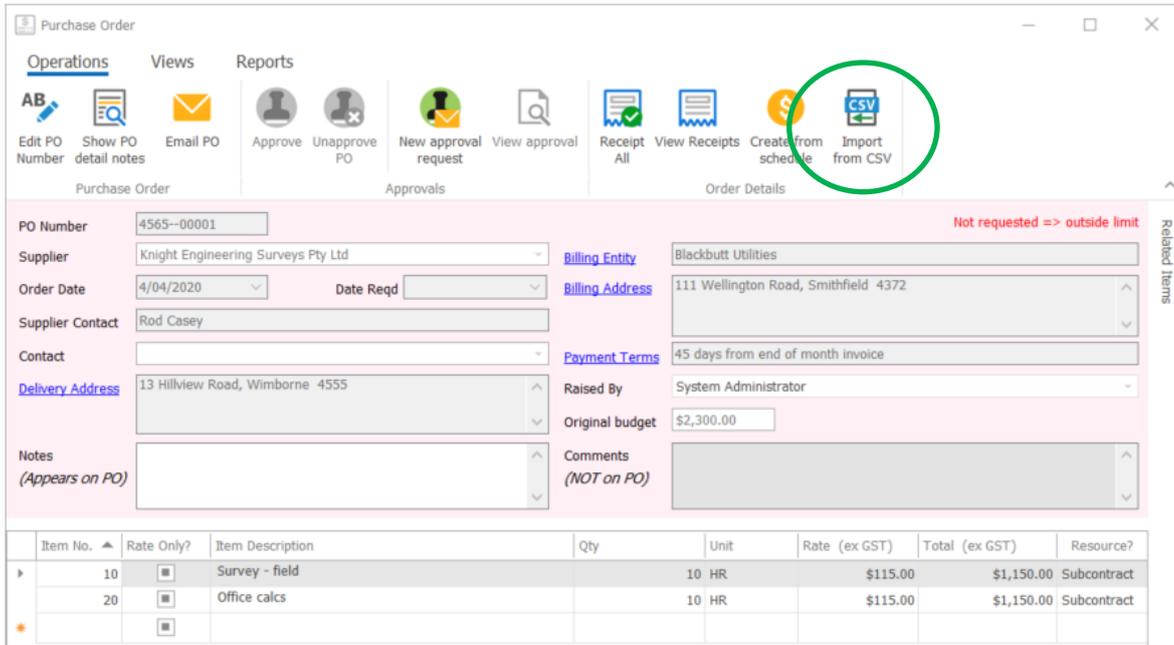
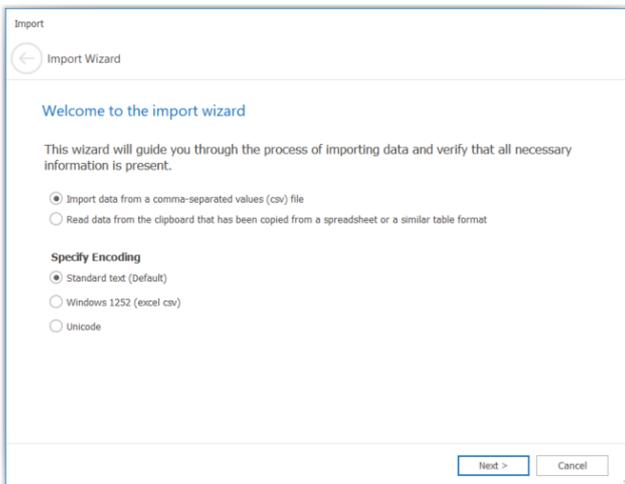


Figure 48 Importing PO details from CSV

6. The Import Wizard screen will now appear. Make sure the *Import data from CSV File* option is checked and click on Next.



7. A file selector will open. Select the file containing the PO detail information (*B11-213 MCM PO Details Import April.csv*).
8. The import preview screen will appear. Assign headings as previously described (you will assign the Description; Qty; Unit and Rate headings – and check the First Row is Header box) and click *Next* then *Finish*.
9. The details will now appear in the PO details section. Your PO should look like Figure 49.

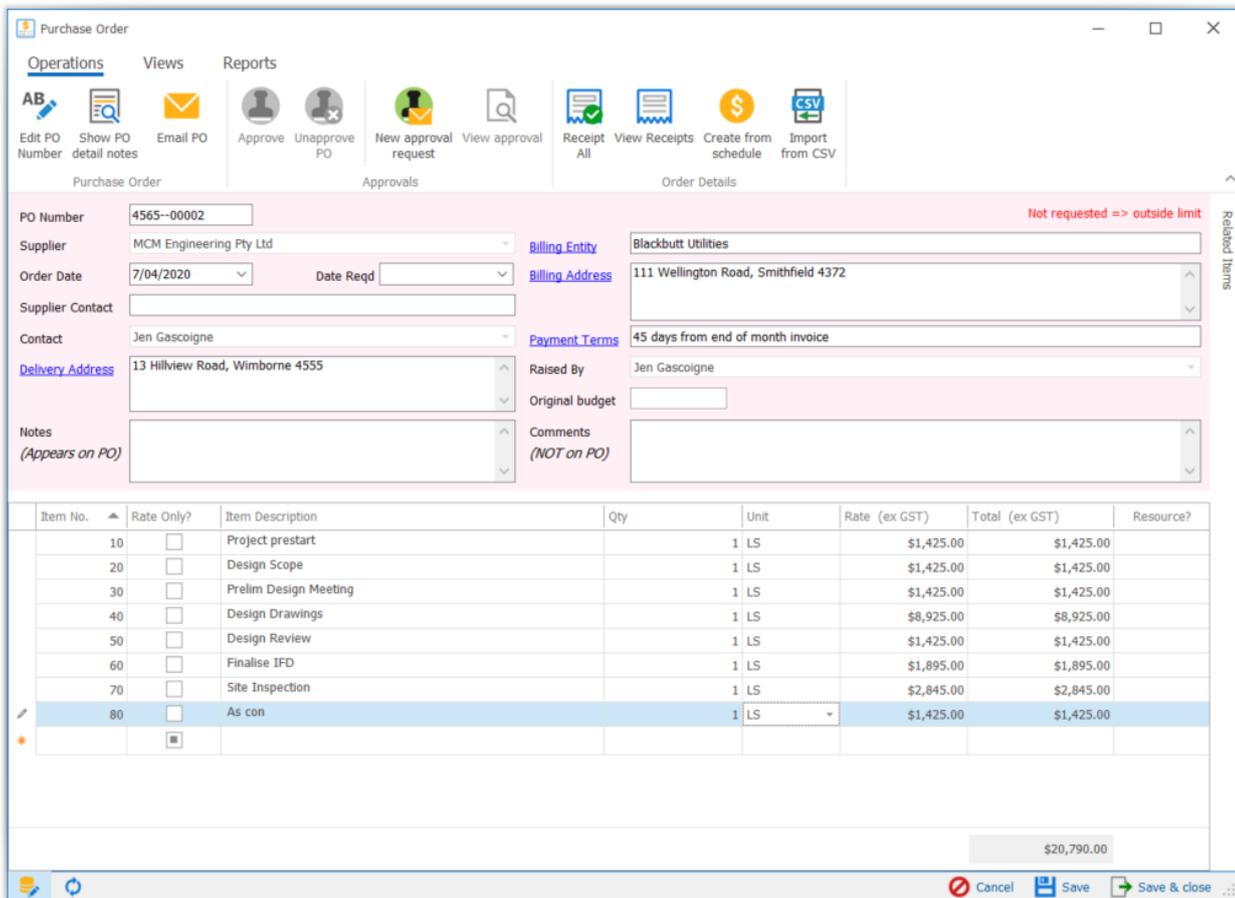


Figure 49 PO Details Imported from CSV

- You will notice that the information for the budget has not been imported. Complete this now. Enter in \$20,790 into the *Original Budget* field then click on *Save & Close*.

5.4 Purchase Order Approval

When we print our purchase order to send to the supplier (*Reports => Purchase Order* in the Ribbon Menu of the PO), it is pretty hard to miss the big “Not Approved” watermark (Figure 50). Obviously, we don’t want our purchase orders going out unless they have been approved by someone with the authority to make such a commitment on behalf of the company.

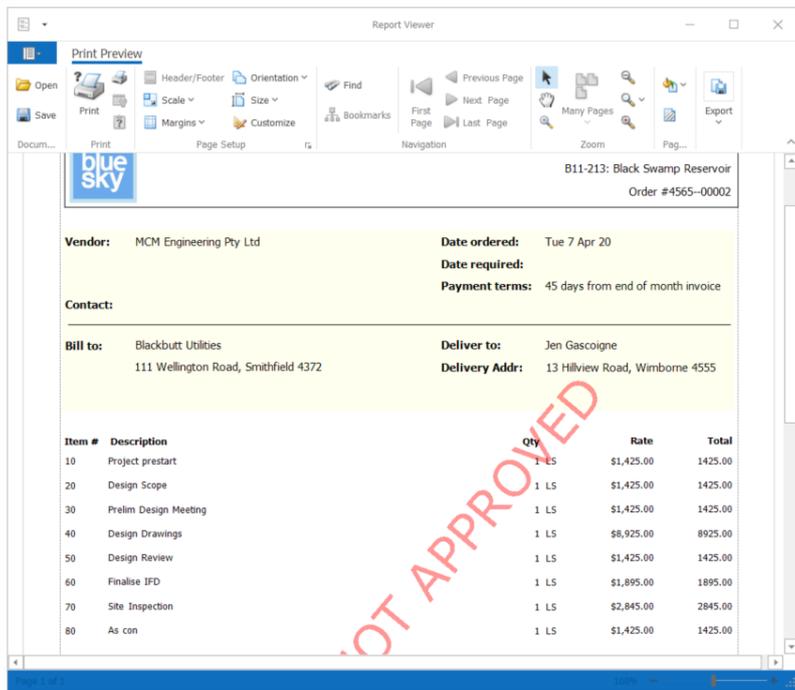


Figure 50 Report Viewer

Approving a purchase order is easy. Just click on the *Approve* button in the PO Details screen. Only problem is that the Approve button in red says 'Outside Limit' and if you try to approve you the system won't let you – the approve button in the Ribbon Menu is greyed out and inactive (). Only a user with sufficient approval limits can approval a PO by clicking on the Approve button. For the purposes of this exercise we are going to give ourselves an approval limit that will allow us to do this.

Purchase Order

Operations Views Reports

AB Edit PO Number Show PO detail notes Email PO Approve Unapprove PO New approval request View approval Receipt All View Receipts Create from schedule Import from CSV

Purchase Order Approvals Order Details

PO Number: 4565--00002

Supplier: MCM Engineering Pty Ltd

Order Date: 7/04/2020

Supplier Contact: [Empty]

Contact: Jen Gascoigne

Delivery Address: 13 Hillview Road, Wimborne 4555

Notes: (Appears on PO)

Billing Entity: Blackbutt Utilities

Billing Address: 111 Wellington Road, Smithfield 4372

Payment Terms: 45 days from end of month invoice

Raised By: Jen Gascoigne

Original budget: \$20,790.00

Comments: (NOT on PO)

Not requested => outside limit

| Item ... | Rate Only? | Item Description | Qty | Unit | Rate (ex GST) | Total (ex GST) | Resource? |
|----------|--------------------------|-----------------------|-----|------|---------------|----------------|-------------|
| 10 | <input type="checkbox"/> | Project prestart | | 1 LS | \$1,425.00 | \$1,425.00 | Subcontract |
| 20 | <input type="checkbox"/> | Design Scope | | 1 LS | \$1,425.00 | \$1,425.00 | Subcontract |
| 30 | <input type="checkbox"/> | Prelim Design Meeting | | 1 LS | \$1,425.00 | \$1,425.00 | Subcontract |
| 40 | <input type="checkbox"/> | Design Drawings | | 1 LS | \$8,925.00 | \$8,925.00 | Subcontract |
| 50 | <input type="checkbox"/> | Design Review | | 1 LS | \$1,425.00 | \$1,425.00 | Subcontract |
| 60 | <input type="checkbox"/> | Finalise IFD | | 1 LS | \$1,895.00 | \$1,895.00 | Subcontract |
| 70 | <input type="checkbox"/> | Site Inspection | | 1 LS | \$2,845.00 | \$2,845.00 | Subcontract |
| 80 | <input type="checkbox"/> | As con | | 1 LS | \$1,425.00 | \$1,425.00 | Subcontract |
| | | | | | | \$20,790.00 | |

Cancel Save Save & close

Figure 51 Cannot Approve PO



In the following section we are going to be managing user roles and permissions. The reason this is possible is that we will log in as a sysadmin on this training database. In your company's database, you will need to get a sysadmin to change user levels and permissions.

1. Log out and log back in as sysadmin (you need to be sysadmin to manage roles)
2. Click on the System icon at the top right of the screen and select *Roles*
3. The Roles details screen will appear. Enable editing and next to Project Administrator in the top grid enter in the approval limit amount of \$30,000 (see Figure 52).

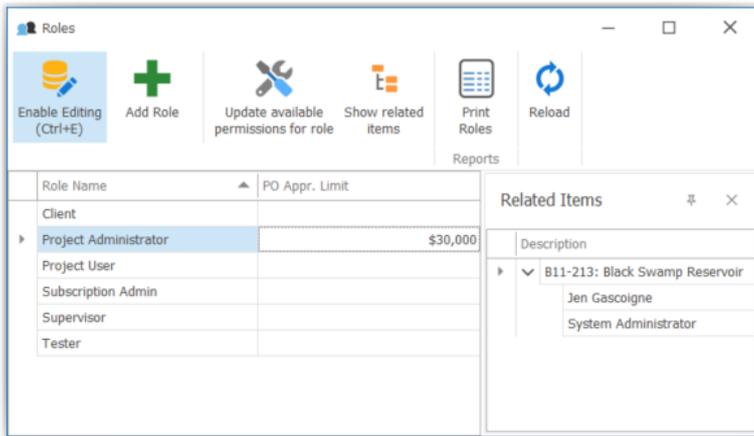


Figure 52 Setting a PO Approval Limit

4. Close the Roles dialog box.
5. Log off and back on using your personal user name and password.
6. Return to the Purchase Orders screen and open the Knight Engineering purchase order. You will now see that at the top right of the screen it says 'Not Requested => Can Approve'. To approve directly rather than first sending an approval request (more on this shortly) click on the Approve button in the Ribbon Menu.
7. The approved purchase order will now have a green background and will now look like Figure 53.

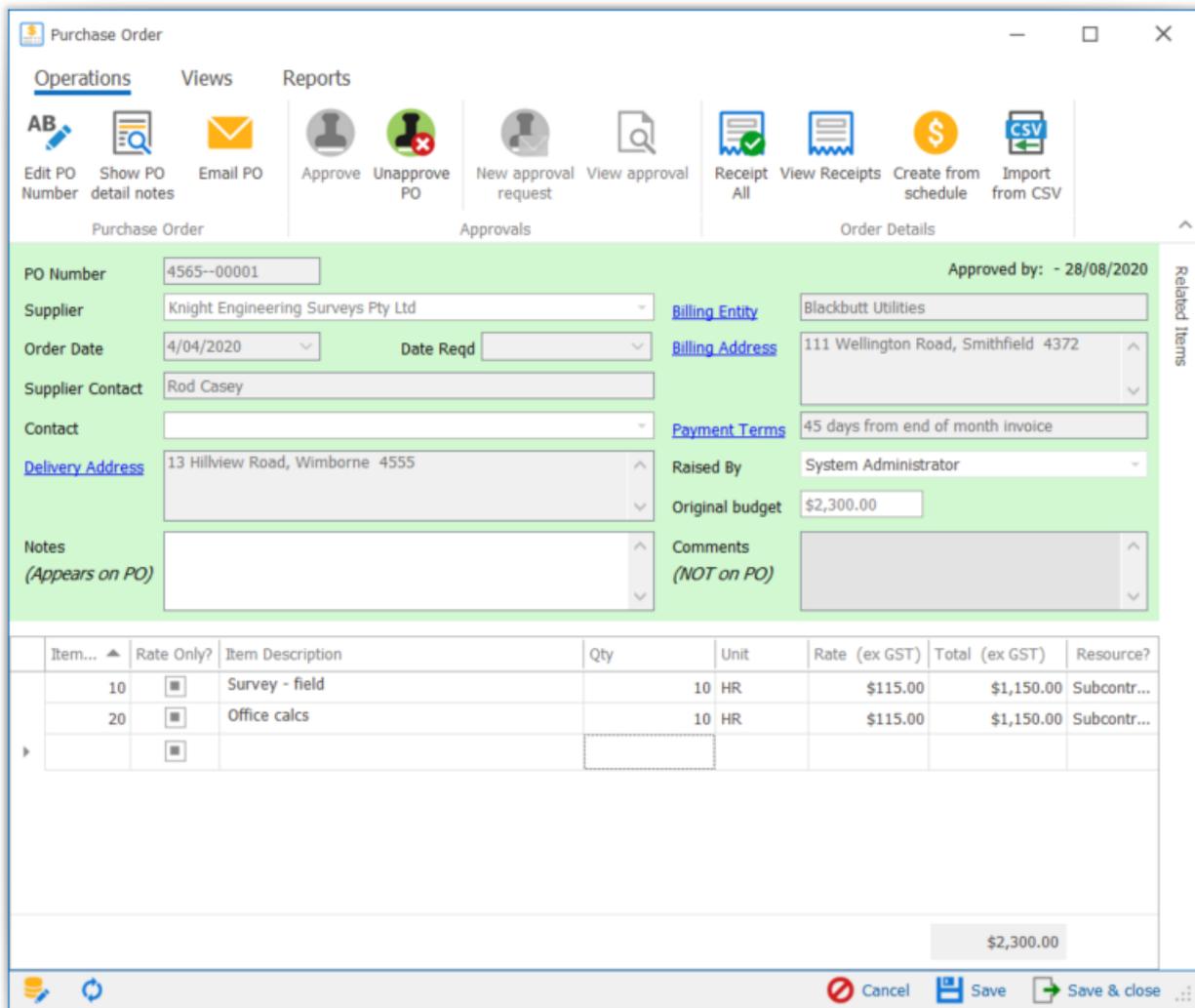


Figure 53 Approved PO

8. Click on *Save & Close*.

5.5 Purchase Order Approval Request

Sometimes you will not have the authority to approve certain PO's directly as we have just done above. For this you will need to request someone else to approve the PO for you. To do this you must create an approval request to alert them to the fact that they need to approve your PO.

Normally in a project you will have multiple users to whom you might send a request. In this case, we will need to add someone. As done previously, log out and back in as sysadmin and create a new user and give them a role using these details:

| | |
|---------------------|-----------------------------|
| James Smith | Password: james |
| jsmith@bbu.com | Username: james |
| Blackbutt Utilities | Role: project administrator |

Log back in as yourself and open the PO register.

We are going to create an approval request for the MCM Engineering PO.

1. Open the MCM Engineering PO
2. From with the Ribbon Menu select *Approvals=>New Approval Request*.

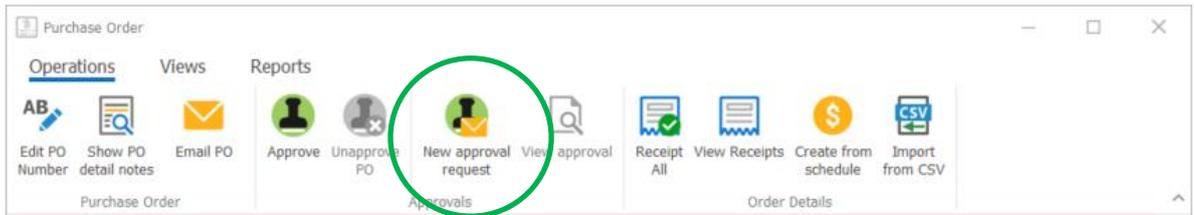


Figure 54 Accessing the New Approval Request

3. A New Approval request form will open. 'Click in the Req To' cell and select James Smith from the drop-down options.
4. We are going to publish this request. This makes the request visible to users in the system and allows the relevant person/s to open the request and approve it. The other option is to email the request. This not only publishes the request as above but also emails it to the addressee/s. To publish click the *Publish* button at the bottom left of the screen (Figure 55). Then click *Save & Close*.

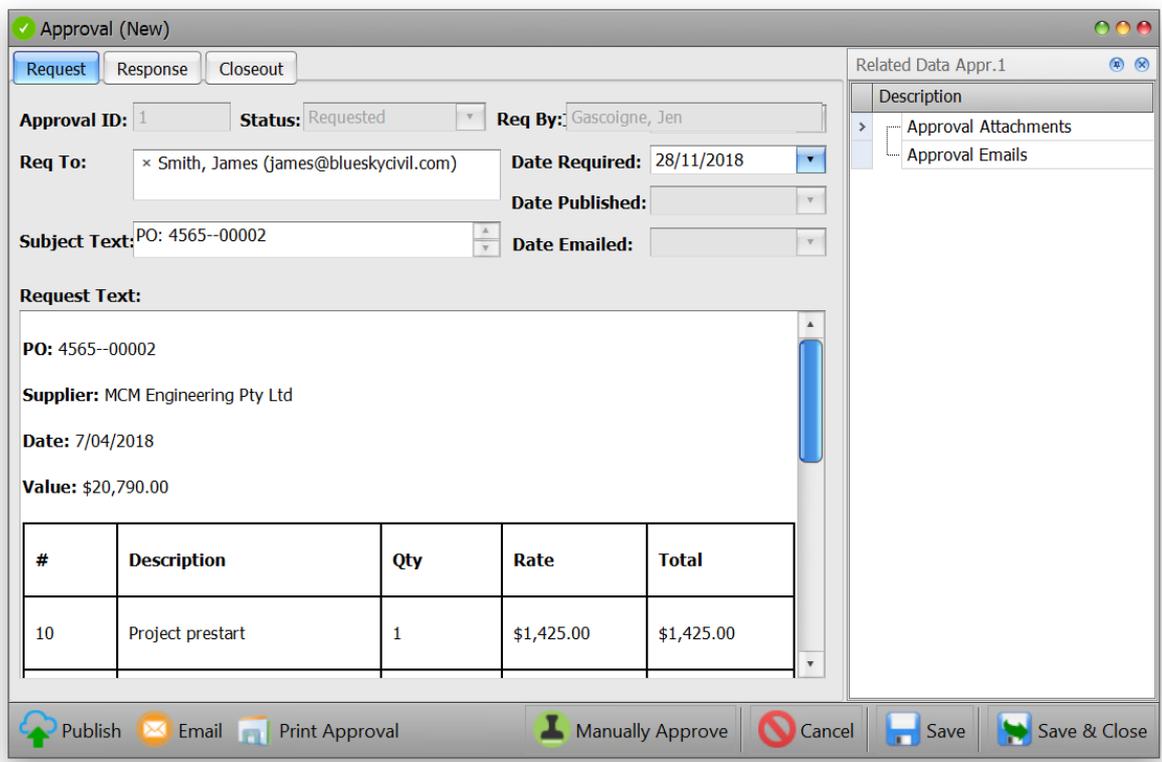


Figure 55 New approval request

- The PO screen will reappear and you will see now that it is shaded orange to indicate the approval is request but it is not yet approved (Figure 56).

PO Number: 4565--00002
 Supplier: MCM Engineering Pty Ltd
 Order Date: 7/04/2018
 Supplier Contact: [Empty]
 Contact: [Empty]
 Delivery Address: 13 Hillview Road, Wimborne 4555
 Notes: (Appears on PO)
 Billing Entity: Blackbutt Utilities
 Billing Address: 111 Wellington Road, Smithfield 4372
 Payment Terms: 45 days from end of invoice month
 Raised By: Gascoigne, Jen
 Original budget: \$20,790.00
 Comments: (NOT on PO)

| Item No. | Rate Only? | Item Description | Qty | Unit | Rate (ex GST) | Total (ex GST) | Resource? |
|----------|--------------------------|-----------------------|-----|------|---------------|----------------|-------------|
| 10 | <input type="checkbox"/> | Project prestart | | 1 ls | \$1,425.00 | \$1,425.00 | No resource |
| 20 | <input type="checkbox"/> | Design Scope | | 1 ls | \$1,425.00 | \$1,425.00 | No resource |
| 30 | <input type="checkbox"/> | Prelim Design Meeting | | 1 ls | \$1,425.00 | \$1,425.00 | No resource |
| 40 | <input type="checkbox"/> | Design Drawings | | 1 ls | \$8,925.00 | \$8,925.00 | No resource |
| 50 | <input type="checkbox"/> | Design Review | | 1 ls | \$1,425.00 | \$1,425.00 | No resource |
| 60 | <input type="checkbox"/> | Finalise IFD | | 1 ls | \$1,895.00 | \$1,895.00 | No resource |
| | | | | | | \$20,790.00 | |

Figure 56 Requested PO

Normally James would then go into the system and approve the PO much like we did with the Knight Engineering PO. But for our purposes here we will approve directly. Using the steps described previously approve the MCM PO. After this is done your PO register should look like the below (Figure 57).

| PO Nu... | PO Date | Supplier | Raised By | Contact | Date Req... | Is Compl... | Value | Receipted | Invoiced | Status |
|-------------|------------|--------------|--------------|---------------|-------------|--------------------------|-------------|-----------|----------|----------|
| 4565--00... | 7/04/2018 | MCM Engi... | Gascoign... | | | <input type="checkbox"/> | \$20,790.00 | \$0.00 | \$0.00 | Approved |
| 4565--00... | 26/11/2018 | Knight En... | Administr... | Lovall, Da... | | <input type="checkbox"/> | \$2,300.00 | \$0.00 | \$0.00 | Approved |
| | | | | | | | \$23,090.00 | \$0.00 | \$0.00 | |

Figure 57 Approved PO

6 Daycosts

6.1 Manual Daycost Entry

We will now enter some daycosts.

1. Select Cost Management from the Main Menu and from there click on the Daycosts icon
2. Once in the Daycosts Register click on *New Report Period* at the bottom of the screen (Figure 58)

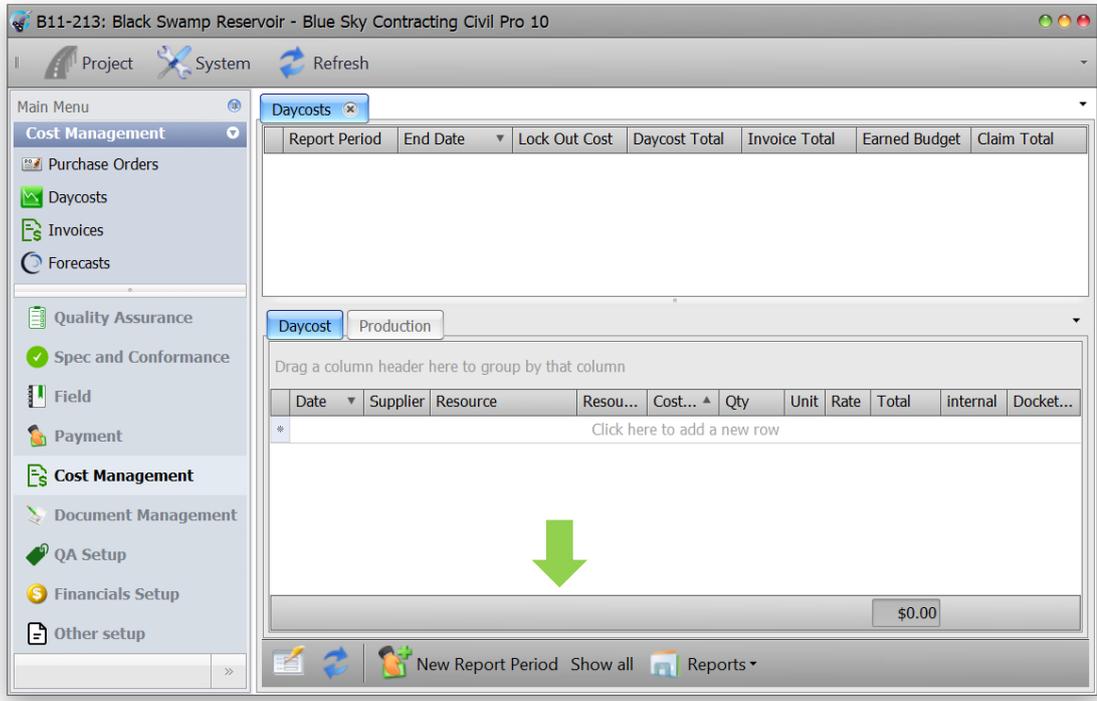


Figure 58 Daycost screen – new report period button

3. In the next screen enter the reporting period end date – in this case 30/4/17. Click *Create* (Figure 59).

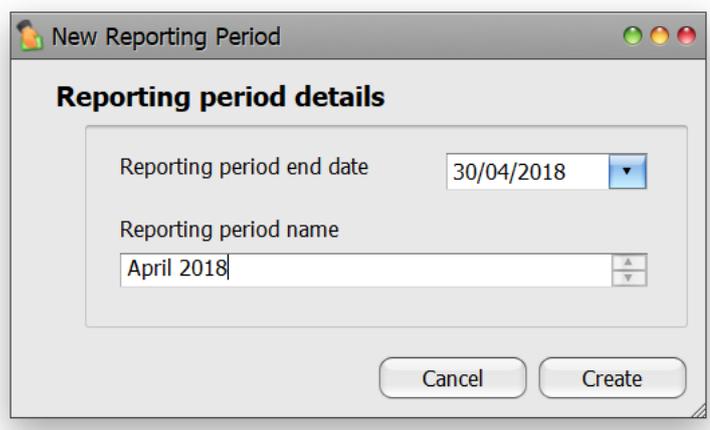


Figure 59 New report period dialog

4. You will be brought back to the Day Cost Register which will now show April 2018 in the top part of the screen (Figure 60)

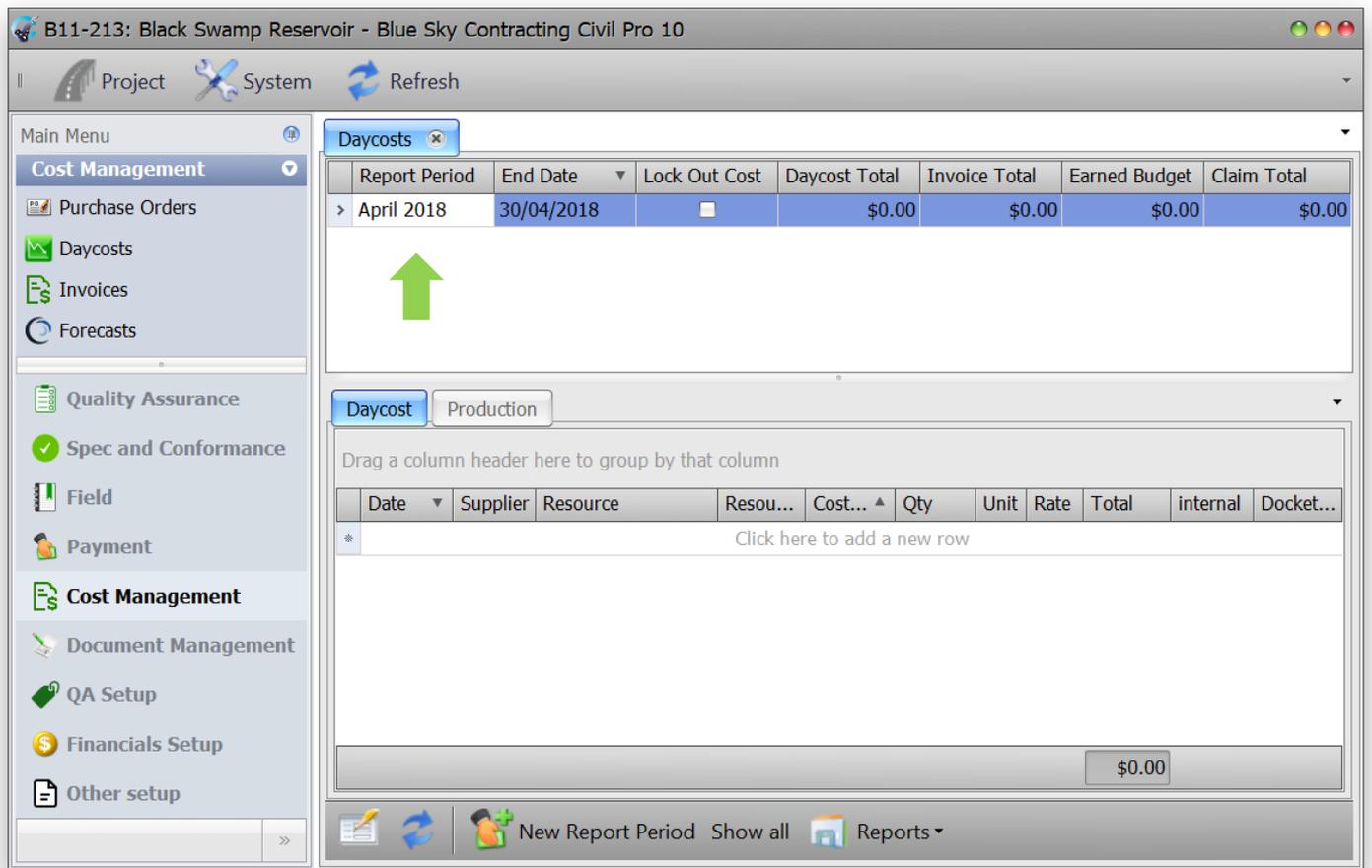


Figure 60 New report period created and appearing in Daycosts register

- We are now going to manually enter the daycosts for this new report period in the daycost detail part of the screen (bottom half), using the information presented in the Project Information Tutorial handout.

To enter the data for each cell first make sure editing is enabled as previously described then simply click in the cell and enter the information required or select from the dropdown. As you type in new suppliers, you will be asked to enter their details – to do this follow the steps previously described.



Civil Pro has heaps of functions to make data entry easier such as the 'ditto', copy/paste selected and 'split' functions. Try the ditto function out – after you have entered the first daycost for Eastcoast Asphalt, select it and press Ctrl+'. The selected row will be duplicated in the new item row – just change the resource, qty and rate!

Once you have entered the data your screen should look like that in Figure 61.

B11-213: Black Swamp Reservoir - Blue Sky Contracting Civil Pro 10

Project System Refresh

Main Menu

- Cost Management
 - Purchase Orders
 - Daycosts
 - Invoices
 - Forecasts
- Quality Assurance
- Spec and Conformance
- Field
- Payment
- Cost Management
- Document Management
- QA Setup
- Financials Setup
- Other setup

Daycosts

| Report Period | End Date | Lock Out Cost | Daycost Total | Invoice Total | Earned Budget | Claim Total |
|---------------|------------|--------------------------|---------------|---------------|---------------|-------------|
| > April 2018 | 30/04/2018 | <input type="checkbox"/> | \$2,283.40 | \$0.00 | \$0.00 | \$0.00 |

Daycost Production

Drag a column header here to group by that column

| Date | Supplier | Resource | Resour... | Cost code | Qty | Unit | Rate | Total | internal | Docket Ref |
|-------------------------------|-----------|---------------|------------|-----------------|-----|------|---------|------------|-------------------------------------|------------|
| * Click here to add a new row | | | | | | | | | | |
| 26/04/2... | USafe ... | Insurance | Subcont... | 101: Prelim... | 1 | LS | \$1,... | \$1,246... | <input type="checkbox"/> | |
| 26/04/2... | Eastco... | Core test | Subcont... | 102: Investi... | 8 | EA | \$9... | \$721.60 | <input type="checkbox"/> | |
| > 26/... | Eastco... | Establishment | Subcont... | 102: Investi... | 1 | LS | \$3... | \$315.00 | <input checked="" type="checkbox"/> | |

\$2,283...

New Report Period Show all Reports

Figure 61 Completed Daycost Register for April



You can use the tab key to move across cells within a line and to move to the next line.

7 Receipting

7.1 Manual Receipt Entry

We are now going to receipt the items we entered in the purchase orders.

1. Select Cost Management from the Main Menu and from there click on Purchase Orders.
2. Open the purchase order for Knight Engineering from within the Purchase Order grid by double clicking on it.
3. click on the Receipts button at the bottom of the screen as in Figure 62 below.

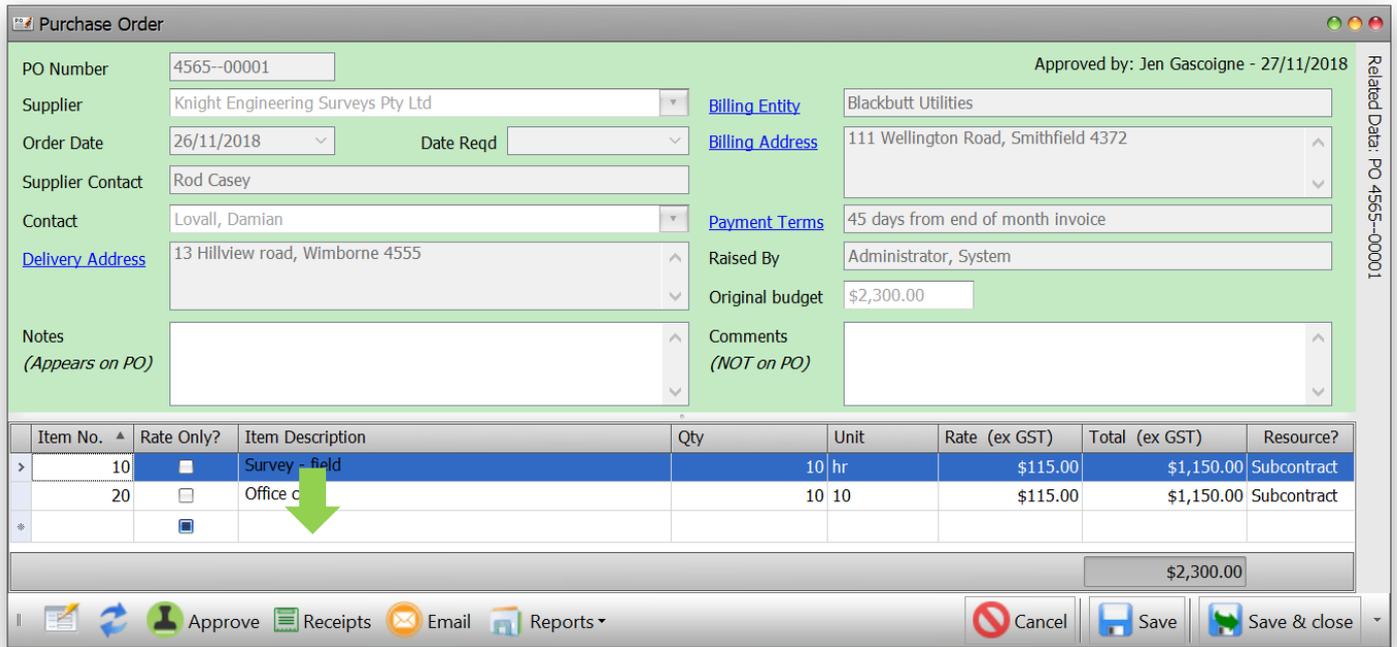


Figure 62 Purchase order receipt button

4. This will bring up the New Receipts screen. In the Receipt Date field select 4/4/17 and click OK (Figure 63).

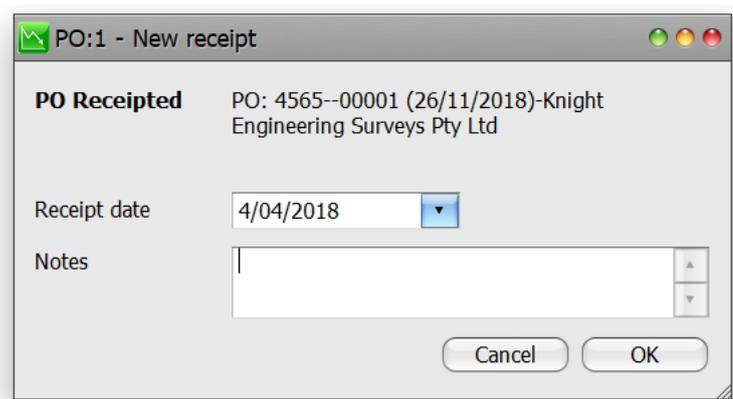


Figure 63 New receipt dialog

- You will now be taken to the Receipts screen. *Enable editing* and within the Receipt Details section of the screen enter 6 in the 'Qty (this)' cell for the field survey item and leave the office calcs item as 0. This indicates that on the 4th April, 6 of the 10 items regarding the field survey were 'received' while office calcs items are still outstanding. If you look at the Receipt summary section of the screen at the top, you will see that the total of the receipt comes to \$690 (Figure 64)

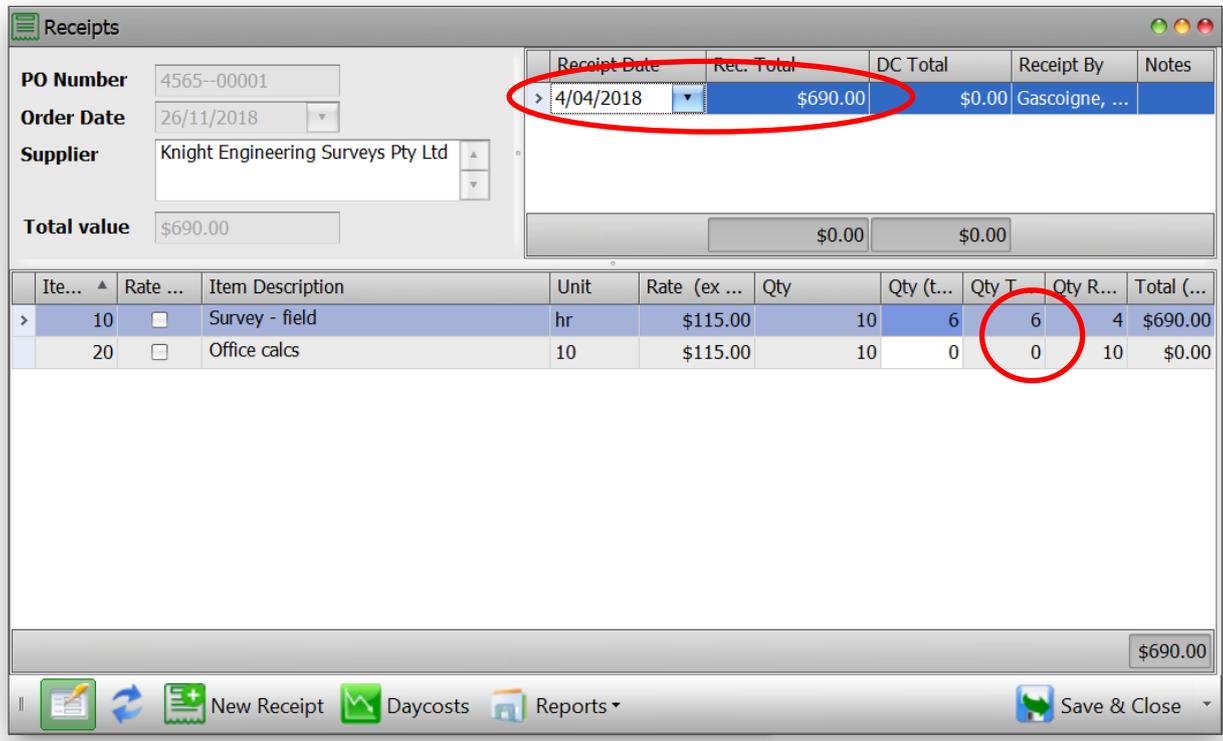


Figure 64 Receipt details entry

While this is tracking the purchase order's delivery progress, we also need to update our Daycosts Register with the cost we have just received.

- To do this select the Daycosts button at the bottom of the currently open Receipts screen.
- The Update Daycosts for Receipt dialog box will open. Make sure the 'Summarize receipt to a single daycost' circle is checked then click OK (Figure 65).

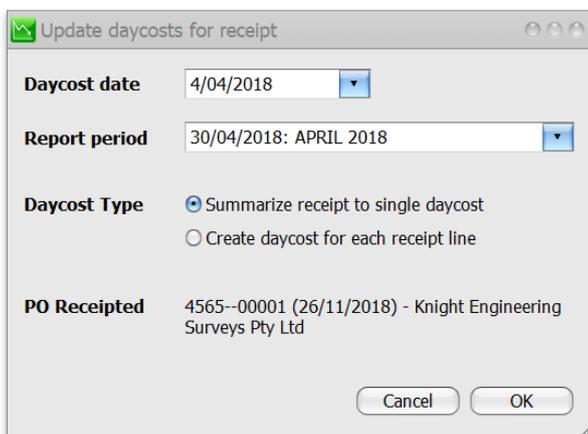


Figure 65 Updating daycosts for receipt

- You will now see that the PO receipt total now also appears in the 'DC Total column' in the Receipt summary section at the top right of the Receipts screen (Figure 66)

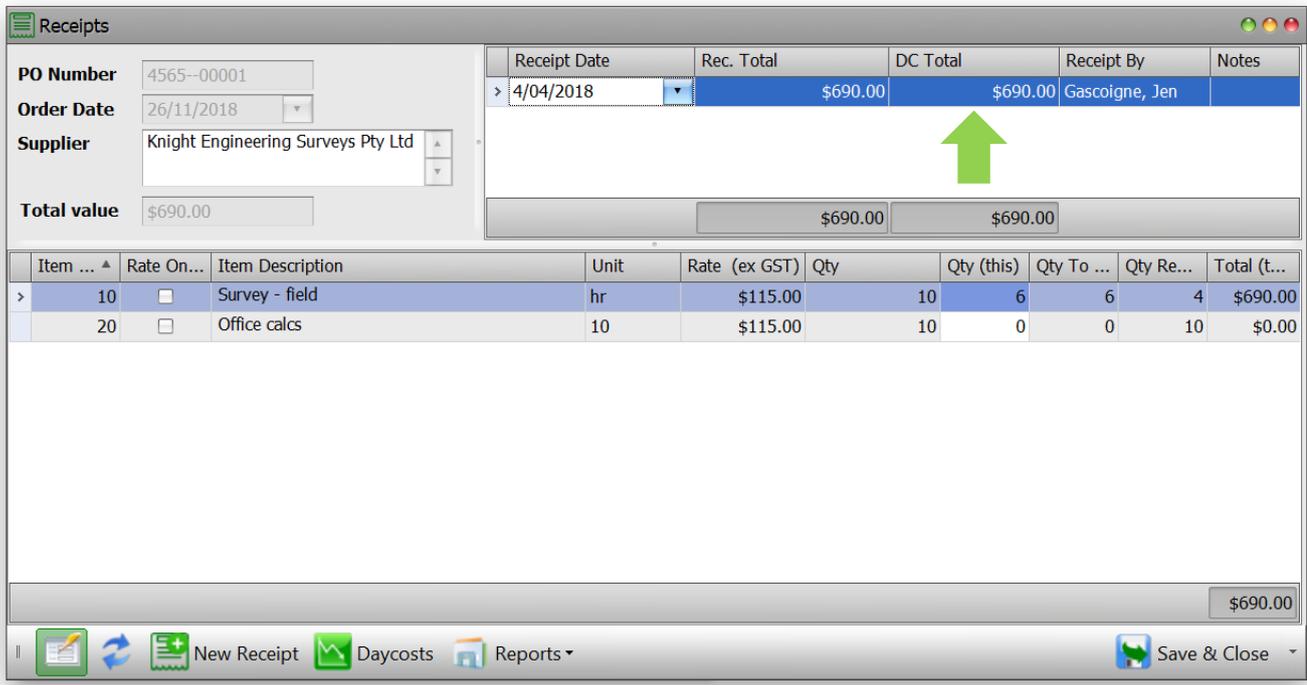


Figure 66 Updated daycost showing in receipt DC Total column

- Click *Save & Close* out of the receipt screen then click *Save & Close* out of the PO details screen. You will now be back in the Purchase Order Register. If you look at the Received section of the register you will see that the receipt value will reflect the value of what has been received to date (in this case \$690 out of a total of \$2,300). See Figure 67 below.

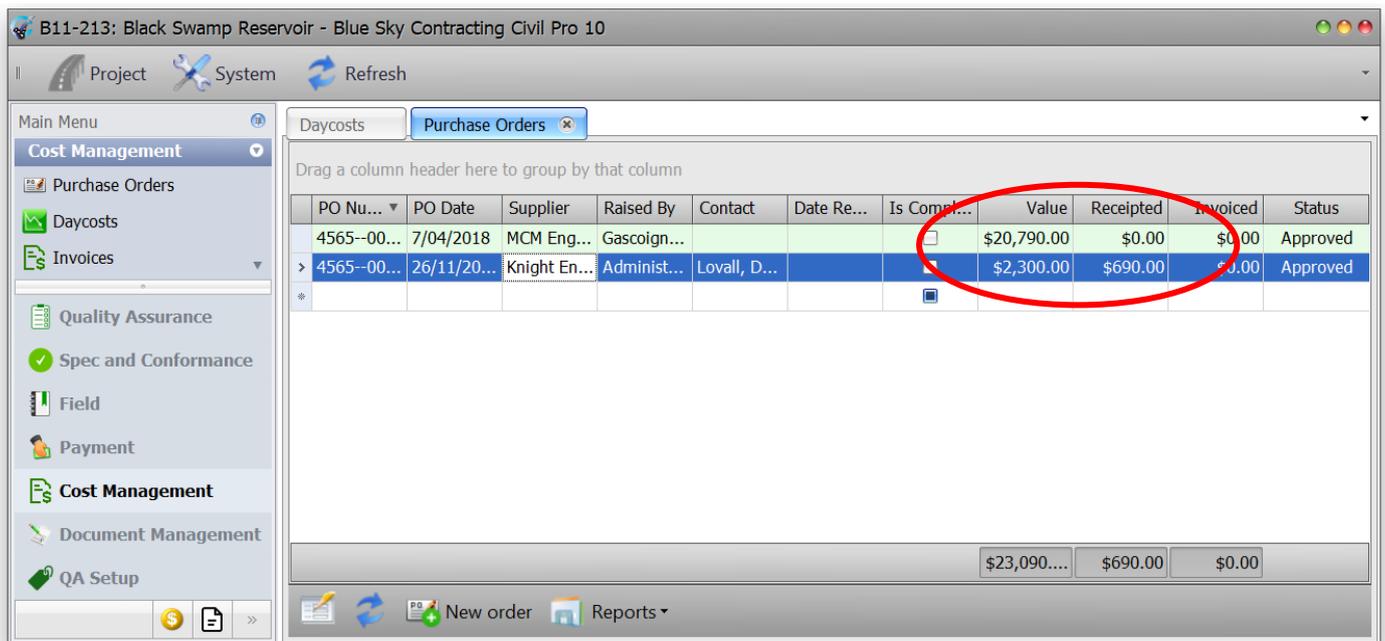


Figure 67 Purchase order register showing received value



If you want to receipt a purchase order in its entirety, or receipt everything remaining for a PO, then use the Receipt All Remaining context menu option from the Purchase Order Register.

A similar function is available within the purchase order detail. Select the lines you want to receipt, right click and select Receipt Selected.

10. Now go into the Daycosts Register. As we took the opportunity to use the 'Update Daycosts' function when we created the receipt just now, you will see that the PO we just receipted has been added to the register automatically as in Figure 68.

| Report Period | End Date | Lock Out Cost | Daycost Total | Invoice Total | Earned Budget | Claim Total |
|---------------|------------|--------------------------|---------------|---------------|---------------|-------------|
| > April 2018 | 30/04/2018 | <input type="checkbox"/> | \$2,973.40 | \$0.00 | \$0.00 | \$0.00 |

| Date | Supplier | Resource | Resou... | Cost code | Qty | Rate | Total | i... | Dock... |
|-------------------------------|-----------------------|---------------------|----------|----------------|-------|-----------|-----------|-------------------------------------|---------|
| * Click here to add a new row | | | | | | | | | |
| 26/04/2018 | Eastcoast Asphalt | Establishment | Subco... | 102: Invest... | 1 LS | \$315.... | \$315.... | <input type="checkbox"/> | |
| 26/04/2018 | Eastcoast Asphalt | Core test | Subco... | 102: Invest... | 8 ... | \$90.20 | \$721.... | <input type="checkbox"/> | |
| 26/04/2018 | USafe Pty Ltd | Insurance | Subco... | 101: Prelim... | 1 LS | \$1,24... | \$1,24... | <input type="checkbox"/> | |
| > 4/04/2018 | Knight Engineering... | Receipt summary ... | | | 1 LS | \$690.... | \$690.... | <input checked="" type="checkbox"/> | |

Figure 68 Receipt showing in Daycosts Register

11. Go back into the Purchase Orders Register and enter the remaining receipts for April for MCM and Knight Engineering Surveys using the information from the Project Information Tutorial handout and following the steps above.
12. When you are done the Purchase Orders screen and the Days costs screen should look like those in Figure 69 and Figure 70 respectively.

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Project System Refresh

Main Menu

- Cost Management
 - Purchase Orders
 - Daycosts
 - Invoices
- Quality Assurance
- Spec and Conformance
- Field
- Payment
- Cost Management
- Document Management
- QA Setup
- Financials Setup

Daycosts Purchase Orders

Drag a column header here to group by that column

| PO N... | PO Date | Supplier | Raised By | Contact | Date R... | Is Com... | Value | Receipted | Invoiced | Status |
|--------------|------------|-------------|------------|-------------|-----------|-------------------------------------|-------------|-------------|----------|----------|
| > 4565--0... | 7/04/20... | MCM En... | Gascoig... | | | <input type="checkbox"/> | \$20,790... | \$11,775... | \$0.00 | Approved |
| 4565--0... | 26/11/2... | Knight E... | Adminis... | Lovall, ... | | <input type="checkbox"/> | \$2,300.00 | \$1,207.50 | \$0.00 | Approved |
| * | | | | | | <input checked="" type="checkbox"/> | | | | |

\$23,09... \$12,98... \$0.00

New order Reports

Figure 69 Post receipting Purchaser Orders Register

B11-213: Black Swamp Reservoir - Blue Sky Contracting Civil Pro 10

Project System Refresh

Main Menu

- Cost Management
 - Purchase Orders
 - Daycosts
 - Invoices
- Quality Assurance
- Spec and Conformance
- Field
- Payment
- Cost Management
- Document Management
- QA Setup
- Financials Setup

Daycosts Purchase Orders

| Report Period | End Date | Lock Out Cost | Daycost Total | Invoice Total | Earned Budget | Claim Total |
|---------------|------------|--------------------------|---------------|---------------|---------------|-------------|
| > April 2018 | 30/04/2018 | <input type="checkbox"/> | \$15,265.90 | \$0.00 | \$0.00 | \$0.00 |

Daycost Production

Drag a column header here to group by that column

| Date | Supplier | Resource | Reso... | Cost code | Qty | Rate | Total | in... | .. |
|-----------------------------|----------------------|--------------------|----------|---------------|-------|----------|------------|-------------------------------------|----|
| Click here to add a new row | | | | | | | | | |
| 26/04/2018 | Eastcoast Asphalt | Establishment | Subco... | 102: Inves... | 1 LS | \$315... | \$315.00 | <input type="checkbox"/> | |
| 26/04/2018 | Eastcoast Asphalt | Core test | Subco... | 102: Inves... | 8 ... | \$90.20 | \$721.60 | <input type="checkbox"/> | |
| 26/04/2018 | USafe Pty Ltd | Insurance | Subco... | 101: Preli... | 1 LS | \$1,2... | \$1,246.80 | <input type="checkbox"/> | |
| 10/04/2018 | Knight Engineerin... | Receipt summary... | | | 1 LS | \$172... | \$172.50 | <input type="checkbox"/> | |
| 6/04/2018 | Knight Engineerin... | Receipt summary... | | | 1 LS | \$345... | \$345.00 | <input type="checkbox"/> | |
| > 4/04/2018 | Knight Engineerin... | Receipt summary... | | | 1 LS | \$690... | \$690.00 | <input checked="" type="checkbox"/> | |

\$15,265.90

New Report Period Show all Reports

Figure 70 Post receipting Daycosts Register

8 Invoices

8.1 Manual Entry of Invoices

Usually your invoices will be imported in bulk from your accounting software (e.g. MYOB), but individual invoices can be manually entered. For the purposes of the training, we are going to manually enter our invoices for April.

1. Click on the Invoices icon from within Cost Management
2. Within the Invoices register click on the *New Invoice* option at the bottom of the screen (Figure 71)

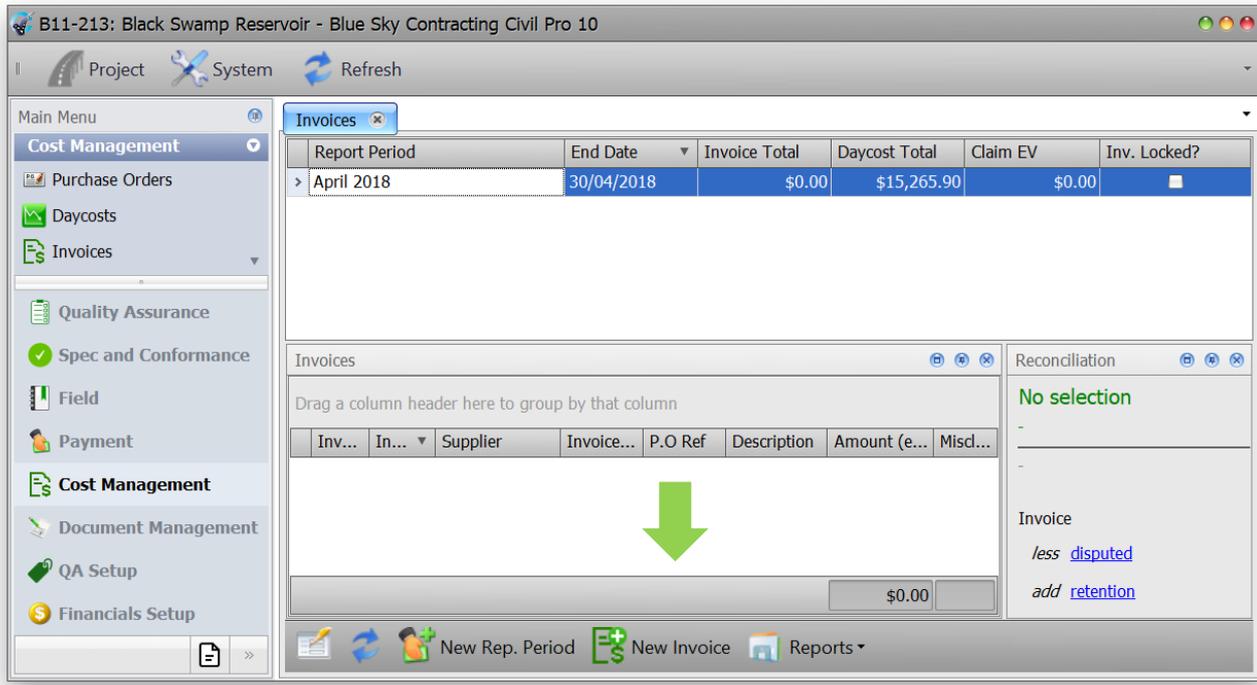


Figure 71 New Invoice button in the Invoice register screen

3. The New Invoice dialog will now appear. Enter the first invoice details (Knight Engineering) from the Project Information Tutorial handout then click OK (Figure 72).

Note: you can link invoices to POs in the system using the drop down and selecting the relevant PO reference but we won't in this case

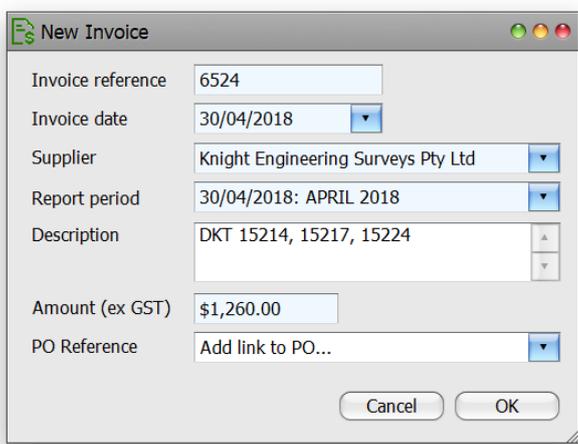


Figure 72 New Invoice dialog

- Enter the remaining invoices using the same process as described. When done the Invoices screen should look like that in Figure 73 below.

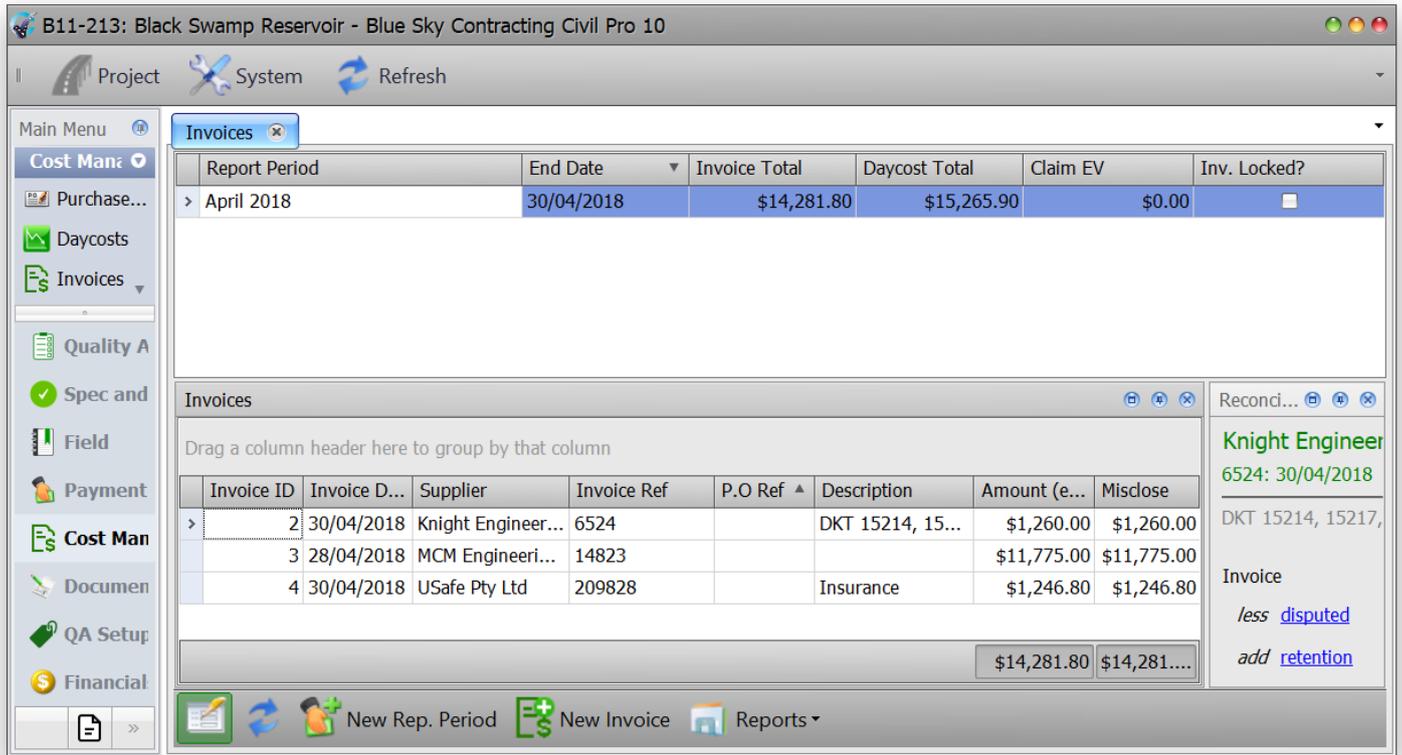


Figure 73 Post manual entry Invoices Register

8.2 Invoice Reconciliation

At the end of each reporting period, it is critical to ensure that our daycosts agree with the invoices. If they don't this will usually result in:

- Requests to the supplier to correct inaccurate invoices
- Corrections to daycosts to account for approximations and omissions

1. Within the Invoice Register either double click on the Usafe Pty Ltd in the Invoices register details screen or click on the *Daycost* link in the Reconciliation summary panel (Figure 74).

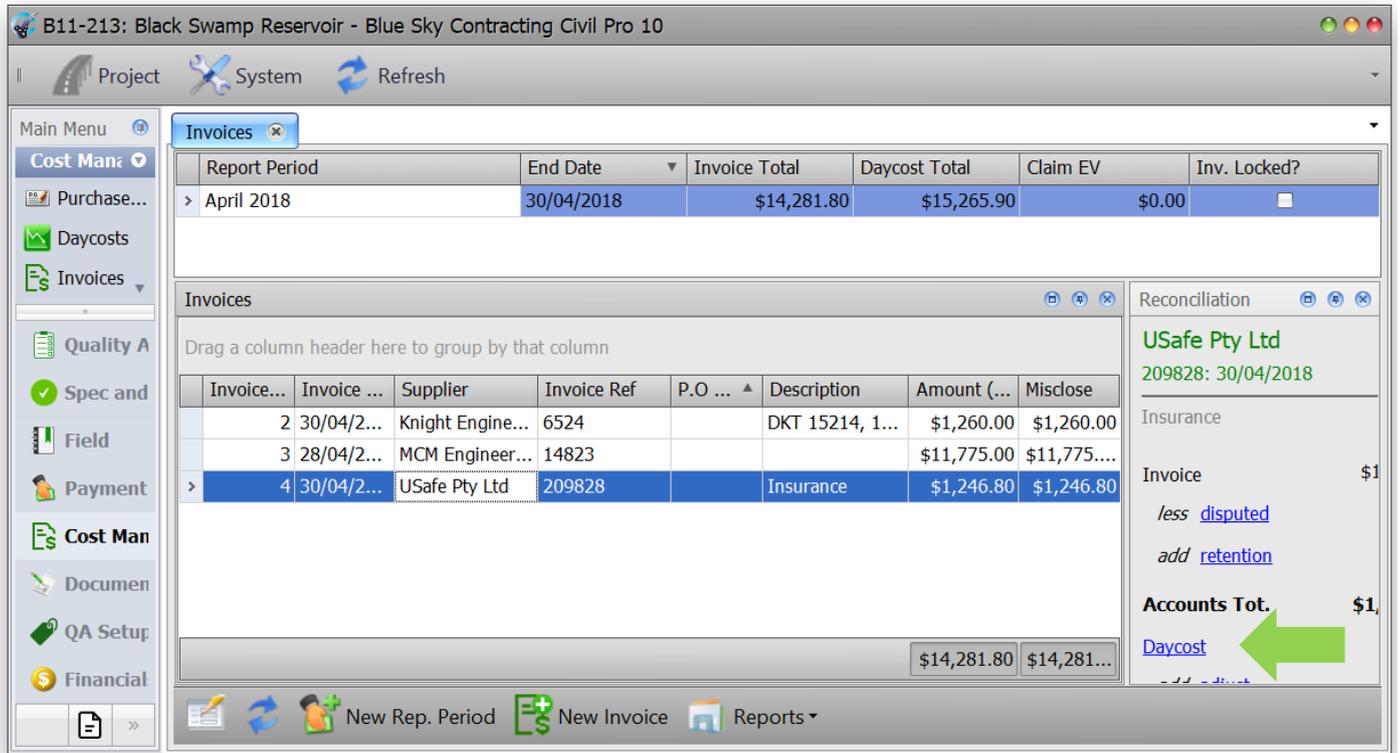


Figure 74 Daycost link in Reconciliation panel

2. The Invoice Reconciliation screen will appear. At the bottom of this screen will be all of the unassigned daycosts that match the Usafe supplier. Select the green chevrons to assign this invoice to this daycost (Figure 75)

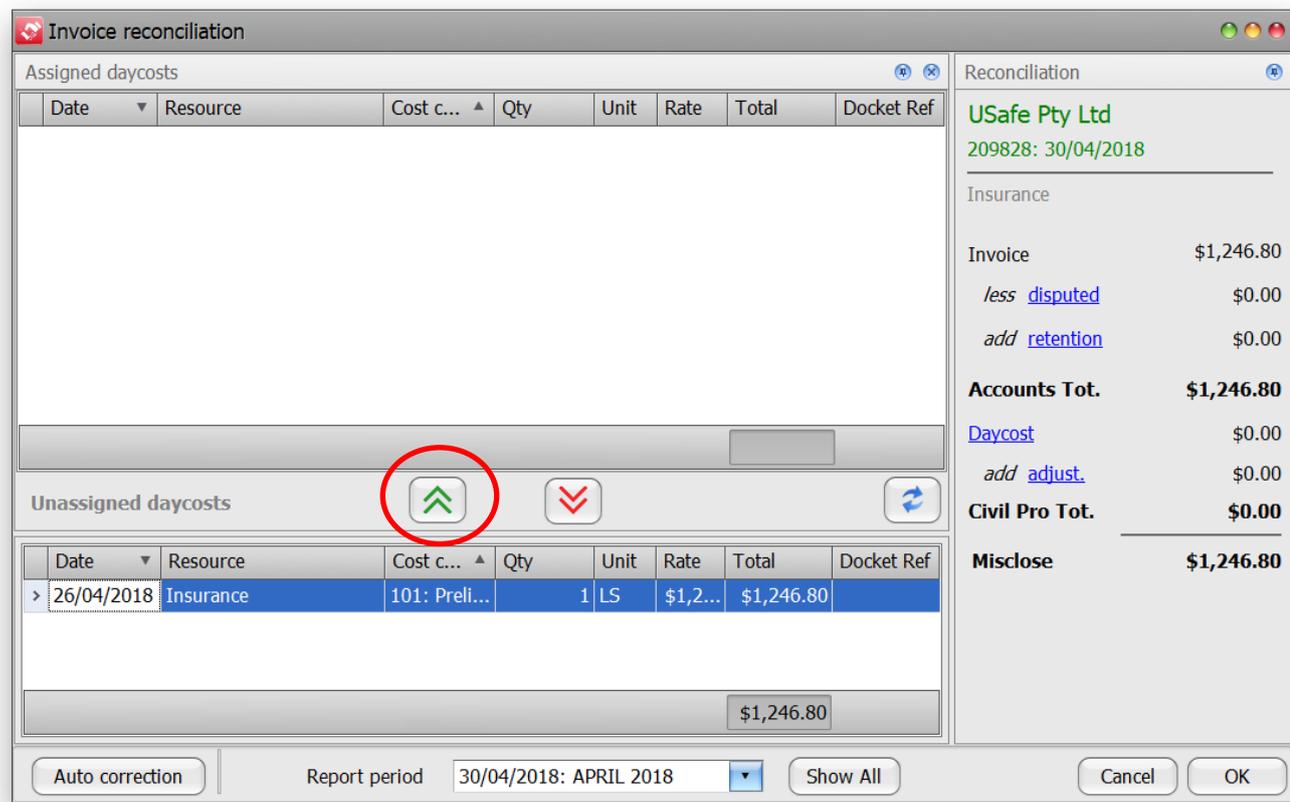


Figure 75 Assigning daycosts to an invoice

It should now look like this with a misclose of \$0 (Figure 76).

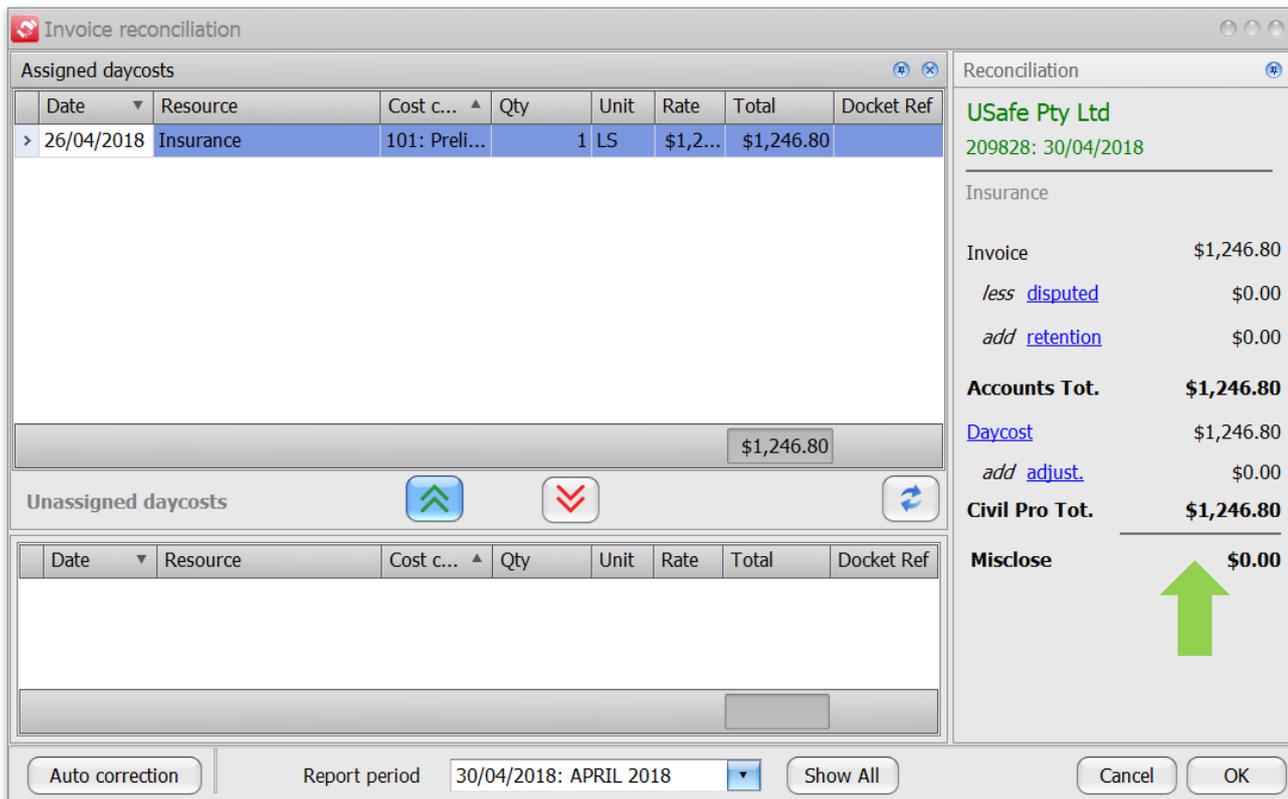


Figure 76 Invoice reconciliation after assigning a daycost resulting in no misclose

3. You will see to the right of the screen there is no misclose as the invoice received perfectly matched the amount in the Daycost register. Click OK.
4. Reconcile the invoice for MCM Engineering following the steps above. This invoice reconciliation also has no misclose.
5. Now reconcile the invoice for Knight Engineering following the steps above. You will see to the right of the screen there is a misclose of \$52.50 (Figure 77)

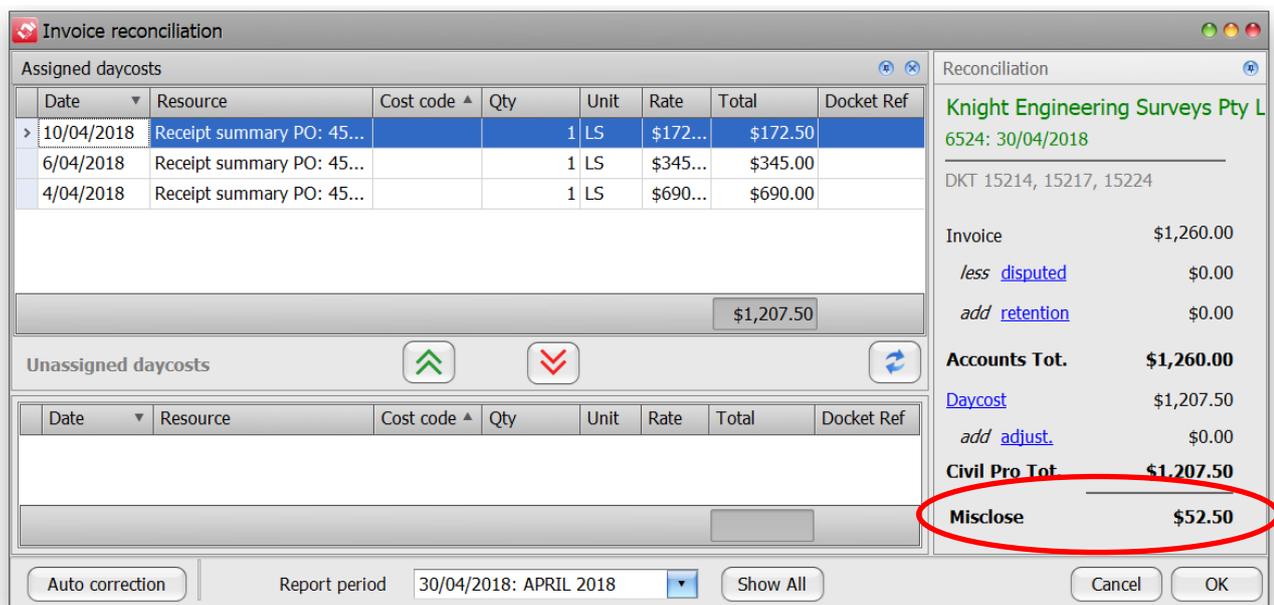


Figure 77 Invoice reconciliation with daycost showing a misclose

This is because the invoice is \$52.50 more than the cost recorded in the Daycosts Register. In this case when we review the itemised invoice, we determine that it is because of a daycost we missed that is included in the invoice. We need to update the Daycosts Register to reflect this invoice amount (i.e. the actual cost incurred). This can all be done from within the reconciler:

1. At the bottom left of the screen click on Auto Correction to open the Daycosts Correction screen. It will automatically calculate how much adjustment is necessary to correct the daycost It will also distribute across cost codes to reflect the allocation of any assigned cost codes (Figure 78)

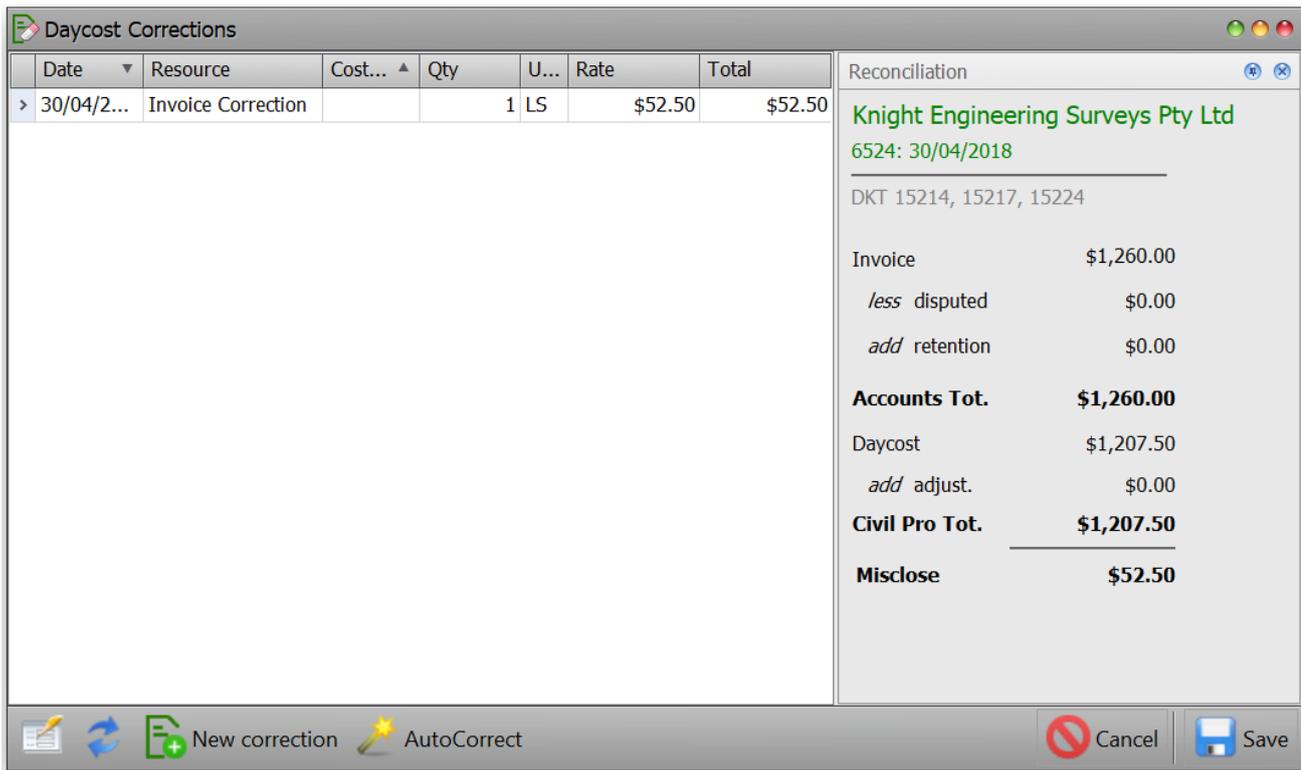


Figure 78 Daycost correction

6. Click *Save*.
7. You will be taken back to the Invoice Reconciliation screen. If you look at the summary on the right of the screen you will now see an adjustment of \$52.50 (the correction we just made) added to the reconciliation summary details and now the misclose value is \$0. Click *OK* (Figure 79)

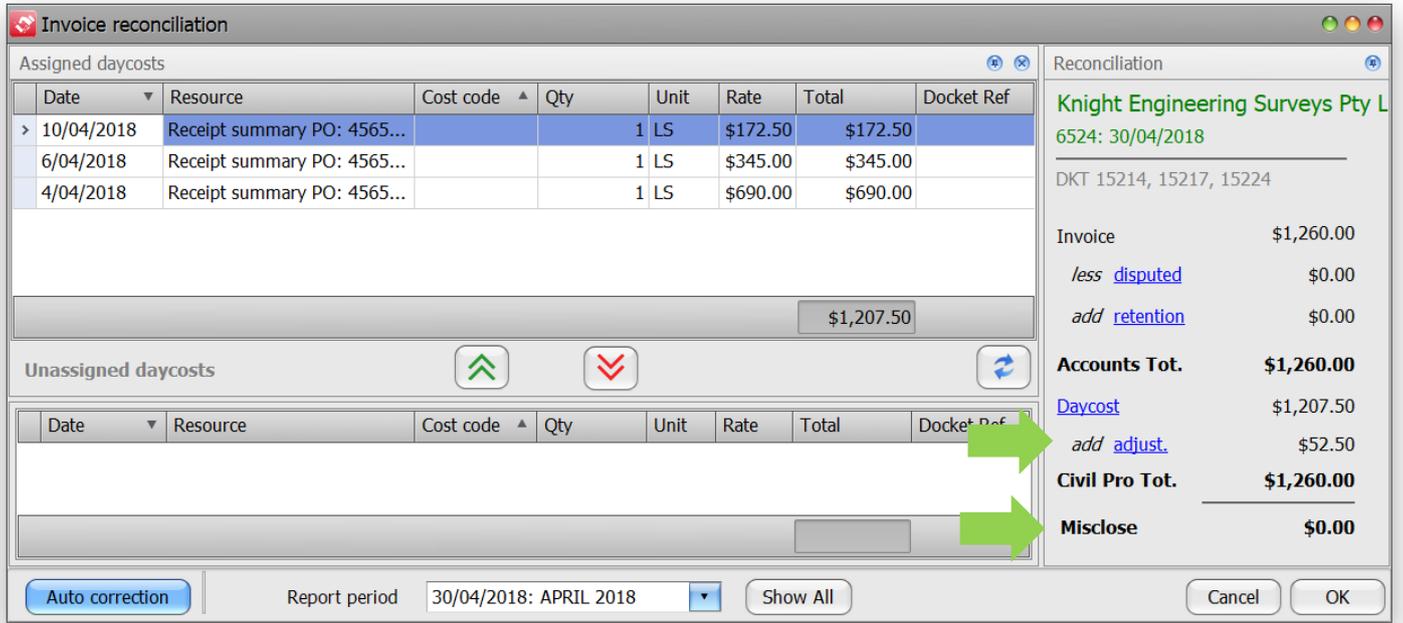


Figure 79 Invoice reconciliation showing daycost correction resulting in no misclose

8. If you now go back into your Daycosts Register you will see the Invoice correction we just did in the details screen (Figure 80).

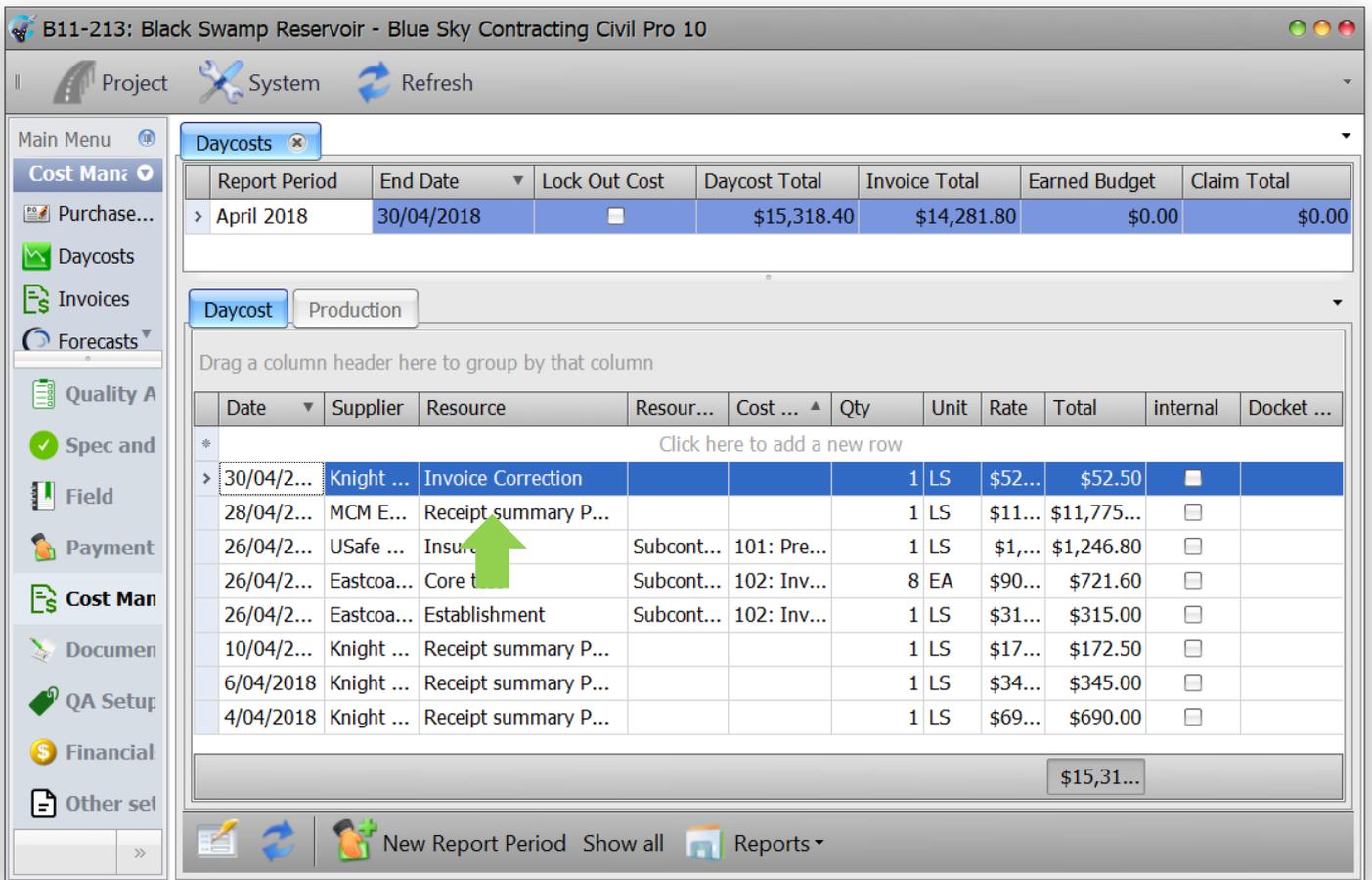


Figure 80 Updated Daycosts Register including the invoice correction.

8.3 Approving invoices

Now that you have reviewed your invoices and accounted for any miscloses, you can approve them for payment. Approving an invoice records the amount to be paid for the supplier, and the details of the approver.

To approve invoices:

1. Open the Invoice Register
2. Select the invoices to approve
3. Select Approve Invoice from the context menu (Figure 81). You will be prompted if any of the invoices have a misclose, as they will not be approved.

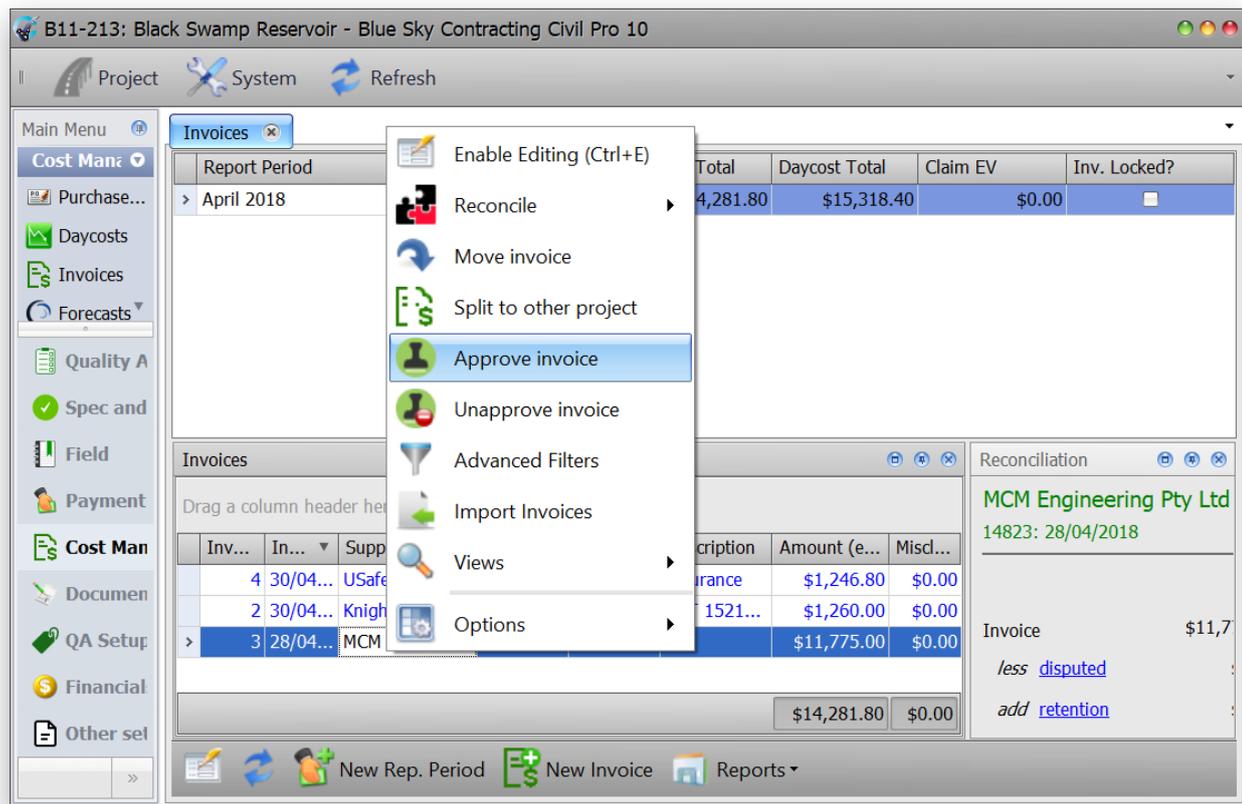


Figure 81 Invoice approval



Invoices that have zero misclose and can therefore be approved are coloured blue. Invoices that are approved are coloured green.

Civil pro generally has a lot more information for each record than is shown in the grid. This additional information can be viewed by selecting different views from the context menu, or by right clicking on the grey grid column headings and selecting the column chooser. These can then be dragged onto the grid to see them. Try using these techniques to view approval information.

9 Progress Claims

At set periods during the project (usually monthly), you will want to claim payment for the work completed under the contract. You can create a progress claim automatically from your lot records, or simply use Civil Pro to track your claims from month to month by entering the claim values manually. In this tutorial we are using claims NOT backed by QA – if you are interested in learning more about claims backed by QA please refer to the Civil Pro QA tutorial.

Why use Civil Pro QA backed claims?

1. Recording quantities helps keep track of them and make sure you are paid for all of the work you do. Survey or quantity survey is excellent for quantification of the majority of your project, but it often misses directed work such as
 - a. remove and replace unsuitable – which has no net impact on quantities
 - b. daywork
 - c. changes to reinforcement
2. It is required under some contracts (e.g. TMR)

Why use Civil Pro claims manually – e.g. when you don't need it to be backed by QA?

1. Civil Pro's claim provides a disciplined accurate record of progress claims where you will not get mathematical errors
2. Civil pro can (optionally) track the certification of your claim
3. Civil Pro's claims are consistent in appearance
4. Data capture enables this information to be used for other purposes – e.g. Civil Pro's reporting and forecasting modules

9.1 Creating the claim

1. Select Payment from the Main Menu and from there click on the Progress Claim icon
2. You will now see that our April reporting period appears in the Progress Claims register (Figure 82). This is because when we entered our daycosts we initialised this report period. Double click on this report period to show the new claim dialog (Figure 83).

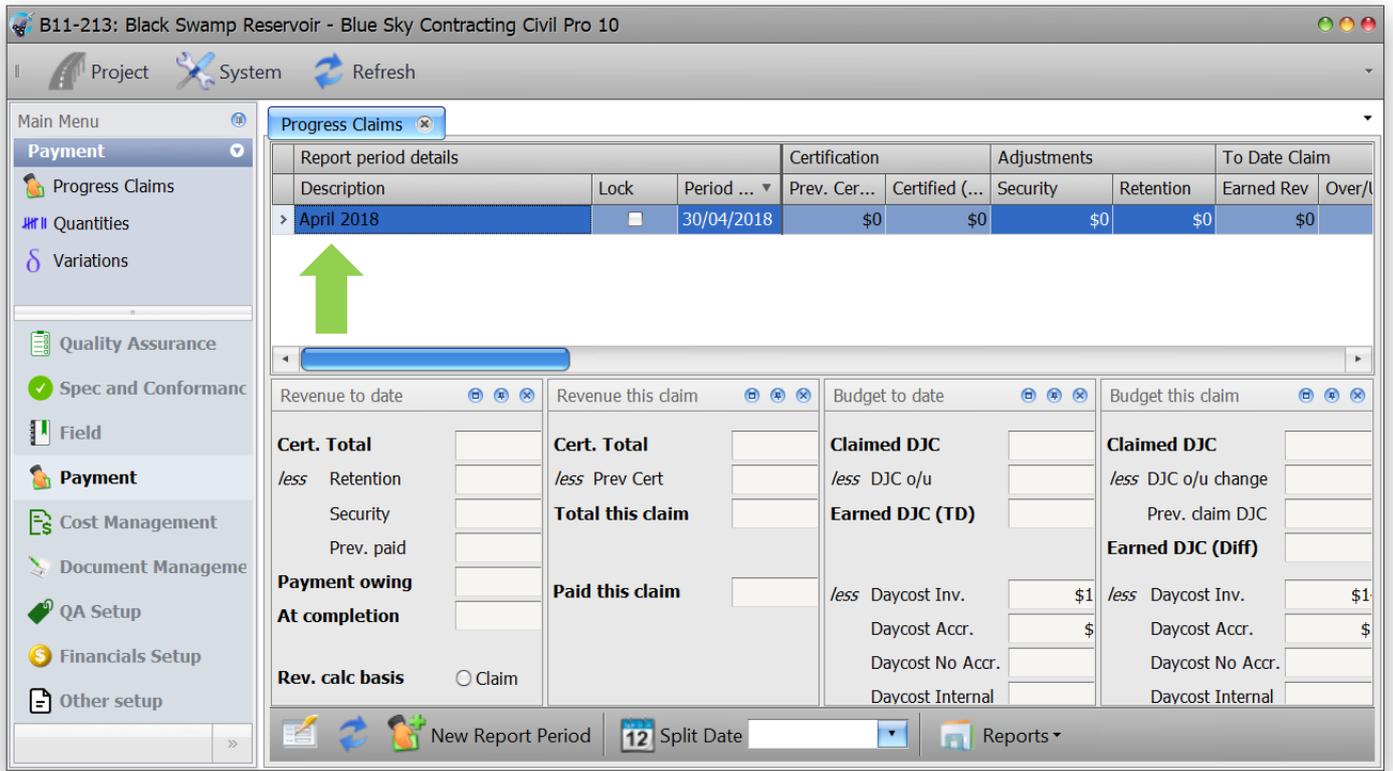


Figure 82 Reporting period within Progress Claim register

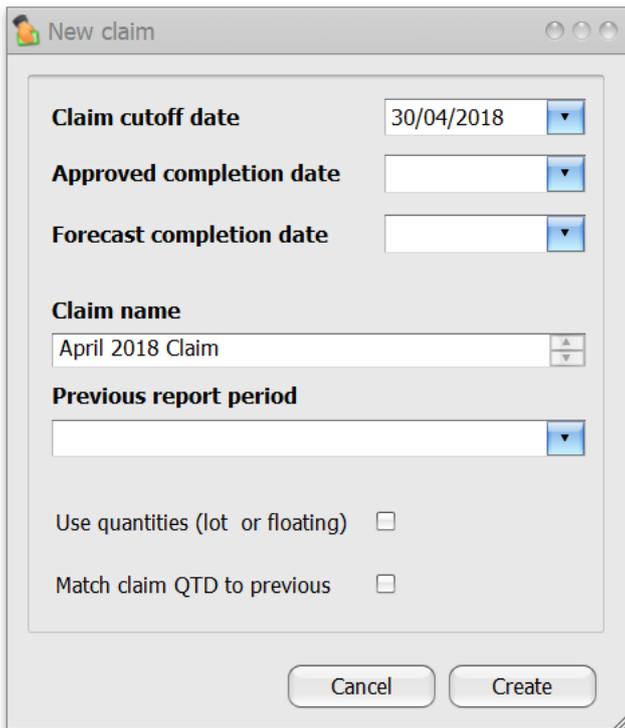


Figure 83 New Claim dialog

- As this is the first claim, you can leave the previous report period blank. You can also deselect the 'Match QTD to previous' checkbox, although it will make no difference as there is no previous claim. Click Create.

The Progress Claim Items Details screen will now be shown as in Figure 84. below.

Progress Claim: April 2018 Claim

| Claim Item Details | | | | Prev. Cert | | Certification | | | Lot Qty |
|--------------------|---|---------------|------|------------|--------|---------------|-------------|--------|---------|
| Sched. No. | Description | Qty Scheduled | Unit | Qty | Total | Qty | Sell Rate | Total | |
| 1 | Access Road to Water Reser... | | | | | | | | |
| 1.1 | Preliminaries and General | 1 | Lump | 0 | \$0 | 0 | \$6,850.00 | \$0 | |
| 1.2 | Investigation, detailed site inspec... | 1 | Lump | 0 | \$0 | 0 | \$14,400.00 | \$0 | |
| 1.3 | Detailed Design For Construction ... | 1 | Lump | 0 | \$0 | 0 | \$6,120.00 | \$0 | |
| 1.4 | Construct access roads to service ... | 1 | Lump | 0 | \$0 | 0 | \$25,600.00 | \$0 | |
| 1.5 | Supply and install safety barriers | 1 | Lump | 0 | \$0 | 0 | \$11,120.00 | \$0 | |
| 1.6 | Commissioning | 1 | Lump | 0 | \$0 | 0 | \$3,650.00 | \$0 | |
| 1.7 | Final documentation | 1 | Lump | 0 | \$0 | 0 | \$2,220.00 | \$0 | |
| 2 | Refurbish Road in Front of Pr... | | | | | | | | |
| 2.1 | Preliminaries and General | 1 | Lump | 0 | \$0 | 0 | \$5,300.00 | \$0 | |
| 2.2 | Investigation, detailed site inspec... | 1 | Lump | 0 | \$0 | 0 | \$11,200.00 | \$0 | |
| 2.3 | Detailed Design For Construction ... | 1 | Lump | 0 | \$0 | 0 | \$6,220.00 | \$0 | |
| 2.4 | Construct roadway in front of pro... | 1 | Lump | 0 | \$0 | 0 | \$98,000.00 | \$0 | |
| 2.5 | Supply and install safety barriers | 1 | Lump | 0 | \$0 | 0 | \$18,800.00 | \$0 | |
| 2.6 | Commissioning | 1 | Lump | 0 | \$0 | 0 | \$3,300.00 | \$0 | |
| 2.7 | Final documentation | 1 | Lump | 0 | \$0 | 0 | \$42,400.00 | \$0 | |
| 2.8 | Guardrail install (per m) if additio... | 0 | m | 0 | \$0 | 0 | \$195.00 | \$0 | |
| 3 | Upgrade Storage and Deliver... | | | | | | | | |
| 3.1 | Preliminaries and General | 1 | Lump | 0 | \$0 | 0 | \$5,590.00 | \$0 | |
| 3.2 | Investigation, detailed site inspec... | 1 | Lump | 0 | \$0 | 0 | \$2,220.00 | \$0 | |
| | | | | | \$0.00 | | | \$0.00 | |

Split Date: 12 Reports

Figure 84 The automatically built progress claim

9.2 Entering Claim Quantities

We are now going to enter our claim quantities for April using the information in the Project Information Tutorial handout.

1. Enable editing then find the column heading 'To Date – Qty' column by using the scroll bar at the bottom of the screen.



There are custom views specifically for different progress claim tasks. When entering quantities to date, it is often useful to select the "Min" view. To do this, right click and select the Views=>Min option

2. In the cell type in
 - a) 0.5 against schedule item 1.1,
 - b) 0.75 against schedule item 1.2 and
 - c) 0.2 against schedule item 1.3
3. Do the same for the remaining schedule items using the Project Information Tutorial handout. When completed your Claim Items Detail screen should look like Figure 85 below.

Progress Claim: April 2018 Claim

| Claim Item Details | | | | To Date | | | This Claim | | |
|--------------------|---|----------------|--------|---------|-------------|-------------|----------------|--------------------|----------|
| Sched. No. | Description | Qty Schedul... | Unit | Qty | Sell Rate | Total | Claimed (Diff) | Claim Value (Diff) | Certific |
| 1 | Access Road to Water Reser... | | | | | | | | |
| 1.1 | Preliminaries and General | | 1 Lump | 0.5 | \$6,850.00 | \$3,425 | 0.5 | \$3,425 | |
| 1.2 | Investigation, detailed site inspec... | | 1 Lump | 0.75 | \$14,400.00 | \$10,800 | 0.75 | \$10,800 | |
| 1.3 | Detailed Design For Construction ... | | 1 Lump | 0.2 | \$6,120.00 | \$1,224 | 0.2 | \$1,224 | |
| 1.4 | Construct access roads to service ... | | 1 Lump | 0 | \$25,600.00 | \$0 | 0 | \$0 | |
| 1.5 | Supply and install safety barriers | | 1 Lump | 0 | \$11,120.00 | \$0 | 0 | \$0 | |
| 1.6 | Commissioning | | 1 Lump | 0 | \$3,650.00 | \$0 | 0 | \$0 | |
| 1.7 | Final documentation | | 1 Lump | 0 | \$2,220.00 | \$0 | 0 | \$0 | |
| 2 | Refurbish Road in Front of Pr... | | | | | | | | |
| 2.1 | Preliminaries and General | | 1 Lump | 0.5 | \$5,300.00 | \$2,650 | 0.5 | \$2,650 | |
| 2.2 | Investigation, detailed site inspec... | | 1 Lump | 0.5 | \$11,200.00 | \$5,600 | 0.5 | \$5,600 | |
| 2.3 | Detailed Design For Construction ... | | 1 Lump | 0.2 | \$6,220.00 | \$1,244 | 0.2 | \$1,244 | |
| 2.4 | Construct roadway in front of pro... | | 1 Lump | 0 | \$98,000.00 | \$0 | 0 | \$0 | |
| 2.5 | Supply and install safety barriers | | 1 Lump | 0 | \$18,800.00 | \$0 | 0 | \$0 | |
| 2.6 | Commissioning | | 1 Lump | 0 | \$3,300.00 | \$0 | 0 | \$0 | |
| 2.7 | Final documentation | | 1 Lump | 0 | \$42,400.00 | \$0 | 0 | \$0 | |
| 2.8 | Guardrail install (per m) if additio... | | 0 m | 0 | \$195.00 | \$0 | 0 | \$0 | |
| 3 | Upgrade Storage and Deliver... | | | | | | | | |
| 3.1 | Preliminaries and General | | 1 Lump | 0.5 | \$5,590.00 | \$2,795 | 0.5 | \$2,795 | |
| 3.2 | Investigation, detailed site inspec... | | 1 Lump | 0.5 | \$2,220.00 | \$1,110 | 0.5 | \$1,110 | |
| | | | | | | \$30,594.00 | | \$30,594.00 | |

Lot Qty Revenue Budget Rates

Split Date: 12 Reports

Figure 85 Progress Claim after April Quantities Entered

9.3 Updating Quantities at Completion

When the first claim is created, Civil Pro uses the schedule quantities as the QAC (Quantity at Completion) for each schedule item in the claim. As the project progresses these quantities will most likely change. While this is obviously true of schedule of rates contracts, it is also true for lump sum contracts which usually have provisional items and variations.

The quantities at completion should be revised for each claim for several reasons, most notably:

- The client is generally wanting the contractor to provide their best estimate of the project’s final completion, and in fact this requirement can form part of the contract
- Civil Pro uses the QAC to generate the estimated revenue at completion for the monthly reporting process and the forecast. As a result, absolutely no additional user input is required to generate revenue data for the claim

1. Within the April claim details screen we are in, right click to bring up the Context Menu and select *Views=>Forecast* (Figure 86).

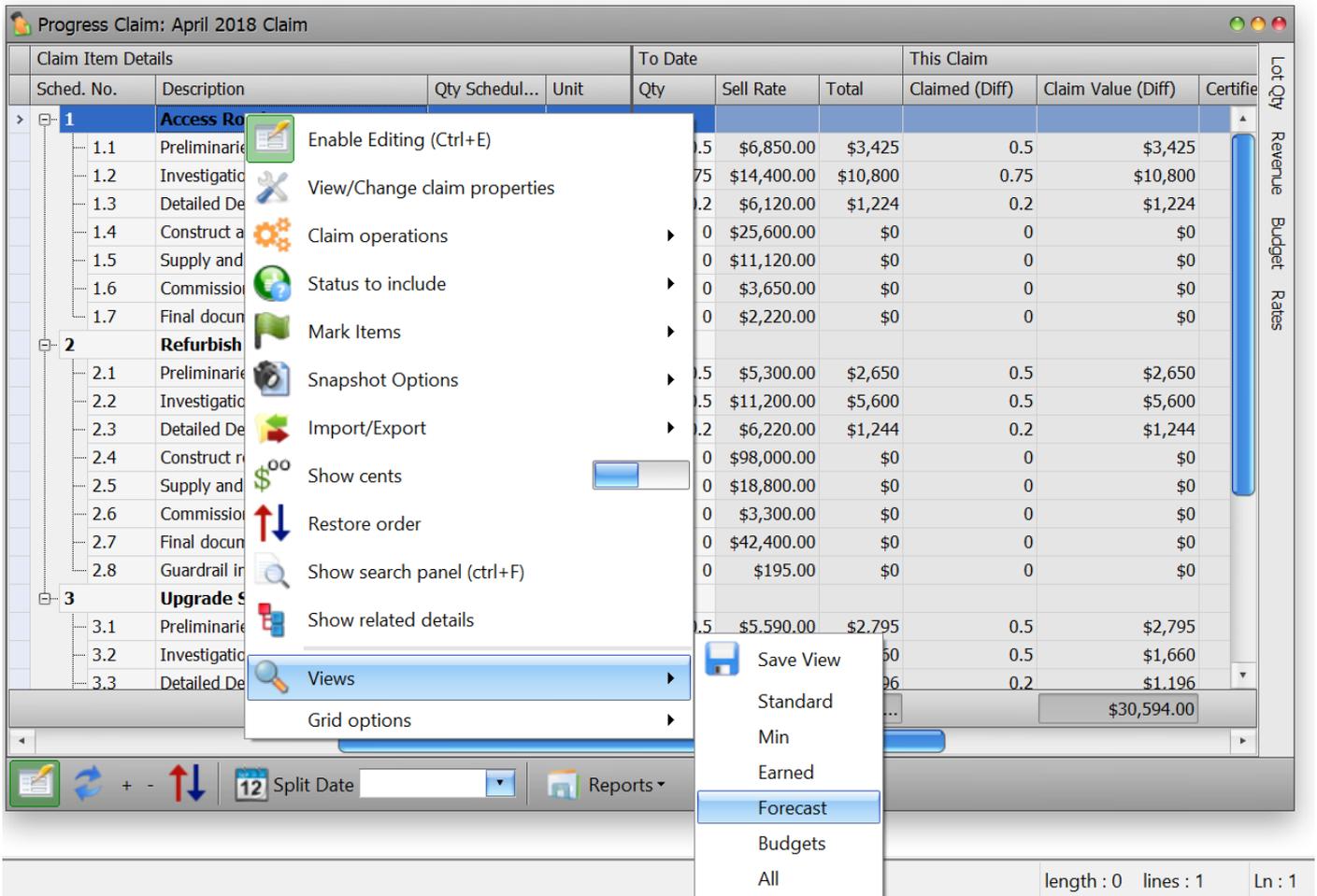


Figure 86 Accessing progress claim forecast view

2. This view brings in the 'To Complete' figures including the 'Forecast at Completion' figures that we need to change.

Scroll across to find these columns and enable editing.

Update the 'Forecast at Completion' column – 'Qty at Compl' figures for item 3.8 b and 3.8 c using the information in the Project Information Tutorial handout.

Note: Updating these figures in the Forecast at Completion section automatically updates these figures in the To Complete section. When done your claim should look like Figure 87 below.

| Claim Item Details | | | | To Complete | | Forecast at completion | | |
|--------------------|---|---------------|------|--------------|--------------|------------------------|-------------|-------|
| Sched. No. | Description | Qty Scheduled | Unit | Qty to Compl | Total | Qty At Compl | Sell Rate | Total |
| 2.2 | Investigation, detailed site inspec... | 1 | Lump | 0.5 | \$5,600 | 1 | \$11,200.00 | \$ |
| 2.3 | Detailed Design For Construction ... | 1 | Lump | 0.8 | \$4,976 | 1 | \$6,220.00 | \$ |
| 2.4 | Construct roadway in front of pro... | 1 | Lump | 1 | \$98,000 | 1 | \$98,000.00 | \$ |
| 2.5 | Supply and install safety barriers | 1 | Lump | 1 | \$18,800 | 1 | \$18,800.00 | \$ |
| 2.6 | Commissioning | 1 | Lump | 1 | \$3,300 | 1 | \$3,300.00 | \$ |
| 2.7 | Final documentation | 1 | Lump | 1 | \$42,400 | 1 | \$42,400.00 | \$ |
| 2.8 | Guardrail install (per m) if additio... | 0 | m | 0 | \$0 | 0 | \$195.00 | \$ |
| 3 | Upgrade Storage and Deliver... | | | | | | | |
| 3.1 | Preliminaries and General | 1 | Lump | 0.5 | \$2,795 | 1 | \$5,590.00 | \$ |
| 3.2 | Investigation, detailed site inspec... | 1 | Lump | 0.5 | \$1,660 | 1 | \$3,320.00 | \$ |
| 3.3 | Detailed Design For Construction ... | 1 | Lump | 0.8 | \$4,784 | 1 | \$5,980.00 | \$ |
| 3.4 | Construct delivery area and upgr... | 1 | Lump | 1 | \$70,800 | 1 | \$70,800.00 | \$ |
| 3.5 | Supply and install safety barriers | 1 | Lump | 1 | \$0 | 1 | \$0.00 | \$ |
| 3.6 | Commissioning | 1 | Lump | 1 | \$3,400 | 1 | \$3,400.00 | \$ |
| 3.7 | Final documentation | 1 | Lump | 1 | \$2,200 | 1 | \$2,200.00 | \$ |
| 3.8 | Holding tank works | | | | | | | |
| a | Structural inspection, leak test an... | 1 | Lump | 1 | \$5,220 | 1 | \$5,220.00 | \$ |
| b | High pressure clean, coating of w... | 80 | m2 | 55 | \$13,200 | 55 | \$240.00 | \$ |
| c | Fairing of walls and base for bon... | 0 | m2 | 55 | \$11,550 | 55 | \$210.00 | \$ |
| | | | | | \$345,846.00 | | \$376,... | |

Figure 87 Qty at Completion amounts updated

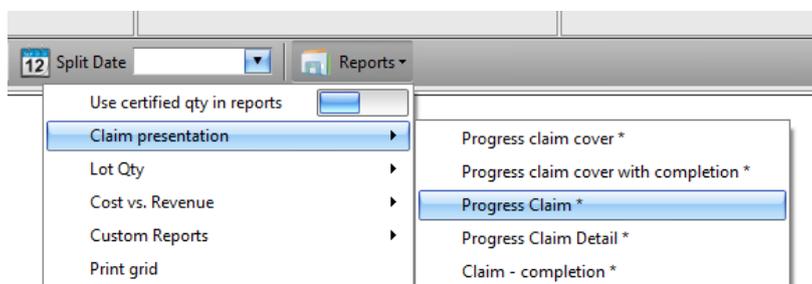


If even after enabling editing you still can't update these figures it could be that your progress claim is locked. Go back to the Progress Claim register and using the Context Menu to *Toggle Claim Lock* to unlock the claim.

9.4 Printing a Progress Claim Report

Civil Pro allows you to create a selection of reports regarding progress claims.

1. At the bottom of the Progress Claim screen there is a drop down for selecting reports. Click on this and select *Claim Presentation=>Progress Claim*



The report viewer will open showing the Progress Claim report. From here you can print, convert to PDF, email and save using the options in the top menu bar. Your report should look like that in Figure 88 below.

Report Viewer

Print Preview

Print, Page Setup, Navigation, Zoom, Page ...

blue sky

Progress Claim
 B11-213: Black Swamp Reservoir
 30/04/2018: April 2018 Claim

| Description: | Schedule Qty | Claim Qty | Sell Rate | Total |
|--|---------------------|------------------|------------------|--------------|
| 1: Access Road to Water Reservoir | | | | |
| 1.1: Preliminaries and General | 1 | 0.5 Lump | \$6,850.00 | \$3,425.00 |
| 1.2: Investigation, detailed site inspection and measurement | 1 | 0.75 Lump | \$14,400.00 | \$10,800.00 |
| 1.3: Detailed Design For Construction drawings | 1 | 0.2 Lump | \$6,120.00 | \$1,224.00 |
| 1.4: Construct access roads to service water reservoir | 1 | 0 Lump | \$25,600.00 | \$0.00 |
| 1.5: Supply and install safety barriers | 1 | 0 Lump | \$11,120.00 | \$0.00 |
| 1.6: Commissioning | 1 | 0 Lump | \$3,650.00 | \$0.00 |

Page 1 of 1 | 100%

Figure 88 Progress Claim Report

10 Adding a Variation

Now suppose that during the course of the activity we came across work that was not in the original schedule but the client directed you undertake. This is a variation to the schedule and we will want to record this so that when we do the work, we can add it to a future claim and get paid for it.

10.1 Creating a New Variation

1. Within the Payment section (you should already be here) click on the Variation icon.
2. The Variation register will now appear. At the bottom of the screen click on *New Variation* (Figure 89).

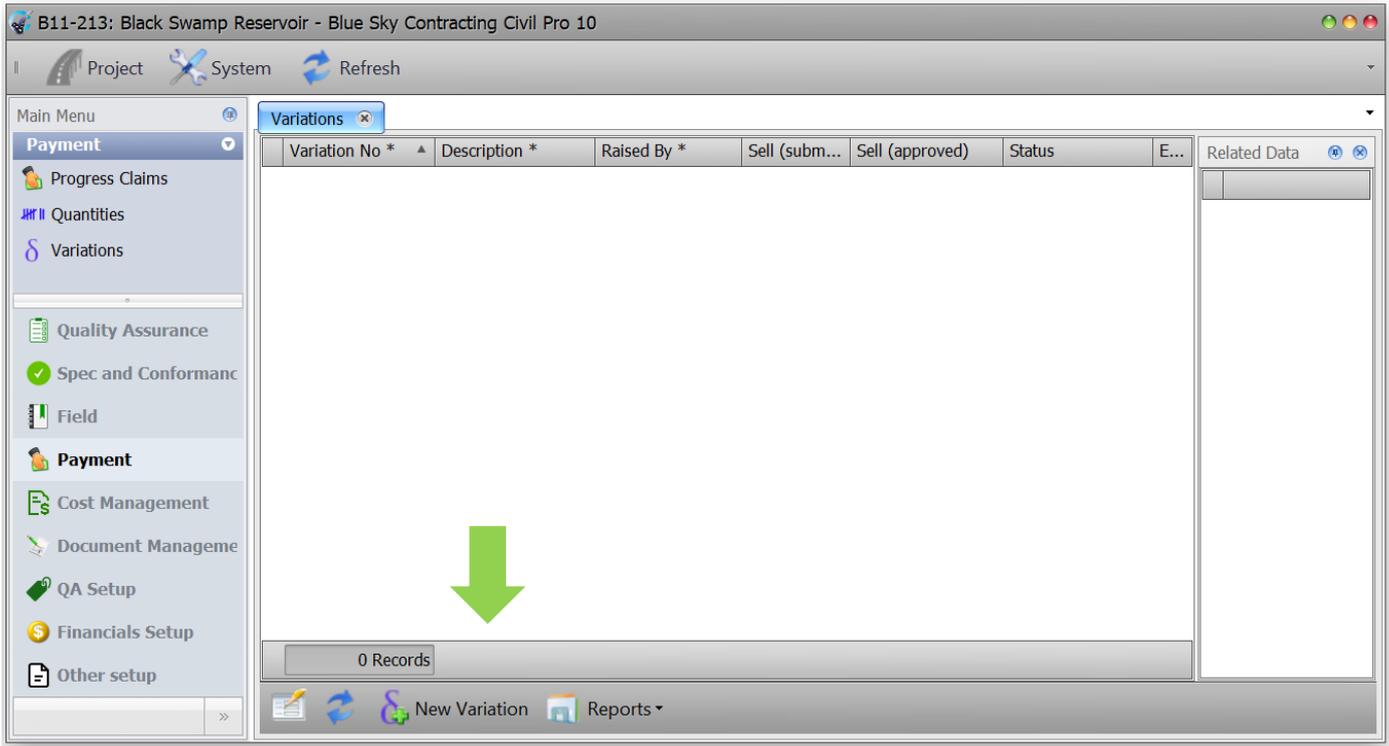


Figure 89 New variation button

3. The New Variation wizard will now appear. Enter in the required details using the information in the Project Information Tutorial handout. Click *Next* (Figure 90).

Variation

Details => Valuation & EOT => Waypoints => Notes

VRN Reference*

Client Reference

Raised by*

Description / Name*
Removal of dosing shed

Detail

Figure 90 Variation details screen

- In the next screen enter the required quantity and rate amounts in the Submitted section and click Next (Figure 91).

Variation

Details => **Valuation & EOT** => Waypoints => Notes

You may not have any submitted or approved EOT or valuations yet. In which case, leave this section blank.

Total

| | Submitted | Approved |
|------------------|---|-------------------------------------|
| Quantity | <input type="text" value="1"/> | <input type="text" value="0"/> |
| Measurement unit | <input type="text" value="LS"/> | |
| Rate | <input type="text" value="\$9,800.00"/> | <input type="text" value="\$0.00"/> |
| Total | <input type="text" value="\$9,800.00"/> | <input type="text" value="\$0.00"/> |

EOT:

| | Submitted | Approved |
|----------|--------------------------------|--------------------------------|
| EOT days | <input type="text" value="0"/> | <input type="text" value="0"/> |

Figure 91 Variation Valuation and EOT screen

- In the Waypoint screen enter in the date identified and date notified details and click *Next* then *Save & Finish* (Figure 92).

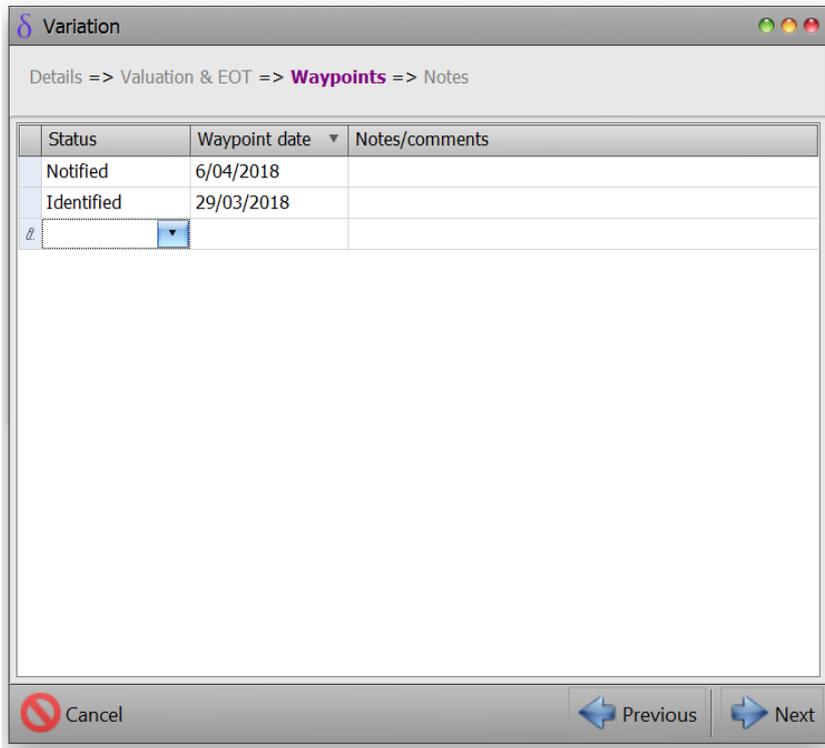


Figure 92 Variations waypoints screen

When done your Variation Register should look like that in Figure 93 below.

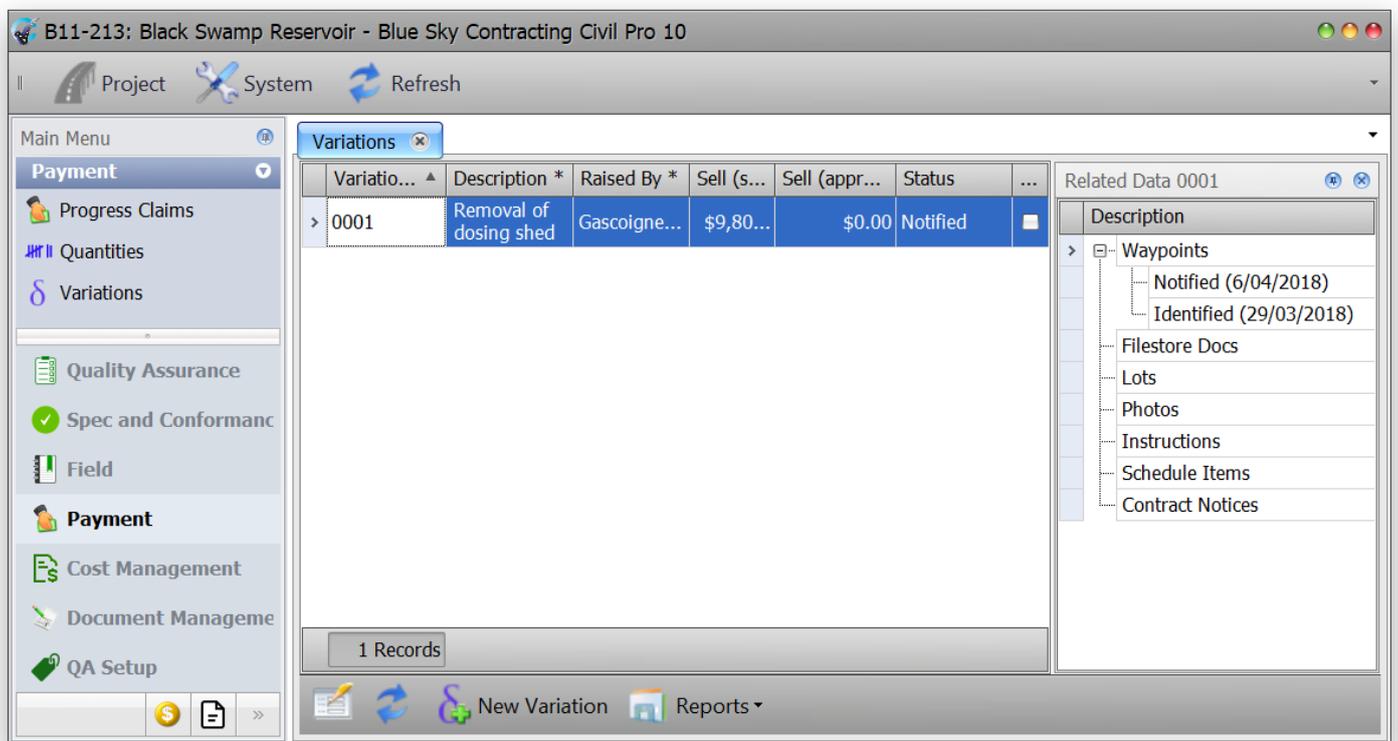


Figure 93 Updated Variation Register

- On the great register heading right click and select Column Chooser from the context menu options (Figure 94).

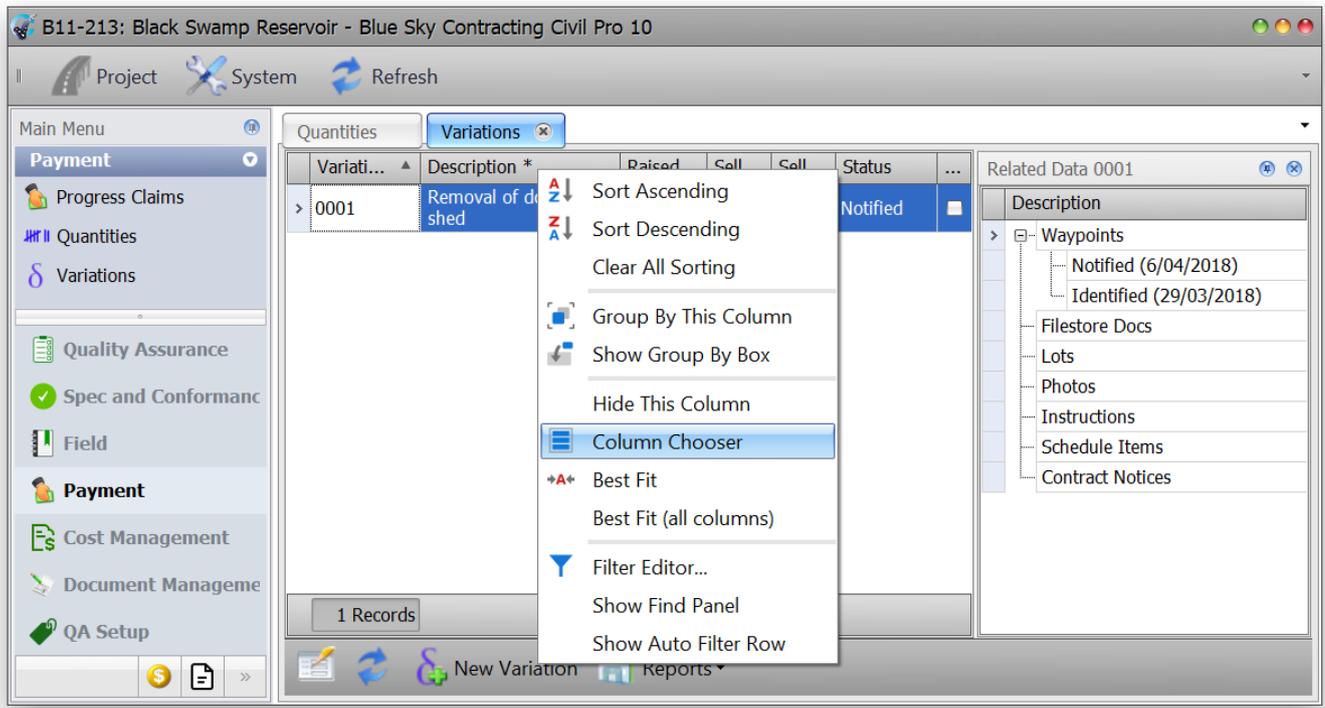
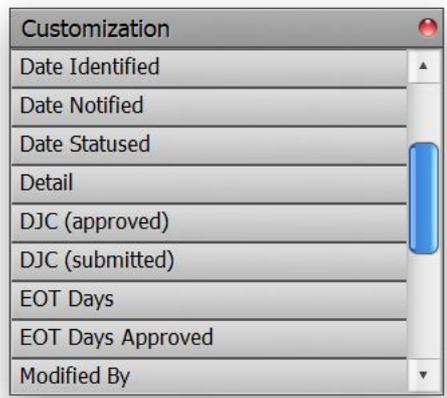


Figure 94 Accessing the column chooser

- From the options in the Customization dialog select DJC submitted and drag and drop it into the register heading. Close the Customization dialog.



- Enable editing and enter in the DJC submitted rate of \$8036 directly into the register. When completed your register should look like that in Figure 95 below.

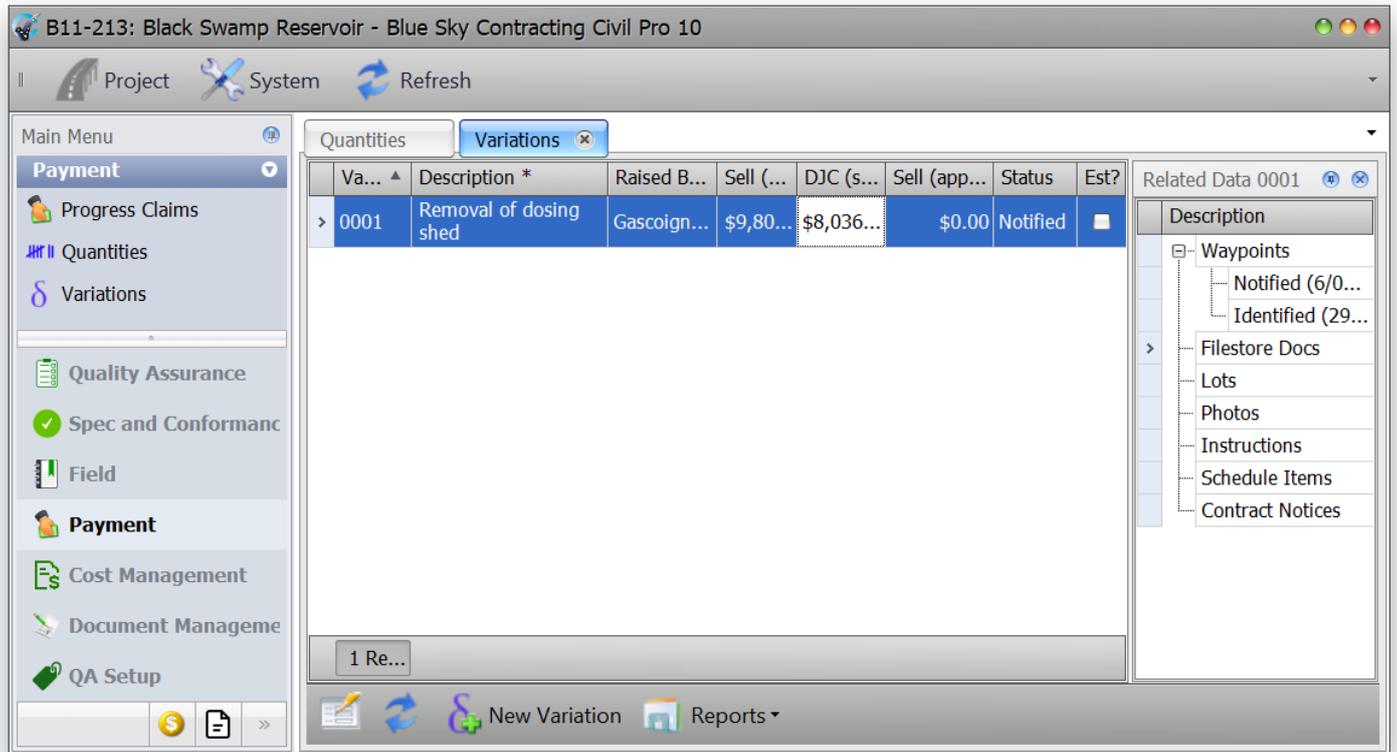


Figure 95 New variation within the Variation register

10.2 Manually Entering Variations Details

Now that we have created our variation, we need to add the details to it. We can do this in two ways – manual entry or importing via CSV file. To manually enter:

1. Within the Variation Register right click on the variation to bring up the Context Menu and select *View/Change Estimate* (Figure 96).

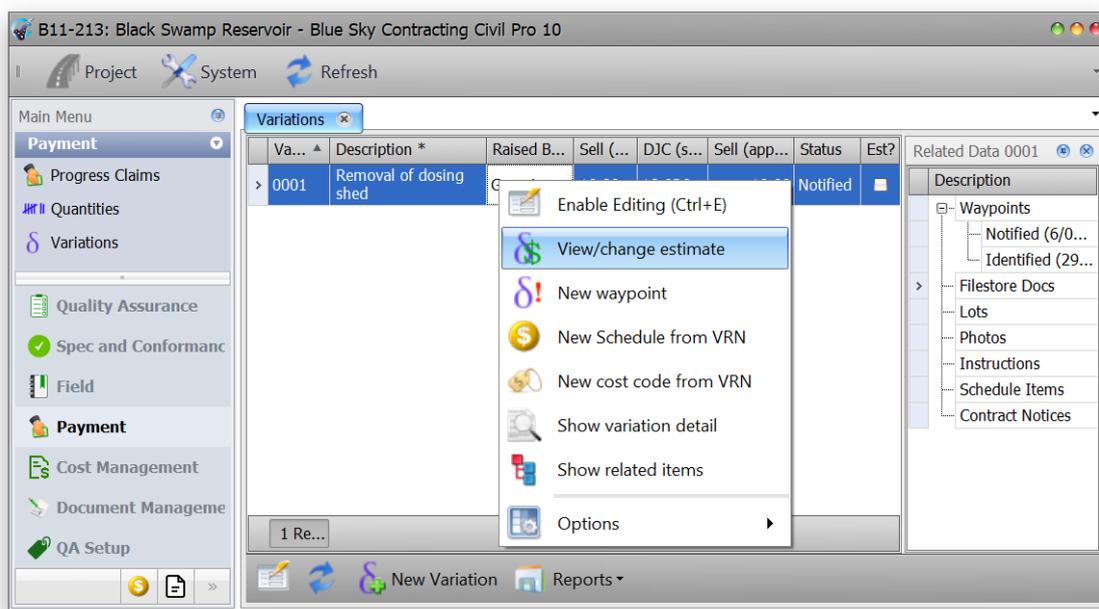


Figure 96 accessing View/Change estimate

- The Variation Estimate screen will now appear. Enable editing and enter the details using the information in the Project Information Tutorial handout. Use tab to move between cells and to start new lines. When finished your screen should look like Figure 97.

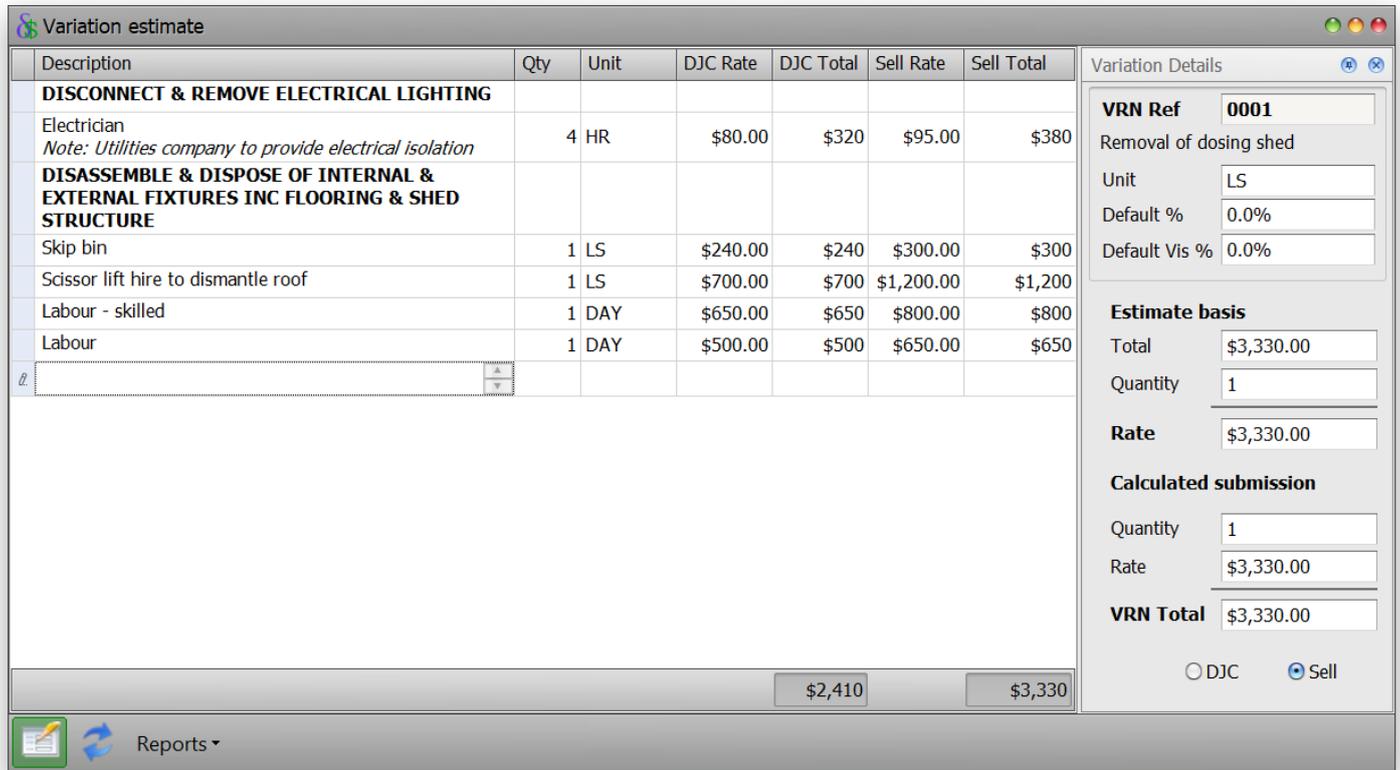


Figure 97 Manually Entered Variation Estimate Details

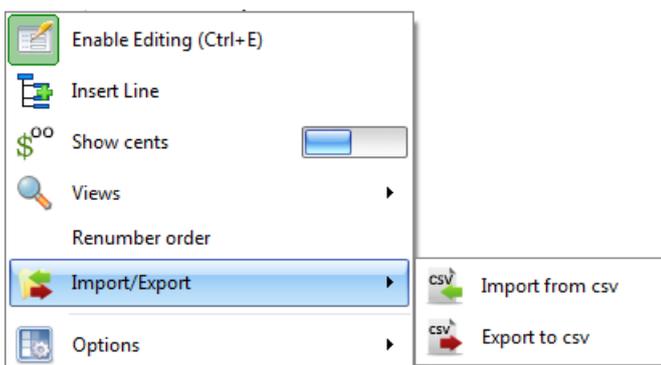


- Add formatting to your estimate details by either:
- highlighting the text then right clicking to bring up formatting options or
 - double clicking to open the rich text editor

10.3 Importing Variation Details from CSV

The data we have entered in the estimate is only part of the variation, but this is not a typing tutorial, so we will import the remainder. Staying within the Variation Estimate details screen we are now going to import the remaining items from a CSV file.

- Right click to bring up the Context Menu and select *Import/Export => Import from CSV*



- The Import Wizard screen will now appear. Make sure the 'Import data from CSV file' option is checked and click on *Next*.
 - A file selector will open. Select the file containing the Variation detail information (B11-213 VAR0001 *Variation details Import.csv*) and it will open in the import preview.
 - Assign headings as previously described and click *Next* then *Finish*.
 - The details will now appear in the Variations Estimate details section. If you can't see the data you just imported scroll down as it may just be off screen. If this is the case delete the blank lines to tidy up.
- Your screen should look like Figure 98
- Close out of this screen to go back to the Variation Register.



The export/import functions in the variation estimate can be useful where you use a common build-up format for different estimates. Just perform the estimate in one variation and export it, then import into another. This will work across projects too.

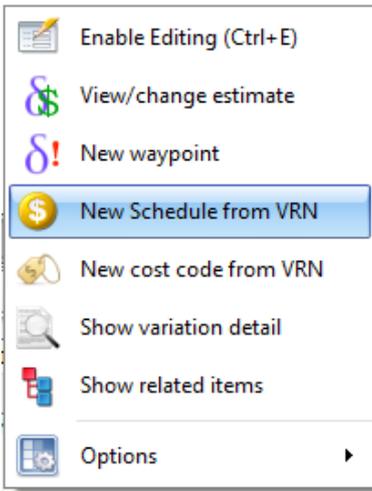
| Description | Qty | Unit | DJC Rate | DJC T... | Sell Rate | Sell Total |
|--|-----|------|----------------|----------|----------------|------------|
| DISCONNECT & REMOVE ELECTRICAL LIGHTING | | | | | | |
| Electrician <i>Note: Utilities company to provide electrical isolation</i> | 4 | HR | \$80.00 | \$320 | \$95.00 | \$380 |
| DISASSEMBLE & DISPOSE OF INTERNAL & EXTERNAL FIXTURES INC FLOORING & SHED STRUCTURE | | | | | | |
| Skip bin | 1 | LS | \$240.00 | \$240 | \$300.00 | \$300 |
| Scissor lift hire to dismantle roof | 1 | LS | \$700.00 | \$700 | \$1,200.... | \$1,200 |
| Labour - skilled | 1 | DAY | \$650.00 | \$650 | \$800.00 | \$800 |
| Labour | 1 | DAY | \$500.00 | \$500 | \$650.00 | \$650 |
| Demolish & Dispose of Block walls, Concrete slab & Stairs | | | | | | |
| Concrete cutting | 1 | ls | \$1,900.... | \$1,900 | \$1,620.... | \$1,620 |
| 8t Exc | 10 | hr | \$120.00 | \$1,200 | \$130.00 | \$1,300 |
| Disposal of concrete - Skip bin (PQ) | 3 | ea. | \$258.67 | \$776 | \$300.00 | \$900 |
| Labour - Skilled | 2 | day | \$600.00 | \$1,200 | \$800.00 | \$1,600 |
| Construction of Roadway | | | | | | |
| Geotech - Assessment of ground below slab | 1 | ls | \$300.00 | \$300 | \$300.00 | \$300 |
| Subgrade compaction | 1 | sq | \$250.00 | \$250 | \$250.00 | \$250 |
| | | | \$8,036 | | \$9,800 | |

Figure 98 Variation Estimate after details entered and imported

10.4 Creating Schedule Item and Cost Code for a New Variation

While we have created a variation, it won't be included in any progress claims. The variation register is for recording variations of all statuses – even including those which are rejected or abandoned. In order to include a variation in our claim we need first to create a schedule item for it. Further, if we want to track cost and revenue, we will want to create a cost code.

- Within the Variation Register right click to bring up the Context Menu and select New Schedule from VRN



The New Schedule Item details screen will appear. Click Save & Close (Figure 99).

New Schedule Item from VRN:0001

Supply the required information below and click OK to create a new Schedule Item for payment. Your new schedule item will be created as the last item at the root level of your schedule register.

Schedule No. VRN0001

Schedule Description Removal of dosing shed

Match to VRN

Schedule Qty 1 LS (unit)

Schedule DJC Rate \$8,036.00

Schedule Sell Rate \$9,800.00

Total Value \$9,800.00

Cancel Save & close

Figure 99 Creating a new schedule item from a variation

2. You will then be asked if you would like to create a new cost code for this variation – click *Yes*.
3. The New Cost Code detail screen will now appear – click *Create* (Figure 105).

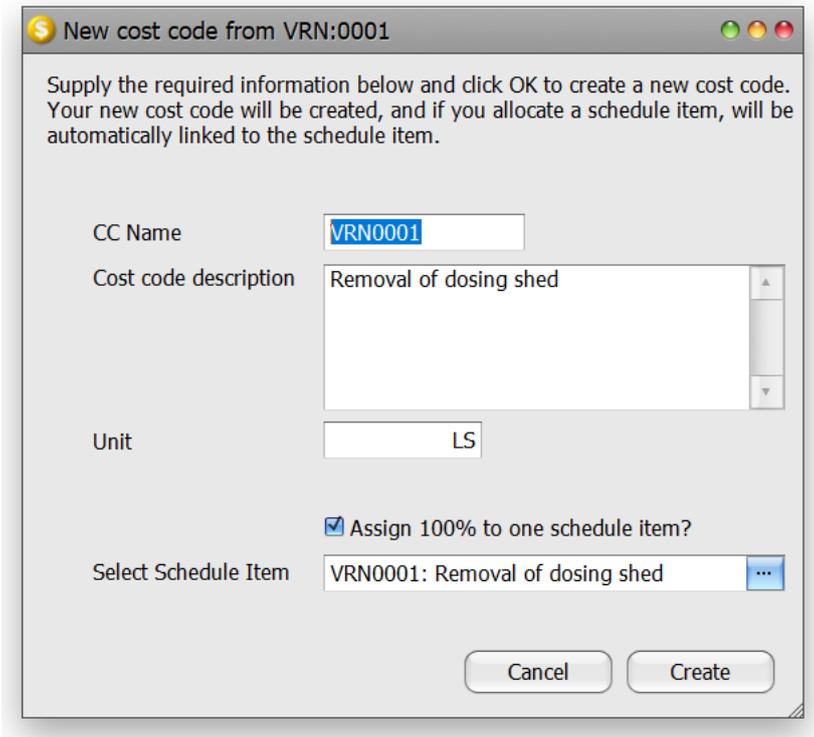


Figure 100 Creating a new cost code from a variation

This can also create a link assigning 100% of the schedule item to the cost code.

You will now be back in the Variation Register. If you now look to the Related Item tree to the right of the screen you can see that our new variation VRN0001 has a related schedule Item (Figure 101).

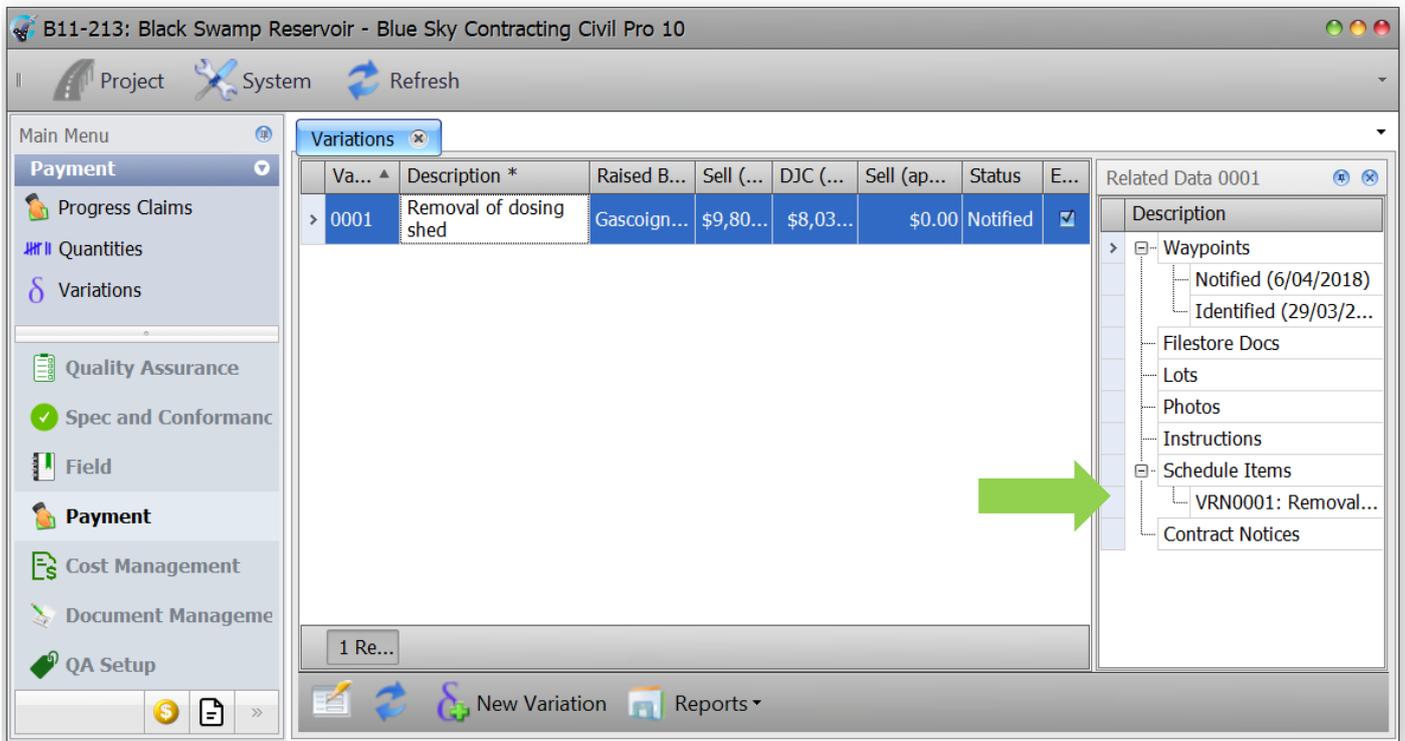


Figure 101 Variation register related items tree showing new schedule item link

Now go to into your Cost Code Register and scroll to the bottom. You will see there the newly created cost code relating to our new variation (VRN0001). If you can't see it click on refresh (the two blue arrows at the bottom of the grid) as per Figure 102 below.

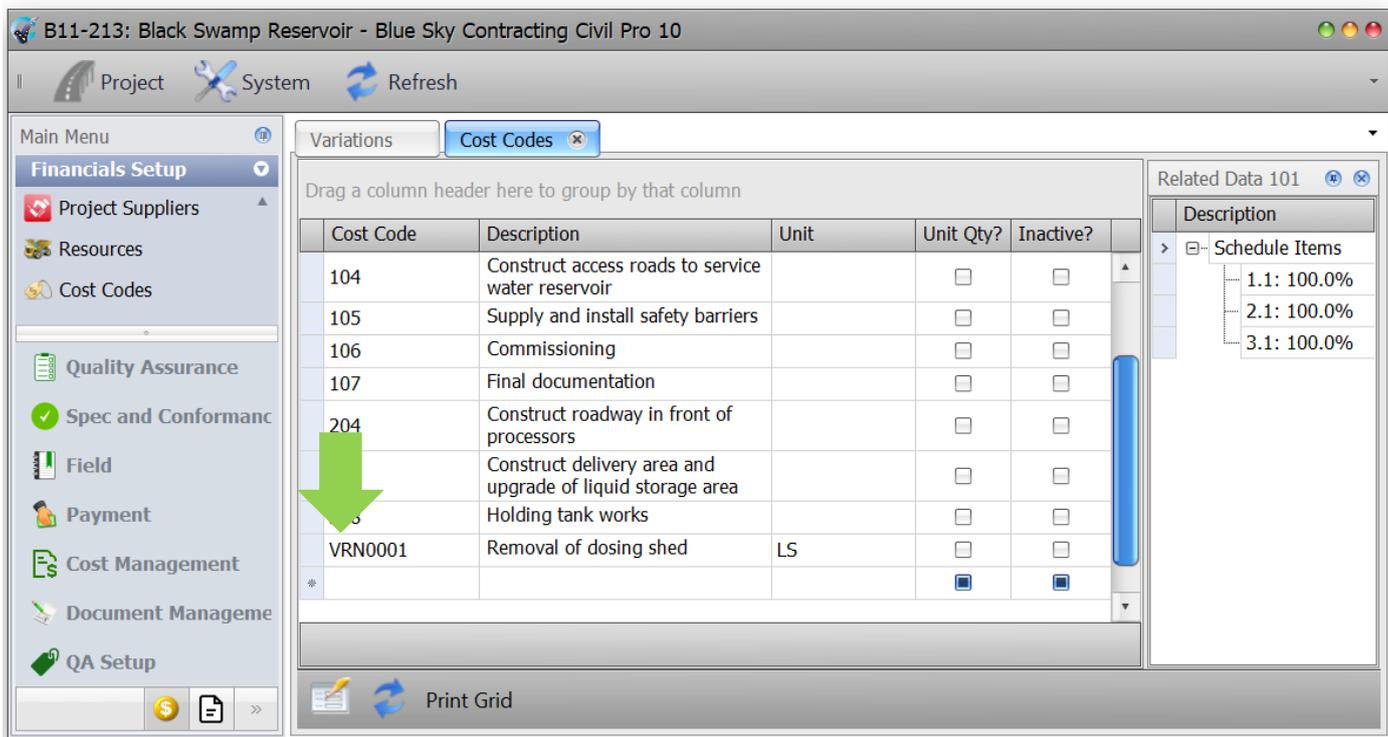


Figure 102 Cost code register showing new variation cost code

11 Forecasts

Now that we have cost and revenue data for April we will be able to run some forecasts.

11.1 Creating a new forecast for April

1. Select Cost Management from the Main Menu and from there click on the Forecasts icon.

We are going to create a new forecast for April. Each forecast is recorded against a reporting period so it can automatically calculate revenue, budget and cost from the Progress Claims and Daycosts for the current and previous periods. Double click on the April report period.

2. The New Forecast dialog will appear. As this is the first report period leave the 'Previous Report Period' drop down blank but be sure to enter the Forecast Completion Date of 30/9/18. Click *Create* (Figure 103).

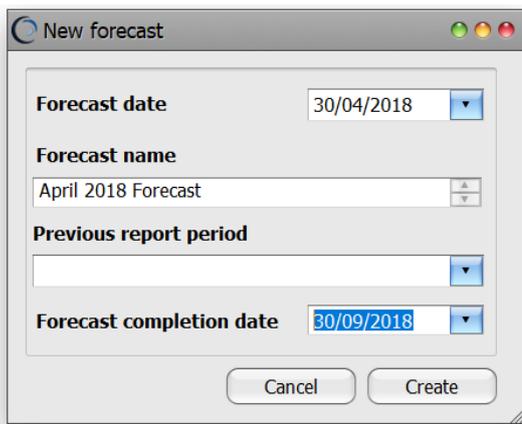


Figure 103 New forecast dialog

3. You will now be in the newly created April forecast detail screen which should look like Figure 104 .

| Cost code details | | | | To Date | | | | | |
|-------------------|--|----------------|--------------------------|---------|------------|----------|----------|-----------|---------|
| Cost code | Description | Method | Qty Sum? | QTD | RTD | CTD | Rev TD | MargTD | MargTD% |
| > ***** | Unassigned | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$13,035 | \$0 | -\$13,035 | 0.0% |
| 101 | Preliminaries and General | Revised bud... | <input type="checkbox"/> | 0.5 | \$2,493.60 | \$1,247 | \$8,870 | \$7,623 | 85.944% |
| 102 | Investigation, detailed site inspection a... | Revised bud... | <input type="checkbox"/> | 0.625 | \$1,659.89 | \$1,037 | \$18,060 | \$17,023 | 94.26% |
| 103 | Detailed Design For Construction drawi... | Revised bud... | <input type="checkbox"/> | 0.2 | \$0.00 | \$0 | \$3,664 | \$3,664 | 100.0% |
| 104 | Construct access roads to service water... | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| 105 | Supply and install safety barriers | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| 106 | Commissioning | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| 107 | Final documentation | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| 204 | Construct roadway in front of processors | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| 304 | Construct delivery area and upgrade of... | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| 308 | Holding tank works | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| VRN0001 | Removal of dosing shed | Revised bud... | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | 0.0% |
| | | | | | | \$15,318 | \$30,594 | \$15,276 | 49.93% |

Figure 104 April forecast details

11.2 Updating Unassigned Amounts

The forecast detail screen will show a row for each cost code in your project, with an additional row at the very top for unassigned items. Where a cost is not assigned to a cost code, or a schedule item does not distribute its revenue through a cost code allocation, these values are lumped into a single ‘unallocated’ cost code. Try to avoid this wherever possible as it is of limited functional use in determining the profitability of your project. It should be used only as a bucket for low risk/value trivial items, or as a prompt that some records need to be updated with an allocation – as we are going to do now.

1. Close the April forecast and go into the Daycost Register.
2. Select the April report period to bring up the April daycost details in the bottom half of the screen.
3. Enable editing and using the Cost Code column dropdown, update the items with the relevant cost codes using the information provided in the Project Information Tutorial handout. When updated your screen should look like Figure 105.

The screenshot displays the 'Daycosts' register for the project 'B11-213: Black Swamp Reservoir - Blue Sky Contracting Civil Pro 10'. The main window shows a summary table for April 2018 with the following data:

| Report Period | End Date | Lock Out Cost | Daycost Total | Invoice Total | Earned Budget | Claim Total |
|---------------|------------|--------------------------|---------------|---------------|---------------|-------------|
| > April 2018 | 30/04/2018 | <input type="checkbox"/> | \$15,318.40 | \$14,281.80 | \$25,087.08 | \$30,594.00 |

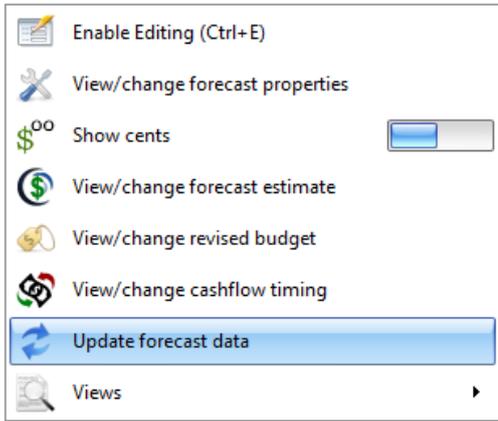
Below the summary table, the 'Daycost' section is active, showing a list of items. The bottom row is selected:

| Date | Supplier | Resource | Resou... | Cost... | Qty | Unit | Rate | Total | internal | Docket... |
|-----------|-----------|---------------------|-----------|------------|-----|------|--------|----------|--------------------------|-----------|
| 26/04/... | Eastco... | Core test | Subcon... | 102: In... | 8 | EA | \$9... | \$721.60 | <input type="checkbox"/> | |
| 26/04/... | Eastco... | Establishment | Subcon... | 102: In... | 1 | LS | \$3... | \$315.00 | <input type="checkbox"/> | |
| 10/04/... | Knight... | Receipt summary ... | | 103: D... | 1 | LS | \$1... | \$172.50 | <input type="checkbox"/> | |
| 6/04/2... | Knight... | Receipt summary ... | | 103: D... | 1 | LS | \$3... | \$345.00 | <input type="checkbox"/> | |
| 4/04/2... | Knight... | Receipt summary ... | | 103: [▼] | 1 | LS | \$6... | \$690.00 | <input type="checkbox"/> | |

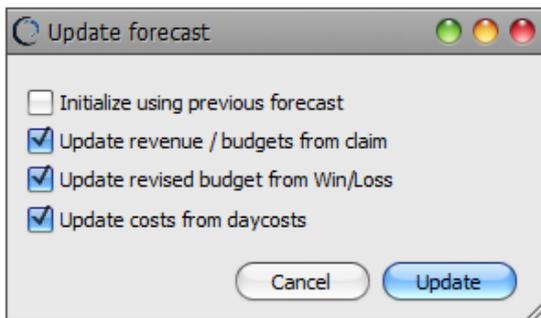
The bottom right of the Daycost section shows a total of \$15,318.40. The bottom navigation bar includes buttons for 'New Report Period', 'Show all', and 'Reports'.

Figure 105 Correcting unassigned activity in Cost Code Register

4. Now go back into your forecast for April and double click on it to bring up the Forecast Detail screen.
5. Once in this screen right click to bring up the Context Menu and select *Update Forecast Data*.



6. The Update Forecast dialog box will now appear – click Update



7. You will now be back in your forecast detail screen and you will see now that the Unassigned line item at the top of the grid now has \$0 in all the cells. This is because any amounts that were in there have now been assigned and transferred to the correct cost code. Your forecast should now look like Figure 106.

| Cost code details | | | | To Date | | | | | |
|-------------------|---|----------------|--------------------------|---------|-------------|----------|----------|----------|----------|
| Cost code | Description | Method | Qty Sum? | QTD | RTD | CTD | Rev TD | MargTD | |
| > ***** | Unassigned | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 101 | Preliminaries and General | Revised budget | <input type="checkbox"/> | 0.5 | \$2,493.60 | \$1,247 | \$8,870 | \$7 | |
| 102 | Investigation, detailed site inspectio... | Revised budget | <input type="checkbox"/> | 0.625 | \$1,743.96 | \$1,089 | \$18,060 | \$16 | |
| 103 | Detailed Design For Construction dr... | Revised budget | <input type="checkbox"/> | 0.2 | \$64,912.50 | \$12,983 | \$3,664 | -\$9 | |
| 104 | Construct access roads to service w... | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 105 | Supply and install safety barriers | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 106 | Commissioning | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 107 | Final documentation | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 204 | Construct roadway in front of proce... | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 304 | Construct delivery area and upgrad... | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 308 | Holding tank works | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| VRN0001 | Removal of dosing shed | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| | | | | | | | \$15,318 | \$30,594 | \$15,276 |

Figure 106 Updated unassigned activity in April forecast

At this point Civil Pro has created a forecast at completion for your project without any additional input whatsoever. On the revenue side, there is literally nothing more to do, Civil Pro has used the claim to date and at completion to calculate the revenue to date and at completion at cost code resolution. The “to complete” is simply the difference.

On the cost side, Civil Pro has the cost to date from your daycosts. By default, Civil Pro calculates the cost to complete by applying the original budget (DJC) rate from when you imported the schedule to the QTC (Qty to Complete). If it is unlikely that this accurately reflects the cost to complete, you can change the forecast method to use either the cost rate to date, a manually entered rate or a manual build up.

11.3 Updating Cost Code Start & End Dates for Forecasting Cashflow

In addition to forecasting the final position of the project, Civil Pro can create a cashflow. In order to generate the expected cashflow over the life of the project we need to update the start and end date of each cost code.

1. From within the forecast detail screen you are in, right click to bring up the Context Menu and select *View/Change Cashflow Timing*

This brings up the Report Period Details screen. Enable editing and update the start and end dates for each cost code using the information in the Project Information Tutorial handout. When done your screen should look like Figure 107 below. You will see that as you update the dates for each cost code, the blue (forecast) section is updated. If it does not appear automatically hit refresh at the bottom left of the screen.

| Report Period Details | | | | | Incurred | Forecast | | | |
|-----------------------|---|-------------|------------|----------|----------|----------|-----------|----------|----------|
| Cost code | Description | Start Date | End Date | Category | Apr 18 | May 18 | Jun 18 | Jul 18 | Aug 18 |
| ***** | Unassigned | 1/05/2018 | 30/09/2018 | Revenue | | | | | |
| | | | | Cost | | | | | |
| | | | | Margin | | | | | |
| 101 | Preliminaries and General | 1/05/2018 | 30/05/2018 | Revenue | \$8,870 | \$8,870 | | | |
| | | | | Cost | \$1,247 | \$7,273 | | | |
| | | | | Margin | \$7,623 | \$1,597 | | | |
| 102 | Investigation, detailed site inspection an... | 1/05/2018 | 31/05/2018 | Revenue | \$18,060 | \$10,860 | | | |
| | | | | Cost | \$1,089 | \$8,905 | | | |
| | | | | Margin | \$16,971 | \$1,955 | | | |
| 103 | Detailed Design For Construction drawings | 1/05/2018 | 30/06/2018 | Revenue | \$3,664 | \$7,448 | \$7,208 | | |
| | | | | Cost | \$12,983 | \$6,108 | \$5,910 | | |
| | | | | Margin | -\$9,319 | \$1,340 | \$1,298 | | |
| 104 | Construct access roads to service water r... | 17/05/20... | 31/07/2018 | Revenue | | \$5,053 | \$10,105 | \$10,442 | |
| | | | | Cost | | \$4,143 | \$8,286 | \$8,563 | |
| | | | | Margin | | \$909 | \$1,819 | \$1,880 | |
| | | | | | \$30,594 | \$74,427 | \$106,040 | \$88,371 | \$16,... |
| | | | | | \$15,318 | \$61,030 | \$86,953 | \$72,464 | \$13,... |
| | | | | | \$15,276 | \$13,396 | \$19,087 | \$15,907 | \$3,033 |

Figure 107 Cost code start and end dates updated

If you now select the Forecast Cashflow Chart from the Reports dropdown, you will be able to see the revenue, cost and margin forecast (Figure 108)

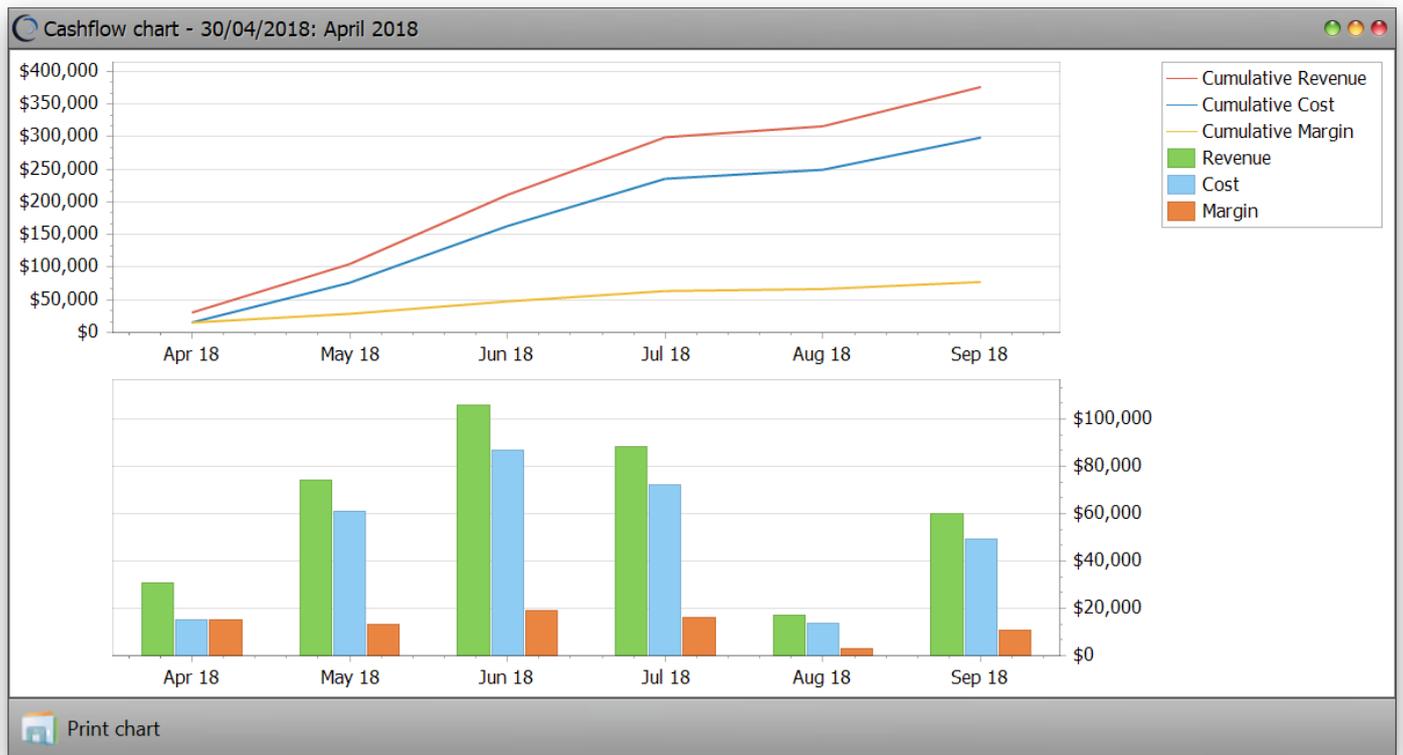


Figure 108 April cashflow chart

12 Entering May Financial Data

12.1 Creating a New Report Period for May

Within the Daycosts Register, create a new report period for May following steps outlined in 6.1 (Figure 109).

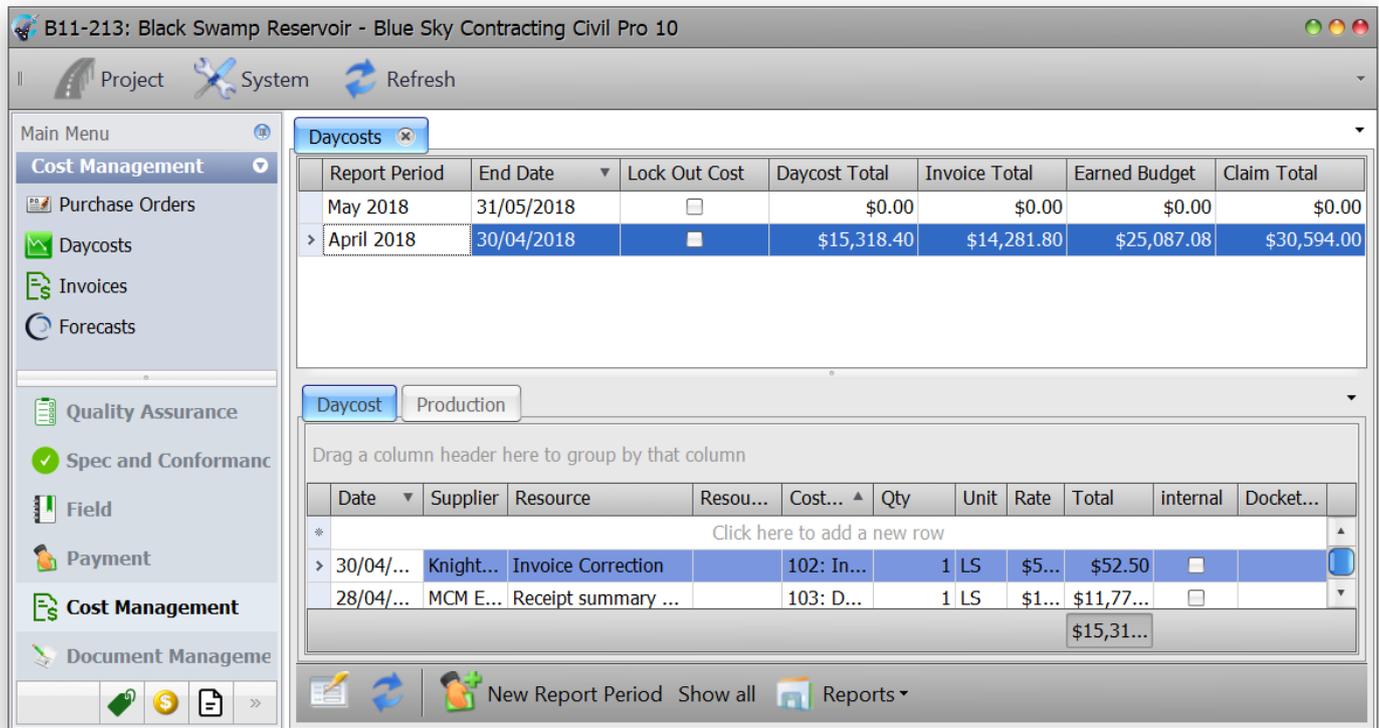
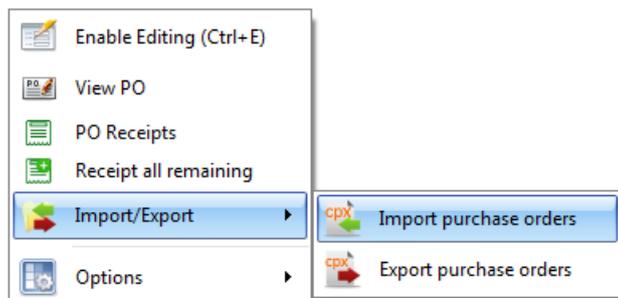


Figure 109 New report period for May

12.2 Importing Purchase Orders for May

We now need to import our purchase orders for May. You will remember that previously we imported purchase order *details* from a CSV file. However, this time we are going to import entire purchase orders from a CPX file (Civil Pro file).

1. Select Cost Management from the Main Menu and from there click on the Purchase Orders icon
2. Within the Purchase Orders Register detail, right click to bring up the Context Menu and select *Import/Export=>Import Purchase Orders*



3. A file selector will open. Select the file containing your schedule (*B11-213 May POs Import.cpx*).

- You will now be taken back to the Purchase Order Register where the imported May POs will now be included. Your screen should look like Figure 110.

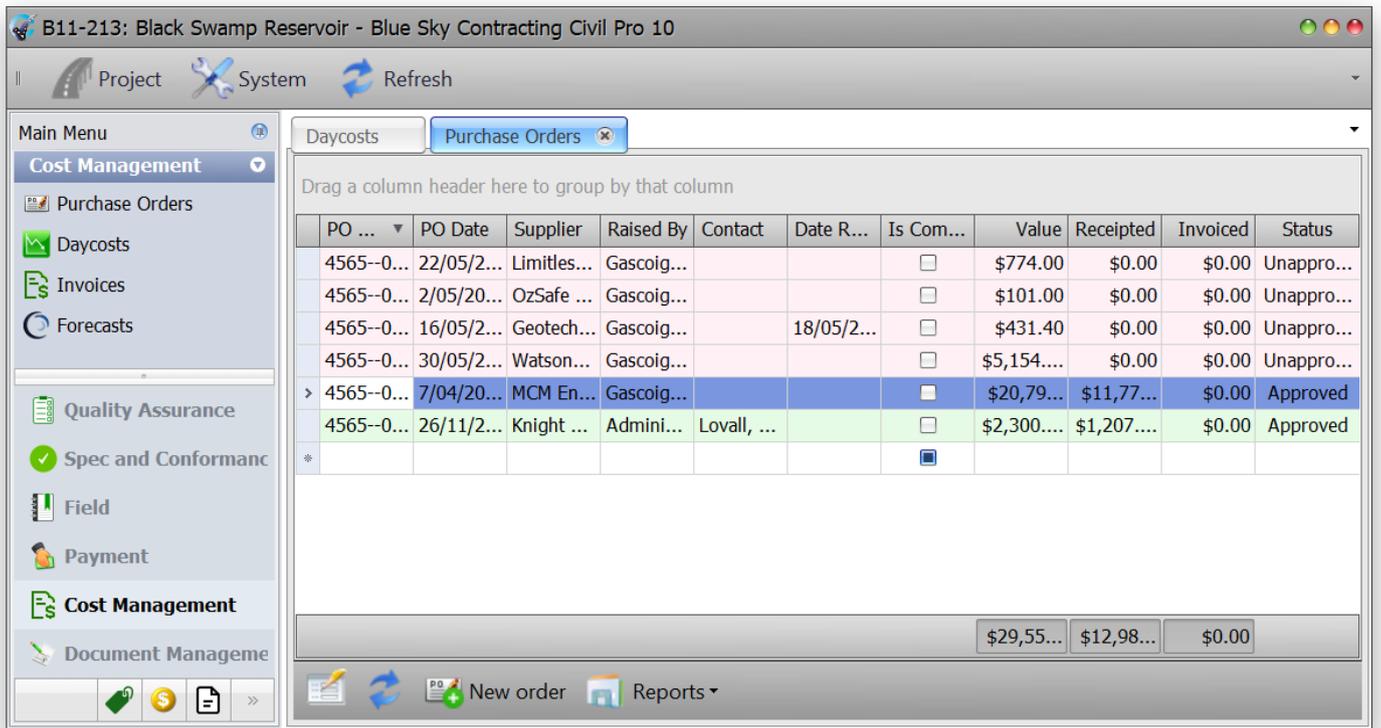


Figure 110 May Purchase Orders in Register

12.3 Approving Purchase Orders for May

- Using steps outlined in 5.4, approve the Purchase orders for May you have just imported.

12.4 Receipting Purchase Orders for May

- Using steps outlined in 7, receipt the Purchase orders for May you have just imported making sure you update Daycosts as you go. Use the receipting information for May POs in the Project Information Tutorial handout.
- After receipting May POs your screen should look like Figure 111.

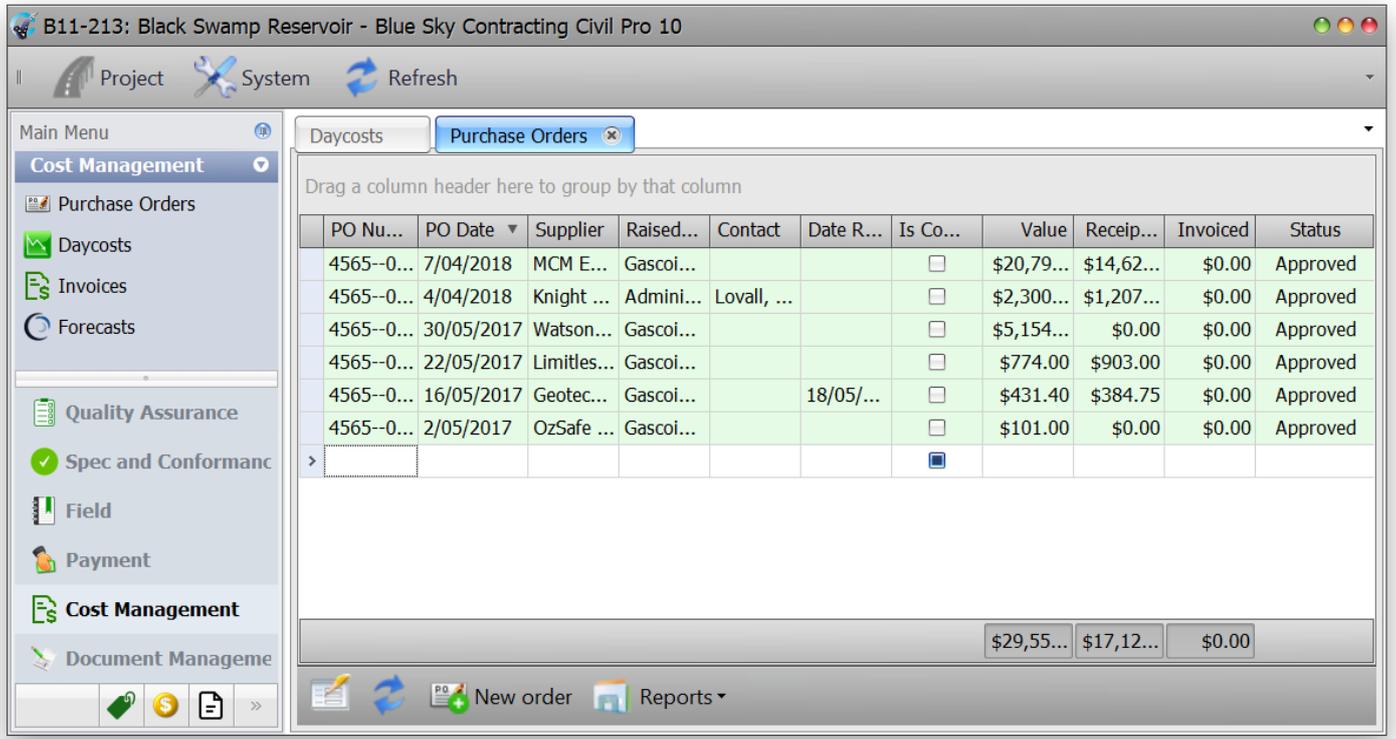
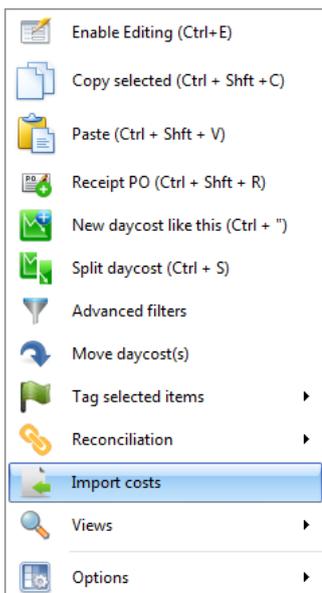


Figure 111 Purchase Order Register after May approving & receipting

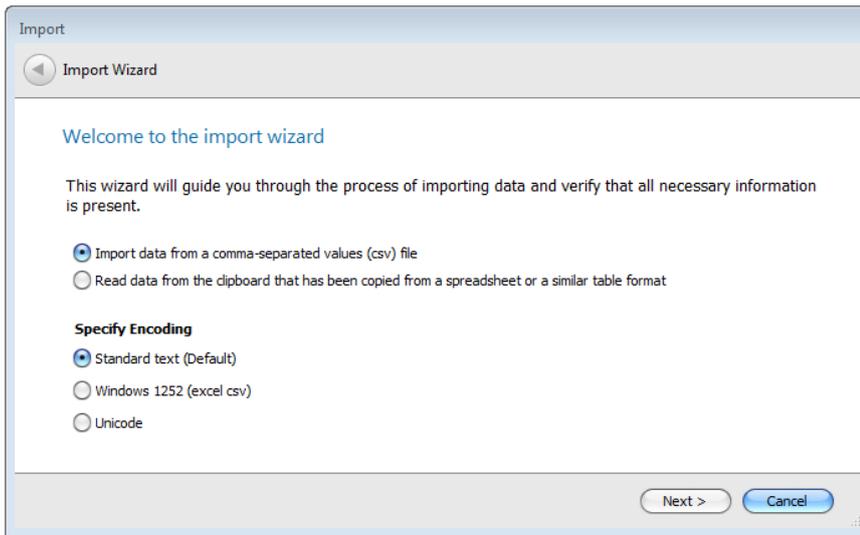
12.5 Importing Daycosts for May

We now need to import our daycosts for May. You will remember that previously we entered the daycosts manually. This time we will save time by importing the daycosts from a CSV file.

1. Select Cost Management from the Main Menu and from there click on the Daycost icon
2. Select the report period for May. Then from within the daycosts details section on the bottom half of the screen, right click to bring up the Context Menu and select *Import Costs*.



3. The Import Wizard screen will now appear. Make sure the Import data from CSV file option is checked and click on Next.



4. A file selector will open. Select the file containing your schedule (*B11-213 May Daycosts Import.csv*) and it will open in the import preview.
5. Click the *Import* button.
6. The Import Wizard will now pick up that there are new suppliers in the data that it needs to add to the system. The Unknown Supplier dialog box will come up. Make sure the Add as New Supplier is selected, check the 'Do this for all missing suppliers' (Figure 112).

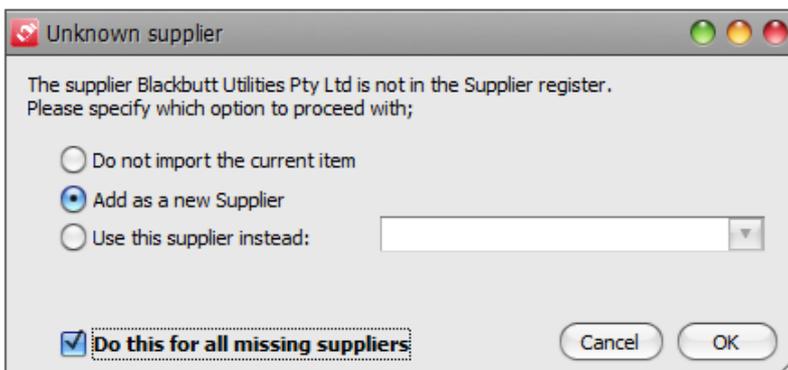


Figure 112 Unknown supplier dialog

7. Click OK then Finish. You will be brought back to the Daycosts Register. Your screen should look like that in Figure 113.

| Report Period | End Date | Lock Out Cost | Daycost Total | Invoice Total | Earned Budget | Claim Total |
|---------------|------------|--------------------------|---------------|---------------|---------------|-------------|
| > May 2018 | 31/05/2018 | <input type="checkbox"/> | \$19,276.75 | \$0.00 | \$0.00 | \$0.00 |
| April 2018 | 30/04/2018 | <input type="checkbox"/> | \$15,318.40 | \$14,281.80 | \$25,087.08 | \$30,594.00 |

| Date | Supplier | Resource | Reso... | Cost ... | Qty | U... | Rate | Total | inter... | Docket... |
|-----------------------------|-----------------------------|---------------------|-----------|-----------|-----|------|--------|-----------|--------------------------|-----------|
| Click here to add a new row | | | | | | | | | | |
| 24/05/2018 | Blackbutt Utilities Pty Ltd | Foreman | Labour | 101: ... | 4 | d... | \$7... | \$3,07... | <input type="checkbox"/> | |
| 24/05/2018 | Limitless Locations Pty Ltd | Receipt summar... | | | 1 | LS | \$9... | \$903.00 | <input type="checkbox"/> | |
| 25/05/2018 | Blackbutt Utilities Pty Ltd | Holding tank ins... | Labour | 308: ... | 1 | ls | \$2... | \$2,06... | <input type="checkbox"/> | |
| 26/05/2018 | Blackbutt Utilities Pty Ltd | misc material | Materi... | 102: I... | 1 | ls | \$1... | \$10,0... | <input type="checkbox"/> | |
| 26/05/2018 | MCM Engineering Pty Ltd | Receipt summar... | | | 1 | LS | \$2... | \$2,06... | <input type="checkbox"/> | |
| | | | | | | | | \$19,2... | | |

Figure 113 Daycosts Register after May Daycosts Import

12.6 Importing Invoices for May

We now need to import our invoices for May. You will remember that previously we manually entered the invoices. However, this time we are going to import them from a CSV file.

1. Select Cost Management from the Main Menu and from there click on the Invoices icon
2. Select the report period for May. Then from within the Invoices details screen on the bottom half of the screen, right click to bring up the Context Menu and select *Import Invoices*
3. The Import Wizard screen will now appear. Make sure the Import data from CSV file option is checked and click on Next.
4. A file selector will open. Select the file containing your schedule (*B11-213 May Invoices Import.csv*) and it will open in the import preview.
5. Apply headings as previously described in 3.1.
6. Click the *Import* button. You will then be taken back to the Invoices Register screen which should look like that in Figure 114 below.

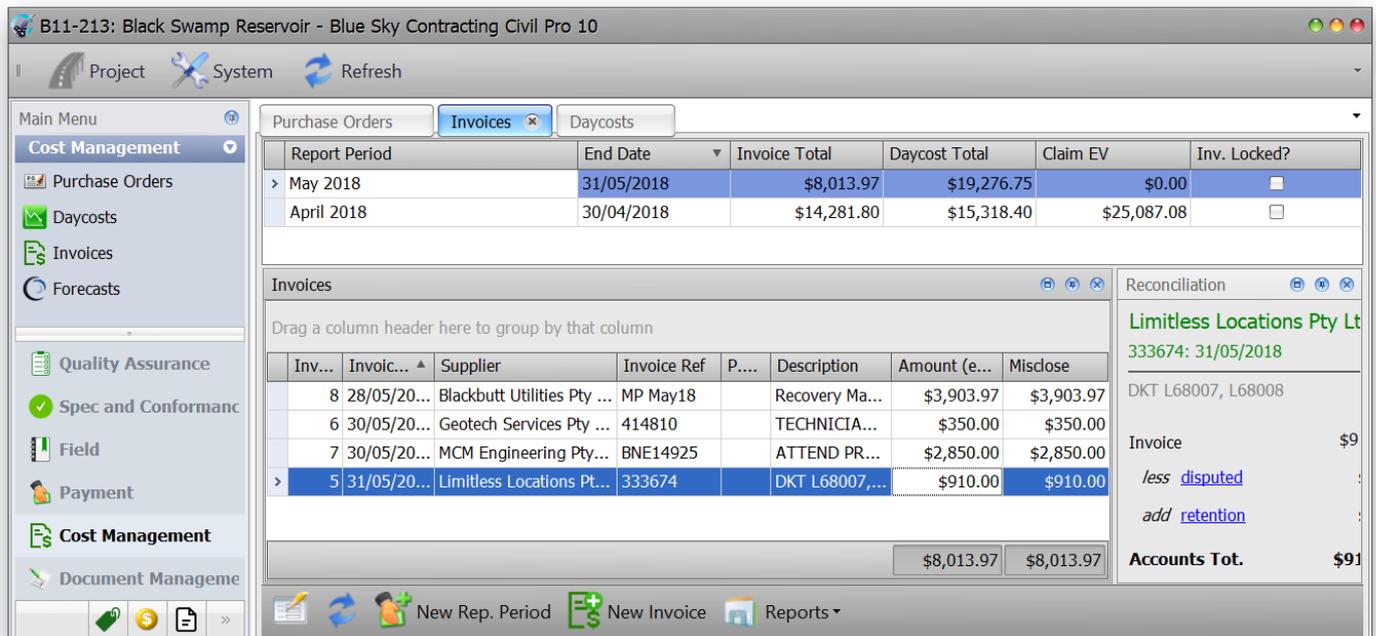


Figure 114 Invoices for May Imported

12.7 Reconciling Invoices for May

We now need to reconcile the May invoices we just imported as per process outlined in 8.2. When completed your Invoices Register should look like that in Figure 115 below.

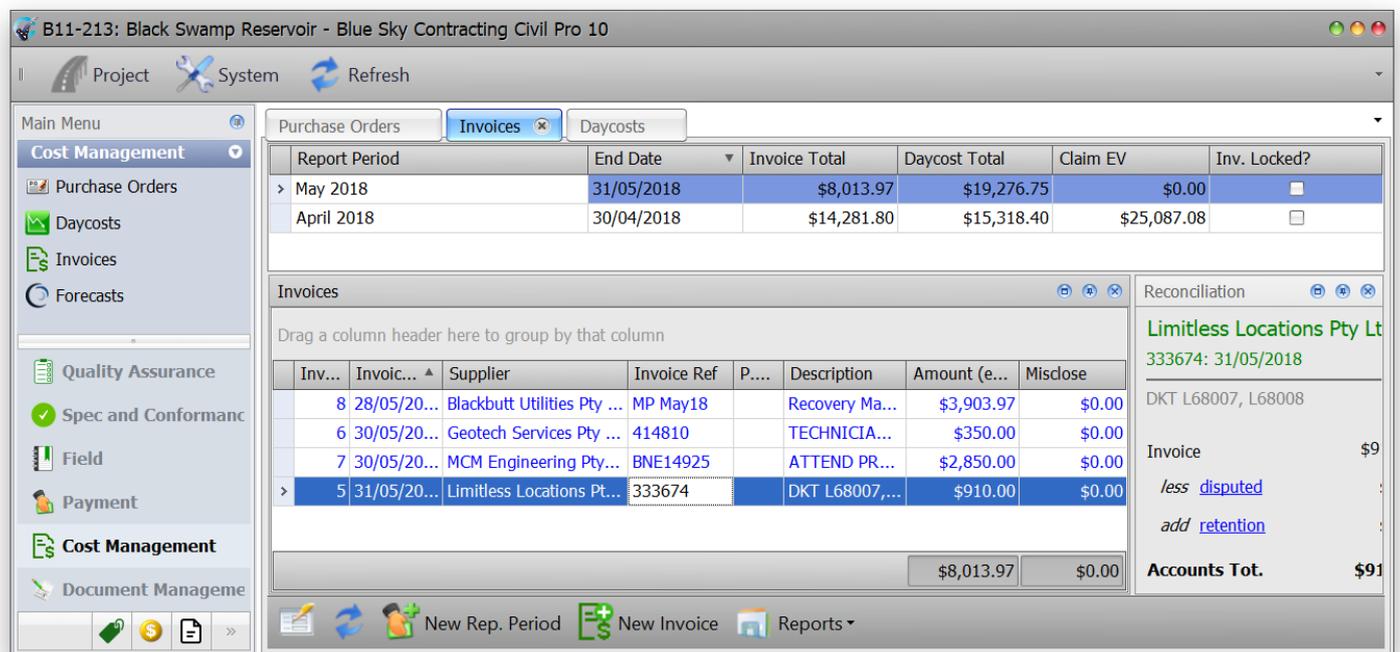


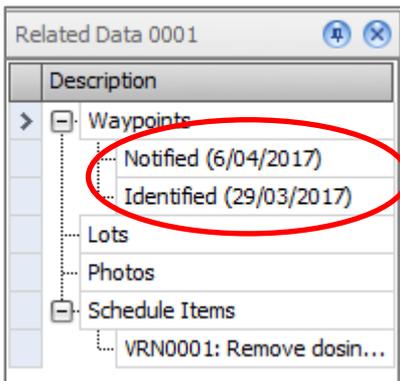
Figure 115 May invoices register

12.8 Approving Variation 0001

Next, we need to approve the variation we created (VAR0001) earlier.

1. Select Payment from the Main Menu and from there click on the Variations icon

2. If you look to the right of the screen at the Related Items tree you will see that there are two waypoints associated with this variation – identified and notified.



3. We need to add another waypoint – 'Approved'. To do this right click to bring up the Context Menu and select New Waypoint



You can add a waypoint at the current date by double clicking the waypoints heading in the related items list. Waypoint dates can be edited by double clicking them in the related items list.

4. The Update Waypoint dialog will appear. From the status drop down select 'Approved' and then choose the waypoint date (the approval date of 30/5/18). Click Update (Figure 116).

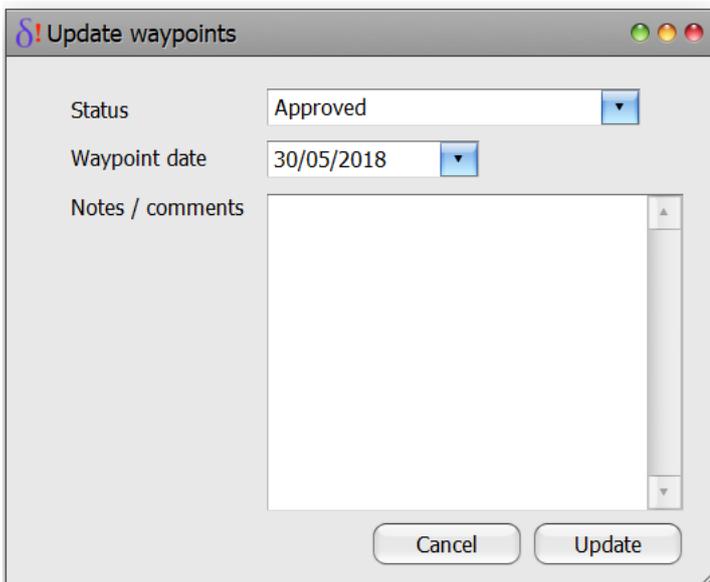


Figure 116 Updating waypoint

You will then be taken back to the Variations Register. If you look to the right of the screen at the related items tree you will now see that there is a new waypoint – Approved including the approval date of 30/5/18 (Figure 117).

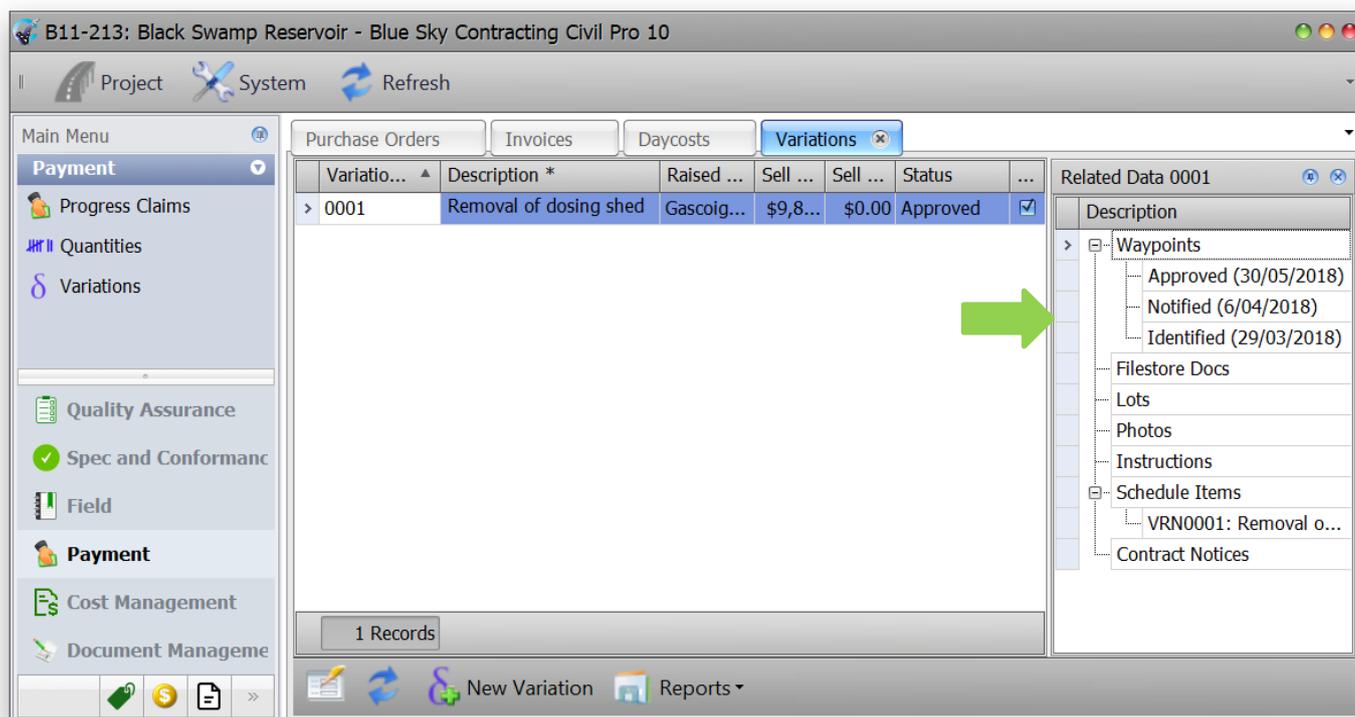


Figure 117 Updated waypoint appearing in Variations register related items tree

5. The last step is to update the Approved Valuation Rate. In the variation detail screen (double click variation to open) on the Valuation & EOT page, select the Approved Valuation rate of \$9,800 (the same as the submitted amount).

12.9 Certifying Claim for April

We have had word from the client who has certified the April claim amounts we entered previously so now we need to go back into the April Progress claim and enter these certified figures.

1. Select Payment from the Main Menu and from there click on the Progress Claim icon.
2. If you open the April Claim Detail screen now you won't be able to make any change or updates EVEN if you enable editing. This is because it is locked as indicated by the large padlock image in the background. If you close this screen and return to the Progress Claim Register you will be able to see a ticked 'Lock' box next to the April report period – see Figure 118 below.

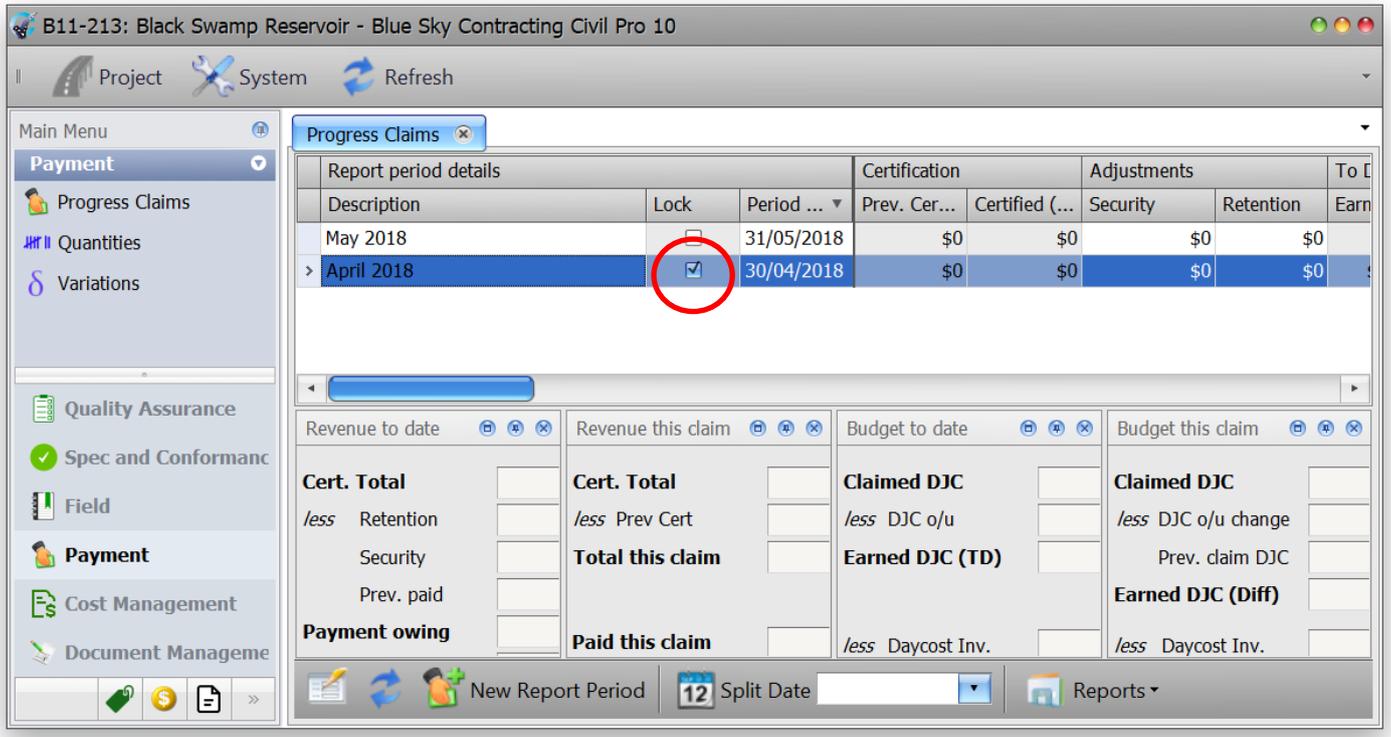
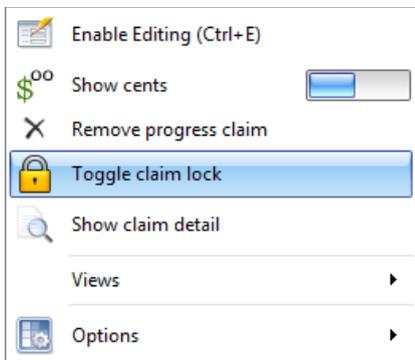


Figure 118 Progress claimed locked

To unlock, right click on the April report period to bring up the Context Menu and select *Toggle Claim Lock*. This unlocks the claim so you can make changes.



- Now double click on the April claim to open it. Using the scroll bar at the bottom at the screen find the 'Certification Qty' column and, using the information in the Project Information Tutorial handout, enter the April certified quantities. You will notice that all the April claim quantities have been certified as submitted - EXCEPT for item 1.1. The client has certified less than what was claimed (0.4 rather than 0.5). When completed your screen should look like that in Figure 119 below.

| Claim Item Details | | | | Prev. Cert | | Certification | | | To Date | Lot Qty |
|--------------------|---|---------------|--------|------------|--------|---------------|-------------|------------|--------------------|---------|
| Sched. No. | Description | Qty Scheduled | Unit | Qty | Total | Qty | Sell Rate | Total | (Claim - Cert) Qty | |
| 1 | Access Road to Water Reser... | | | | | | | | | |
| 1.1 | Preliminaries and General | | 1 Lump | 0 | \$0 | 0.4 | \$6,850.00 | \$2,740 | | 0.1 |
| 1.2 | Investigation, detailed site inspec... | | 1 Lump | 0 | \$0 | 0.75 | \$14,400.00 | \$10,800 | | 0 |
| 1.3 | Detailed Design For Construction ... | | 1 Lump | 0 | \$0 | 0.2 | \$6,120.00 | \$1,224 | | 0 |
| 1.4 | Construct access roads to service ... | | 1 Lump | 0 | \$0 | 0 | \$25,600.00 | \$0 | | 0 |
| 1.5 | Supply and install safety barriers | | 1 Lump | 0 | \$0 | 0 | \$11,120.00 | \$0 | | 0 |
| 1.6 | Commissioning | | 1 Lump | 0 | \$0 | 0 | \$3,650.00 | \$0 | | 0 |
| 1.7 | Final documentation | | 1 Lump | 0 | \$0 | 0 | \$2,220.00 | \$0 | | 0 |
| 2 | Refurbish Road in Front of Pr... | | | | | | | | | |
| 2.1 | Preliminaries and General | | 1 Lump | 0 | \$0 | 0.5 | \$5,300.00 | \$2,650 | | 0 |
| 2.2 | Investigation, detailed site inspec... | | 1 Lump | 0 | \$0 | 0.5 | \$11,200.00 | \$5,600 | | 0 |
| 2.3 | Detailed Design For Construction ... | | 1 Lump | 0 | \$0 | 0.2 | \$6,220.00 | \$1,244 | | 0 |
| 2.4 | Construct roadway in front of pro... | | 1 Lump | 0 | \$0 | 0 | \$98,000.00 | \$0 | | 0 |
| 2.5 | Supply and install safety barriers | | 1 Lump | 0 | \$0 | 0 | \$18,800.00 | \$0 | | 0 |
| 2.6 | Commissioning | | 1 Lump | 0 | \$0 | 0 | \$3,300.00 | \$0 | | 0 |
| 2.7 | Final documentation | | 1 Lump | 0 | \$0 | 0 | \$42,400.00 | \$0 | | 0 |
| 2.8 | Guardrail install (per m) if additio... | | 0 m | 0 | \$0 | 0 | \$195.00 | \$0 | | 0 |
| 3 | Upgrade Storage and Deliver... | | | | | | | | | |
| | | | | | \$0.00 | | | \$29,90... | | |

Figure 119 April certified quantity entered

4. Close the claim and return to the Progress Claim Register
5. Click on the refresh icon at the bottom of the screen (the two blue arrows) and you will see now that in the bottom part of the screen the certification total is now included in the various summaries as in Figure 120.

| Report period details | | | | Certification | | Adjustments | | To Date Claim |
|-----------------------|-------------------------------------|------------|--------------|-----------------|----------|-------------|------------|---------------|
| Description | Lock | Period ... | Prev. Cer... | Certified (...) | Security | Retention | Earned Rev | |
| May 2018 | <input type="checkbox"/> | 31/05/2018 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| > April 2018 | <input checked="" type="checkbox"/> | 30/04/2018 | \$0 | \$29,909 | \$0 | \$0 | \$30,594 | |

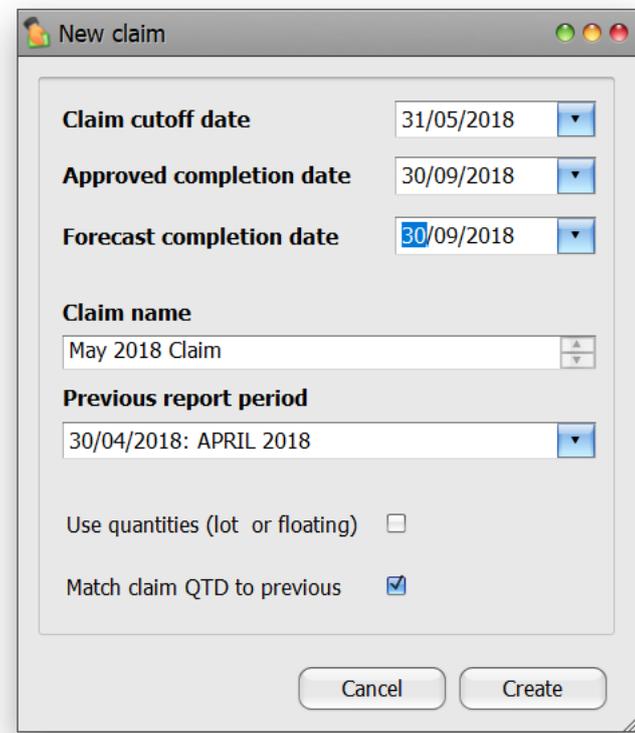
| | | | | | |
|----------------------|--------------|------------------------|-------------|--------------------------|-------------|
| Revenue to date | | Budget to date | | Budget this claim | |
| Cert. Total | \$29,909.00 | Claimed DJC | \$25,087.08 | Claimed DJC | \$25,087.08 |
| less Retention | \$0.00 | less DJC o/u | \$0.00 | less DJC o/u change | \$0.00 |
| Security | \$0.00 | Earned DJC (TD) | \$25,087.08 | Prev. claim DJC | \$0.00 |
| Prev. paid | \$0.00 | | | Earned DJC (Diff) | \$25,087.08 |
| Payment owing | \$29,909.00 | less Daycost Inv. | \$14,281.80 | less Daycost Inv. | \$14,281.80 |
| At completion | \$376,440.00 | Daycost Accr. | \$1,036.60 | Daycost Accr. | \$1,036.60 |

Figure 120 Progress Claim with certified totals included in summaries

12.10 Creating Progress Claim for May

We now need to create a new claim for May.

1. Double click on the May report period.
2. The New Claim dialog will appear. In the Previous Report Period drop down select *April* then double check that the 'Match Claim QTD to previous' box is ticked. This copies the claim quantities from April as a starting point for the new claim.



Claim cutoff date 31/05/2018

Approved completion date 30/09/2018

Forecast completion date 30/09/2018

Claim name
May 2018 Claim

Previous report period
30/04/2018: APRIL 2018

Use quantities (lot or floating)

Match claim QTD to previous

Cancel Create



You can use the Import from Previous function to import quantities and some metadata from other claims. This can be copied to either certified or claimed quantities. You can also copy at completion, under/over claims.

3. Enter in the 'Quantity – To Date' amounts using the information in the Project Information Tutorial handout using steps outlined in 9.2. Also, if you scroll down to the very bottom of the claim you will now see that the variation we created (VAR0001) is now included in the progress claim. When you are done your Progress Claim should look like that in Figure 121 below.

| Claim Item Details | | | | To Date | | | | This Claim | |
|--------------------|---|---------------|--------|---------|-------------|--------------|----------------|-------------|--|
| Sched. No. | Description | Qty Scheduled | Unit | Qty | Sell Rate | Total | Claimed (Diff) | Claim Value | |
| 1 | Access Road to Water Reser... | | | | | | | | |
| 1.1 | Preliminaries and General | | 1 Lump | 0.5 | \$6,850.00 | \$3,425 | 0.1 | | |
| 1.2 | Investigation, detailed site inspec... | | 1 Lump | 0.8 | \$14,400.00 | \$11,520 | 0.05 | | |
| 1.3 | Detailed Design For Construction ... | | 1 Lump | 0.9 | \$6,120.00 | \$5,508 | 0.7 | | |
| 1.4 | Construct access roads to service ... | | 1 Lump | 0 | \$25,600.00 | \$0 | 0 | | |
| 1.5 | Supply and install safety barriers | | 1 Lump | 0 | \$11,120.00 | \$0 | 0 | | |
| 1.6 | Commissioning | | 1 Lump | 0 | \$3,650.00 | \$0 | 0 | | |
| 1.7 | Final documentation | | 1 Lump | 0 | \$2,220.00 | \$0 | 0 | | |
| 2 | Refurbish Road in Front of Pr... | | | | | | | | |
| 2.1 | Preliminaries and General | | 1 Lump | 0.5 | \$5,300.00 | \$2,650 | 0 | | |
| 2.2 | Investigation, detailed site inspec... | | 1 Lump | 0.8 | \$11,200.00 | \$8,960 | 0.3 | | |
| 2.3 | Detailed Design For Construction ... | | 1 Lump | 0.9 | \$6,220.00 | \$5,598 | 0.7 | | |
| 2.4 | Construct roadway in front of pro... | | 1 Lump | 0 | \$98,000.00 | \$0 | 0 | | |
| 2.5 | Supply and install safety barriers | | 1 Lump | 0 | \$18,800.00 | \$0 | 0 | | |
| 2.6 | Commissioning | | 1 Lump | 0 | \$3,300.00 | \$0 | 0 | | |
| 2.7 | Final documentation | | 1 Lump | 0 | \$42,400.00 | \$0 | 0 | | |
| 2.8 | Guardrail install (per m) if additio... | | 0 m | 0 | \$195.00 | \$0 | 0 | | |
| 3 | Upgrade Storage and Deliver... | | | | | | | | |
| | | | | | | \$49,158.... | \$19,249... | | |

Figure 121 May claim with quantities updated

- Close the claim detail screen to return to the Progress Claim Register. Click the refresh button in order to update the summaries on this page.

12.11 Creating a Forecast for May

Now create a forecast for May using the steps described above. You will need to refer to the Project Information Tutorial handout for updating the unassigned amounts as per step 11 previously described. *Remember to update your forecast data once your assigning has been done by selecting 'Update Forecast Data' from the context menu options.* When you are done your forecast detail screen should look like Figure 122 below.

| Cost code details | | | | To Date | | | | | |
|-------------------|--------------------------------------|----------------|-------------------------------------|---------|-------------|----------|----------|----------|---------|
| Cost code | Description | Method | Qty Sum? | QTD | RTD | CTD | Rev TD | MargTD | MargTD% |
| 101 | Preliminaries and General | Revised budget | <input type="checkbox"/> | 0.5 | \$10,301.54 | \$5,151 | \$8,870 | \$3,719 | 41.1% |
| 102 | Investigation, detailed site insp... | Revised budget | <input type="checkbox"/> | 0.823 | \$15,004.98 | \$12,349 | \$23,800 | \$11,451 | 48.3% |
| 103 | Detailed Design For Constructi... | Revised budget | <input type="checkbox"/> | 0.9 | \$17,591.67 | \$15,833 | \$16,488 | \$656 | 3.7% |
| 104 | Construct access roads to servi... | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 105 | Supply and install safety barriers | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 106 | Commissioning | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 107 | Final documentation | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| > 204 | Construct roadway in front of p... | Revised budget | <input checked="" type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 304 | Construct delivery area and up... | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| 308 | Holding tank works | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$2,063 | \$0 | -\$2,063 | |
| VRN0001 | Removal of dosing shed | Revised budget | <input type="checkbox"/> | 0 | \$0.00 | \$0 | \$0 | \$0 | |
| | | | | | | \$35,395 | \$49,158 | \$13,763 | 28.00% |

Figure 122 May forecast detail

12.11.1 Changing Cost to Complete Calculation Methods

There are three ways the cost to complete can be calculated on a cost code by cost code basis – the first two are automatic and require no manual cost to complete calculations

1. Revised budget – Automatically calculates the cost to complete by assuming the remaining work will be completed on budget (this is the default method on newly created forecasts)
2. Rate to date – Automatically calculates the cost to complete by assuming the remaining work will be completed at the same rate as any work completed so far
3. Manual CTC – The cost to complete is specified by either;
 - Directly entering the expected cost to complete for the cost code; or
 - Creating a build-up of the cost

12.11.2 Changing to Rate to Date Method

To change to the rate to date method, enable editing and change the third column to the 'Rate to date' option.

In the screenshot below (Figure 123), the forecast method for 103 has changed to Rate to Date. The consequence of this are visible in the MargTC% (Margin to complete) column. All of the other items are forecast at 18% - this was the original budget margin.

The 103 cost code is forecast at 3.98%. If you look at the MargTD% (Margin to date) column, then it too is 3.98%. This is because the new forecast method forecasts the item at the same margin as you have achieved to date.

| Cost code details | | | | To Complete | | | | | | |
|-------------------|------------------------------------|----------------|-------------------------------------|-------------|-------------|-----------|-----------|----------|---------|--|
| Cost code | Description | Method | Qty Sum? | QTC | RTC | CTC | Rev TC | MargTC | MargTC% | |
| ***** | Unassigned | Revised bud... | <input type="checkbox"/> | 1 | \$0.00 | \$0 | \$0 | \$0 | 0.0% | |
| 101 | Preliminaries and General | Revised bud... | <input type="checkbox"/> | 0.5 | \$14,546.80 | \$7,273 | \$8,870 | \$1,597 | 18.0% | |
| 102 | Investigation, detailed site in... | Revised bud... | <input type="checkbox"/> | 0.177 | \$23,719.77 | \$4,198 | \$5,120 | \$922 | 18.0% | |
| > 103 | Detailed Design For Constru... | Rate to date | <input checked="" type="checkbox"/> | 0.1 | \$17,591.70 | \$1,759 | \$1,832 | \$73 | 3.975% | |
| 104 | Construct access roads to se... | Revised bud... | <input type="checkbox"/> | 1 | \$20,992.00 | \$20,992 | \$25,600 | \$4,608 | 18.0% | |
| 105 | Supply and install safety bar... | Revised bud... | <input type="checkbox"/> | 1 | \$24,534.40 | \$24,534 | \$29,920 | \$5,386 | 18.0% | |
| 106 | Commissioning | Revised bud... | <input type="checkbox"/> | 1 | \$8,487.00 | \$8,487 | \$10,350 | \$1,863 | 18.0% | |
| 107 | Final documentation | Revised bud... | <input type="checkbox"/> | 1 | \$38,392.40 | \$38,392 | \$46,820 | \$8,428 | 18.0% | |
| 204 | Construct roadway in front o... | Revised bud... | <input type="checkbox"/> | 1 | \$80,360.00 | \$80,360 | \$98,000 | \$17,640 | 18.0% | |
| 304 | Construct delivery area and ... | Revised bud... | <input type="checkbox"/> | 1 | \$58,056.00 | \$58,056 | \$70,800 | \$12,744 | 18.0% | |
| 308 | Holding tank works | Revised bud... | <input type="checkbox"/> | 1 | \$24,575.40 | \$24,575 | \$29,970 | \$5,395 | 18.0% | |
| VRN0001 | Removal of dosing shed | Revised bud | <input type="checkbox"/> | 1 | \$8,036.00 | \$8,036 | \$9,800 | \$1,764 | 18.0% | |
| | | | | | | \$276,664 | \$337,082 | \$60,418 | 17.92% | |

Figure 123 Changing forecast method

12.11.3 Changing to Manual Cost to Complete Method

While you can forecast at cost to complete by changing the method as per above and then updating the value in the cost to complete column, it is actually not necessary to change the method. As soon as you enable editing and change the CTC for a cost code, civil pro is smart enough to figure out that this means you want to manually update it.



If you enable editing and update the figure directly in the cost to complete cell for the relevant line item, the method will automatically change to Manual CTC.

Figure 124 shows that cost code 104 has a manual forecast of \$18,000. You might enter a single number into a cost code forecast when you have a subcontract and know the expected cost, or for a small item where detail isn't important. For anything of any complexity, a manual forecast should be undertaken using a detailed cost estimate.

| Cost code details | | | | To Complete | | | | | | |
|-------------------|------------------------------------|----------------|-------------------------------------|-------------|-------------|-----------|-----------|----------|---------|-----|
| Cost code | Description | Method | Qty Sum? | QTC | RTC | CTC | Rev TC | MargTC | MargTC% | Est |
| ***** | Unassigned | Revised bud... | <input type="checkbox"/> | 1 | \$0.00 | \$0 | \$0 | \$0 | 0.0% | |
| 101 | Preliminaries and General | Revised bud... | <input type="checkbox"/> | 0.5 | \$14,546.80 | \$7,273 | \$8,870 | \$1,597 | 18.0% | |
| 102 | Investigation, detailed site in... | Revised bud... | <input type="checkbox"/> | 0.177 | \$23,719.77 | \$4,198 | \$5,120 | \$922 | 18.0% | |
| 103 | Detailed Design For Constru... | Rate to date | <input type="checkbox"/> | 0.1 | \$17,591.70 | \$1,759 | \$1,832 | \$73 | 3.975% | |
| 104 | Construct access roads to se... | Manual CTC | <input checked="" type="checkbox"/> | 1 | \$18,000.00 | \$18,000 | \$25,600 | \$7,600 | 29.688% | |
| 105 | Supply and install safety bar... | Revised bud... | <input type="checkbox"/> | 1 | \$24,534.40 | \$24,534 | \$29,920 | \$5,386 | 18.0% | |
| 106 | Commissioning | Revised bud... | <input type="checkbox"/> | 1 | \$8,487.00 | \$8,487 | \$10,350 | \$1,863 | 18.0% | |
| 107 | Final documentation | Revised bud... | <input type="checkbox"/> | 1 | \$38,392.40 | \$38,392 | \$46,820 | \$8,428 | 18.0% | |
| 204 | Construct roadway in front o... | Revised bud... | <input type="checkbox"/> | 1 | \$80,360.00 | \$80,360 | \$98,000 | \$17,640 | 18.0% | |
| 304 | Construct delivery area and ... | Revised bud... | <input type="checkbox"/> | 1 | \$58,056.00 | \$58,056 | \$70,800 | \$12,744 | 18.0% | |
| 308 | Holding tank works | Revised bud... | <input type="checkbox"/> | 1 | \$24,575.40 | \$24,575 | \$29,970 | \$5,395 | 18.0% | |
| VRN0001 | Removal of dosing shed | Revised bud... | <input type="checkbox"/> | 1 | \$8,036.00 | \$8,036 | \$9,800 | \$1,764 | 18.0% | |
| | | | | | | \$276,664 | \$337,082 | \$60,418 | 17.92% | |

Figure 124 Using a manual cost to complete

12.12 Manually forecast with a detailed cost build-up

To create a build-up for a cost code's CTC (cost to complete), you can just double click it, or select the view/change forecast estimate function from the context menu as in Figure 125.

| Cost code details | | | | To Complete | | | | | | |
|-------------------|------------------------------------|----------------|-------------------------------------|-------------|-------------|-----------|-----------|----------|---------|-----|
| Cost code | Description | Method | Qty Sum? | QTC | RTC | CTC | Rev TC | MargTC | MargTC% | Est |
| ***** | Unassigned | Revised bud... | <input type="checkbox"/> | 1 | \$0.00 | \$0 | \$0 | \$0 | 0.0% | |
| 101 | Preliminaries and General | Revised bud... | <input type="checkbox"/> | 0.5 | \$14,546.80 | \$7,273 | \$8,870 | \$1,597 | 18.0% | |
| 102 | Investigation, detailed site in... | Revised bud... | <input type="checkbox"/> | 0.177 | \$23,719.77 | \$4,198 | \$5,120 | \$922 | 18.0% | |
| 103 | Detailed Design For Constru... | Rate to date | <input type="checkbox"/> | 0.1 | \$17,591.70 | \$1,759 | \$1,832 | \$73 | 3.975% | |
| 104 | Construct access roads to se... | Manual CTC | <input checked="" type="checkbox"/> | 1 | \$18,000.00 | \$18,000 | \$25,600 | \$7,600 | 29.688% | |
| 105 | Supply and install safety bar... | Revised bud... | <input type="checkbox"/> | 1 | \$24,534.40 | \$24,534 | \$29,920 | \$5,386 | 18.0% | |
| 106 | Commissioning | Revised bud... | <input type="checkbox"/> | 1 | \$8,487.00 | \$8,487 | \$10,350 | \$1,863 | 18.0% | |
| 107 | Final docum | Revised bud... | <input type="checkbox"/> | 1 | \$38,392.40 | \$38,392 | \$46,820 | \$8,428 | 18.0% | |
| 204 | Construct ro | Revised bud... | <input type="checkbox"/> | 1 | \$80,360.00 | \$80,360 | \$98,000 | \$17,640 | 18.0% | |
| 304 | Construct d | Revised bud... | <input type="checkbox"/> | 1 | \$58,056.00 | \$58,056 | \$70,800 | \$12,744 | 18.0% | |
| 308 | Holding tan | Revised bud... | <input type="checkbox"/> | 1 | \$24,575.40 | \$24,575 | \$29,970 | \$5,395 | 18.0% | |
| VRN0001 | Removal of | Revised bud... | <input type="checkbox"/> | 1 | \$8,036.00 | \$8,036 | \$9,800 | \$1,764 | 18.0% | |
| | | | | | | \$273,672 | \$337,082 | \$63,410 | 18.81% | |

Figure 125 Using the context menu to view/change a forecast estimate

Enter the detail of your build-up – it should look something like Figure 126 below and close the forecast form. The forecast cost to complete will be updated to reflect the total of the estimate. If you haven't already, you will be prompted to change the forecast method to 'Manual Cost to Complete'. Click Yes.

The screenshot shows a software window titled "Forecast cost-to-complete estimate". It contains a table with the following data:

| Description | Qty Edit | Unit | Rate | Total |
|---|----------|------|------------|------------|
| > Remove existing guardrail end and extend to new alignment | | | | |
| Supply posts only | 98 | ea | \$100.00 | \$9,800.00 |
| Install guardrail | 196 | m | \$25.00 | \$4,900.00 |
| Supply and install x350 | 2 | ea | \$3,600.00 | \$7,200.00 |
| Remove MELT | 1 | ea | \$400.00 | \$400.00 |
| Remove 25m guardrail | 1 | ea | \$250.00 | \$250.00 |
| * | | | | |

At the bottom right of the table, a box displays the total: \$22,550.00.

On the right side, the "CTC Details" panel shows:

- 105**
- Supply and install safety barriers
- Estimate basis**
- Total: \$22,550.00
- Quantity: 1
- Rate: \$22,550.00
- Calculated to complete**
- QTC: 1
- RTC: \$22,550.00

The bottom of the window features a "Reports" dropdown menu.

Figure 126 Cost estimate detail

12.13 Forecast Reports & Cashflow Charts

To generate forecast reports:

1. Select the report type from the Reports drop down at the bottom of the screen. To generate a forecast chart, select the 'Forecast Cashflow Chart' from the Reports drop down at the bottom of the screen

The following chart will appear. To print this chart simply select Print Chart from the bottom of the screen (Figure 127).

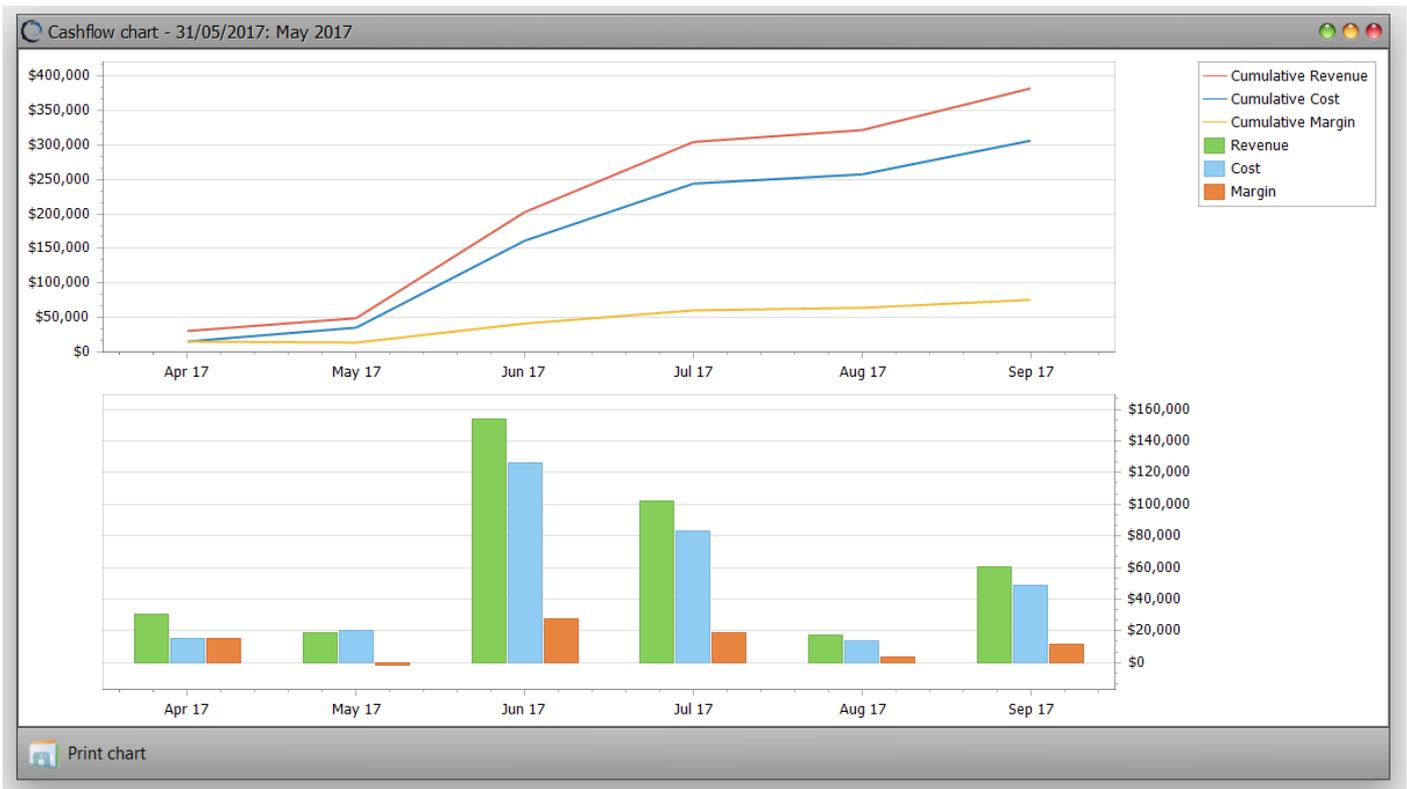


Figure 127 Forecast cashflow