ARGUS EstateMaster®

User Manual

ARGUS EstateMaster CC 7.1

May-2020

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Part IIII

1 Introduction

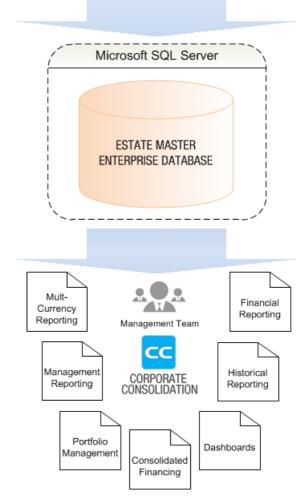
This operations manual is a guide for using the ARGUS EstateMaster CC (Corporate Consolidation) software developed in Microsoft SQL and .NET.

ARGUS EstateMaster CC is a program that works in conjunction with the ARGUS EstateMaster Enterprise Database, a secure and central data repository system that is installed and configured on a network to allow users to export/import their ARGUS EstateMaster DF (Development Feasibility), ARGUS EstateMaster DM (Development Management), Hotel Feasibility (HF) and ARGUS EstateMaster IA (Investment Appraisal) Cash Flows to/from. Once the data has been exported to the Enterprise Database, users of the ARGUS EstateMaster CC software are able to create 'Portfolios' of Cash Flows and generate a selection of consolidation or comparison reports, such as periodic Cash Flows, summary reports, Gantt charts, etc.

The Program can be used to:

- Archive all input and cash flow data from ARGUS EstateMaster DF, DM, HF and IA;
- Generate comparison summary and cash flow reports for unlimited number of development options.
- Generate consolidated summary and cash flow reports for unlimited number of development stages.

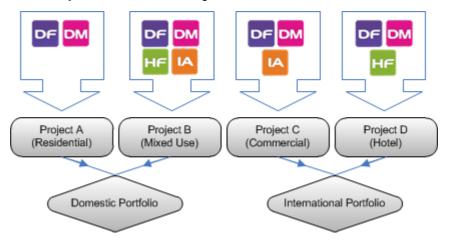




1.1 Data Hierarchy

The ARGUS EstateMaster CC data structure works on a hierarchy of Cash Flows that allows the user to group their ARGUS EstateMaster DF (Development Feasibility), DM (Development Management) HF (Hotel Feasibility) and ARGUS EstateMaster IA (Investment Appraisal) Cash Flows. The hierarchy consists of:

- 1. **Cash Flows**: These are the individual Cash Flows created in the DF (prospective development projects), DM (active development projects), HF (prospective hotel developments and appraisals) and and IA (investment projects) software.
- 2. Projects: These are the groups that contain Cash Flows for a particular development project. The Cash Flows created in DF, DM, HF and IA are exported to the database after they have been assigned to a 'Project' during the export process (refer to the DF/DM/IA/HF Operations Manual for more information about the export process). A Project can contain a mixture of DF, DM, HF and IA Cash Flows and there is essentially no limit to the number of Cash Flows it can contain.
- 3. **Portfolios:** These are the groups that contains numerous Cash Flows for reporting purposes, either on a consolidated or comparative basis. A Cash Flow can be in more than one Portfolio. Portfolios can only be created and managed from within the ARGUS EstateMaster CC program.



Example of Using Projects and Portfolios

A User has 3 active multi-stage development projects (each containing 4 stages) underway and 1 prospective project they are assessing (with 4 different options to consider).

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For the active multi-stage developments, the user models them in ARGUS EstateMaster DM, with 4 separate DM files for each stage of the developments.

For the prospective project, the user models it in one ARGUS EstateMaster DF file, using the Options/Stage function to store the 4 options they are considering.

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For each active project, the 4 DM 'Cash Flows' for each stage are exported to the CC Database to a separate 'Project.

For the prospective project, the user exports the 4 options they are analysing to another separate 'Project. At this stage, the CC Database will contain 4 Projects - 3 containing DM Cash Flows for the active projects and 1 containing DF Cash Flows for their prospective project.

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The User runs the CC Database software to group their Project into Portfolios.

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Project A & B are Residential Projects, so the User creates a Portfolio called 'Residential'.

Project C and the Prospective Project are Commercial, so the User creates a second Portfolio called 'Commercial'.

Projects A and C are located in one State, so the User decides to create another Portfolio called 'NSW'

The User places the Cash Flows in the relevant Portfolios.

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3 Portfolios have now been created in the CC Database
The User can now generate numerous reports for the Portfolio of Cash Flows they have made.
At any time the user can add more Cash Flows to a Portfolio.

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The User updates the DF and DM Cash Flows for their Projects and exports them to the database again. When they generate the reports in the CC Database, the system will use the latest version of the cash flow.

1.2 System Requirements

To install and operate ARGUS EstateMaster CC efficiently, the following is recommended:

- A 64bit PC with a Quad Core CPU (Intel Core i5 / i7) and a clock speed of at least 2.8Ghz (or equivalent).
- Microsoft Windows 8.1 or later -or- Windows Server 2012 or later
- Microsoft .Net Framework 4.6 or higher.
- 8Gb RAM or higher.
- Internet connection (for downloading files and activating licences).
- ARGUS EstateMaster DF or DM 3.1 or higher, IA 2.1 or higher or HF 2.0 or higher.
- ARGUS EstateMaster Enterprise Database installed and configured on your network (SQL Server 2012 (SP3) to 2019 or SQL Express Edition).

Note to Apple Mac Users: ARGUS EstateMaster CC can only run on Mac's via a Windows Virtualization tool such as VMWare or Parallels.

Part III

2 Starting the Application

2.1 The Application Launchpad

The entire ARGUS EstateMaster software suite now operates from a central launcher that is loaded from a single shortcut within Windows:

- Once loaded, you can select your installed applications, and it will display a list of files recently opened and saved by the user.
- There are also shortcuts to our extensive Sample File Library, Operations Manual and Training Courses Booking page on our website.
- For those applications not yet installed on the machine, there is information to learn more about them and even links to downloading a free trial .
- Live web content at the bottom also displays frequently updated update alerts, important news and other items of interest, such as the release of new training courses or tutorial videos.

Starting ARGUS EstateMaster

1. In Windows go to the [Start] → [Programs] → [EstateMaster] → and click on 'EstateMaster'



2. The ARGUS EstateMaster Application Launchpad will appear. If this is the first time you have come to this screen, it will provide you with a quick demonstration on how it works.







2.2 Product Tabs

The tabs for each ARGUS EstateMaster product will display different information, depending on whether it is installed on the active machine or not. To customise the experience for each user, each time the Application Launchpad is started, it will always revert to the last tab selected by that user on that machine.

Software is Installed

When the ARGUS EstateMaster CC software is installed on the active machine, the following will be displayed on the product tab:

- Details of the currently connected Enterprise Database on the active machine.
- A [Configure Connection] button to start the Enterprise Database Management Utility
- A [Run] button to start the ARGUS EstateMaster CC application.
- Links to view the Training Course online booking site or open the User Manual (PDF).

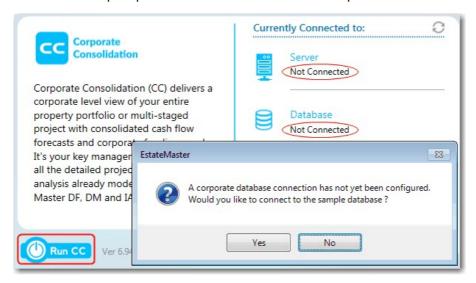


Using the Sample Database

When ARGUS EstateMaster CC is first installed, a Sample Database is also installed with it, along with SQL Express LocalDB (a lightweight database engine used to access the sample data).

No configuration is required to connect to it:

- If there is currently no connection configured to a permanent corporate database, when the [Run CC] button is clicked, the user will be prompted to launch the Sample Database instead.
- If 'Yes' is clicked, then ARGUS EstateMaster CC will attempt to start, using the Sample Database.
- If the application has issues with accessing the database engine to open the Sample Database, the user will be prompted to download and install SQL Express LocalDB.



Once ARGUS EstateMaster CC is started using the Sample Database, a large 'sample data' watermark will appear in the application as a visual reminder.



You can use the <u>'Import EM File'</u> function to import your own ARGUS EstateMaster cash flows into the sample database. However it is important to note, that the **sample database will be reset** on future updates to ARGUS EstateMaster CC, and any additional data imported into it will be lost.

Software is not Installed

When the ARGUS EstateMaster CC software is not installed on the active machine, the following will be displayed on the product tab:

- A brief summary of the product, with links to a demonstration video, software data sheet and contact details.
- A link to download a 14-day free trial of the software.



2.3 Connecting CC to Enterprise Database

Before running the ARGUS EstateMaster CC software for the first time, it may need to be configured to connect to the ARGUS EstateMaster Enterprise Database. This is the database that contains all the Cash Flow data that users of ARGUS EstateMaster DF, DM, HF and IA export to.

In the 'CC' tab, click [Configure Connection] to switch to the Enterprise Database Management Utility.



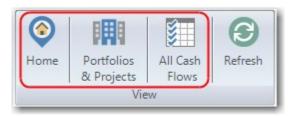
Part IIII

3 Navigation

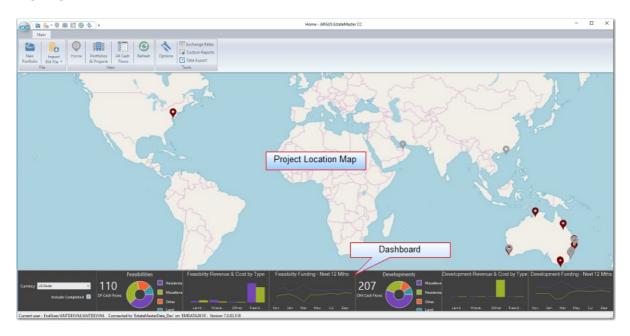
There are 3 main views you can navigate to in ARGUS EstateMaster CC:

- <u>Home</u>: Comprises of a Map to show the location of all Projects in the Database, and a high-level dashboard.
- <u>Portfolios and Projects</u>: The main view where all the Projects and their Individual Cash Flows can be grouped into Portfolios, and reports and dashboards generated for them.
- All Cash Flows: View the entire list of Cash Flows that exist in the Enterprise Database.

These views can be toggled via the Ribbon Menu



3.1 Home



Project Location Map

The Project Location Map indicates the geographic location of each Project that exists in the database, where a <u>geolocation</u> for it has been set. Each location will defined by one of two markers:

- Indicates Projects that are deemed to be 'in progress' (i.e not completed).
- Indicates Projects that are deemed to be 'completed'.

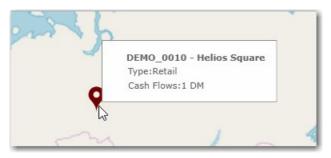
A Project is still in progress / not completed, where it has at least one of the following Cash Flows in it:

- A DF/HF/IA Cash Flow, where the Cash Flow Start Date is before the current month.
- A DM Cash Flow, where the Cash Flow End Date is before the current month.

Project GeoLocations

- When a new Project is created in the database and DF/DM/IA/HF Cash Flows have been exported into it, ARGUS EstateMaster CC will attempt to find the geolocation (i.e. the latitude/longitude coordinates) for that Project for the purpose of displaying it on a map.
- It uses the address details that were initially entered in the 'Intro' tab of the Cash Flow as the basis for querying its geolocation using the OpenStreetMap platform.
- In some circumstances, a geolocation cannot be determined, or it may be inaccurate. Therefore there is the ability to adjust it for a Project via the Project Settings

If you hover over a location pin, you can view details about that Project.

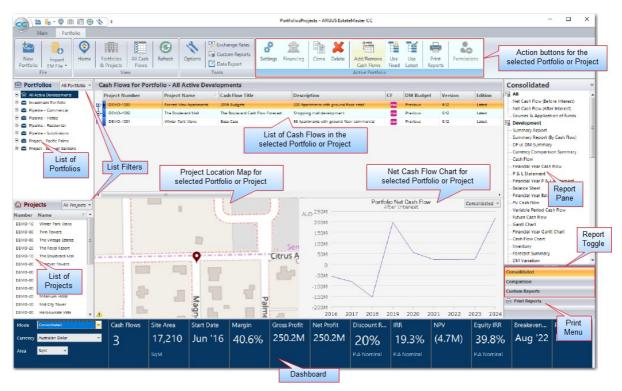


If you double-click a location, it will take you to that Project in the Portfolios and Projects screen.

Dashboard

The Dashboard on the Home screen provides a high-level view of the Cash Flow data that exists in the Enterprise Database for Feasibilities (Cash Flows modelled in ARGUS EstateMaster DF) and Developments (Cash Flows modelled in ARGUS EstateMaster DM).

3.2 Portfolios and Projects



List of Portfolios

This pane lists all Portfolios in the Enterprise Database.

- When a Portfolio is selected, it will show the Cash Flows that exist in the Portfolio in the centre of the screen (List of Cash Flows) and display the outputs for the Portfolio in the Dashboard.



• When right-clicking a Portfolio, a context menu will appear with certain functions.

List of Projects

This pane lists all Projects in the Enterprise Database.

- When a Project is selected, it will show the Cash Flows that exist in the Portfolio in the centre of the screen (List of Cash Flows) and display the outputs for the Project in the Dashboard.
- To sort the list of Projects either by 'Number' or 'Name', click on the relevant header.



• When right-clicking a Project, a menu will appear with certain functions.

List Filters

There are 2 filters for the Portfolio List and the Project List. They allow the user the either show:

- All Portfolios/Projects that exist in the database, irrespective of who created them, or
- My Portfolios/Projects, being those 'created' by the current user of ARGUS EstateMaster CC.



A user is a 'creator':

- Of a Portfolio when they create that Portfolio within ARGUS EstateMaster CC.
- Of a Project when they export the <u>first</u> Cash Flow for that Project in the Enterprise Database and they are prompted to 'Add new project to database' during the export process.

 Add new proje 	ect to database	Append to existing project
Project Number:	P1000	
Project Name:	Project Title	

List of Cash Flows

The centre of the screen displays the list of the Cash Flows in the selected Project/Portfolio.

- When a Portfolio is selected, it will list all the Cash Flows that exist in that Portfolio.
- When a Project is selected, it will list all the Cash Flows that exist in that Project. For those Cash Flows, the user can:
 - o Drag-and-drop them to any of the Portfolios listed.
 - o Drag-and-drop them to another Project listed.
- By clicking on any of the column headers in the list, you can sort the records appropriately.
- By selecting on any of the column headers in the list (except 'Project Number', 'Project Name' and 'Cash Flow Title'), you can move and change the order in which they appear in the grid.
- If a exists next to a Cash Flow in the list, it means that there are multiple versions of a specific Cash Flow (Cash Flows that have an identical 'Cash Flow Title') stored in the Enterprise Database. By clicking and expanding the Cash Flow, an additional sub-list will appear for that specific Cash Flow.
- When right-clicking a Cash Flow while a Portfolio is selected, a menu will appear with certain functions.

Project Location Map

This displays the geolcation of each Project, if it has been set.

• When a **Portfolio** is selected, it will show the location of each Project in that Portfolio.





• When a Project is selected, it will show the location of that single Project.

If a location has not been set for a Project, a warning will appear at the bottom-left of the map. This can be rectified by going to the <u>Project Settings</u>, and setting the geolocation using a dynamic map.



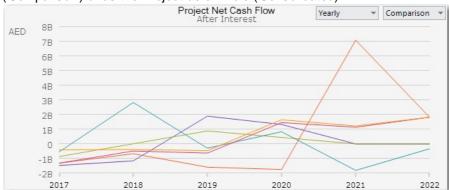
Net Cash Flow Charts

This displays a Net Cash Flow Chart for the selected item.

- When a **Portfolio** is selected, it will show a Portfolio Net Cash Flow Chart:
 - o It can be viewed on a Monthly/Quarterly/Monthly basis.
 - It can be toggled to represent each Project in that Portfolio as a separate cash flow line ('Comparison') or as the Portfolio as a whole ('Consolidated)



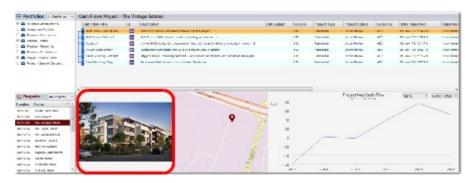
- Important Note: If Portfolio Financing is enabled for a Portfolio, then a Net Cash Flow Before Interest chart will be displayed.
- When a **Project** is selected, it will show a Project Net Cash Flow Chart:
 - o It can be viewed on a Monthly/Quarterly/Monthly basis.



 It can be toggled to represent each Cash Flow in that Project as a separate cash flow line ('Comparison') or as the Project as a whole ('Consolidated)

Project Images (Project View Only)

When a Project is selected, this displays a carousel of images related to that Project.



By default, it will display images that have been imported from the the individual ARGUS EstateMaster DF/DM/HF/IA Cash Flow files for that Project, but at any time, you can right-click this carousel and either:

- Upload additional images (jpg, bmp, png or gif format).
- Delete existing images.



Report Pane

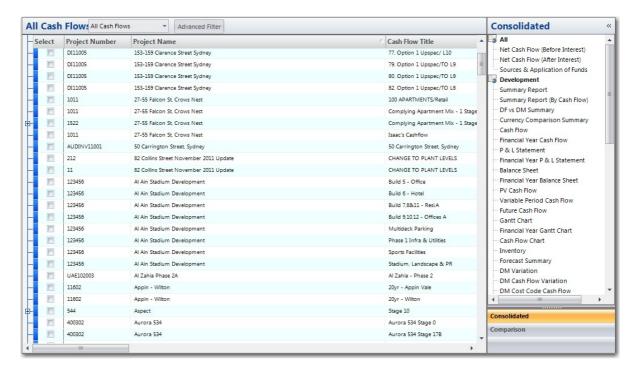
This pane is only available when a Portfolio is selected, and lists all the Reports that are available in the ARGUS EstateMaster CC.

- By clicking on the Consolidate/Comparison Report Toggle, the list of reports in the pane will change to reflect the options available.
- By double-clicking a Report, it will generate the report for the selected Portfolio (or group of Cash Flows)
- By clicking on Print Menu, it will load a form to allow the user to select multiple reports and print them directly to a printer or PDF for the selected Portfolio (or group of Cash Flows).

Dashboard

The Dashboard provides a snapshot of either a selected Portfolio, Project or Cash Flow, instantly displaying KPl's such as Profit, NPV, IRR, Breakeven Dates, etc, without needing to generate a report. There are several types of Dashboards, which are toggled using the two Dashboard Mode lists.

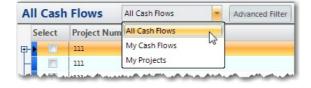
3.3 All Cash Flows



Filter Cash Flows (Basic)

There is a basic filter for the Cash Flow List that will allow the user the either show:

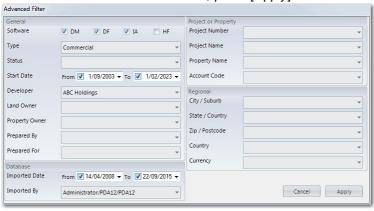
- All Cash Flows that exist in the database, irrespective of who created them, or
- My Cash Flows, being those 'created' by the current user of ARGUS EstateMaster CC, or
- My Projects, being those 'created' by the current user of ARGUS EstateMaster CC.



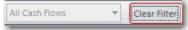
Filter Cash Flows (Advanced)

There is an advanced filter for the Cash Flow List that will allow the user to filter it based on numerous criteria. To use the 'Advanced' filter:

- Click on the [Advanced Filter] button. A form will load with a list of all the criteria that the user can
 filter the list on. For example, the screenshot below demonstrates the user wanting to filter the list
 and show only <u>DF</u> and <u>DM</u> Cash Flows of a <u>Commercial</u> development type in the suburb of
 <u>Docklands</u> by developer <u>ABC Holdings Pty Ltd</u>, added to the database by user <u>Administrator</u>.
- 2. Once the criteria has been selected, press [Apply].



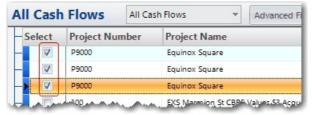
3. The Cash Flow list will then be applied (overriding any filter set by the basic drop-down filter). To clear the filter and show all the Cash Flows, press the [Clear Filter] button.



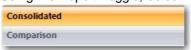
Print Reports

To print reports from a selection of Cash Flows:

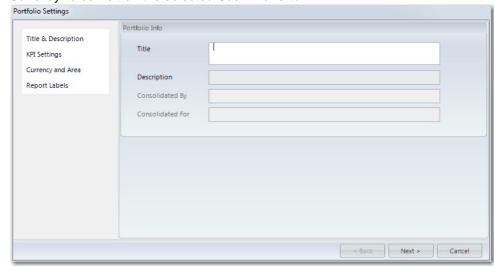
1. Select the Cash Flows using the check-boxes.



2. Using the Report Toggle, select whether a Consolidate or Comparison report is required.



- 3. From the list in the Report Pane, double-click the desired report.
- 4. To generate a report using this method, the system will Prompt the user to set some preferences for the reports. They will include:
 - a. Title and Description to display on the reports.
 - b. KPI Settings, as as IRR, NPV and Development Margin assumptions (for Summary Reports).
 - c. Corporate Equity (for Charts)



d. Currency to convert all the selected Cash Flows to.

5. Once the preferences have been set for the report, the report will then be generated.

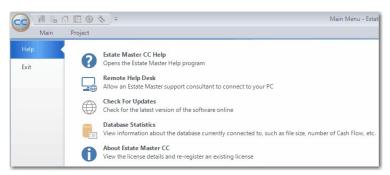
3.4 Menus and Toolbars

There are 4 main menus and toolbars in the ARGUS EstateMaster CC program:

- 1. The <u>Application Menu</u>: This is loaded by clicking on the round ARGUS EstateMaster CC icon at the top left of the program.
- 2. The Ribbon Menu: This is the main menu that appears at the top of the program.
- 3. Various Context Menus: Pop-up menus that appear when right-clicking certain objects.
- The <u>Quick Access Toolbar</u>: This is a small toolbar that contains some of the more commonly used functions.

3.4.1 Application Menu

The Application Menu is located in the top-left corner of the application window (indicated by the ARGUS EstateMaster CC icon) and provides the user with access to the various Help functions available in the program.



ARGUS EstateMaster CC Help

Open the ARGUS EstateMaster Help utility.

Remote Help Desk

Allow an ARGUS EstateMaster Support Officer to remotely connect to your PC/Server for troubleshooting and assistance. You must contact an ARGUS EstateMaster Support Officer before attempting any connection (Powered by TeamViewer

Check for Updates

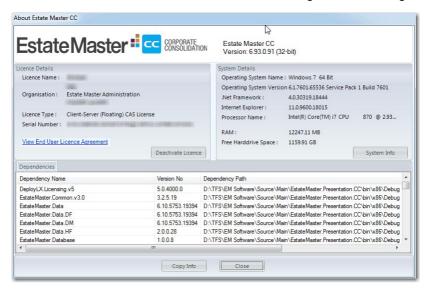
Checks for the latest version of the software online (requires internet connection). The user can set the program to automatically check fro software updates online on start-up, via the Options in the Tools menu.

Database Statistics

View information about the database currently connected to, such as file size, number of cash flows, etc.

About ARGUS EstateMaster CC

Allows the user to view the licence details and re-register an existing licence.



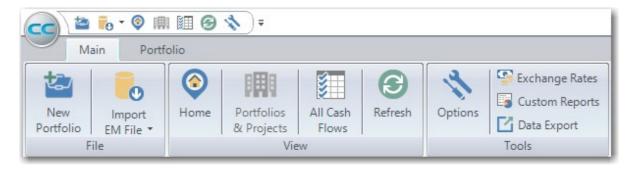
3.4.2 Ribbon Menu

The Ribbon Menu is located at the top of the application window and provides the user with the functions available in the program.

The Ribbon Menu has 3 definable parts:

- 1. The 'Main' tab: Functions that apply to entire application.
- The 'Active Portfolio' tab: Functions that apply to the currently selected Portfolio. They are identified by an aqua coloured menu button. These options are the same that are displayed when the user right-clicks a Portfolio.
- The 'Active Project' tab: Functions that apply to the currently selected Project. They are identified by an aqua coloured menu button. These options are the same that are displayed when the user right-clicks a Project.

Main Menu



File

New Portfolio Start the 'Create New Portfolio' wizard.

Import EM File Import data from ARGUS EstateMaster source files (DF, DM, HF and IA files).

View

Home Navigate to the <u>Home</u> screen.

Portfolios and Projects Navigate to the Portfolios and Projects screen.

All Cash Flows Navigate to the entire listing of all ARGUS EstateMaster Cash Flows stored in

the Enterprise Database.

Refresh Refresh the current view (e.g. list of Cash Flows that are displayed). This is

useful if there is a possibility that data is been exported into the Enterprise Database by one user, while another user has the ARGUS EstateMaster CC

program open.

Tools

Options View and edit the preferences and other settings that are used in the ARGUS

EstateMaster CC program, such as:

• **General:** Program-wide preferences, such as automatically checking for software updates online.

- Portfolio Defaults: Allows the user to edit the default preferences that
 are used in the Portfolios for generating reports. Once a Portfolio is
 created, the user can then edit the specific preferences for the
 selected Portfolio.
- **Report Preferences**: Allows the user to edit the settings for generating some of the reports.
- Permissions: Allows the user to set apply a Permissions/Security layer over the Enterprise Database that the ARGUS EstateMaster CC program is connected to.

Exchange Rates View and edit the exchange rates for defined currencies in the system, as

well as add new currencies and their respective exchange rates.

Custom Reports Create <u>custom reports</u> using Microsoft's SQL Server Report Builder

Data Export any data that exists in the Enterprise Database, to a flat file, either on

a scheduled or ad-hoc basis

Active Portfolio Menu



Settings

Edit the preferences, such as KPI Settings and Currency, specific to that Portfolio. The 'Portfolio Settings' wizard will then appear to allow the user to

reset them.

Financing Edit the Portfolio Financing Cash Flow (manually inject/repay equity and debt

and interest rate variations), specific to that Portfolio. The 'Manual

Adjustments' screen will appear to allow the user to edit the Financing Cash

Flow.

Clone Create a copy of the selected Portfolio, including all the Cash Flows it

contains, and its settings.

Delete Remove the Portfolio from the system. This does not delete any Cash Flows

from the database, it just deletes the defined Portfolio and its settings and

leaves the Cash Flows that existed in it intact.

Add/Remove Cash

Flows

Load the screen that allows the user to add/remove Cash Flows to/from the

Portfolio.

Use Fixed This ensures that the Cash Flows currently in that Portfolio are fixed to that

Portfolio and that the Portfolio is not automatically updated when a new version of any on of those Cash Flows are exported to the Enterprise Database. This is used when you want to lock-down a Portfolio with the

current set of Cash Flows in it.

Use Latest This ensures that always the latest version of all Cash Flows are used for that

Portfolio and for reporting purposes. This only applies when there are multiple versions of a specific Cash Flow (Cash Flows that have an identical 'Cash

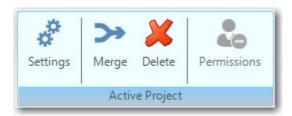
Flow Title') stored in the Enterprise Database.

Print Reports Load the Print Menu for that Portfolio.

Permissions Load the Portfolio Permissions editor. This will only be enabled if Security

Permissions have been enabled.

Active Project Menu



Settings Allows the user to edit the settings of the Project, such as Project

Number/Name and Geo Location.

Merge the selected Project with another one. This will 'move' the Cash Flows

in that selected Project to another, and then delete the empty Project.

Delete Removes the Project from the system, as long as there are now Cash Flows

existing in it. If the Cash Flows are to be deleted as well, then they must be

deleted first before attempting to delete the Project they belong to.

Permissions Load the <u>Project Permissions</u> editor. This will only be enabled if <u>Security</u>

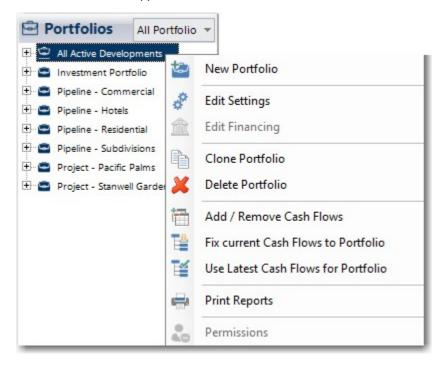
Permissions have been enabled.

3.4.3 Context Menus

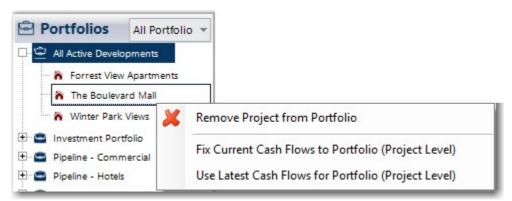
Context Menus pop up when right-clicking certain objects, offering a list of options which vary depending on the item selected.

Portfolio Pane

When right-clicking a Portfolio in the Portfolio Pane, the following context menu will appear. It has the same functions that appear in the 'Active Portfolio' Ribbon Menu.



When right-clicking a Project under a Portfolio, the following context menu will appear. These have additional functions that relate solely to the Project.



Remove Project from Portfolio

Remove all the Cash Flows for the selected Project from the Portfolio. This does not delete any Cash Flows from the database, it just removes that Project and its Cash Flows as being part of that Portfolio.

Fix Current Cash Flows to Portfolio

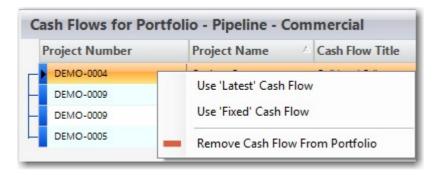
This ensures that all the Cash Flows currently in that Portfolio for that Project are fixed to that Portfolio and that the Portfolio is not automatically updated when a new version of any on of those Cash Flows are exported to the Enterprise Database.

to Portfolio

Use Latest Cash Flows This ensures that always the latest version of all Cash Flows for that Project are used for that Portfolio and for reporting purposes. This only applies when there are multiple versions of a specific Cash Flow (Cash Flows that have an identical 'Cash Flow Title') stored in the Enterprise Database.

Portfolio Cash Flow List

When right-clicking an item in the Portfolio Cash Flow List, the following context menu will appear.



Use 'Latest' Cash Flow This ensures that always the latest version of the selected Cash Flow is used in that Portfolio and for reporting purposes. This only applies when there are multiple versions of the selected Cash Flow (Cash Flows that have an identical 'Cash Flow Title') stored in the Enterprise Database.

Use 'Fixed' Cash Flow

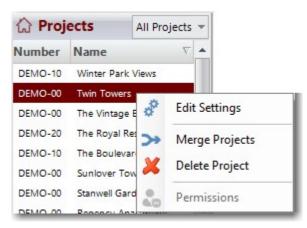
This option allows the user to select a historical version of the selected Cash Flow to be used in that Portfolio and for reporting purposes. Therefore, any subsequent updates to that Cash Flow (exported from DF/DM) will be ignored for that Portfolio, and only the selected version of that Cash Flow will be used.

Remove Cash Flow from Portfolio

Remove the selected Cash Flow from the Portfolio. This does not delete any Cash Flows from the database, it just removes that Cash Flow as being part of that Portfolio.

Project Pane

When right-clicking a Project in the Project Pane, the following context menu will appear. It has the same functions that appear in the 'Active Project' Ribbon Menu.



Project Cash Flow List

When right-clicking an item in the Project Cash Flow List, the following context menu will appear.



Delete Cash Flow

Deletes the selected Cash Flow from the Enterprise Database permanently.

3.4.4 Quick Access Toolbar

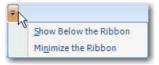
The Quick Access Toolbar is located in the top-left corner of the application window and provides the user with shortcuts to the various functions available in the program.



Customising the Quick Access Toolbar

You cannot add/remove items on the Quick Access Toolbar, however you can change where it is displayed.

• To move the Toolbar below or above the Ribbon: Click on the arrow icon 🗷 and select [Show Below/Above the Ribbon]



Part ()

4 Working with Portfolios

The Portfolio is the highest hierarchical group in the ARGUS EstateMaster CC program. They are user-definable groups that contain numerous Cash Flows for reporting purposes, either on a consolidated or comparative basis. A Cash Flow can be in more than one Portfolio. Portfolios can only be created and managed from within the ARGUS EstateMaster CC program.

4.1 Portfolio Defaults

The Portfolio Defaults are the default settings that will be initially loaded when creating a new Portfolio.

During the 'Create New Portfolio' wizard, the user can then change these settings to suit the individual Portfolio.

Once a Portfolio is created, the settings can be further edited by using the 'Edit Portfolio Settings' function.

To edit or view these defaults click [Tools] → [Options] → [Portfolio Defaults].



Preference Permissions

If <u>Security Permissions</u> have been enabled on your ARGUS EstateMaster CC, then each preference setting will have its own protection toggle.

- Indicates that the current Preference is locked, and cannot be changed.
- Indicates that the current Preference is unlocked, and can be changed.

If the user currently running ARGUS EstateMaster CC is in the 'Administrator Group' and has 'Full Control', then these buttons will be enabled and the the user can change the permissions settings for each preference. For all other users, these buttons will be disabled, and they will not be able to change the permission setting, regardless of their permission level on Portfolios or Projects.

4.1.1 KPI Defaults

- Corporate Discount Rate: The discount rate to apply to the whole Portfolio consolidated cash flow for calculating the Net Present Values. There are 3 discount rates available:
 - 1. Development Discount Rate: applied to Development (ARGUS EstateMaster DF and DM) cash flows.
 - 2. Investment Discount Rate: applied to Investment (ARGUS EstateMaster IA) cash flows.
 - 3. Hotel Discount Rate: applied to Hotel (ARGUS EstateMaster HF) cash flows.



Each Discount Rate can also have its own method of conversion from the annual discount rate to the monthly discount rate. The difference is given in the following formulae:

- Nominal Conversion = D/12
- o Effective Conversion = $[(D + 1)^{1/12}]-1$

Where: D = is the annual discount rate.

Important Note:

- It is imperative that a universal usage for the conversion of the discount rate be adopted for all evaluations.
- The first formula simply divides the annual discount rate by 12 while the second formula is the
 effective conversion and takes into account the compounding on a monthly basis.
- The choice between these two methods of conversion only affects the NPV and IRR calculation - not the development margin.
- IRR Assumption: The calculation method for the Internal Rate of Return and Net Present Value. They can be calculated on the Cash Flow that:
 - 1. Excludes financing costs, interest and corporate tax.
 - 2. Includes financing costs but excludes interest and corporate tax.
 - 3. Includes financing costs and interest but excludes corporate tax. *
 - 4. Includes financing costs, interest and corporate tax. *
 - 5. Includes corporate tax but excludes financing costs and interest.
 - * These options are generally not recommended, as discounting an 'after interest' cash flow is a form of double-counting interest cost.



- **Development Margin Assumption**: The calculation method for the Development Margin in development (ARGUS EstateMaster DF and DM) cash flows. It is the ratio of Development Profit to either:
 - 1. Total Costs (after Tax Reclaimed). You can select whether or not Selling Costs and/or Leasing Costs are included as part of the total costs.
 - 2. Total Revenue (net of Tax Payments)
 - 3. Total Net Sale Proceeds (net of Tax Payments and Selling Costs)



4.1.2 Financing

- **Consolidated Financing:** This is the default setting for applying <u>Portfolio-Level Financing</u> for Consolidated reporting purposes (e.g consolidating stages of a project). The 2 options are:
 - 1. Use Financing from Individual Cash Flows: For all cash flows that exist in a Portfolio, assume they are independently financed, as per the Financing calculations and results in their individual models, and that each cash flow has no financing impact on any other model in the Portfolio (e.g. the profit in one cash flow is not used to fund a later stage).
 - 2. Apply Portfolio-Level Financing: For all cash flows that exist in a Portfolio, ignore all Financing calculations and results in their individual models, and apply a centrally controlled financing structure within ARGUS EstateMaster CC to fund the consolidated cash flow.



• Interest Rates: This is the default interest rates to be used by Loan 1 and the Senior Lender if Portfolio-Level financing is applied.

The Interest Rates also have a method of conversion from the annual interest rate to the monthly interest rate. The difference is given in the following formulae:

- Nominal Conversion = i/12
- o Effective Conversion = $[(i + 1)^{1/12}]-1$

Where: i = is the annual interest rate.



4.1.3 Currency and Area

Portfolio Currency: The default base currency to be used for all reporting in the Portfolios. If
Cash Flows in a Portfolio are based on different currencies (ie a DM Cash Flow in Australian
Dollars and a DF Cash Flow in Euros), then this setting will convert all Cash Flows to a common
currency for reporting purposes.



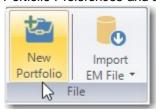
• Portfolio Area Measurement: The default unit of area measurement to be used for all reporting in the Portfolios. If Cash Flows in a Portfolio are based on different units of measurement (ie a DM Cash Flow in Sqm and a DF Cash Flow in SqFt), then this setting will convert all Cash Flows to a common area for reporting purposes.



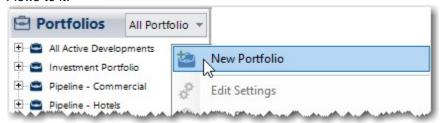
4.2 Creating Portfolios

There are 3 main ways of creating a Portfolio:

1. **From the Ribbon Menu**: Go to [File] → [New Portfolio], and follow the prompts to set the Portfolio Preferences and add the Cash Flows to it.

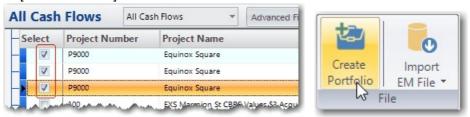


2. From the Portfolio Pane Context Menu: Right-click the Portfolio Pane and select [New Portfolio] from the menu and follow the prompts to set the Portfolio Preferences and add the Cash Flows to it.



3. From the 'All Cash Flows' Screen: Select a group of Cash Flows from the list and go to [File]

→ [Create Portfolio] from the ribbon menu.

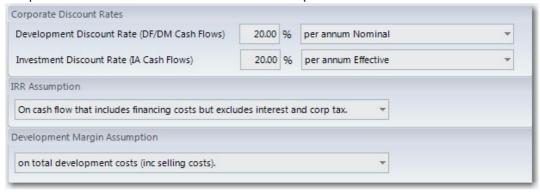


The New Portfolio Wizard

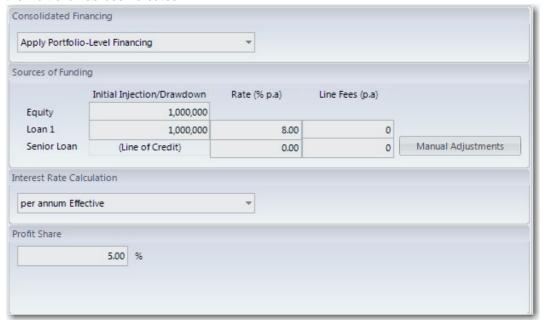
- 1. The 'Portfolio Settings' wizard will then appear. Some of these settings will be pre-loaded with a default setting as set by the user in the <u>Portfolio Defaults</u>. The user will have to complete each step of the wizard to customise the settings for that particular Portfolio. They comprise of:
 - a. Title & Description: Enter the title for the Portfolio, a brief description of it, who the Portfolio has been created by and who the Portfolio has been created for. This information will appear on reports.



b. **KPI Settings**: These are the settings that have been preset in the <u>Portfoilio Defaults</u>. It is at this point that the user can customise them for this particular Portfolio.



c. Financing: Some of these settings have been preset using the <u>Portfolio Defaults</u>, and can be reset for this particular Portfolio here. In addition, if the user is adopting <u>Portfolio-Level Financing</u>, they can set the funding limits for Equity and Loan 1 contributions and Line Fee payments for Loan 1 and Senior Loan. The <u>'Manual Adjustments'</u> feature will be enabled once the Portfolio has been created.



d. Corporate Equity: The notional Equity limit for the Portfolio to track against the actual equity utilised by the Cash Flows in the Portfolio. This is used in the 'Equity Cash Flow' chart report.



e. **Currency and Area**: This setting has been preset using the <u>Portfolio Defaults</u>, and can be reset for this particular Portfolio here. Set the currency and area measurement for the Portfolio. All Cash Flows in the selected Portfolio will have all its Cash Flows converted to these settings, regardless if the Cash Flows have a mixture of differing currencies and area

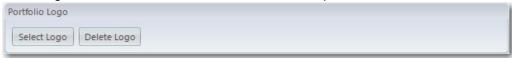
measurements.



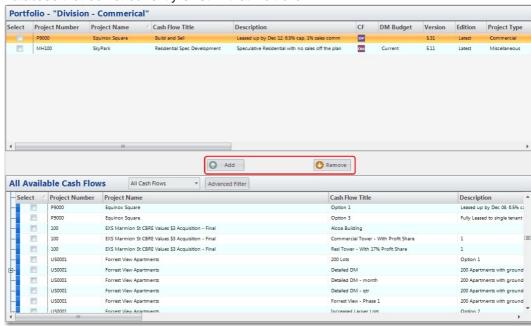
f. Report Labels: In the DF/DM Cash Flow models, the user has the ability to overwrite the headings in the 'Statutory Fees' and the 3 'Miscellaneous Costs' sections. By default, those headings will appear on all the reports in ARGUS EstateMaster CC if all the Cash Flows in the selected Portfolio have the same headings for these sections (i.e. they are consistent). If they are not consistent (i.e on one Cash Flow the user had overwritten 'Miscellaneous Cost 1' heading with 'Landscaping' and then on another Cash Flow in the Portfolio, that same section was entered as 'Infrastructure'), then the program will use the default headings. The user then has the option via this setting overwrite the headings with their own custom labels for reporting in ARGUS EstateMaster CC. This does not update the individual DF/DM Cash Flow models, it is only used for reporting.



- g. **Portfolio Logo**: Select an image or logo for this particular Portfolio. It will appear on the Title Page for the Portfolio, in addition to the Company Logo (if selected).
 - i. Only Bitmap, PNG, JPEG or GIF files can be inserted.
 - ii. There are no file/image size restrictions.
 - iii. The program will automatically downscale the image if it is too large to fit in the allocated area.
 - iv. If the image is smaller than the allocated, it will not be upscaled to avoid distortion.



- 2. Once the user has completed the 'Portfolio Settings' wizard, the program will take them to the 'Edit Portfolio' screen. This screen is split into two grids:
 - a. Portfolio: Displaying the Cash Flows that exist in the Portfolio.

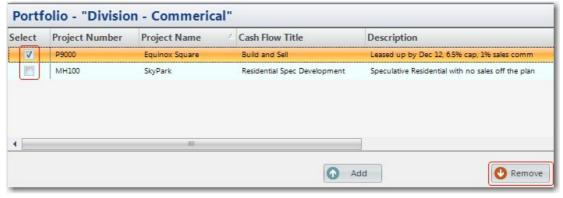


b. **All Available Cash Flows**: Displaying all the Cash Flows that exist in the Enterprise Database that do not currently exist in that Portfolio.

3. In the 'All Available Cash Flows' screen, select the Cash Flows that to add to the Portfolio and click on [Add].



4. If a Cash Flows has been added by mistake, select the Cash Flow in the top half of the screen and click [Remove].



5. Once the Cash Flows have been added, click on [Portfolios and Projects] and the program will return to the screen with the new Portfolios listed.

4.3 Portfolio Financing

When a cash flow is initially created in ARGUS EstateMaster DF, DM, HF or IA, it is

Independently Financed Cash Flows

independently financed, meaning that financing calculations and results in an individual model are based on the costs and revenues in that specific model only and are not impacted by other models, irrespective if it is part of a larger project or consolidated entity.

For example, if there are 2 ARGUS EstateMaster DM models representing 2 stages in a project:

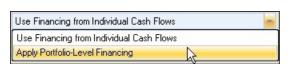
- The Equity and Debt contributed in the 'Stage 1' model will only be used to fund the costs that exist in that model (i.e. stage) only,
- If there is any profit in the 'Stage 1' model, it is not not used to fund costs for the 'Stage 2' model, and
- If there is any loss in the 'Stage 1' model, it cannot be funded by the financing in the 'Stage 2' model.

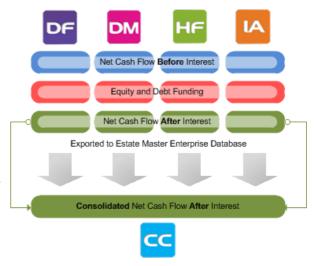
When grouping these 2 cash flows in ARGUS EstateMaster CC in a Portfolio, the consolidated reporting (Reports and Dashboards) will therefore be based on the 2 stages being independently.

This may be sufficient in some circumstances, however there may be a need to view the performance of a group of cash flows where a common financing structure needs to be applied to the consolidated Net Cash Flow Before Interest.

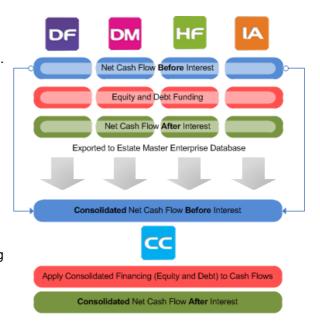
The **Consolidated Financing** function (also referred to as Portfolio-Level Financing), provides the user with the ability to ignore all financing calculations and results in the individual ARGUS EstateMaster DF, DM, HF or IA cash flows, and apply a a centrally-defined financing structure within ARGUS EstateMaster CC to fund the consolidated cash flow.

To enable Consolidated Financing for a Portfolio, select the 'Apply Portfolio-Level Financing' option either when initially creating the Portfolio or editing the Portfolio settings after it has been created.





Portfolio-Level Financed Cash Flows



Important Note: When this option is enabled, all financing calculations and results (funding limits, interest and fees charged on loans, profit share paid to lenders, etc) in the individual ARGUS EstateMaster DF, DM, HF or IA cash flows are completely ignored and a new financing scenario is applied over the consolidated Net Cash Flow Before Interest when viewing Consolidation Reports and Dashboards. It has no impact on Comparison Reports and Dashboards, where independent financing is maintained.

4.3.1 Financing Settings

Sources of Funding

When Consolidated Financing is enabled, you will be able to apply the following sources of funding to the Portfolio:



Equity

- An upfront Equity injection can be defined in the Funding Limit, with the user being able to make further manual injections if required.
- By default, equity will start to be repaid once the Senior Loan and Loan 1 has been paid back, however the user can make manual repayments if required.

Loan 1

- This source of funding is optional.
- A Funding Limit for Loan 1 can be defined and it is automatically progressively drawn down after the defined upfront Equity limit has been reached, with the user being able to make further manual drawdowns if required.
- By default, this loan will start to be repaid once the Senior Loan has been paid back, however the user can make manual repayments if required.
- An annual Line Fee can be applied to this loan, which is paid monthly in arrears during the period of debt.
- An annual Interest Rate can be applied to this loan, either on a nominal or effective basis. The Interest Rate can be manually varied through the life of the loan.

Senior Loan

- This acts as an overdraft facility, and will fund costs that have not been funded by Equity or Loan 1.
- Being the 'senior loan', by default it will be repaid back first, unless any manual repayments have been made to Equity or Loan 1.
- An annual Line Fee can be applied to this loan, which is paid monthly in arrears during the period of debt.
- An annual Interest Rate and Line Fees can be applied to this loan, either on a nominal or effective basis. The Interest Rate can be manually varied through the life of the loan.

Interest Rate Calculation

This is the method for converting the Interest Rates from an Annual to a Monthly equivalent (as the Consolidated Financing cash flow is based on monthly rests).

- Nominal Conversion = D/T
- Effective Conversion = [(D + 1)1/T]-1

Where:

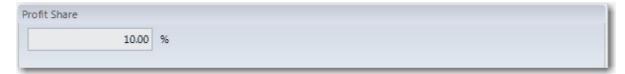
D = is the annual interest rate.

T =The number of rest periods per annum (i.e Monthly = 12)



Profit Share

This is a fixed percentage for a percentage of profit to be distributed (e.g to the Land Owner or other investor) at the end of the project as a lump sum.



4.3.2 Manual Adjustments

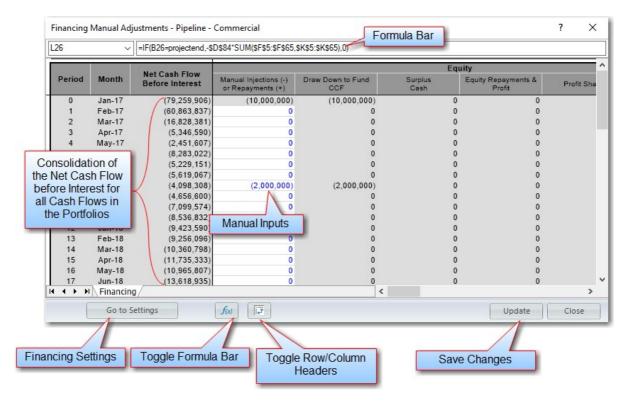
Once the Finance Settings have been set, the user may wish to make manual adjustments to the Financing cash flow, including:

- Equity injections and repayments.
- Loan 1 draw downs and repayments.
- Interest Rate variations for Loan 1 and Senior Loan.

To make manual adjustments to the financing items, click the Manual Adjustments button located on the Financing Settings screen, which will load a new window.

All input cells are identified by blue font on a white background. All other cells are calculation cells and are locked.

This window has a spreadsheet input interface, meaning the user can actually type in formulas into the input cells and even link to other parts on the financing cash flow.



Equity

- Manual Injections (+) or Repayments (-): The upfront amount as defined in the Financing Settings is injected in the first time period. In all other time periods, the user can enter a manual injection (positive number) or repayment (negative number).
- **Drawdown to Fund CCF:** This column shows what funds are drawn down from the Surplus Cash account to fund the cash flow.
- **Surplus Cash:** When equity is injected into a Portfolio, it first feeds into the Surplus Cash account and is then drawn upon from there.
- Equity Repayments and Profit: Once the Portfolio starts to make revenue and all the loans are repaid, repayments to equity will be shown here.
- Profit Share: This is profit share that is paid at the end of the project based on a percentage as
 defined in the Financing Settings.
- Equity Cash Flow: This shows the inflows and outflows of equity in the Portfolio.

Loan 1

- Manual Drawdowns (-) or Repayments (+): In all time periods, the user can enter a manual drawdown (negative number) or repayment (positive number).
- **Drawdown:** This shows the amount being drawn down for Loan 1, taking into consideration any manual drawdowns.
- Interest Rate: The initial interest rate as defined in the Financing Settings is shown in the first time period. In all other time periods, the user can enter vary the interest rate manually.
- Interest Charged: The amount of capitalised interest calculated each period.
- Line Fees: The monthly fee paid in arrears during the period of the loan. It is based on the annual fee as defined in the Financing Settings.

- **Repayment:** This shows the amount being repaid to Loan 1, taking into consideration any manual repayments.
- Loan Balance: The remaining balance on the loan, including any capitalised interest and fees.

Senior Loan

- **Drawdown:** This shows the amount being drawn down for the Senior Loan. It cannot be manually adjusted, as it automatically draws down the balance of funds once both Equity and Loan 1 have been exhausted.
- Interest Rate: The initial interest rate as defined in the Financing Settings is shown in the first time period. In all other time periods, the user can enter vary the interest rate manually.
- Interest Charged: The amount of capitalised interest calculated each period.
- Line Fees: The monthly fee paid in arrears during the period of the loan. It is based on the annual fee as defined in the Financing Settings.
- **Repayment:** This shows the amount being repaid to the Senior Loan. It cannot be manually adjusted.
- Loan Balance: The remaining balance on the loan, including any capitalised interest and fees.

Manual Adjustment Rules

When making manual adjustments to the financing, there are certain rules that will dictate what can and cannot be entered into an input cell for a certain time period. These rules are:

- 1. You cannot manually repay equity more than the available revenue (positive net cash flow) for a specific month.
- 2. You cannot manually repay Loan 1 more than the available revenue (positive net cash flow) for a specific month.
- 3. You cannot manually draw down for Loan 1 more than the required amount, that is the sum of costs (negative cash flow) and outstanding balance on the Senior Loan.

If any of these input rules are breached, the input cell background will become red and a warning will appear to the user when they try and 'update' the database with the changes.

Period	Month	Net Cash Flow Before Interest	Manual Injections (-) or Repayments (+)	Draw Down to Fund CCF
11	Apr-08	(7,825,757)	(2,000,000)	(2,000,000)
12	May-08	1,828	0	0
13	Jun-08	35,461	100,000	0

Changing Portfolios that have Manual Adjustments

If a change is made to a Portfolio, and Manual Adjustments have been made to the Consolidated Financing structure for that Portfolio, the user will receive a warning when they try and view the Consolidated Dashboard or Reports for that Portfolio. This will occur when:

- A Cash Flow is added to or deleted from the Portfolio.
- A Cash Flow that exists in the Portfolio is updated.
- The users toggles between 'Use Latest Cash Flow' and 'Use Fixed Cash Flow' for a Cash Flow that exists in the Portfolio.





Warning when generating a Consolidated Report

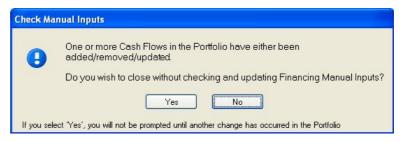
Warning when viewing Consolidated Dashboard

The warning is informing the user that one of the above changes in the Portfolio may be causing their manually inputted funding requirements to change, so it is recommending to check them. The user can ignore this warning, and it will not reappear until another change is made to a Portfolio.

Here are some examples of why the user would need to check their Manual Adjustments:

- A new Cash Flow has been added to the Portfolio, requiring additional Equity or Debt funding to be manually injected into the Portfolio Financing cash flow at certain time periods to fund the extra costs.
- A Cash Flow has been deleted from the Portfolio, reducing the requirement for Equity or Debt funding.
- A Cash Flow has changed in duration, possibly equity or debt funding in different time periods.
- A Cash Flow has been updated with a higher gross profit, meaning that either Equity or Loan 1 can be repaid faster with manual repayments.

If the user views the Manual Adjustments screen but makes no amendments to them, they will receive the following message to confirm that they wish to make no updates. The user can ignore this warning, and it will not reappear until another change is made to a Portfolio.



4.3.3 Impact on Reporting

When Consolidated Financing is enabled, it is important for the user to understand not only how it works but how it impacts the results in ARGUS EstateMaster CC such as the Reports and Dashboards.

As mentioned previously, it will only impact 'Consolidated' results, i.e. creating and reporting on a Portfolio. It will have no impact when using the 'Comparison' reporting, where the financing calculations and results from the individual ARGUS EstateMaster Cash Flows are maintained and used for reporting. Therefore, the financing results shown on a Consolidate Report for one Portfolio will most likely be different when viewing a Comparison Report for the same Portfolio. The reason behind this is that when Consolidated Financing is used it views the group of cash flows as one single consolidated cash flow, and therefore it cannot effectively apportion funding costs across the separate individual cash flows.

Below is an overview of the impact Consolidated Financing will have on reporting in ARGUS EstateMaster CC

Report	Applies To	Changes
Net Cash Flow After Interest	All (DF, DM, HF & IA)	 This is the Net Cash Flow <u>before</u> Interest plus the Loan 1 and Senior Loan Interest and Fees calculated from the Consolidated Financing.
		 All other Loan Fees and Interest Charges as calculated in the individual ARGUS EstateMaster Cash Flows are excluded.
Sources and Applications of Funds	All (DF, DM, HF & IA)	 'Total Equity' in 'Sources of Funds' is calculated from the Equity Injections in the Consolidated Financing.
Tunus		 Loan 1 and Senior Loan Draw downs in 'Sources of Funds' are calculated from the Loan Draw downs in the Consolidated Financing.
		 All Loan Draw downs for Loans 2 and 3 as calculated in the individual ARGUS EstateMaster Cash Flows are excluded from 'Sources of Funds'. 1
		 'Equity Distributions and Payments' in 'Application of Funds' is calculated from the Equity Repayments in the Consolidated Financing.
		 Loan 1 and Senior Loan Repayments in 'Application of Funds' are calculated from the Loan Repayments in the Consolidated Financing.
		 All Loan Repayments for Loans 2 and 3 as calculated in the individual ARGUS EstateMaster Cash Flows are excluded from 'Application of Funds'. 1
		 Profit Share is calculated from the Consolidated Financing settings. All other Profit Share to Land Owners and Lenders as calculated in the individual ARGUS EstateMaster Cash Flows are excluded. 1
		 All other Loan Fees and Interest Charges as calculated in the individual ARGUS EstateMaster Cash Flows are excluded.
Summary Currency	Development (DF & DM)	 'Interest Received' will exclude any 'Interest Received on Surplus Cash' calculated in the individual ARGUS EstateMaster Cash Flows.¹
Comparison Summary		 'Interest Charged on Equity' as calculated in the individual ARGUS EstateMaster Cash Flows is excluded. ¹
		 Fees and Interest Charges for Loan 1 and Senior Loan are calculated from the Consolidated Financing results.
		 All Fees and Interest Charges for Loans 2 and 3 as calculated in the individual ARGUS EstateMaster Cash Flows are excluded.
		 Profit Share is calculated from the Consolidated Financing settings. All other Profit Share to Land Owners and Lenders as calculated in the individual ARGUS EstateMaster Cash Flows are excluded. ¹
		 Performance Indicators are based on financing calculated from the Consolidated Financing.

Report	Applies To	Changes
	тършое то	If an ARGUS EstateMaster IA (Investment) Cash Flow is part of the Portfolio, this 'Development' (DF and DM Cash Flow) report will displayed be on a 'Pre-Funding' basis: No Fees and Interest Charges will be shown at all. Only the Profit and Development Margin performance indicators (prefunding) will be displayed.
Summary (By Cash Flow) DF vs DM Summary	Development (DF & DM)	 For all columns: 'Interest Received' will exclude any 'Interest Received on Surplus Cash' calculated in the individual ARGUS EstateMaster Cash Flow s. ¹ 'Interest Charged on Equity' as calculated in the individual ARGUS EstateMaster Cash Flow s is excluded. ¹ For the individual Cash Flow columns: All Fees and Interest Charges as calculated in the individual ARGUS EstateMaster Cash Flow s are excluded. ³ Only the Profit and Development Margin performance indicators (prefunding) will be displayed. ³ All other Profit Share to Land Owners and Lenders as calculated in the individual ARGUS EstateMaster Cash Flows are excluded. ³ For the Total/All column: Fees and Interest Charges for are calculated from the Consolidated Financing results. Profit Share is calculated from the Consolidated Financing settings. Performance Indicators are based on financing calculated from the Consolidated Financing. If an ARGUS EstateMaster IA (Investment) Cash Flow is part of the Portfolio, this 'Development' (DF and DM Cash Flow) report will displayed be on a 'Prefunding' basis: No Fees and Interest Charges will be shown at all. Only the Profit and Development Margin performance indicators (prefunding) will be displayed.
Cash Flow Financial Year Cash Flow PV Cash Flow Variable Period Cash Flow Gantt Chart Fin Year Gantt Chart	Development (DF & DM)	 'Interest Received on Surplus Cash' as calculated in the individual ARGUS EstateMaster Cash Flows is excluded. ¹ 'Interest Charged on Equity' as calculated in the individual ARGUS EstateMaster Cash Flows is excluded. ¹ Outputs (Draw downs, Repayments, Fees and Interest Charges) for Equity, Loan 1 and Senior Loan are calculated from the Consolidated Financing results. Outputs for Loans 2 and 3 as calculated in the individual ARGUS EstateMaster Cash Flows are excluded. ¹ Profit Share is calculated from the Consolidated Financing settings. All other Profit Share to Land Owners and Lenders as calculated in the individual ARGUS EstateMaster Cash Flows are excluded. ¹ If an ARGUS EstateMaster IA (Investment) Cash Flow is part of the Portfolio, this 'Development' (DF and DM Cash Flow) report will displayed be on a 'Pre- Funding' basis:

Report	Applies To	Changes
		No Fees and Interest Charges will be shown at all.
		o Only the Net Cash Flow before interest will be displayed.
Future Cash Flow	Development (DF & DM)	 Equity Injections and Repayments are are calculated from the Consolidated Financing results.
		 External Loan Fees area calculated from the Loan 1 and Senior Loan Fees in the Consolidated Financing results.
		 External Interest Charges area calculated from the Loan 1 and Senior Loan Fees in the Consolidated Financing results.
P & L Statement	Development (DF	No impact as these reports ignore Consolidated Financing and use the financing
Financial Year P & L Statement	& DM)	from the individual DF and DM Cash Flows.
Balance Sheet		
Financial Year Balance Sheet		
Cash Flow Chart		For the Consolidated Equity Cash Flow chart:
	& DM)	 The Equity Cash Flow is calculated from the Consolidated Financing results.
		 If an ARGUS EstateMaster IA (Investment) Cash Flow is part of the Portfolio, this 'Development' (DF and DM Cash Flow) chart will not be shown.
		For the Consolidated Cash Flow chart:
		 The Overdraft and Net Cash Flow lines are calculated from the Consolidated Financing results.
		 If an ARGUS EstateMaster IA (Investment) Cash Flow is part of the Portfolio, this 'Development' (DF and DM Cash Flow) chart will not be shown.
		For the Cost vs Revenue chart:
		 The Fees and Interest Charges that are included in the 'Costs' are calculated from the Consolidated Financing results.
		 If an ARGUS EstateMaster IA (Investment) Cash Flow is part of the Portfolio, this 'Development' (DF and DM Cash Flow) chart will be shown exclusive of Fees and Interest Charges.
Forecast Summary	Development (DF & DM)	 'Interest Received' will exclude any 'Interest Received on Surplus Cash' calculated in the individual ARGUS EstateMaster Cash Flows.¹
		 'Interest Charged on Equity' as calculated in the individual ARGUS EstateMaster Cash Flows is excluded.
		 Fees and Interest Charges for Loan 1 and Senior Loan are calculated from the Consolidated Financing results.
		 All Fees and Interest Charges for Loans 2 and 3 as calculated in the individual ARGUS EstateMaster Cash Flows are excluded.
		 All historical ² Fees and Interest Charges calculated from Consolidated Financing results will all be classified as a 'Cost to Date'.
		If an ARGUS EstateMaster IA (Investment) Cash Flow is part of the Portfolio, this 'Development' (DF and DM Cash Flow) report will displayed be on a 'Pre-Funding' basis and no Fees and Interest Charges will be shown at all.

Applies To	Changes
DM	The results for the 'Current Budget' only are based on Consolidated Financing.
	o 'Interest Received' will exclude any 'Interest Received on Surplus Cash'
	calculated in the individual ARGUS EstateMaster Cash Flows. 1
	 'Interest Charged on Equity' as calculated in the individual ARGUS EstateMaster Cash Flows is excluded. ¹
	 Fees and Interest Charges for Loan 1 and Senior Loan are calculated from the Consolidated Financing results.
	 All Fees and Interest Charges for Loans 2 and 3 as calculated in the individual ARGUS EstateMaster Cash Flows are excluded.
	 All other budgets (Original, Project and Previous) are based on separately financed Cash Flows.
	 If an ARGUS EstateMaster IA and/or DF Cash Flow is part of the Portfolio, this DM report will displayed be on a 'Pre-Funding' basis and no Fees and Interest Charges will be shown at all.
DM	 Only the financing costs calculated at the DM Cash Flow level are displayed in the Code/Description list for the user to select.
DM	 The Current Forecast results are based on Cash Flows financed at a consolidated Portfolio level, while all other Forecast/Budget results are based on separately financed Cash Flows
DM	 The Current Forecast results are based on Cash Flows financed at a consolidated Portfolio level, while all other Forecast/Budget results are based on separately financed Cash Flows
	DM DM

¹This financing feature is currently not available in Portfolio Financing, hence why it is currently excluded from cost calculations when Portfolio Financing is enabled, even though it may have been included at the individual Cash Flow financing level.

³This data cannot be displayed because there is no way to apportion the fees and interest charges calculated on a consolidated basis, across the individual cash flows.

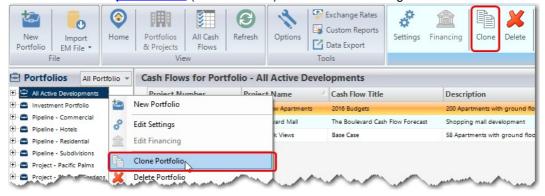
Dashboard	Applies To	Changes
Consolidate - Development	Development (DF & DM)	Same as 'Summary' report.

 $^{^2}$ A 'historical' cost is that which in the Cash Flow is forecasted to occur, or has occurred, prior to the time that the report is generated.

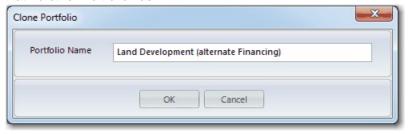
4.4 Cloning Portfolios

Cloning a Portfolio allows the user to create a 'copy' of an existing Portfolio (i.e. the Cash Flows that it is comprised of, its settings, permissions, etc) so that they can report on the same group of Cash Flows, but using different KPI settings (Discount Rate, IRR assumptions, etc), Financing structures, etc.

1. Select the Portfolio to be cloned and either right-click it and click 'Clone Portfolio' from the context menu, or click 'Clone' from the Ribbon menu. These buttons will only be enabled if the user has sufficient <u>permissions</u> ('Write' or 'Full') on the Portfolio being cloned.



2. When prompted, enter in a name for the new Portfolio being created. It must be a unique name that no other Portfolio has.



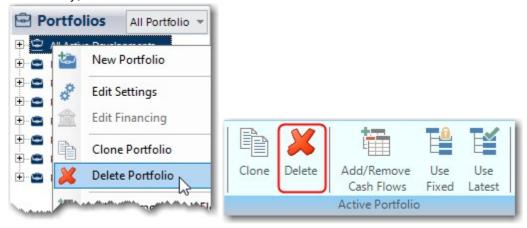
3. Click [OK] to conform the name. The new Portfolio will be created and following prompt will appear.



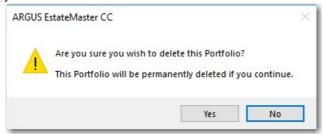
- a. If [Yes], the Portfolio settings will appear for the new Portfolio will load so they can be adjusted if required.
- b. If [No], it will return the user to the Home screen with the new Portfolio activated

4.5 Deleting Portfolios

1. In the Portfolios pane, right-click the Portfolio you want to delete and click 'Delete Portfolio'. Alternatively, click on the 'Delete' button in the 'Active Portfolio' Ribbon Menu.



2. The following message will appear, confirming that the Portfolio will be permanently deleted if you continue.

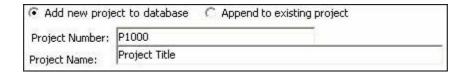


3. If [Yes] is clicked, the Portfolio will be removed. Please Note this does not delete any Cash Flows from the database, it just deletes the defined Portfolio and its settings and leaves the Cash Flows that existed in it intact.

Part (V)

5 Working with Projects

The Project is the next hierarchical group in the ARGUS EstateMaster CC program below Portfolios. They are created when a user exports a DF/DM/IA/HF Cash Flow file for the <u>first time</u> for that Project in the Enterprise Database, and they are prompted to 'Add new project to database' during the export process.

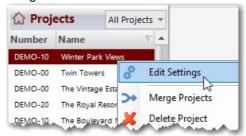


5.1 Project Number & Name

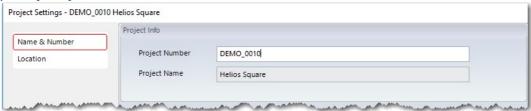
The Project's Number and Name information is initially created when a user exports a DF/DM/IA/HF Cash Flow to the database. However, there may be a need to change it if it was incorrectly set at this point.

Renaming Projects

In the Projects pane, right-click the Project you want to rename and click 'Edit Settings'. This
button will only be enabled if the user has sufficient <u>permissions</u> ('Write' or 'Full') on the Project
being renamed.



2. A form will appear where the Project Number and Name can be edited. Make the changes and press [Save].



- 3. The application will then update all Cash Flows that belong to that Project with the new details in the database.
 - a. Renaming a Project via this method doesn't update the source files (i.e. the *.emdf, *.emdm, etc). It is recommended that if a Project is renamed in ARGUS EstateMaster CC, then the source files be manually updated as well, to ensure that when they are next imported, they match the renamed Project.
 - b. If the Cash Flows in the database are ever imported back into their related application (i.e. DF/DM/IA/HF) then the updated details will automatically appear in the Intro tab of that application.

Important things to remember:

- If you attempt to change the Project Name to one that already exists in the database (but keep the same Project Number), you will be allowed.
- If you attempt to change the Project Number to one that already exists in the database (but keep the same Project Name), you will not be allowed.



• If you attempt to change both the Project Number and Name to the same combination that already exists in the database, you will be prompted to confirm this, as all the Cash Flows that exist in the selected Project, will be moved to the other Project.



5.2 Project Geolocation

When a new Project is created in the database and DF/DM/IA/HF Cash Flows have been exported into it, ARGUS EstateMaster CC will attempt to find the geolocation (i.e. the latitude/longitude coordinates) for that Project for the purpose of displaying it on a map. It uses the address details that were initially entered in the 'Intro' tab of the Cash Flow as the basis for querying its geolocation.



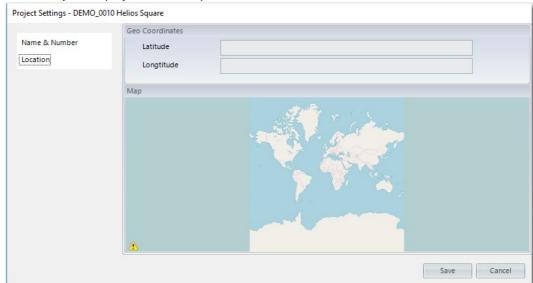
Address details in EstateMaster file 'Intro' tab

In some circumstances, a geolocation cannot be determined, or it may be inaccurate. Therefore there is the ability to adjust it for a Project.

Changing Project Geolocation

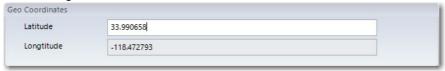
1. In the Projects pane, right-click the Project you want to change and click 'Edit Settings'. This button will only be enabled if the user has sufficient <u>permissions</u> ('Write' or 'Full') on the Project being renamed.





2. A form will appear where the Project Location can be edited. If no Latitude/Longitude has been set, it will just display a World map.

- 3. To set the location, either:
 - a. Manually enter a Latitude (between -90 and 90) and Longitude (between -180 and 180) in decimal degree format.



If this is not readily known, you can use an online mapping service such as <u>Bing Maps</u> or <u>Google Maps</u> to retrieve the coordinates.

b. Use the mouse scroll and cursor to zoom in/out of the map and move to a different location. Once the desired location has been found, right-click and select 'Set Location'. The map marker will be placed at that point, and the Latitude and Longitude fields will be automatically updated for that location.



4. Once changes are completed, press [Save].

When the Project Geolocation is set, it will then be displayed in the following areas of ARGUS EstateMaster CC:

• The 'Home' screen.



• In the Portfolio view of the 'Portfolios and Projects' screen.

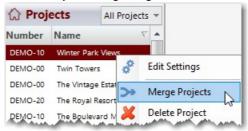


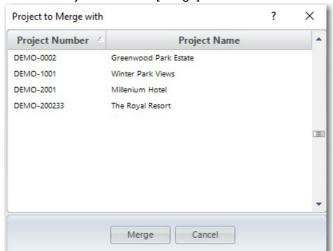
• In the Project view of the 'Portfolios and Projects' screen.



5.3 Merging Projects

1. In the Projects pane, right-click the Project you want to merge to another and click 'Merge Projects'. This button will only be enabled if the user has sufficient <u>permissions</u> ('Write' or 'Full') on the Project being merged.



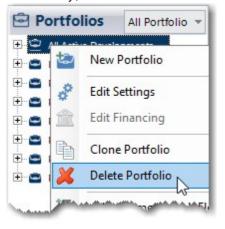


2. A form will pop up, showing all Projects that the user has sufficient permissions to merge to. Select a Project and click [Merge]

3. A confirmation message will appear. Click [Yes] to continue the merge and the application will then effectively transfer all Cash Flows from the Project selected in step 1 to the Project selected in step 2, removing the original Project from the database.

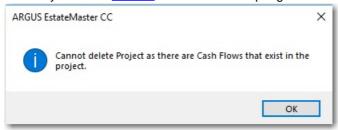
5.4 Deleting Projects

1. In the Projects pane, right-click the Project you want to delete and click 'Delete Project'. Alternatively, click on the 'Delete' button in the 'Active Project' Ribbon Menu.





2. Only empty Projects can be deleted from the database. If there are any Cash Flows still residing in the Project, the following warning will appear. If the Cash Flows are to be deleted as well, then they must be <u>deleted</u> first before attempting to delete the Project they belong to.



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6 Working with Cash Flows

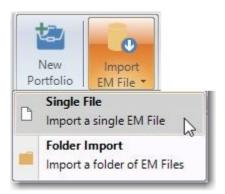
The Cash Flow is the lowest hierarchical group in the ARGUS EstateMaster CC program, and essentially represent a DM/IA file or an Option/Stage from a DF/HF file that has been exported to the Enterprise Database.

6.1 Importing Cash Flows

There are several ways that a DF/DM/IA/HF Cash Flow be imported into the Enterprise Database, and appear in ARGUS EstateMaster CC. The main method is by exporting the Cash Flow from within the DF/DM/IA/HF application itself, however there are 2 additional options available from within ARGUS EstateMaster CC without having to load the other applications:

- 1. Import a single DF/DM/IA/HF Cash Flow
- 2. Do a bulk import of DF/DM/IA/HF Cash Flows that exist in a file directory.

These function are available in the Ribbon menu.



Single File Import

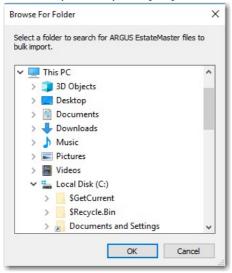
- 1. In the Ribbon menu click [File] → [Import EM File] → [Single File].
- 2. A file browse dialog will appear. Select the DF/DM/IA/HF file you wish to import and press [Open].
- 3. The database import wizard will appear. Follow the prompts to import the file.

Folder Import

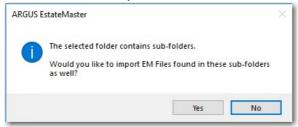
This function is useful where multiple files need to be imported on a frequent basis (e.g. monthly), providing a more seamless and efficient option to using the 'Single File Import' option for each one.

In the Ribbon menu click [File] → [Import EM File] → [Folder Import].

2. A folder browse dialog will appear. Select the folder that contains the DF/DM/IA/HF files you wish to import and press [OK].

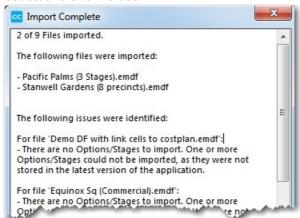


If it detects that the selected folder contains sub-folders, you will be prompted to decide whether files located in these sub-folders are imported as well. If you select [No], it will only import files found in the selected parent folder.



- 4. During the import process:
 - a. No import wizard will appear. Instead, it will silently loop through each DF/DM/IA/HF file that it finds in the selected folder (and sub-folders, if applicable) and attempt to import the file into the database.
 - b. If the 'Project Number' in the DF/DM/IA/HF file DOES NOT already exist in the database, a new Project will automatically be created, and the Cash Flows being imported will be linked to that Project in ARGUS EstateMaster CC.
 - c. If the 'Project Number' in the DF/DM/IA/HF file DOES already exist in the database, the Cash Flows being imported will be linked to that Project in ARGUS EstateMaster CC.

5. When the import process complete, it will report what files were imported any other issues/errors to the user.



Important Note: A common error message that may appear is: "One or more Options/Stages could not be imported, as they were not stored in the latest version of the application." This relates to DF and HF files only (as they have the Options/Stages feature), and can only be rectified by opening the actual file within the latest version of the DF and HF application, recall and store the Options/Stages again, and save the file, before it can be imported into the database again. This is to ensure that the Cash Flow data for those files are based on the latest calculation engine in HF/DF.

Assigning the Cash Flow to a Different Project

When importing an ARGUS EstateMaster Cash Flow (DF 5.x +, DM 5.x, HF 2.x + and IA 3.x +) files from within ARGUS EstateMaster CC, the user will be given the option to assign that Cash Flow to a different Project that is already set on the DF/DM/IA/HF model's 'Intro' sheet. If the user has elected to change the Project it belongs to, ARGUS EstateMaster CC will attempt to save the new Project details back to the DF/DM/IA/HF data file. If that data file is read only and ARGUS EstateMaster CC cannot update it, the user will get a message and will have to manually update the data file.

6.2 Deleting Cash Flows

Delete Cash Flows (One at a time)

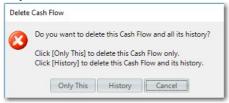
To delete a Cash Flow from the Enterprise Database permanently:

1. From either the 'All Cash Flows' or 'Portfolios and Projects' screen (when a Project has been selected), right-click the Cash Flow and a menu will appear. Select [Delete Cash Flow].

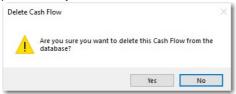


2. If there is more than one version of the selected Cash Flow, the program will prompt the user to delete only the selected version or all versions (all historical data for that Cash Flow). If there is

only one version of the selected Cash Flow, then it will proceed to the next step.



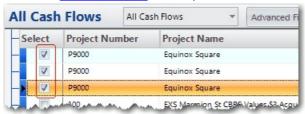
3. The system will confirm the deletion. If [Yes] is pressed, then the Cash Flow will be deleted permanently.



Delete Cash Flows (Multiple)

To delete more than one Cash Flow at a time from the Enterprise Database permanently:

1. From the 'All Cash Flows' screen, select the Cash Flows using the check-boxes.



2. Press the 'Delete Selection' button in the Menu Bar



3. A form will then appear listing the Cash Flows that have been selected to be deleted and showing what Project and Portfolio they belong to.



4. If a Cash Flow belongs to more than one Portfolio, it will be indicated by a expansion icon :

Clicking on it will expand the list to show the Portfolios that this Cash Flow belongs to.



5. Confirm the Cash Flows you want to delete and press the [Delete] button.

6. The cash flows will then be deleted from the database. Please note that this method of deleting Cash Flows doesn't automatically delete the history for the selected Cash Flows (as per the 'Delete one at a time' method), it will only specifically delete the Cash Flows that were selected, so if you want to delete an Cash Flow and all of its history, you will need to ensure that all the checkboxes for the historical Cash Flows are also selected.

Part VIII

7 Reports

One of the key advantages of the ARGUS EstateMaster CC program is the ability to display the valuable cash flow information in professional reports. These reports can be generated instantly via the Report Pane, or sent to a printer using the Print Menu.

7.1 The Report Pane

The Report Pane is located on the right side of the application window. It contains a list of all the different reports that can be generated in the ARGUS EstateMaster CC program. They are split into three types:

- 1. **Consolidated Reports**: Consolidate multiple Cash Flows to determine their aggregate performance, such as individual stages of a project, projects that form a Portfolio, or projects that form part of a business division (eg Residential Division vs Commercial Division)
- 2. **Comparison Reports**: Compare multiple Cash Flows, such as different development scenarios or options, to identify the differences between them or to determine the most viable option.
- 3. Custom Reports: Report on any data using custom reports that have been created.

The standard Consolidated and Comparison reports are also grouped into three different categories:

- 1. **All**: These are reports that are generated for all ARGUS EstateMaster Cash Flow types in the selected Project/Portfolio (i.e. DF, DM, HF or IA)
- 2. **Development**: These are reports that are generated for <u>Development</u> cash flows only in the selected Project/Portfolio (i.e. DF or DM). If the selected Project/Portfolio contains investment cash flows (i.e. IA), then they will be ignored in these reports.
- Investment: These are reports that are generated for <u>Investment</u> cash flows only in the selected Project/Portfolio (i.e. IA). If the selected Project/Portfolio contains development cash flows (i.e. DF or DM), then they will be ignored in these reports.
- 4. **Hotel:** These are reports that are generated for <u>Hotel</u> cash flows only in the selected Project/Portfolio (i.e. HF). If the selected Project/Portfolio contains development (i.e. DF or DM) or investment (i.e. IA) cash flows, then they will be ignored in these reports.

Switching between Panes

To toggle between the types of reports, click on the relevant button at the bottom of the pane.

Comparison Custom Reports

Minimising and Maximising the Pane

The Report Pane can also be minimised to provide the user with a larger view of the Portfolio list. To do this, click on << at the top right of the pane. Once it is minimised, click on >> to maximise the pane.



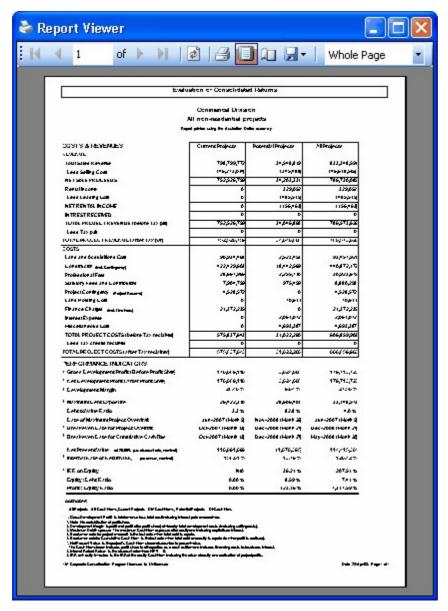
Generating Reports

To generate any of the selected reports:

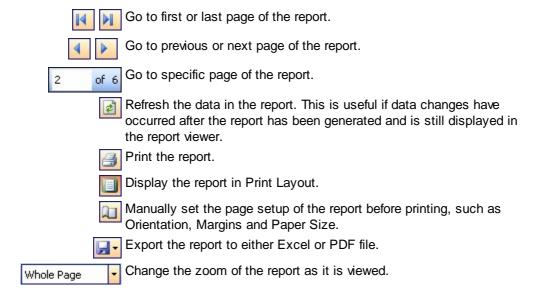
- 1. While on the Main Interface, select the relevant Portfolio you wish to generate a report for.
- 2. Select the type of report you wish to generate and double-click (e.g. Comparison/Consolidated, All/Development/Investment/Hotel)
- 3. The report for the selected Portfolio will then load in the Report Viewer.

7.2 The Report Viewer

When generating reports, they load into a Report Viewer.



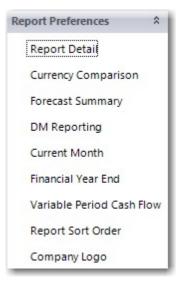
In addition to displaying the report, there are many options available in the Report Viewer for the user via its menu bar:



7.3 Report Preferences

Many of the reports in the ARGUS EstateMaster CC program offer flexibility in the way outputs are presented or calculated. The settings for these can be found in the 'Report Preferences' and they apply to all the reports in any Portfolio.

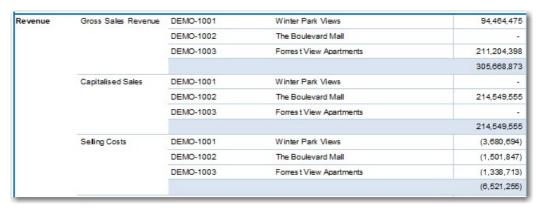
To edit or view these settings click [Tools] \rightarrow [Options] \rightarrow [Report Preferences].



7.3.1 Report Detail

Select the level of detail to show on certain Consolidation reports:

Detail (By Project): For each cost and revenue category, the individual cash flows that make up
the selected Portfolio are grouped in their respective Project, and the Project Name and Number
is displayed on the report.

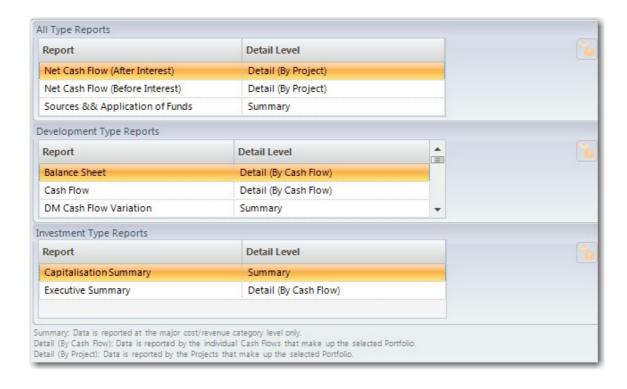


• **Detail (By Cash Flow):** For each cost and revenue category, the individual cash flows that make up the selected Portfolio are reported on separate lines.



• Summary: Only the major cost and revenue categories are reported for the selected Portfolio.

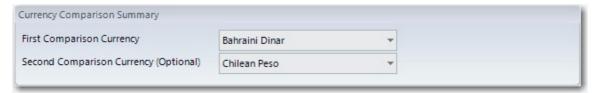




7.3.2 Currency Comparison

For the Currency Comparison Summary report, select up to 2 additional currencies (in addition to the Portfolio's Currency) to report against.

- First Comparison Currency: Select a currency from the list. The currency exchange rate for that currency will then be used to generate a set of results in the Currency Comparison Summary.
- Second Comparison Currency: This is optional. If you do not wish to compare a second currency, select 'Ignore' from the top of the list box



7.3.3 Forecast Summary

Report Preferences for the Forecast Summary report are:

- Historical DF Cash Flow Data: Select how any historical DF (Development Feasibility) data (costs or revenues occurring before the current month/year) is to be reported in the Forecast Summary report. The options available are:
 - o Report as is, and assume it is an actual cost to date.
 - o Accumulate all historical data and report is as occurring in the current month
 - o Ignore the historical data, and assume no cost or revenue activity before the current month.



7.3.4 DM Variation

Report Preferences for the DM Variation report are:

• Use Current Budget if no Budget Set: This option will use the Current Budget data when no Original, Project or Previous Forecasts have been set for a DM Cash Flow. This will enable the user to consolidate DM Cash Flows and run the DM Variation report, even though some budgets may not have been set for a particular Cash Flow



• Variation Display: Select whether the variations to the Current Budget are displayed as an amount or as a percentage.

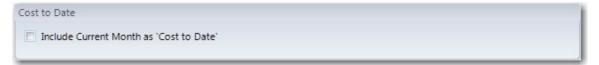


7.3.5 Current Month

- **Current Month:** Select how the 'Current Month' is defined in the various reports where 'Current Month', 'Life to Date', 'Cost to Date', 'Forecast to Complete', 'Previous x Months', 'Next x Months', 'Year to Date' and 'Balance to Year End' is reported. It can be defined as:
 - o The current month that the report is being run in.
 - o The previous month that the report is being run in.
 - o Manually set each time the report is run via a user prompt.



- Cost-to-Date: Select whether the current month Cash Flow items are to be included or excluded from the total 'Cost-to-Date' (or 'Life to Date').
 - o If included, it will also include it from the 'Previous 12 Months' and 'Year to Date' reporting.
 - If excluded, it will include it in the 'Forecast to Complete', 'Next 12 Months' and 'Balance to Year End' reporting.



7.3.6 Financial Year End

Select the month that signifies the end of the Financial Year. It will affect the following reports:

- · Financial Year Cash Flow
- Financial Year Gantt Chart
- Financial P&L Statement
- · Financial Balance Sheet
- Forecast Summary
- DM Profit Margin (Year to Date)
- DM Summary (Year to Date)



7.3.7 Variable Period Cash Flow

The preferences for the Variable Period Cash Flow report prompt the user to nominate what rest periods the three different time frames are reported in.

- 1. First x months Monthly/Quarterly/Half-Yearly/Yearly
- 2. Next x months Monthly/Quarterly/Half-Yearly/Yearly
- 3. Thereafter Monthly/Quarterly/Half-Yearly/Yearly

If the nominate rest period is:

- Monthly, then any number can be entered for the # of months.
- Quarterly, then only numbers divisible by 3 can be entered for the # of months.
- Half-Yearly, then only numbers divisible by 6 can be entered for the # of months.
- Yearly, then only numbers divisible by 12 can be entered for the # of months.



The Variable Period feature can also be applied to other cashflow-style reports, not just the 'Variable Period Cash Flow' report itself. To select the reports to implement this feature, tick the relevant checkbox in the 'Use for Other Reports' section. If reports are selected, each time they are printed, the user will be prompted with the variable period settings for the report.



7.3.8 Report Sort Order

For reports that list the individual Cash Flows (i.e. Cash Flows, Gantt, etc), the user can select how the Cash Flows are to be sorted when reported. The user can sort by:

- 1. Project Number
- 2. Account Code
- 3. Project Name
- 4. Cash Flow Title
- 5. Cash Flow Type (i.e. DF, DM, etc)
- 6. Project Type (i.e Residential, Commercial, etc)
- 7. Status (i.e Under Review, Construction, etc)
- 8. Start Date



7.3.9 Company Logo

The user can insert a Company Logo to display on the Title Page for all Portfolios. This is in addition to the Portfolio logo that can also be displayed on the Title Page.

- Only Bitmap, PNG, JPEG or GIF files can be inserted.
- There are no file/image size restrictions.
- The program will automatically downscale the image if it is too large to fit in the allocated area.
- If the image is smaller than the allocated, it will not be upscaled to avoid distortion.



7.4 Consolidated Reports

The Consolidated Reports provide an amalgamated analysis of a selection of Cash Flows (ie a Portfolio). The reports are:

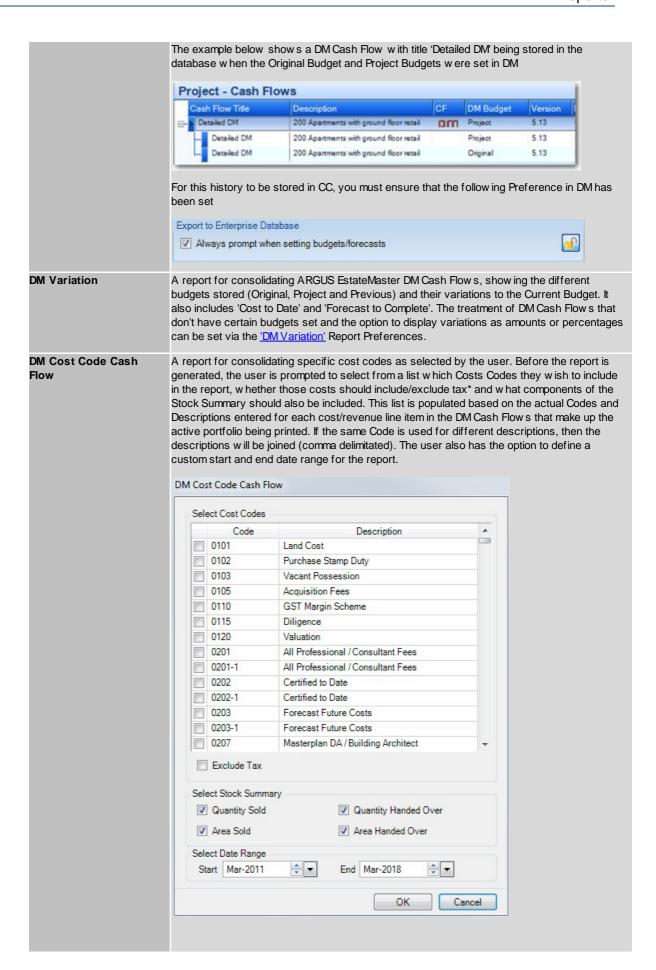
All Cash Flows

Report	Description
Net Cash Flow (Before Interest)	A monthly consolidated Net Cash Flow excluding interest and other funding costs.
Net Cash Flow (After Interest)	A monthly consolidated Net Cash Flow including interest and other funding costs.
Sources and Application of Funds	A monthly consolidated Cash Flow table showing where funds are coming from (e.g equity, debt, revenue, etc.), and how it is applied (expense outlays, interest, loan repayments, profit share, etc). This report can also be run in Wariable Period mode.

Development Cash Flows

Bovolopinont Gasi	
Report	Description
Summary Report	Summary of consolidated Costs, Revenues and Key Performance Indicators, such as Profit, IRR, NPV, etc.
Summary Report (By Cash Flow)	This is similar to the Summary Report above, but each individual Cash Flow is reported separately in addition to the consolidated returns.
DF vs DM Summary	Summary of consolidated Costs, Revenues and Key Performance Indicators, for Current Projects (DM Cash Flows only), Potential Projects (DF Cash Flows only) and All Projects (DF + DM Cash Flows)
Currency Comparison Summary	The Summary Report displayed for up to two additional currencies to compare against the base currency. The currencies used can be selected via the (Currency Comparison Report Preferences.
Cash Flow	A monthly consolidated Cash Flow table.
Financial Year Cash Flow	A yearly consolidated Cash Flow table, based on the <u>'Financial Year End'</u> , as set in the Report Preferences.
P & L Statement	A monthly consolidated Profit and Loss Statement, using the data from the 'Financials' sheet in the DF & DM Cash Flow models.
Financial Year P & L Statement	A yearly consolidated P+L Statement, based on the <u>'Financial Year End'</u> , as set in the Report Preferences.
Balance Sheet	A monthly consolidated Balance Sheet, using the data from the 'Financials' sheet in the DF & DM Cash Flow models.
Financial Year Balance Sheet	A yearly consolidated Balance Sheet, based on the <u>'Financial Year End'</u> , as set in the Report Preferences.
PV Cash Flow	A monthly consolidated Cash Flow table with all Costs and Revenues discounted to present value using the Portfolio's <u>Discount Rate</u> .
Variable Period Cash Flow	A consolidated Cash Flow table where 3 phases of the time line can be grouped using different rest periods, as defaulted in the 'Report Preferences'. These rest periods can be adjusted when the report is run, along with the ability to set a custom start and end date range for the report. All Periods Select Range Start Mar-2011 End Mar-2018 Mar-2018

Future Cash Flow	A summarised consolidated Cash Flow table from a user-defined point in time, where all data		
	before the selected month is ignored.		
	Nominated Start Date		
	Nominate the date (Month and Year) from which this report is to start from		
	Start Date Mar-2011 ♣ ▼		
	OK Cancel		
	The cash flow is summarised by Gross Sales Revenue, Other Revenue (Gross Rental Income, Interest Received on Deposits and Other Income) and Total Net Costs (all development, selling and leasing costs, excluding loan fees and interest charges).		
	Interest Charged and Received on Equity, and Profit Share Payments, are not displayed on this report.		
Gantt Chart	A graphical timeline of the consolidated monthly Cash Flow.		
Financial Year Gantt Chart	A graphical timeline of the consolidated financial year Cash Flow.		
Cash Flow Charts	Three charts are generated:		
	 Consolidated Cash Flow: Displays the consolidated Overdraft, Net Cash Flow and Cumulative Net Cash Flow. 		
	 Consolidated Equity Cash Flow: Displays the Equity Cash Flow against the Maximum Equity benchmark, as set in the 'Portfolio Settings'. It allows the user to see where if their actual equity requirements have exceeded the limit. 		
	 Consolidated Project Costs vs Net Revenue: Displays a cumulative Project Cost against the Net Revenue. 		
Inventory	A monthly consolidated stock report showing the pre-sales ('sales') and settlements ('handovers') occurring on a quantity, area and value basis. This report can also be run in Variable Period mode.		
Forecast Summary	A Summary Report taken at a specific point in time (identified as the 'Current Month') that displays Costs and Revenues such as Cost to Date, Forecast to Complete, Last 12 Months, Next 12 Months, Year to Date and Balance to Year End. The definition of 'Cost to Date' for this report can be set via the 'Current Month' Report Preferences. The treatment of DF (Development Feasibility) Cash Flows for this report can be set via the 'Forecast Summary' Report Preferences.		
DM Cash Flow Variation	A report for consolidating ARGUS EstateMaster DM Cash Flows, showing the 'Latest' budget (Original or Project Budget, whichever is the more recently stored one) and the Previous Forecast stored and their variations to the Current Budget on the following basis: Total, Spend to Date, next 12 months (on a monthly basis), 12-Month Total and Cost to Complete.		
	This report uses the following logic:		
	 If the 'Project' Budget exists, then use the most recent 'Project' DM Budget for the 'Latest' Budget. 		
	 If the 'Project' Budget doesn't exist, then use the most recent 'Original' DM Budget for the 'Latest' Budget. 		
	If the no 'Project' or 'Original' Budget exists, then leave the 'Latest' Budget blank.		
	If the no 'Current' Forecast exists, it is replaced with the most recent cash flow.		
	The 'Budgets/Forecasts' for the report are derived from a DM Cash Flow being stored to the database at the time the 'Budgets/Forecasts' is set within DM. By keeping the 'Cash Flow Tile' unchanged each time the budget is set in DM, and exporting to the database when prompted to do so when setting a budget, a history of budgets/forecasts for that DM Cash Flow are then stored in CC.		



* The following items are always reported <u>inclusive</u> of Tax: Project Contingency, Construction Contingency, Capitalised Terminal Rent, Rent Frees, Outgoings, Letting Fees, Fitout and Pre-Sale Commissions DM Profit & Margin (Life A report for consolidating ARGUS EstateMaster DM Cash Flows, showing the Net to Date) Development Profit and Development Margin for each Project, and their Budgets, in a Portfolio. Before the report is generated, the user is prompted to select what Budgets the user wants to display on the report, and whether to show a variance to the Current Forecast against that Budget. **Budgets to Display** Budgets to Display Show Budget Show Variance Select All 1 1 Original Budget 1 J Project Budget 1 1 Previous Budget 1 1 OΚ Cancel The report is broken up into 3 main sections: 1. Whole of Life: The entire project life span 2. Life to Date (a.k.a Cost to Date): The start of the project, up until the Current Month, w hich the user is prompted to select before generating the report. Whether 'Life to Date' includes or excludes the Current Month can be set via the 'Current Month' Report Preferences. 3. Forecast to Complete: From the Current Month, until the end of the Project DM Profit & Margin (Year Similar to the DM Profit & Margin (Life to Date) report, but broken up into 3 main sections based to Date) on the 'Financial Year End', as set in the Report Preferences: 1. Current Month: As defined by the user before generating the report. 2. Financial Year to Date: The start of the Financial Year, up until the Current Month. Whether 'FY to Date' includes or excludes the Current Month can be set via the 'Current Month' Report Preferences. 3. Financial Year Total: From the start, until the end, of the current Financial Year DM Summary (Life to Similar to the DM Profit & Margin (Life to Date) report, but reporting Revenues, Costs, Profit and Date) Margin for the Portfolio. DM Summary (Year to Similar to the DM Profit & Margin (Year to Date) report, but reporting Revenues, Costs, Profit Date) and Margin for the Portfolio.

Investment Cash Flows

Report	Description
DCF	A monthly consolidated Discounted Cash Flow table, including the IRR and NPV.
Financial Year DCF	A yearly consolidated Discounted Cash Flow table, including the IRR and NPV, based on the Financial Year End, as set in the 'Report Preferences'
Capitalisation Summary	A consolidated Capitalisation Summary report, where the user is prompted to select one of four valuation methods that were calculated in the ARGUS EstateMaster IA model.

Report	Description
Executive Summary	A consolidated Executive Summary report, detailing the key outputs of an investment cash frow , including:
	Tenant Analysis: Charts indicating top 5 tenants by NLA and Gross Passing Income
	Weighted Lease Duration, Vacant Area analysis and Gross Income and Outgoings
	Outputs related to the Capitalisation approach to valuation (Capitalised Value, Yields, etc). All Yields are based on the Capitalised Value
	Outputs related to the DCF approach to valuation (NPV, IRR, Terminal Sale Value etc)
	Each individual Cash Flow is reported, along with the consolidated returns.

Hotel Cash Flows

Report	Description
· ·	A consolidated Profit and Loss Summary Summary report, based on a stabilisation period for the hotel operation at year 3.

7.5 Comparison Reports

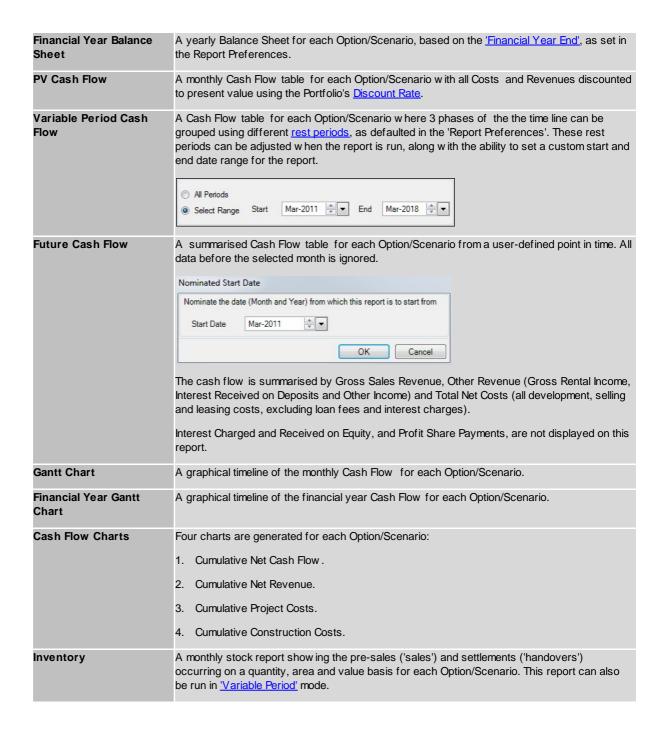
The Comparison Reports provide an amalgamated analysis of a selection of Cash Flows that are being compared (ie Options/Scenarios). The reports are:

All Cash Flows

Report	Description
Net Cash Flow (Before Interest)	A monthly comparison Net Cash Flow for each Option/Scenario excluding interest and other funding costs.
Net Cash Flow (After Interest)	A monthly comparison Net Cash Flow for each Option/Scenario including interest and other funding costs.
Sources and Application of Funds	A monthly comparison Cash Flow table showing where funds are coming from (e.g equity, debt, revenue, etc.), and how it is applied (expense outlays, interest, loan repayments, profit share, etc). This report can also be run in <u>'Variable Period'</u> mode.

Development Cash Flows

Report	Description
Summary Report	Summary of Options/Scenarios that are being compared, including Costs, Revenues and Key Performance Indicators, such as Profit, IRR, NPV, etc.
Cash Flow	A monthly Cash Flow table for each Option/Scenario.
Financial Year Cash Flow	A yearly Cash Flow table for each Option/Scenario, based on the <u>'Financial Year End'</u> , as set in the Report Preferences.
P & L Statement	A monthly Profit and Loss Statement for each Option/Scenario, using the data from the 'Financials' sheet in the DF & DM Cash Flow models.
Financial Year P & L Statement	A yearly P+L Statement for each Option/Scenario, based on the <u>'Financial Year End'</u> , as set in the Report Preferences.
Balance Sheet	A monthly Balance Sheet for each Option/Scenario, using the data from the 'Financials' sheet in the DF & DM Cash Flow models.



Investment Cash Flows

Report	Description
DCF	A monthly comparison Discounted Cash Flow table.
Financial Year DCF	A yearly comparison Discounted Cash Flow table, based on the Financial Year End, as set in the 'Report Preferences'.
Capitalisation Summary	A comparison Capitalisation Summary report, where the user is prompted to select one of four valuation methods that were calculated in the ARGUS EstateMaster IA model.
Executive Summary	A comparison Executive Summary report, detailing the key outputs of a individual investment cash flows, including:

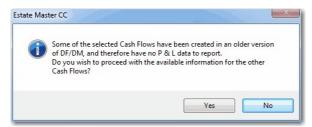
Report	Description
	Tenant Analysis: Charts indicating top 5 tenants by NLA and Gross Passing Income
	Weighted Lease Duration, Vacant Area analysis and Gross Income and Outgoings
	Outputs related to the Capitalisation approach to valuation (Capitalised Value, Yields, etc). All Yields are based on the Capitalised Value
	Outputs related to the DCF approach to valuation (NPV, IRR, Terminal Sale Value etc)

Hotel Cash Flows

Report	Description
-	A comparison Profit and Loss Summary Summary report for each scenario being analysed, based on a stabilisation period for the hotel operation at year 3.

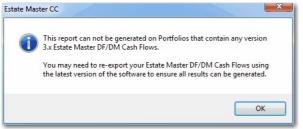
7.6 Data Validation

Some reports may only generate if the data required is available. There can be several reasons for this, including the report being based on data that is only available in newer ARGUS EstateMaster Cash Flow files or the report is based on a specific type of Cash Flow only. Below are example messages that may appear:



Scenario: The report is based on data that is only available in newer ARGUS EstateMaster Cash Flow files and the user is trying to run the report on older Cash Flows that did not contain that required data when they were exported to the database.

Solution: The user can continue to run the report, however the older cash flows will be omitted from it. To ensure that all cash flows are included, the user can import the older cash flows into the latest version of the ARGUS EstateMaster application (DF, DM, etc), let it recalculate, then re-export it back to the database.



Scenario: Similar to the above scenario, the report is based on data that is only available in newer ARGUS EstateMaster Cash Flow files and the user is trying to run the report on older Cash Flows that did not contain that required data when they were exported to the database.

Solution: If this message appears, the user does not have the option to run the report. The user must import the older cash flows into the latest version of the ARGUS EstateMaster application (DF, DM, etc), let it recalculate, then re-export it back to the Enterprise Database for this report to be able to be generated.

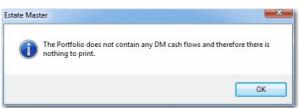
Scenario: Similar to the above scenario.

Solution: If this message appears, the user does not have the option to run the report. The user must import the older cash flows into the latest version of the ARGUS EstateMaster application (DF, DM, etc), let it recalculate, then re-export it back to the Enterprise Database for this report to be able to be generated.

Scenario: The report is based on data that is specific to a certain ARGUS EstateMaster Cash Flow type (e.g DF, DM, etc) and the user is trying to run the report on Cash Flows that are of another type.

Solution: The user must select a Portfolio or group of Cash Flows that contain at least on type of the specific cash flow in order for the report to run.







Scenario: Similar to the above scenario, the report is based on data that is specific to a certain ARGUS EstateMaster Cash Flow type (e.g DF, DM, etc) and the user is trying to run the report on Cash Flows that are of another type.

Solution: The user must select a Portfolio or group of Cash Flows that contain at least on type of the specific cash flow in order for the report to run.

7.7 Custom Reports

In addition to the standard out-of-the-box reports available in ARGUS EstateMaster CC, you also have the ability to design new reports or import existing ones, using the Custom Reports function.



- **Designing New Reports**: Using Microsoft's SQL Server Report Builder as the report-authoring tool, you can design your own reports that contain components such as Tables, Lists, Charts, Gauges, etc.
- Importing Reports: You can import Report files (*.RDL) that have been created using Report Builder or other reporting tools.
- Important Note: If <u>Security Permissions</u> are enabled in your instance of ARGUS EstateMaster CC, then only Application Administrators will be able to create or import custom reports.

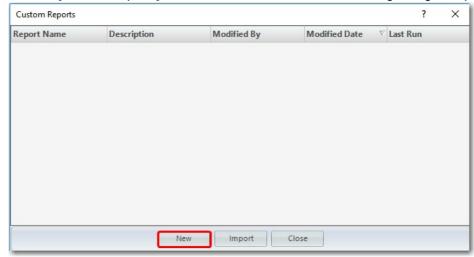
7.7.1 Creating a New Report

ARGUS EstateMaster CC utilises Microsoft SQL Server 2012 Report Builder to create and edit custom reports. This report authoring tool is mainly targeted towards power users who have an understanding of, or experience with, SQL reporting.

The following are some tutorials published by Microsoft that can assist with some basic tasks in Report Builder:

- Creating a Basic Table Report
- Creating a Matrix Report
- Creating a Free Form Report
- Creating Drillthrough and Main Reports
- Add a Column Chart to Your Report
- Add a Pie Chart to Your Report
- Add a Bar Chart to Your Report

New Report Process



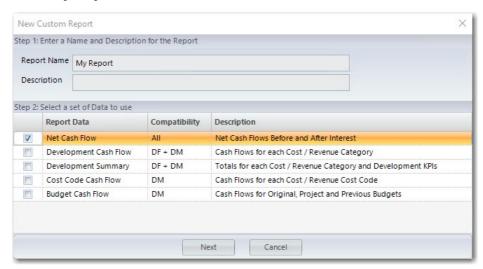
1. Click on [Custom Reports] on the ribbon menu to load the following dialog, and press [New]

Please Note: If Microsoft SQL Server 2012 Report Builder is not installed on the machine, it will prompt you to download it from Microsoft's website. You will not be able to create custom reports without it.

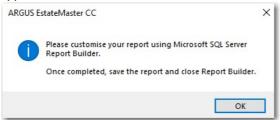


- 2. The 'New Custom Report' dialog will appear. Set the following:
 - a. Report Name (required) and Description (optional): Enter the unique name for the Report, as well as a description for it. The Name will also be used as the default Title in the report.
 - b. Set of Data to Use: Select the set of data you want to use for creating the report.

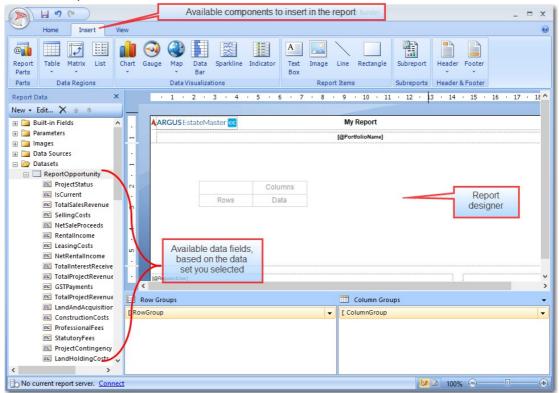
Press [Next]



3. You will be prompted with the following message. Press [OK] to launch the Report Builder application.



4. Report Builder will load, with a default report template. Continue to create your report, using the different components available.



5. If you want to test the report for a specific Portfolio, click [Home > Run]



Please Note: For security reasons, the credentials used to connect ARGUS EstateMaster CC to the Enterprise Database are not exposed to the Report Builder application. Therefore you may be

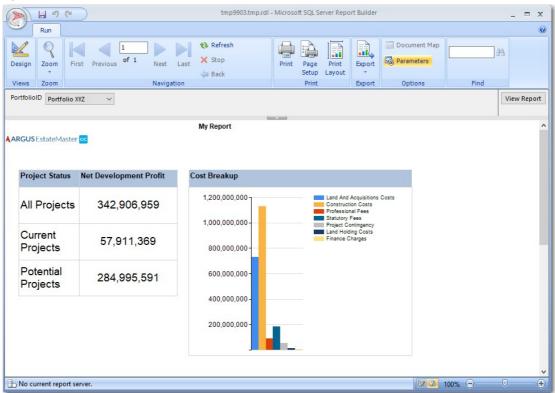
prompted to re-enter the credentials when running the report.



6. Select the Portfolio you wish tot test the report on, and then click on [View Report]



7. Review the report; if you need to make any edits, click on [Design] to revert back to the design view.



- 8. Once you have completed the report, click on the [Save] button, and close the Report Builder application.
- 9. You will then be prompted to save the report to the database.



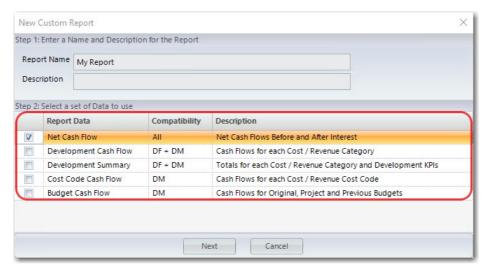
a. If you select [No]; the report will be discarded.

b. If you select [Yes]; the report will be displayed in the list of Custom Reports, and be available to any ARGUS EstateMaster CC user who is connected to the same database.



7.7.1.1 Report Data Sets

To assist with building reports, a series of data sets have been pre-configured in ARGUS EstateMaster CC and are available when creating a new report.



Each provides a different set of data that is commonly used in reporting in ARGUS EstateMaster CC. If you required additional data that is not available in these data sets, please log a request with our Support Team.

Report Data	Compati	bility	Description	Data Fields
Set	Cash Flow Type	Versio ns		
Net Cash Flow	All (DF, DM, IA, HF)	All	Net Cash Flows Before and After Interest	Period_Date: The date that the cost/revenue activity occurs in the cash flow.
				• Period_Number : The equivalent period number
				NCF_Before_Interest: The net cash flow before interest value, for the related period.
				• NCF_After_Interest *: The net cash flow after interest value, for the related period.
Development Cash Flow	DF and DM	All (see	Cash Flows for each Cost / Revenue Category	• Group : Indicates w hether the cash flow activity belongs to Revenue, Cost, Equity, Surplus Cash, a Loan, Sales/Handover (Stock/Inventory Data)
		Notes in 'Data Fields')		• Sub_Group : The next level of detail drilled-down for each Group (e.g. Sales Revenue, Rental Income, Other Income, etc)
				 Note: Cash Flows that are in DF/DM Version 5.32 or greater, will have Capitalised Sales reported separately in their own sub-group. Older cash flows will have it included in the 'Gross Sales Revenue' sub-group.

				 Period_Date: The date that the cost/revenue activity occurs in the cash flow.
				Period_Number: The equivalent period number
				 Value: The cash flow value of the group/sub- group for the related period.
Development Summary	DF and DM	All (see	Totals for each Cost / Revenue Category and Development KPIs	Development_Start_Date and Development_End_Date: The start and end of the entire development cash flow.
		Notes in 'Data Fields')		• Construction_Start_Date and Construction_End_Date: The start and end of Construction Cost cash flow items.
				The following Cost and Revenues:
				o Gross_Sales_Revenue
				o Capitalised_Sales
				 Note: Cash Flows that are in DF/DM Version 5.32 or greater, will have Capitalised Sales reported separately in their own sub-group Older cash flows will have it included in the 'Gross Sales Revenue' sub-group.
				 Sales_Commission
				o Selling_Costs
				 Gross_Rental_Income
				o Leasing_Costs
				o Interest_Received
				o Other_Income
				o Tax_Paid_on_Sales
				o Tax_Paid_on_Rental_and_Other_Income
				 Land_and_Acquisition_Costs
				Professional_Fees
				 Development_Management_Fee
				o Construction_Costs
				 Statutory_Fees
				Miscellaneous_Costs_1
				Miscellaneous_Costs_2
				Miscellaneous_Costs_3
				 Project_Contingency
				 Land_Holding_Costs
				PreSale_Commissions
				Finance_Charges *
				Interest_Charged_on_Equity *
				o Interest_Charge_on_Loans *
				 Tax_Reclaimed_on_Costs
				o Corporate_Tax
				The following development KPIs: *
				 Development_Margin
				 Peak_Debt_Exposure
				Date_of_Peak_Debt
				 Debt_to_Value_Ratio
				 Breakeven_Date_for_Project_Overdraft
				o NPV

			 IRR IRR_on_Equity Equity_Debt_Ratio Profit_Equity_Extio Peak_Equity_Exposure Date_of_Peak_Equity DevDiscountRate
Cost Code Cash Flow	DM only	Cost / Revenue Cost Code	 Group: Indicates w hether the cash flow activity belongs to Revenue or Cost. Period_Date: The date that the cost/revenue activity occurs in the cash flow. Period_Number: The equivalent period number

Stage: The stage that the cash flow line item habeen allocated to. Construction_Category: The category code applied to Construction Cost cash flow line item. Revenue_Category: The category code applied to Construction Cost cash flow line item. Revenue_Category: The category code applied to Sales Revenue, Rental Income and Other Income cash flow line items. Line_Item_Description: The description give for that cash flow line item; if a different description has been used for the same Code of multiple files, then the descriptions will be come delimited. Value: The cash flow value of the cost code for the related period. Value: The cash flow value of the cost code for the related period. Revenue_Cost_Group: The next level of deta drilled-down for each Group (e.g. Sales Revenue, Rental Income, Other Income, etc) Reporting_Period: Indicates the period of the project that the budget amount relates to: Whole of Life: The entire project life Life to Date: From the start of the project, to the current month.					Onder The control of the Control
been allocated to. Construction_Category: The category code applied to Construction Cost cash flow line item Revenue_Category: The category code applied to Sales Revenue, Rental Income and Other Income cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description: The description give for that cash flow line items. Line_Item_Description give for that cash flow line items. Line_Item_Description give for that cash flow line items. Line_Item_Description give for that cash flow line items. Revenue_Cash flow line items.					 Code: The cost code of the cash flow line item. Stage: The stage that the cash flow line item has
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Financial Year, etc) o Whole of Life: The entire project life o Life to Date: From the start of the project, to the current month#.				(Whole of Life, Rest of	• Reporting_Period: Indicates the period of the project that the budget amount relates to:
 Life to Date: From the start of the project, to the current month#. 				o Whole of Life: The entire project life	
o Forecast to Complete: From the current mont to the end of the project (i.e. 'Whole of Life' minus 'Life to Date').					· · · ·
 Current Month: The month that the report is generated. 					·
 Year to Date: From the start of the current Financial Year## to the current month#. 					
 Financial Year: The current 12 month financi year## period. 					 Financial Year: The current 12 month financial year## period.
are the values for each stored budget for the related revenue/cost group and reporting period					Project_Budget and Original_Budget: These are the values for each stored budget for the related revenue/cost group and reporting period. If a particular budget has not not set in a DM file, then data for that budget will not be available
# Whether the current month is actually included in these values is determined by the Current Month Report Settings.					The state of the s
					## The Financial Year period is based on the month the report is being generated, in conjunction with the Financial Year End Report Settings.

^{* =} This data field will report zero values when Portfolio Financing is enabled for the selected Portfolio. This is because Portfolio Financing data cannot be split on a Cash Flow by Cash Flow basis.

Common Data

The following data is common across the data sets:

- Cash_Flow_ID: The unique identifier for the individual EM Cash Flow record in the database.
- Cash_Flow_Title: The Title of the EM Cash Flow.

- **Description**: The description given to the EM Cash Flow.
- Project_Number and Project_Name: The Project that the EM Cash Flow file belongs to.
- Project_Type: The type of project (e.g. Residential, Mixed Use, Retail, etc)
- **Project_Status**: The status of the project to identify at what stage of the analysis it is at (e.g Under Review, Preferred Option, Initial Budget, etc)
- **Budget** (DM only): Whether the cash flow represents the Original Budget, Project Budget, Previous Forecast or Current Forecast for a development project.
- Project_Size_A (DF and DM): The
- **Project_Size_A_Type** (*DF* and *DM*): The unit of measurement given for Project Size A (e.g. GFA, Units, Lots, NLA, etc)
- Project Size B (DF and DM):
- **Project_Size_B_Type** (*DF* and *DM*): The unit of measurement given for Project Size B (e.g. GFA, Units, Lots, NLA, etc)
- Site_Area (DF and DM): The area of the land / development site.
- **Site_Area_Unit** (*DF* and *DM*): The unit of measurement given for the Site Area (e.g. SqM, Ha, Acre, SqFt, etc)
- Address, Suburb, State, PostCode and Country: The address of the property/project.
- Developer (DF and DM): The name of the developer.
- Land_Owner (DF only): The name of the land owner.
- Hotel_Brand (HF only): The name of the hotel group/chain.
- Hotel_Star_Rating (HF only): The number of stars that the hotel is rated.
- OperationalMonthYear (HF only): This is the first year of the hotel's cash flow.
- Hotel_Type (HF only): the type or category of the hotel,.
- Guests Per Room (HF only): The ratio used to determine the number of guests in the hotel.

7.7.2 Importing a Report

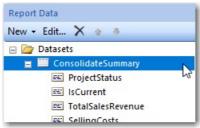
If you have created a Custom Report in RDL format using another application, or you have been sent one and you wish to implement it in your ARGUS EstateMaster CC, you can import the RDL file into your database. However, before you can import the RDL file, it must meet the following requirements:

- It must have been created with Microsoft SQL Server 2012 Report Builder.
- It must contain a parameter called "PortfolioID" of data type 'Integer'.

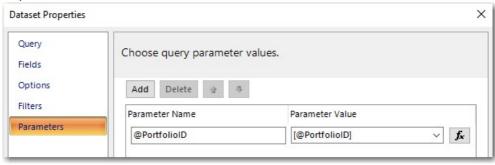


• It must have at least 1 Dataset defined that is querying data to an EstateMaster Database 'Data Source'. When then the report is run within ARGUS EstateMaster CC, it will run the query against

the database that ARGUS EstateMaster CC is currently connected to.

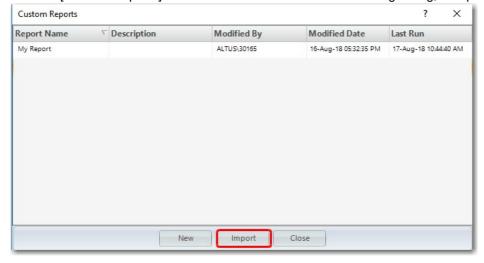


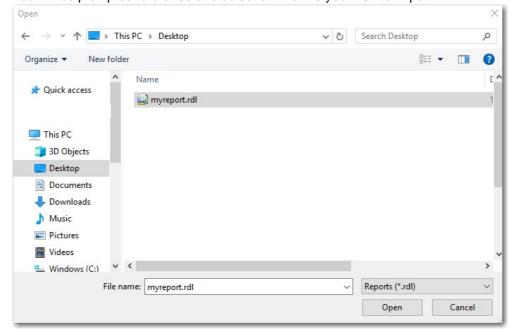
• The Dataset query must implement the "PortfolioID" parameter so that the report presents data for a specific Portfolio.



Import Process

1. Click on [Custom Reports] on the ribbon menu to load the following dialog, and press [Import]





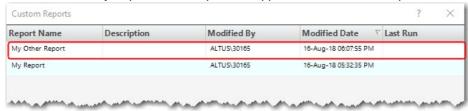
2. You will be prompted to browse and select an *.rdl file you wish to import.

- 3. When attempting to import the report, it will allocate a Report Name to it based on the following:
 - a. Report Title: If the report contains a Textbox named "ReportTitle", it will use whatever text is in there as the default Report Name.
 - b. <u>File Name:</u> If the report doesn't contain a "ReportTitle Textbox, it will use *.rdl file name as the default Report Name.

If the default Report Name based on the above already exists, you will be prompted to change either of the above properties in the file before you can import it.



4. Once successfully imported, the report will appear in the Custom Report list.

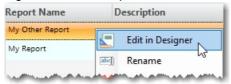


7.7.3 Editing or Deleting Reports

Editing a Report

To make any changes to the report itself:

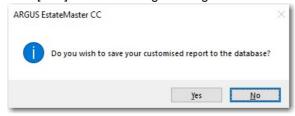
1. Right-click on the report in the Custom Report list, and select [Edit in Designer]



Please Note: If Microsoft SQL Server 2012 Report Builder is not installed on the machine, it will prompt you to download it from Microsoft's website. You will not be able to edit custom reports without it.



- 2. If you have Report Builder installed, the report will load in it.
- 3. Make the necessary changes, close Report Builder (saving the changes when prompted), and click [Yes] to the following message to commit the changes to the database.



Renaming a Report

To change the name of the report, or its description:

1. Right-click on the report in the Custom Report list, and select [Rename]



2. The 'Edit' dialog will appear, with the Report Name and Description fields editable.



3. Make the necessary changes, and click [OK]

Deleting a Report

To permanently delete a custom report from the database:

1. Right-click on the report in the Custom Report list, and select [Delete]



2. You will be prompted to confirm the deletion; click [Yes] to delete.

7.7.4 Generating and Printing Reports

Once custom reports have been created or imported into ARGUS EstateMaster CC, they can be run and/printed like any other standard report.

Running Custom Report

Custom reports that are created or imported will appear in the Reports Pane when the Custom Reports toggle button is selected.



To run a custom report, just ensure the desired Portfolio is selected, and then double-click on the report to generate it in the <u>Report Viewer</u>.

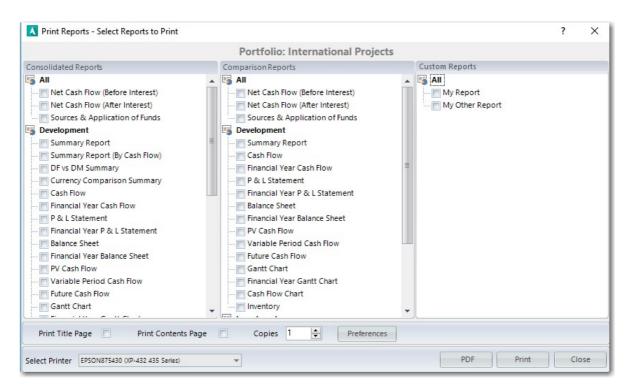
Printing a Custom Report

Custom reports can be printed via the Print Menu, along with the other standard reports.

7.8 Print Menu

The Print Menu allows the user to print Consolidated, Comparison or Custom Reports at a click of a button, either straight to a PDF file or to a Printer. It is loaded by clicking on the 'Print Reports' button on the Report Pane.





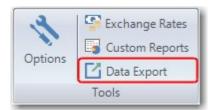
In addition to printing the various reports, the user can also tick the related checkboxes to print a:

- Title Page: Includes the corporate logo and the portfolio image
- Contents Page: Includes a list of all the Projects and their Cash Flows included in the portfolio.

Part Collins

8 Data Export

A data export feature is available in ARGUS EstateMaster CC that allows you to essentially export any data that exists in the Enterprise Database, to a flat file, either on a scheduled or ad-hoc basis.



- Important Note: If <u>Security Permissions</u> are enabled in your instance of ARGUS EstateMaster CC, then only Application Administrators will be able to:
 - Create a new ad-hoc or scheduled data export.
 - Run, edit or delete an existing scheduled data export.

8.1 Configuring a New Export

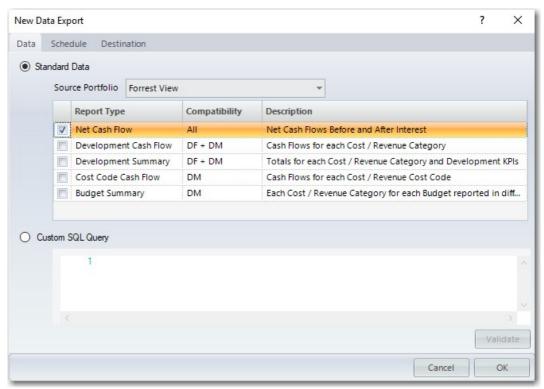
1. Click on the [Data export] on the ribbon menu to load the following dialog, and press [New Export]



2. The New Data Export wizard will appear on the [Data] tab.

You have the option of either selecting:

- a. **Standard Data**: You will need to select a Portfolio you want to export the data for, and the type of standard data sets available from the list.
- b. **Custom SQL Query**: You can enter your own SQL query to extract any data from the Enterprise Database.



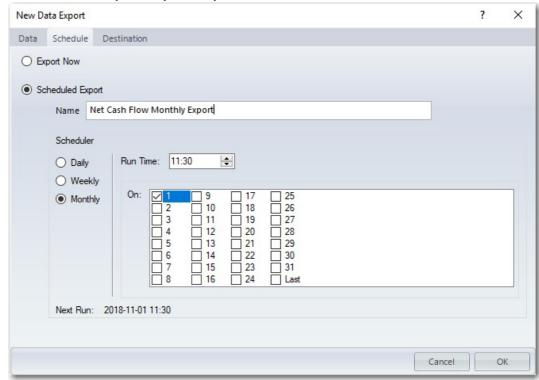
If selecting the Custom SQL Query, the syntax editor provided will guide you in entering the correct syntax. To test the query, click on the [Validate] button, and it will test it against your connected data base to ensure that all the objects referenced in it exist and can be read/executed.



3. Once the data options have been set, click on the [Schedule] tab.

You have the option of either selecting:

- a. **Export Now**: Select this option to do a one-off export.
- b. **Scheduled Export**: Select this option if you wish to created a task to run this data export on a scheduled basis. If this option is selected, you will need to give the Schedule a Name and

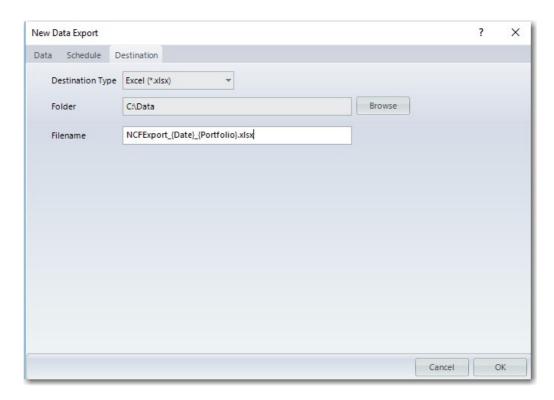


select either a Daily/Weekly/Monthly schedule.

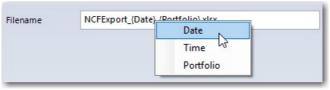
4. Once the schedule options have been set, click on the [Destination] tab.

On this tab you will need to set:

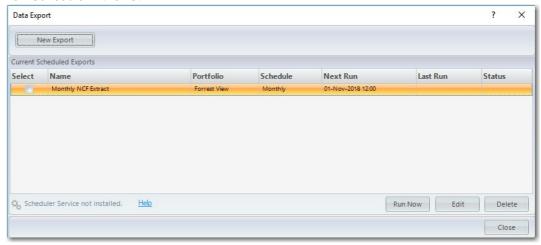
- a. Destination Type: You have the option of export to either Excel (*.xlsx) or CSV (*.csv) file format.
- b. Folder: Click on the [Browse] folder to select the folder you wish to save the exported files to.
- c. **Filename**: Set the filename of the exported file. You can use the following parameters in the filename in order to distinguish it from other export files:
 - i. {Date}: The date that the file was exported.
 - ii. {Time}: The time that the file was exported.
 - iii. {Portfolio}: The name of the Portfolio that was selected (only applicable if 'Standard Data' option was selected).



The parameters can be entered in manually, or you can right-click anywhere within the filename and select one from the list to insert it at your cursor.



- 5. When all settings have been configured, click on the [OK] button.
 - a. If the 'Export Now' option was selected, it will immediately execute the export, and save the xslx/csv file to the set location.
 - b. If the 'Scheduled Export' option was selected, it will return to the Data Export form, with the new schedule in the list.



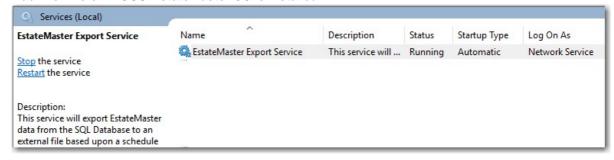
Important Note: Scheduled Exports require the 'EstateMaster Export Service' Windows Service to be running for it to successfully operate. Upon attempting to save a new

Scheduled Export, it will check your machine to see if the service is running locally. If it cannot find one, or it exists, but is in a 'stopped' state, the following message will appear.



The EstateMaster Export Service

A Windows Service called "EstateMaster Export Service" is installed automatically on the same machine where ARGUS EstateMaster CC is installed.



It monitors the list of scheduled data exports that have been defined using the process above, and executes the process to export the data.

- The Windows Service is set to run under the 'Network Service' Account by default. This account only has permissions to the local machine.
- If you need to connect to the SQL Server on another machine using Windows Authentication, or
 you need to save the generated export files to a network location that requires authentication, then
 we recommend that you set the "EstateMaster Export Service" to run as a user account with the
 required permissions.
- Important Note: If the Windows Service is manually changed to run as a specific user account, this will be reset to 'Network Service' each and every time ARGUS EstateMaster CC is upgraded.

8.2 Managing Scheduled Exports

Monitoring Export Status

To check if an export failed or was successful, click on [Data Export] in the ribbon menu to load the Data Export form.



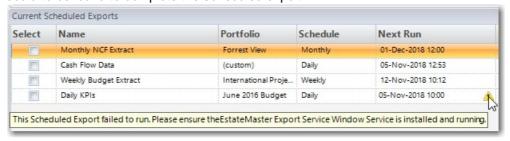
For each scheduled export, you will be able to see:

• Next Run: The date/time that the next export is scheduled for that item.

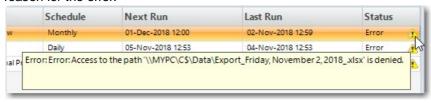
o If the scheduled export is currently in the process of running, a 10 icon will appear in this field.



o If the scheduled 'Next Run' has surpassed for more than 30mins without being executed, a icon will appear, warning that the most probable cause is that the Export Service has stopped or could to be found to complete the scheduled export.



- Last Run: The last date/time that the scheduled export was executed for that item.
- Status: Indicates whether the export failed or was successful. If it failed, the toolip on that item will
 indicate more details about that error
 - o If there was an error with the last scheduled export, you can hover over the ⁴ icon to see the reason for the error.



Editing a Scheduled Export

If you wish to edit an existing scheduled export (i.e. modify the schedule, destination, etc), select the relevant item from the list, and click [Edit]. The 'Edit Data Export' wizard will then appear.



Deleting a Scheduled Export

If you wish to delete an existing scheduled export, select the relevant item from the list, and click [Delete].



Part (LX)

9 Dashboards

9.1 Home

A dashboard is displayed on the bottom of the Home screen. Its aim is to provide the user with a high-level view of the Cash Flow data that exists in the Enterprise Database for the following:

- Feasibilities, modelled in ARGUS EstateMaster DF
- Developments, modelled in ARGUS EstateMaster DM



Important Notes:

- The Dashboard currently only reports development cash flow data only (i.e. DF or DM Cash Flows).
- Data from Hotel Feasibility (HF) and Investment Appraisal (IA) Cash Flows are currently being ignored in this dashboard.

Dashboard Settings

Currency Conversion

Where dashboards contain monetary outputs, ARGUS EstateMaster CC will indicate how that data is being presented. By default, it will adopt the Currency that has been set in the ARGUS EstateMaster Regional Settings, but you can alter this dashboard setting as and when required.



Include Completed

This settings determines whether 'completed' development cash flows are included or excluded in the dashboard results. A cash flows is deemed 'completed' by the following logic:

- For Feasibilities (DF Cash Flows), where the Cash Flow Start Date is before the current month. If
 there are feasibilities that have historical Start Dates, then they are deemed to be 'completed' for
 the purpose of this dashboard, and feasibilities that have a current or future Start Date are deemed
 to be 'active'.
- For Developments (DM Cash Flows), where the Cash Flow **End Date** is before the current month, and therefore no longer an 'active' cash flow.

Include Completed 🔽

9.1.1 Feasibilities



Dashboard Item	Description
No. of Cash Flows	The number of Feasibility Cash Flows (ARGUS EstateMaster DF) that are in the database, grouped by Project Type.
Feasibility Revenue & Cost by Type	 A break down of Total Net Revenues and Net Costs for Feasibility Cash Flows, grouped by Project Type. Total Net Revenues, are Sales/Rental/Other Income/Interest Received, less selling/leasing expenses and any GST/VAT/Sales Tax. Total Net Revenues, are all project costs, including corporate tax and financing interest/fees, but excluding any GST/VAT.
Feasibility Funding - Next 12 Months	A 12 Month Outlook for all expected Equity Injections and Loan1/2/3/Senior Loan Draw downs forecasted from Feasibility Cash Flows.

Important Notes: The cash flow data presented in these charts are dependent on the 'Include Completed' dashboard setting.

9.1.2 Developments



Dashboard Item	Description
No. of Cash Flows	The number of Development Cash Flows (ARGUS EstateMaster DM) that are in the database, grouped by Project Type.
Development Revenue & Cost by Type	 A break down of Total Net Revenues and Net Costs for Development Cash Flows, grouped by Project Type. Total Net Revenues, are Sales/Rental/Other Income/Interest Received, less selling/leasing expenses and any GST/VAT/Sales Tax. Total Net Revenues, are all project costs, including corporate tax and financing interest/fees, but excluding any GST/VAT.
Development Funding - Next 12 Months	A 12 Month Outlook for all expected Equity Injections and Loan1/2/3/Senior Loan Draw downs forecasted from Development Cash Flows.

Important Notes: The cash flow data presented in these charts are dependent on the 'Include Completed' dashboard setting.

9.2 Portfolios and Projects

A dashboard is displayed on the bottom of the Portfolios and Projects screen. Its aim is to provide the user with a quick snapshot of either a Portfolio, Project or individual Cash Flow without needing to open data files or generate reports.

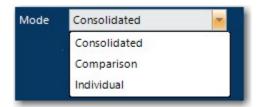


- Important Notes:
 - The Dashboard currently only reports development cash flow data only (i.e. DF or DM Cash Flows).
 - Data from Hotel Feasibility (HF) and Investment Appraisal (IA) Cash Flows are currently being ignored in the calculations of the dashboard KPl's.

Dashboard Settings

Modes

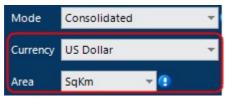
There are 3 different Dashboard Mode combinations available through the two drop-down list at the top left of the dashboard:



- 1. Consolidate: Consolidates the Cash Flows for the selected Project/Portfolio.
- Comparison: Compares the Best and Worst Options in the selected Project/Portfolio based on different KPIs.
- 3. Individual: Provides a snapshot for a single specific Cash Flow only.

Currency and Area Conversion

Where dashboards contain monetary or area outputs, ARGUS EstateMaster CC will indicate how that data is being presented.



The Currency and Area settings used to display the Dashboard

Depending on what the Dashboard Mode is, you may be able to adjust the settings for Currency and Area Conversion

Active Item	Currency	Area
Portfolio	 Defaults to the Currency set in the <u>Portfolio Settings</u> Can be changed on the Dashboard (will subsequently update Portfolio Settings) 	 Defaults to the Area set in the Portfolio Settings Can be changed on the Dashboard (will subsequently update Portfolio Settings)
Project	 Defaults to the Currency set in the individual Cash Flows in the Project, <u>if</u> they are all the same. 	 Defaults to the Area set in the most recent Cash Flows in the Project. Cannot be changed on the Dashboard

	 If there is a mix of Cash Flows with different currencies, no dashboard outputs will be displayed. Cannot be changed on the Dashboard 	
Individual Cash Flow	 Defaults to the Currency set in the individual Cash Flow Cannot be changed on the Dashboard 	 Defaults to the Area set in the individual Cash Flow Cannot be changed on the Dashboard

Settings for Dashboard KPI's

Some of the KPI's in the dashboard (mainly the IRR, NPV and Development Margin) are calculated either using the:

- The application's <u>KPI Defaults</u>: If a <u>Project</u> is selected, then the KPI Defaults are used for some calculations on the dashboard. If this is the case, the KPI will be marked with ①. To edit it the settings, go to [Tools] → [Options] and select 'KPI Defaults'.
- The specific KPI Settings for a Portfolio: If a Portfolio is selected, its specific setting for the KPI is used for this calculation on the dash board. These are set when creating a Portfolio and to edit them, right-click a Portfolio from the Portfolio Pane and select [Edit Portfolio Settings].
- The specific KPI Settings of a Cash Flow: When viewing an Individual dashboard, the relevant KPI's are calculated using the settings that has been applied to the specific Cash Flow in either the ARGUS EstateMaster DF or DM model itself. Therefore, those settings can only be edited while the Cash Flow is in either the ARGUS EstateMaster DF or DM program.
- A combination of settings: When viewing a Comparison dashboard, to ensure that the user is
 comparing KPI's that are calculated on a common basis, the IRR, NPV and Development Margin
 calculations use the settings from the KPI Defaults (if a Project is selected) or the KPI Settings (if
 a Portfolio) is selected, while the Discount Rate used and whether it is a nominal or effective rate,
 is determined from the specific settings of the Cash Flow itself.

Note About Dashboards

There are instances where the Dashboard will not display any data to the user. These are:

- 1. If you don't have permissions for that selected Portfolio, Project or Cash Flow.
- 2. If the selected Portfolio or Project only contains ARGUS EstateMaster Hotel Feasibility (HF) and Investment Appraisal (IA) Cash Flows.
- 3. If a Project is selected, and the Cash Flows in that Project have *different* currencies (currency conversion only apply to Portfolios)

9.2.1 Consolidated

Cash Flows	Site Area	Start Date	Margin	Gross Profit	Net Profit	Discount Rate	IRR	NPV	Equity IRR	Breakeven Date	Peak Debt
2	22,500	Jun '16	58.5%	37.8M	37.8M	30%	21.01%	(8.9M)	29.43%	May '20	May '18
											357

Development Cash Flows

Dashboard Item	Description	KPI Settings		
		Portfolios	Projects	
No. of Cash Flows	The number of Development Cash Flows (ARGUS EstateMaster DF and DM) that are in the selected Project or Portfolio.	N/A	N/A	

Site Area	The amalgamated site area of all the Development Cash Flows in the selected Project or Portfolio. If individual Cash Flows have different units of measurement for their site area, then the program will convert it to a common unit (as displayed in the Area drop-down)	Unit of Measurement: Based on Portfolio Preferences If one of the Development Cash Flows in the selected Project or Portfolio does not have a Site Area entered for it, then the dashboard will not display a consolidate Site Area, and a w arning will displayed.	Unit of Measurement: Based on the unit of measurements set in the most recent Cash Flow in the Project. If one of the Development Cash Flows in the selected Project or Portfolio does not have a Site Area unit of measurement entered for it, then the dashboard will not display a consolidate Site Area, and a w arning will displayed.
Start Date	The earliest date that any of the Development Cash Flows in the Project/Portfolio started.	N/A	N/A
Development Margin	The ratio of Development Profit to either cost, sales or total revenue.	Margin Denominator: Based on <u>Portfolio Preferences</u>	Margin Denominator: Based on <u>KPI Defaults</u>
Gross Profit	Total Revenue less Total Costs for the Project/Portfolio (after Tax paid and reclaimed, but before any profit share/split has been made to either the land ow ner or lender at the completion of the project).	N/A	N/A
Net Profit	Gross development profit for the Project/Portfolio, less any profit share/split to either the land ow ner or lenders.	N/A	N/A
Discount Rate	The Development Discount Rate (or Target IRR) is simplistically the desired returns on funds invested. For discounted cash flow analysis the discount rate is the rate at which future Development Cash Flows are discounted to present value.	Discount Rate: Based on Portfolio Preferences Discount Rate Conversion (p.a. effective or nominal): Based on Portfolio Preferences	Discount Rate: Based on KPI Defaults Discount Rate Conversion (p.a. effective or nominal): Based on KPI Defaults
IRR	The return on the Development Cash Flows or the discount rate at which the NPV equals zero.	Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on Portfolio Preferences Discount Rate Conversion (p.a. effective or nominal): Based on Portfolio Preferences	Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on KPI Defaults Discount Rate Conversion (p.a. effective or nominal): Based on KPI Defaults.
NPV	The Development Cash Flows are discounted to present value at the nominated discount rate (Target IRR).	Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on Portfolio Preferences Discount Rate: Based on KPI Defaults	 Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on KPI Defaults Discount Rate: Based on KPI Defaults

		Discount Rate Conversion (p.a. effective or nominal): Based on Portfolio Preferences	Discount Rate Conversion (p.a. effective or nominal): Based on KPI Defaults
Equity IRR	The IRR of the Equity Cash Flow including the return of equity and realisation of profits.	Discount Rate Conversion (p.a. effective or nominal): Based on Portfolio Preferences	Discount Rate Conversion (p.a. effective or nominal): Based on KPI Defaults
Breakeven Date	The date the Project/Portfolio Cumulative Cash flow first turns positive.	N/A	N/A
Peak Debt	The maximum cash flow exposure after equity and including capitalised interest.	N/A	N/A

9.2.2 Comparison

Margin		Net Profit		NPV		Project IRR	Equity IRR	Peak Debt	
⊯ 33.6%	Stage 2	1 9.5M		1 b 5.1M Pred		■ 0.5% Precinct 1	ılı -	1 9.7M 5	Stage 2
- (89.3%)	Stage 1	/ (6.8M)	Stage 1	∮ ¹ (7M) st	ige 1	9 (0.6%) Stage 1	4 1 =	9 19.7M Pre	ecinct 1

Development Cash Flows

Dashboard Item	Description	KPI Se	ettings
		Portfolios	Projects
Development Margin	The ratio of Development Profit to either costs or revenues, depending on the relevant KPI setting.	Margin Denominator: Based on <u>Portfolio Preferences</u>	Margin Denominator: Based on <u>KPI Defaults</u>
Net Profit	Gross development profit for the highlighted Cash Flows, less any profit share/split to either the land owner or lenders.	N/A	N/A
NPV	The Development Cash Flows are discounted to present value at the nominated discount rate (Target IRR).	 Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on Portfolio Preferences Discount Rate: Based on the rate set at the individual Cash Flow level. Discount Rate Conversion (p.a. effective or nominal): Based on Preferences set at the individual Cash Flow level. 	 Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on KPI Defaults Discount Rate: Based on the rate set at the individual Cash Flow level. Discount Rate Conversion (p.a. effective or nominal): Based on Preferences set at the individual Cash Flow level.
Cash Flow IRR	The return on the highlighted Cash Flows or the discount rate at which the NPV equals zero.	Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on Portfolio Preferences Discount Rate Conversion (p.a. effective or nominal): Based on	Cash Flow Inclusions (e.g. exc or exc financing, interest, etc): Based on KP Defaults Discount Rate Conversion (p.a. effective or nominal): Based on

		Preferences set at the individual Cash Flow level.	Preferences set at the individual Cash Flow level.
Equity IRR	The IRR of the Equity Cash Flow including the return of equity and realisation of profits.	Discount Rate Conversion (p.a. effective or nominal): Based on Preferences set at the individual Cash Flow level.	Discount Rate Conversion (p.a. effective or nominal): Based on Preferences set at the individual Cash Flow level.
Peak Debt	The maximum cash flow exposure after equity and including capitalised interest.	N/A	N/A

9.2.3 Individual

The KPI's displayed on the Individual dashboard are the same as the <u>Consolidated</u> dashboard, but only for a single Cash Flow.

Important Note:

- All the results (such as IRR, Development Margin, NPV) are calculated using the settings that has been applied to the specific Cash Flow in either ARGUS EstateMaster DF or DM before it is exported to the database. These settings include:
 - The Discount Rate (for the calculation of the NPV) and it's Annual to Monthly Conversion method (i.e. Nominal or Effective)
 - IRR/NPV calculation method (i.e. including/excluding financing costs, interest and corporate tax).
 - Development Margin calculation method (i.e. margin on costs including/excluding selling costs, leasing costs, etc)
 - o Area measurement (i.e. sqm, sqft, etc)
 - o Currency
- Therefore, those settings can only be edited while the Cash Flow is in either the ARGUS EstateMaster DF/DM application.

Part

10 Currencies and Exchange Rates

The ARGUS EstateMaster CC program has the ability to consolidate Cash Flows that have been developed in different currencies. It achieves this by allowing the user to maintain a Currency Exchange Rate table and then selecting what Currency a particular Portfolio should always be converted and reported in.

The Exchange Rate conversion affects the following areas of the program:

Generating Reports (either from a Portfolio or the 'View All Cash Flows' screen): If a
Portfolio contains Cash Flows based on different currencies, then the selected base currency in
its Portfolio Settings will convert all Cash Flows to a common currency for reporting purposes. If
the user is selecting multiple Cash Flows from the 'View All Cash Flows' screen and elect to
generate a report, they will be prompted to set the currency preferences, similar to creating a
Portfolio.

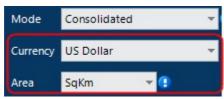


Setting the Currency for a Portfolio or selection of Cash Flows



Displaying the Currency on Reports

2. **Viewing the Dashboard**: If a Portfolio is selected on the Home screen and it contains Cash Flows based on different currencies, then the selected base currency in its Portfolio Settings will convert all Cash Flows to a common currency for viewing purposes.



The Portfolio Currency used for the dashboard

This does not apply to Projects that have Cash Flows with different currencies. No Dashboard data will be displayed in that instance, with a warning being displayed to the user.



Trying to view a Dashboard for a Project with different Currencies

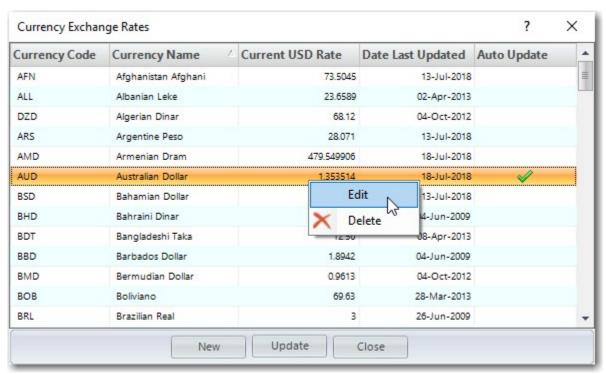
10.1 Editing Currencies

To edit a Currency, follow these steps:

1. Click [Tools] → [Exchange Rate]



2. Right-click the Currency to edit, and click [Edit].



- 3. The following Currency settings can then be edited:
 - a. Currency Code * The three-letter alphabetic ISO Code of the Currency
 - b. Currency Name *
 - c. **Exchange Rate** The US Dollar (ISO Code 'USD') is the fixed base rate and all other currencies must be entered as a ratio to it.
 - d. Auto Update Sets the Currency to be automatically updated from an online data source.

^{*} These fields can only be edited for custom Currencies added by the user.



4. Click [OK] to save the settings.

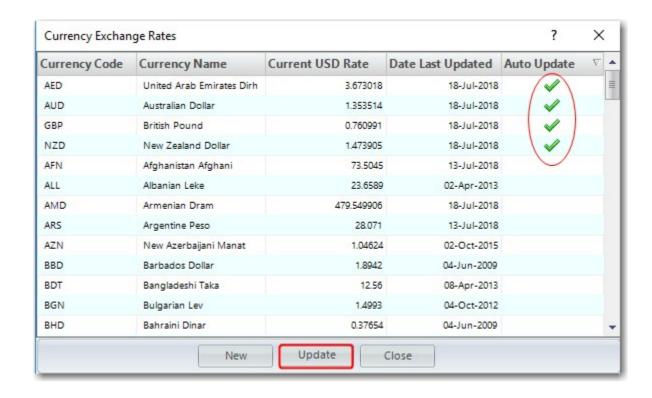
Exchange Rate Auto Update

ARGUS EstateMaster CC is able update certain currencies automatically, using an online data source called Open Exchange Rates (OXR).

- For <u>currencies that are supported by OXR</u>, you can enable the 'Auto Update' setting for that currency within ARGUS EstateMaster CC.
- For currencies that are not supported by OXR (or if ARGUS EstateMaster CC is running in 'Trial' mode), this setting will be disabled, and therefore the exchange rates can only be manually updated.



For Currencies that have been configured to 'Auto Update', on the main Currency list, they will be flagged with a green tick \checkmark . To then automatically update those currencies using OXR data, click on on the [Update] button and the application will attempt to connect to the online data source and fetch updated exchange rates.



10.2 Adding and Deleting Currencies

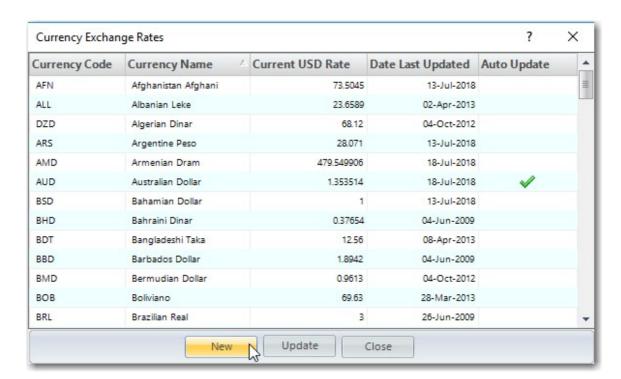
Adding a New Currency

To add a new Currency that is not in the list, follow these steps:

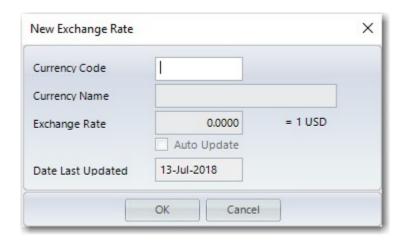
1. Click [Tools] → [Exchange Rate].



2. Click [New].

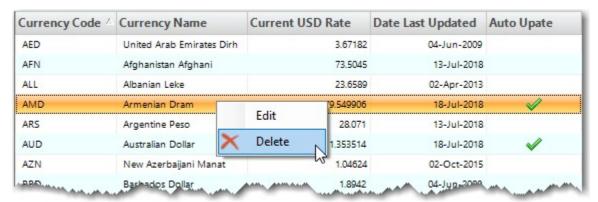


- 3. The following Currency settings can then be set:
 - a. Currency Code The three-letter alphabetic ISO Code of the Currency
 - b. Currency Name
 - c. **Exchange Rate** The US Dollar (ISO Code 'USD') is the fixed base rate and all other currencies must be entered as a ratio to it.



Deleting a Currency

To delete any of the custom Currencies that were added to the list by the user, right-click the selected Currency and select [Delete]



If the 'Delete' option is disabled, it means that it is a standard built-in Currency in ARGUS EstateMaster CC and cannot be deleted.

Part

11 Security Permissions

By default, there are no restrictions placed on users in Exporting/Importing Cash Flows to/from the Enterprise Database or generating reports in the ARGUS EstateMaster CC program. It is an open environment where users can read/write Cash Flow data that another user created, and this may be suitable for smaller organisations or single-user environments.

Where additional security of data is required, a feature is available in the ARGUS EstateMaster CC program to allocate permissions to users to be able to undertake certain actions, such as generating reports or editing Cash Flows that they didn't originally create. This feature is only available to users who are part of a 'Windows Domain', as it uses Windows Active Directory for user authentication.

There are 4 levels of Permissions in ARGUS EstateMaster CC:

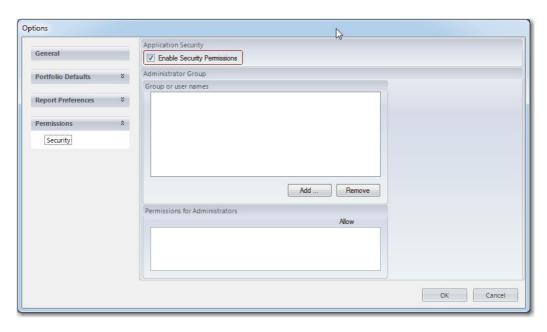
- 1. **ARGUS EstateMaster CC Administration**: Overall control of the application and the ability to apply permissions at any other subordinate level.
- 2. **Portfolio Permissions**: Control over reporting Portfolio data (reports and dashboard), editing the preferences and adding/removing Cash Flows to/from it.
- 3. **Project Permission**: Control over reporting Project data (reports and dashboard) and exporting/importing Cash Flows to/from it.
- 4. Cash Flow Permissions: Importing and deleting Cash Flows owned by a user.

Enabling Security Functionality

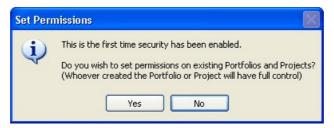
- 1. To enable this functionality, the user logged on must be part of the 'Domain Administrators' group on that network. If they are not, then this functionality cannot be enabled.
- 2. On the Menu Bar, click on [Tools] → [Options] → [Permissions]. If the software detects that the user is not part of a Windows Domain, then the following message will appear:



If the user is part of a Windows Domain and they are a Domain Administrator, then they can tick the [Enable Security Permissions] checkbox.



- 3. The first time the functionality is enabled, it will prompt the user whether or not to apply default permissions to Portfolios and Projects that were previously created.
 - If the user selects [Yes] (recommended), then whichever user originally created the Portfolio or Project will be given Full Control permissions for those objects.
 - If the user selects [No], then the permissions for each Portfolio and Project will need to be set manually.



4. Once enabled, the user can then commence to set Permissions at the various levels.

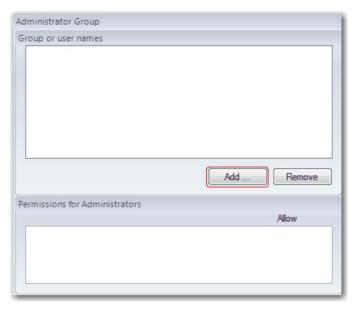
11.1 Application Administration

The Application Administration Permission level offers overall control of the application and the ability to apply permissions at any other subordinate level. There are only 2 types of users who can edit the Application Administration settings (Add/Remove/Edit Users or Groups)

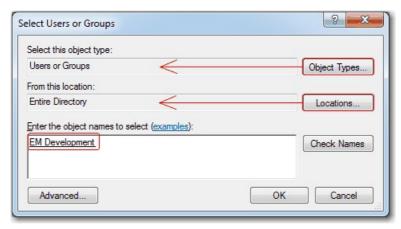
- 1. Domain Administrators
- 2. Other Users/Groups in the Application Administration group.

Setting Application Admin Permissions

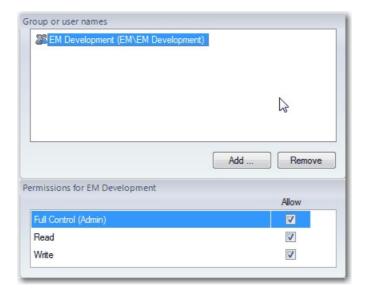
If the user is not already in the Options screen, click on [Tools] → [Options] → [Permissions].
 Once the screen is loaded, click on [Add] to add a new user to the Administrator Group



 A 'Select Users or Groups' screen will then appear. Make sure that 'Object Types' has been selected as 'Users and Groups' and 'Locations' has been set to 'Entire Directory', before entering a User/Group name in the field provided. To ensure that the name exists in the Windows Domain, click [Check Names]. Once the User/Group has been successfully found, click on [OK].



3. The program will then return to the Options screen, where the User/Group who was just added to the Application Admin group will appear in the 'Group or User Names' list. It is at this point where there specific permissions can be set.



Permissions

Below are the Permissions Levels required for the various actions at the Application level.

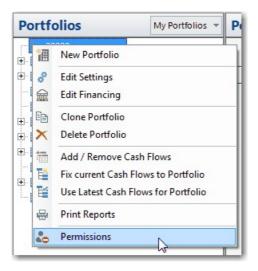
	Permissions Required		
Action	Full Control	Read	Write
Disable Program Security Permissions	✓		
Edit/Add/Remove Users/Groups in Application Admin	\checkmark		
Edit/Add/Remove Users/Groups in Portfolio Permissions	\checkmark		\checkmark
Edit/Add/Remove Users/Groups in Project Permissions	\checkmark		\checkmark
Edit/Add Exchange Rates	\checkmark		✓
Export a Cash Flow to any Project	✓		✓
Import any Cash Flow into DF/DM/IA/HF	✓	✓	
Create a Portfolio	✓	✓	✓
Edit Portfolio Settings	\checkmark		✓
Edit Portfolio Financing (if enabled)	✓		✓
Delete any Portfolio	✓		
Add any Cash Flows to any Portfolio	\checkmark		✓
Remove any Cash Flows from any Portfolio	\checkmark		✓
Delete any Cash Flow from the Enterprise Database	✓		√
Create/Import/Edit Custom Reports	✓		√
Create a new ad-hoc or scheduled Data Export	✓		√
Run, edit or delete an existing scheduled Data Export	\checkmark		✓

11.2 Portfolio Permissions

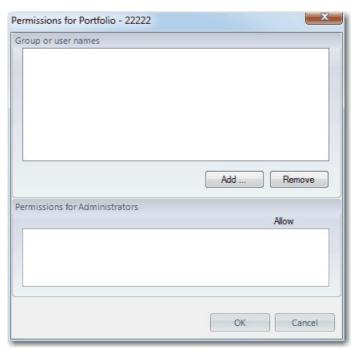
The Portfolio Permissions level offers control over reporting Portfolio data (reports and dashboard), editing the preferences and adding/removing Cash Flows to/from it.

Setting Portfolio Permissions

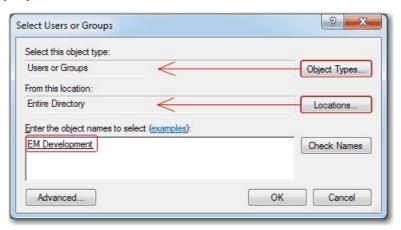
1. In the Portfolio Pane, right click the desired Portfolio and select [Permissions].



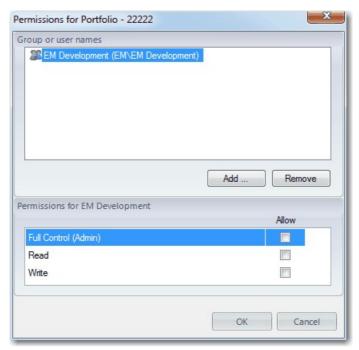
2. A 'Permissions for Portfolio' screen will then pop up. Click on [Add] to add a new user to the Portfolio Permissions Group.



3. A 'Select Users or Groups' screen will then appear. Make sure that 'Object Types' has been selected as 'Users and Groups' and 'Locations' has been set to 'Entire Directory', before entering a User/Group name in the field provided. To ensure that the name exists in the Windows Domain, click [Check Names]. Once the User/Group has been successfully found, click on [OK].



4. The program will then return to the 'Permissions for Portfolio' screen, where the User/Group who was just added to the Portfolio Permissions group will appear in the 'Group or User Names' list. It is at this point where there specific permissions can be set.



Permissions

Below are the Permissions Levels required for the various actions at the Portfolio level.

Please note the following:

• Any User can 'create' a Portfolio, and once they do so, the are automatically added to the Permission Group with 'Full Control' permissions.

Action	Permissions Required		
	Full Control	Read	Write
Edit/Add/Remove Users/Groups in Portfolio Permissions	√		
Create a Portfolio	√	✓	✓
Edit Portfolio Settings	√		✓
Edit Portfolio Financing (if enabled)	√		✓
Delete Portfolio	√		
Add Cash Flows to Portfolio *	√		✓
Remove Cash Flows from Portfolio	√		✓

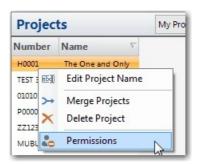
^{*} Only if the user has 'Read' access to the Project that the Cash Flow belongs to.

11.3 Project Permissions

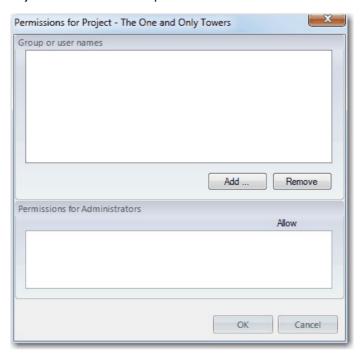
The Project Permissions level offers control over reporting Project data (reports and dashboard) and exporting/importing Cash Flows to/from it.

Setting Project Permissions

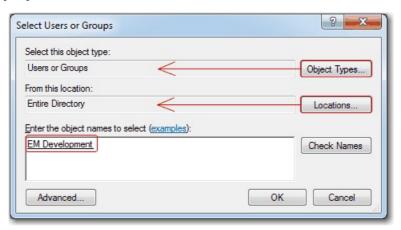
1. In the Project Pane, right click the desired Project and select [Permissions].



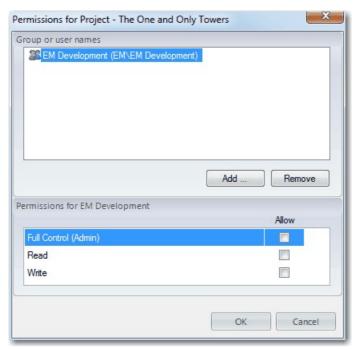
2. A 'Permissions for Project' screen will then pop up. Click on [Add] to add a new user to the Project Permissions Group.



3. A 'Select Users or Groups' screen will then appear. Make sure that 'Object Types' has been selected as 'Users and Groups' and 'Locations' has been set to 'Entire Directory', before entering a User/Group name in the field provided. To ensure that the name exists in the Windows Domain, click [Check Names]. Once the User/Group has been successfully found, click on [OK].



4. The program will then return to the 'Permissions for Project' screen, where the User/Group who was just added to the Project Permissions group will appear in the 'Group or User Names' list. It is at this point where there specific permissions can be set.



Permissions

Below are the Permissions Levels required for the various actions at the Project level.

Please note the following:

- Any User can 'create' a Project by being the first user to export a DF/DM/IA/HF Cash Flow to a
 particular Project (during the Export Wizard, it will prompt the user to create a new Project if
 required). Once they do so, the are automatically added to the Permission Group with 'Full
 Control' permissions.
- Users have 'Full Control' over any Cash Flow they 'own' these are Cash Flows that were exported by them into the Enterprise Database.

Action	Full Control	Read	Write
Edit/Add/Remove Users/Groups in Project Permissions	\checkmark		
Export a Cash Flow to Existing Project	✓		\checkmark
Import any Cash Flow from Project into DF/DM/IA/HF	✓	✓	
Add Cash Flows from Project to Portfolio *	✓		\checkmark
Delete Cash Flow from the Enterprise Database **	✓		√

^{*} Only if the user has 'Write' access to the Portfolio that the Cash Flow is being added to.

11.4 Cash Flow Permissions

The Cash Flow Permissions level permits importing and deleting Cash Flows owned by a user. There is no functionality to edit these settings, as they are automatically set and controlled by the system.

Basically, users have 'Full Control' over any Cash Flow they 'own' - these are Cash Flows that were exported by them into the Enterprise Database.

Once the Security Permissions functionality is enabled on the ARGUS EstateMaster CC program, then:

- Users can only Import Cash Flows from the Enterprise Database into DF/DM/IA/HF that they 'own'.
- Users (unless they are a Application or Project Admin), can only delete Cash Flows from the Enterprise Database that they 'own'.

^{**} Applies also if the users 'owns' the Cash Flow.

11.5 Preference Permissions

Once Security Permissions have been enabled in ARGUS EstateMaster CC, the user will be provided with additional options to lock/unlock specific Preferences:

- If 'Enable Security Permissions' is ENABLED and the user running ARGUS EstateMaster CC, is part of the 'Administrator Group', an unblock/lock button will be displayed next to each Preference Option, depending on their current lock status.
- If 'Enable Security Permissions' is ENABLED and the user running ARGUS EstateMaster CC IS NOT part of the 'Administrator Group, unlock/lock buttons will not be displayed, and therefore they cannot lock or unlock any setting. A Preference Option may be enabled/disabled, depending on their current status.
- If 'Enable Security Permissions' is DISABLED, unlock/lock buttons will not be displayed and all Preference Options will be ENABLED



Portfolio Defaults

Once any changes are made to the lock status of any setting in the 'Portfolio Defaults' via the 'Options' form:

- 1. **For New Portfolios**: These same Lock settings are replicated to any new Portfolios that are created moving forwar
 - a. Only users who are part of the 'Administrator Group' will be able to unlock/lock them on an individual Portfolio basis
 - For any Portfolio Setting that was not available in 'Portfolio Defaults' (i.e. Title & Description, Corporate Equity, Report Labels and Portfolio Logo), these will remain editable at all times
- 2. **For Existing Portfolios:** The user is prompted to unlock/lock the same Preference for all existing Portfolios.