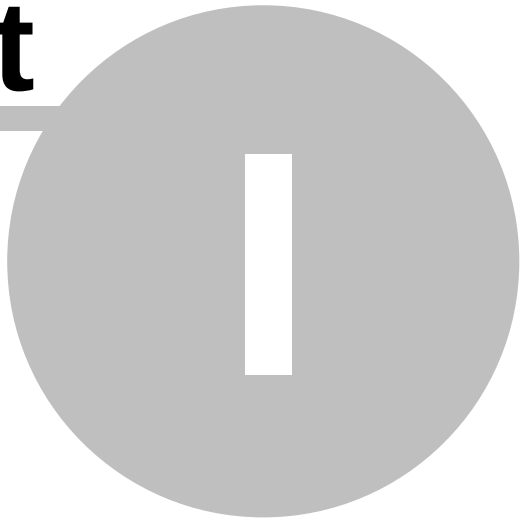
Estate Master DM
Software User Manual

EstateMaster
www.estatemaster.com

Table of Contents

Part



1 Introduction to Estate Master

1.1 Introduction

Estate Master DM is a cash flow model designed to track your development cash flow once the project commences, right through to completion. It assists with the efficient management of any property development project, allowing the user to manage and track the project's costs and revenues, update forecasts with actuals and compare the current forecast with previously stored budgets.

The Program can be used to:

- Import Estate Master DF feasibilities as the original budget/forecast
- Customise account codes to allow data to be imported from accounting systems
- Overwrite forecast data with actuals and report on budget variances against the original and previous forecasts
- Track commitments, accruals, actuals to date and forecast to completion
- Update forecasts on Profit, NPV, IRR and other key performance indicators
- Manage the project via the dynamic Gantt chart.
- Track a project's cash flow and risk exposure.

1.2 Program Integrity

Every effort has been made to provide a quality product that is simple, flexible and detailed in its analysis.

The Estate Master DM program has been sealed to safeguard the integrity of the program and formulae. If the seal is broken the validity of the formulae and program calculations cannot be guaranteed any more. Therefore, we recommend that the authors be notified of any problems rather than the user attempting to rectify the problem by removing the protection facility.

To this end any modifications to the Estate Master DM program are prohibited without the express written approval of the authors Estate Master Pty Ltd.

Also, we cannot guarantee that the program is or will remain error free for every possible input permutation. To retain the integrity of the programs we recommend you audit the models on a regular basis with manual reality checks on the output results.

Furthermore the program assumes certain tax assumptions such as rates of stamp duty. These may change in time and it is important for the user to keep abreast of such changes and know how they effect the model's assumptions.

If you have any queries or suggestions for improvements, please contact us:

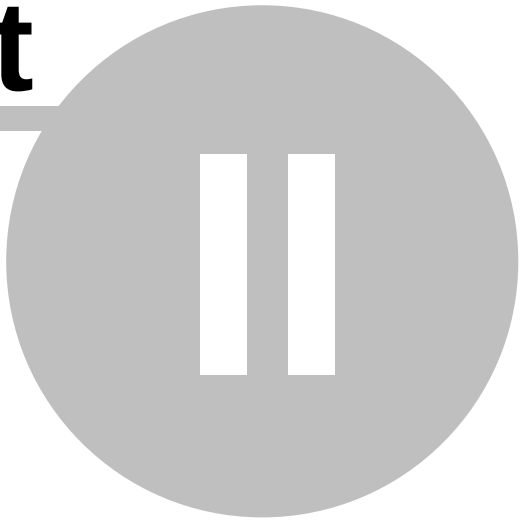
1.3 System Requirements

To install and operate Estate Master DM efficiently, the following is recommended:

- PC with an Intel Core 2 Duo (3GHz) or Quad (2.4Ghz) minimum processor (or equivalent).
- Any Windows Operating System that supports Microsoft .Net Framework 4.0 (Microsoft Windows XP SP3 Home/Pro or later -or- Microsoft Windows Server 2003 or later)
- Microsoft Report Viewer 2008.
- Microsoft .Net Framework 4.0 or higher.
- 2Gb RAM or higher.
- Internet connection (for downloading files and activating licences).

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

Part



2 Introduction to Development Analysis

2.1 Development Margin

Before the widespread use of personal computers the traditional approach to development analysis was to:

- Estimate the total development cost for a project in current dollars (non inflated) including interest on 100% borrowings;
- Estimate the sale prices (less selling costs) based on comparable sales or income capitalisation expressed in current dollars;
- Calculate the net profit by subtracting total development cost from revenue; and
- Calculate the development margin by dividing profit by total development cost:

$$\textbf{Development Margin} = \frac{\text{Net Profit} * 100\%}{\text{Total Development Cost}}$$

Through experience, a 15% to 30% development margin was considered adequate for a project to be viable, although this would vary according to the level of project, financial and market risk.

Example of Development Margin Method

	Units	$ Rate Per Unit	Total
Revenue			
Sale of units	50 units	500,000	27,500,000
Less: GST	7.5% of gross sales *		-2,050,000
Less: Selling costs	3.5% of gross sales		-962,500
Net Sale Proceeds			**24,487,500**
Costs			
Land purchase price	5,500 sqm	900	4,950,000
Other acquisition costs			262,750
Demolition			150,000
Construction costs	5,500 sqm	1,700	9,350,000
Professional fees			855,000
Government charges			913,000
Land holding costs			369,000
Finance			3,058,155
Fees and Charges			140,000
Total Project Costs			**20,047,905**
Profit			**4,439,595**
Margin			**22.14%**

2.2 Time Value of Money

The traditional development method of project appraisal however was recognised to be flawed when one or more of the following factors were involved:

- Inflation and above inflation escalations occurred with costs and sale values;
- Project periods extended beyond two or more years;
- Other medium term investments competed for funds; and
- Costs and sales were staged giving variable cash flow exposures.

The analytical drawback is due to the fact that the traditional approach does not account for the time value of money. Usually, a dollar today is more valuable than a dollar next year. Future cash flows should therefore be reduced (discounted) in value to reflect their current (present) value.

To demonstrate the time value of money, consider the case in which an individual receives a sum of $1,000 and invests it at a return of 10% per annum compounded in Government Bonds. The $1,000 will grow to $1,100 at the end of year 1 and $1,210 at the end of year 2 and so on. It is assumed that this 10% return represents the best use for the funds at a risk free rate. In this example, the investor should value $1,100 in a years time or $1,210 in two years time as equivalent to $1,000 now (ie. its present value). The reduction of future dollars to its equivalent value in money today is known as discounting. Discounting is the reciprocal of compounding and is expressed in the following formula:

$$\mathbf{PV=} \quad \frac{FV}{(1+i)^n}$$

Where:
PV = Present Value;
FV = Future Value (predicted amount);
i = Discount Rate per period of time; and
n = number of periods.

2.3 Discounted Cash Flow Analysis

Discounted Cash flow analysis takes into account the time value of money in a much more detailed way than the developer's profit margin by considering the timing of all costs and incomes.

The first requirement of cash flow analysis is to create a tabulation of money and time with cash flow items along one axis and time on the other axis. In other words the same cash items used in the traditional approach (except interest on finance), are tabulated against equal time periods (months, quarters or years) and the values of those cash items are recorded in the time period are forecasted. Interest is excluded because this is incorporated in the discount rate as demonstrated above.

The value of all cash items are totalled for each time period (with cost items being negative and revenue items being positive) resulting in a net cash flow range through time. This range of net cash flows is discounted to present value. The resultant net present value (NPV) measures the difference between the discounted revenues and the discounted costs. This is the first and perhaps the most important performance indicator. A positive NPV implies that the present value of incomes exceeds the present value of costs and the project is therefore feasible.

The other primary indicator is the internal rate of return (IRR). This is the discount rate at which the net present value equals zero. Possibly a better way to understand its meaning is to express it as the maximum interest rate that can be charged to a fully funded project before the project would show a net loss.

Example of Discounted Cash Flow

Year	0	1	2	3	4	Total
Revenue						
Sale of building units A				15,000,000		15,000,000
Sale of building units B					12,500,000	12,500,000
Less: Selling costs				-525,000	-437,500	-962,500
Less: GST				-1,125,000	-937,500	-2,062,500
Net Sale Proceeds				**13,350,000**	**11,125,000**	**24,475,000**
Costs						
Purchase price	4,950,000					4,950,000
Stamp duty	222,750					222,750
Other purchasing costs	40,000					40,000
Construction						
Demolition		150,000				150,000
Construction building A			5,100,000			5,100,000
Construction building B				4,250,000		4,250,000
Professional fees		13,500	459,000	382,500		855,000
Statutory contributions A			420,000			420,000
Statutory contributions B				350,000		350,000
Water contribution A			78,000			78,000
Water contribution B				65,000		65,000
Land holding costs		123,000	123,000	123,000		369,000
Finance fees and charges	140,000					140,000
Total Costs	**5,352,750**	**286,000**	**6,180,000**	**5,170,500**	**0**	**16,989,750**
Net Cash Flow (NCF)	**-5,352,750**	**-286,500**	**-6,180,000**	**8,179,000**	**11,125,000**	**7,485,250**
Discount Factor @ 20.0%	1.00	0.83	.0.69	0.58	0.48	
Discount NCF	**-5,352,750**	**-238,750**	**-4,291,667**	**4,733,507**	**5,365,066**	**215,406**
NPV @ Discount Rate of 20.0%						**215,206**
IRR						**20.98%**

2.4 Performance Indicators

Development Margin

Is used as a reflection of profitability and is the percentage return of net profit over total development cost calculated in the following way:

$$\textbf{Development Margin} = \frac{\text{Net Profit} * 100\%}{\text{Total Development Cost}}$$

Where:
Net Profit = Total Revenue less Total Development Cost; and
Total Development Cost includes all finance and interest charges, land holding and selling costs.

Residual Land Value Based on Target Developers Margin

Is the maximum price that can be paid for the land and still achieve the desired development profit margin (Target Margin).

Net Present Value

Is the sum of the present values of all project cash inflows and outflows over the life of the project. A positive NPV infers an Internal Rate of Return (IRR) greater than the discount rate. Interest on borrowings and interest received on re-investment of surplus funds and equity is ignored since this is incorporated in the discount rate. The formula is:

$$\textbf{NPV} = \sum_{n=t}^{n=0} \left[\frac{FV}{(1+i)^{n}} \right]$$

Where:
PV = Present Value;
FV = Future Value (predicted amount);
i = Discount Rate per period of time; and
n = number of periods.

Internal Rate of Return (IRR)

Is the discount rate at which the sum of the discounted negative cash flows equals the discounted positive cash flows, i.e. the discount rate at which the NPV equals zero. Simplistically the IRR represents the ACTUAL RETURN on funds invested. Interest on borrowings is ignored since this is incorporated in the discount rate.

Residual Land Value Based on NPV

Is the value of land which makes the net present value of the project = Zero or the IRR = Target IRR or Discount Rate. It is the maximum price to be paid for the land (excluding transaction costs) that will make the project feasible.

2.5 Discount Rate

Discount Rate (or Target IRR) is simplistically the DESIRED RETURN on funds invested. For discounted cash flow analysis the discount rate is the rate at which future cash flows are discounted to present value. For a development to be feasible the discounted value of future cash flows (Net Present Value) must be greater than zero. A feasible project will have an internal rate of return (FORECAST RETURN) greater than the discount rate (DESIRED RETURN).

A simple and popular method for choosing a discount rate in discounted cash flow analysis is an "Opportunity Cost of Capital" rate, which is given, in the following formula:

Discount Rate = Inflation + Risk Free Rate of Return (Cost of Capital) + Risk Premium

The risk free rate of return or cost of capital reflects the opportunity cost in not proceeding with the

development. It may be defined by the current 5-10 year Government Bond rate. Note this includes an expectation of long-term inflation. If a zero inflation model is adopted then a medium term market forecast of inflation should be subtracted from the Government Bond rate to calculate the real risk free rate of return.

Risk Premium

Risk Premium is the level of discounting over and above the risk free rate (or cost of capital), which reflects the level of risk in the project.

Weighted Average Cost of Capital

A more sophisticated method of calculating the discount rate is the WACC which is the weighted required rate of return on debt and equity funding. The formula is as follows:

$$\textbf{WACC} = \frac{D}{(D+E)} * R_D + \frac{E}{(D+E)} * R_E * (1-T_R)$$

Where:
D = Total Debt
E = Total Equity
R_D = Cost of Debt (risk free rate of return plus debt premium based on the credit rating of the company); and
R_E = Cost of Equity (required return on equity)
T_R = Corporate Tax Rate

A popular method of calculating the required return on equity is the capital asset pricing model (CAPM). The formula is:

$$\mathbf{R_E} = R_F + ß * (R_M - R_F)$$

Where:
R_E = expected return on equity;
R_F = risk free rate of return (10 year Commonwealth Bond rate);
ß = sensitivity of an investment's return to the return on the hypothetical market portfolio of shares;
R_M = expected nominal return on the market portfolio (approximated by the yield on the market portfolio of common equity shares); and
$(R_M - R_F)$ = the market risk premium, or additional return demand by investors for holding risky assets.

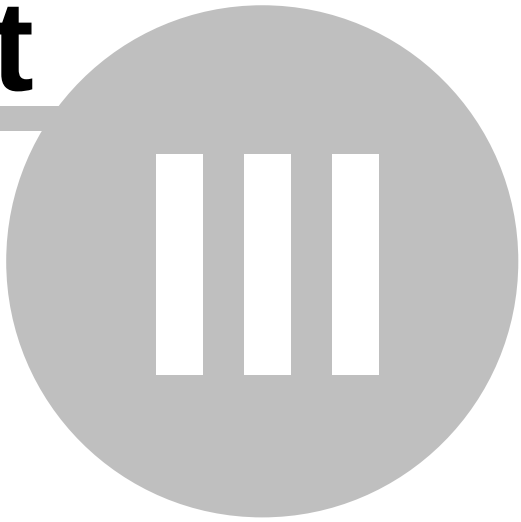
2.6 Risk Assessment

Risk is usually dealt with in several ways:

- Incorporating a risk premium in the discount rate. This is based on the concept that developers and investors expect higher returns for more risky projects.
- Use of sensitivity testing whereby different low, medium and high values for risky variables are incorporated to test the effects on the performance indicators.
- Application of Scenario Analysis, which records the results from a combination of variations.
- Application of Probability Analysis to produce a probability distribution of outcomes.

The second method has an advantage over the first method since combinations of different values for different risky variables can provide a range of outcomes. However neither method provides a consideration of the probability of those outcomes. Monte Carlo method assigns probability distributions to the risky variables but because of its complexity and limitations this method is not often used in the property development industry.

Part



3 Navigating Estate Master DM

3.1 Quick Start

1. Open the Estate Master DM program.
2. Open an existing Estate Master DM data file (*.emdm) using the [File] ➔ [Open] command Open, or start inputting data to create a new data file.
3. Enter preliminary data into 'Intro' sheet, such as Project Name, Address, etc. Please note that many of the fields on this sheet are mandatory, and you will not be able to save a file if they haven't been entered.
4. Set Preferences by running the 'Preferences' function Preferences from the Ribbon Menu (or by pressing [F12]).
5. Navigate around the program by using the 'Go to Inputs' or 'Go to Reports' function from the Application Menu or by selecting the relevant worksheet tabs.

6. Enter data into input cells with a font colour of **blue** or **purple**. Fixed cells (non input) have a **black** font colour. The worksheets are locked, so the program will only allow you to enter data into the relevant input cells.

Input Cells
Blue Font Cells: Cells with blue font are the main input cells in the program.
Green Font Cells: Cells with green font relate to presales and are not relevant if you are not taking presales into account.
Purple Font Cells: Cells with purple font relate to inputs that are entered via a list selector. When selecting the cell, a drop-down arrow will appear. Click the arrow and a list of options for that input cell will be displayed.

Input Global Budget Information

- In the 'Setup' and 'Cash Flow' sheets.
- Enter data into input cells with a font colour of blue, purple or green.
- Fixed cells (non input) have a black font colour. Because the worksheets are protected and locked, the model will only allow you to enter into the relevant input cells.
- When starting a fresh model the original budget information can be manually input into the model or imported from a compatible Estate Master DF model using the import feasibility function.
- These inputs are dynamic and should be updated by the user if the program assumptions change during the project.
- Check that your assumptions are correct and targets are met and if necessary return to the 'Setup' and 'Cash Flow' sheets to add or adjust your assumptions.

Set Original Budget

- It is recommended to set the original budget at the beginning of the project once it has been entered into the model. The performance of the project will be reported against the Original Budget on a frequent basis.

- To set the Original Budget use the 'Set as Original Budget' option under 'Management Tools' in the Ribbon Menu. Future updating of the Original Budget can be disabled and locked in the Estate Master Preferences.

Input Actual Costs in the Cash Flow Sheet

- The actual costs of the project can be entered directly into the cash flow to accurately maintain a history of the project.
- The user can also import data from their accounts system to update the cash flow with actuals.
- The model will automatically reforecast costs and revenues based on the actual costs entered.

Roll Forward and Produce Management Reports

- Once the actual data has been entered into the cash flow the model can be rolled forward one time period and may set the current forecast as the previous forecast. Any variations to the current forecast will now be represented as a variation to the previous forecast (if stored).
- When you are satisfied that the information has been entered correctly you may select the Printing Options. This will allow you to print management reports to detail the history of the project and any variations to forecasts.
- Save your changes using the [File] ➔ [Save/Save As] command 

on the Ribbon Menu.

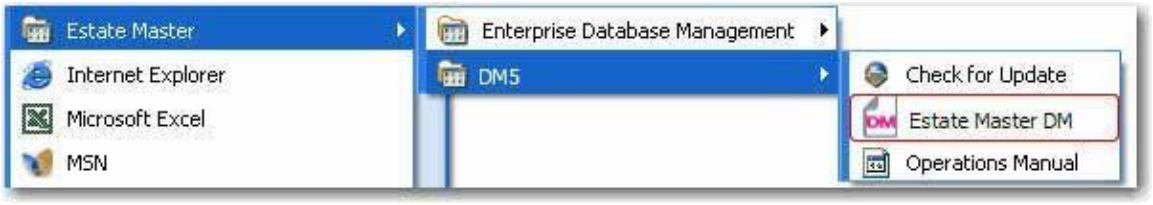
Conduct a Risk Analysis

- When data input is complete, you may run the Residual Land Value Analysis  , Sensitivity Analysis  or Probability Analysis  by clicking on the button on the relevant worksheets.

3.2 Opening and Closing Files

Starting Estate Master DM

1. In Windows go to the [Start] ➔ [Programs] ➔ [Estate Master] ➔ [DM*x*] and click on [Estate Master DM].



2. The program will begin to load with a new blank workbook, ready for the user to start entering data.

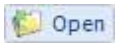
Opening a New Estate Master DM Data File

1. Use the [New] command 

to load a new blank workbook window.
2. You can open up to 4 new workbook windows in the Estate Master DM application.

Opening an Existing Estate Master DM Data File

1. Open an existing Estate Master DM data file (*.emdm) either by:

   a) Using the [Open] command 

to browse to and open the file.

   b) Browsing Windows Explorer and double-clicking on a data file 

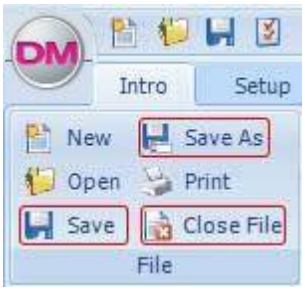
to open it.

2. If the file was previously saved with a password, then it will prompt you to enter the password before opening it.

3. You can open up to 4 workbook windows in the Estate Master DM application.

Saving and Closing an Estate Master DM Data File

1. After using the program, save the file if required by one of many different buttons on the Toolbar.
2. Please note that some of the fields on the 'Intro' and 'Setup' sheets are mandatory, and you will not be able to save a file if they haven't been entered.
3. If you have elected to save files with a password in the Preferences, then it will prompt you to enter the password and confirm it before saving.
4. Close the currently active DM file by using the [Close File] command 



Exiting from Estate Master DM

1. When finished, close the application either by:

   a) clicking on [X] in the top right corner,

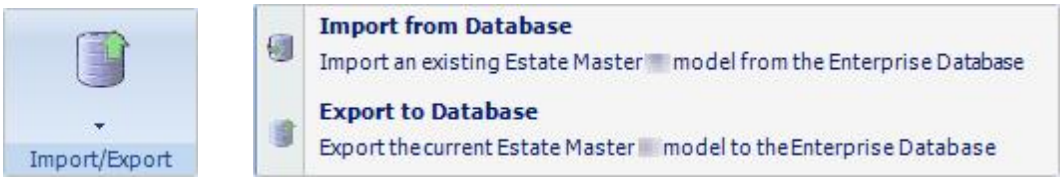
   b) double clicking the Estate Master DM icon in the top left corner or

   c) selecting [Exit] from the Application Menu.

Saving to File vs Exporting to Database

In addition to saving a DM datafile (*.EMDM), the user can also save (export) the DM data to the Estate Master Enterprise Database. This database must be set up by an IT Administrator before attempting to Export/Import DM data.

The Save function only saves the DM data to a standalone file (useful for sharing data amongst other users), however using the Import/Export functions, the user can also export all their DM data to the central database for archiving, retrieval and advanced reporting using the Estate Master CC software.



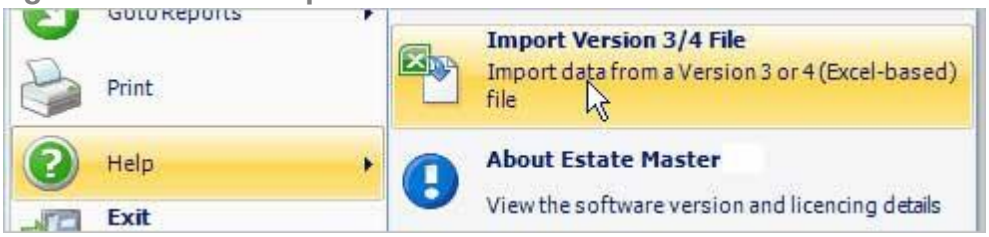
3.3 Importing Data from Versions 3 and 4.

After installing the new .Net-based version of the software, it is recommended that any job files that were created in previous Excel-based versions of the software be transferred to the new version.

Using the Enterprise Database Import function

1. If you have used the Enterprise Database to store you previous Estate Master DM cash flows, then use the Import function to import data to your new Estate Master DM template file.
2. If you are not a Enterprise Database user, you can use the 'Import From Version 3/4' function.

Using the Automatic Import from Version 3/4 Feature



1. Open the latest version of Estate Master DM go to the Application Menu.
2. Go to 'Help' and select ‘Import Version 3/4 File'.
3. The program will then prompt you to select the working file created in the previous version and it will import the relevant data from it into the new version.
4. Follow the prompts to complete the process and take note of any warnings or messages.
5. If a message appears claiming that the file is not compatible for importing, you must manually import data (below).

Manually Importing Data

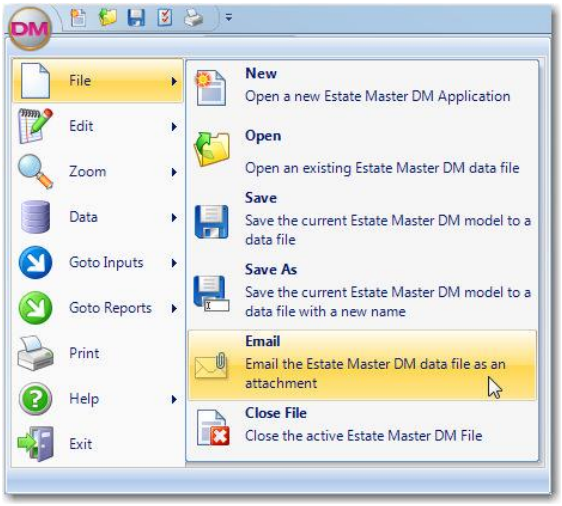
1. Open the new version and any job file that was created in previous Excel-based versions of the software.
2. While having both files opened (new version and old version) you can manually copy inputs from the old version and paste them into the new version. It is recommended to set the input preferences and resizing of the model before transferring the data across.

3. Remember that you may need to transfer data from the following sheets: Setup, Cash Flow (manual equity injections, principal repayments, rate interest variations) and any user-inserted worksheets.
4. Once all the data for one file is transferred, save it under a new file name and rename the old file to avoid confusion (eg. Project - OLD.xls).
5. Complete this process for all existing working files. Once it is satisfied that all data has been successfully transferred, it is recommended that you delete/archive any old files.

3.4 Emailing Files

The program has inbuilt emailing functionality to allow you to email files without having to save them and then attach them manually to an email message. No other email software (such as Outlook, Lotus Notes, etc) is required, only an internet connection and valid SMTP (Simple Mail Transfer Protocol) settings.

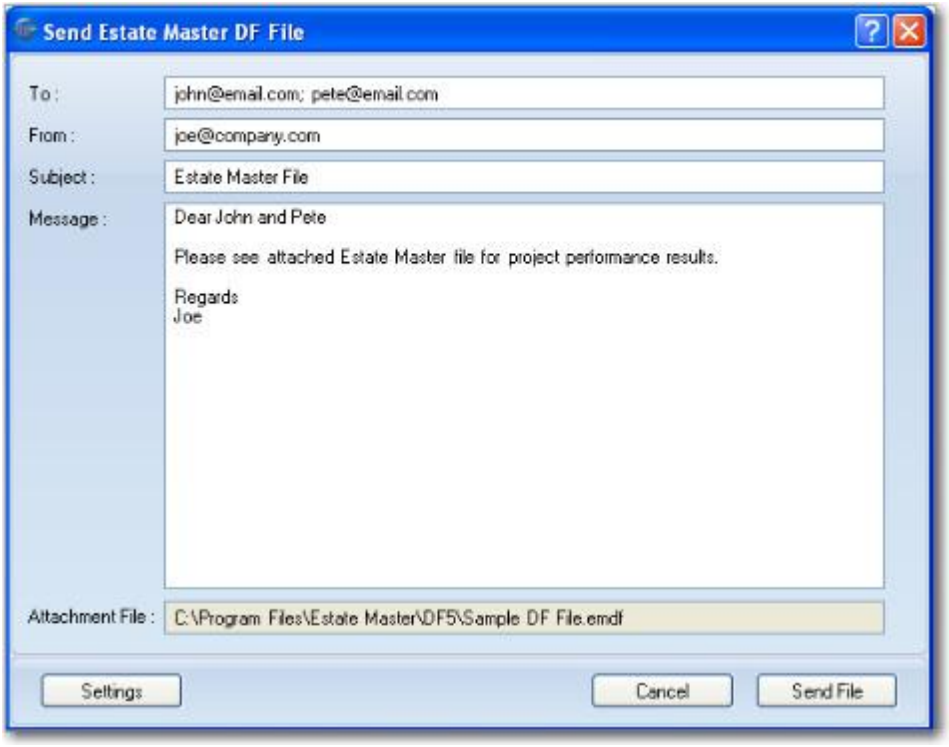
The email function is found in the Application Menu, under 'File'.



When 'Email' is clicked, it may first prompt you to save your file (if there have been any changes to your file since the last save). Once the file is saved, it will load a form where the user can enter the following information (* denotes mandatory fields):

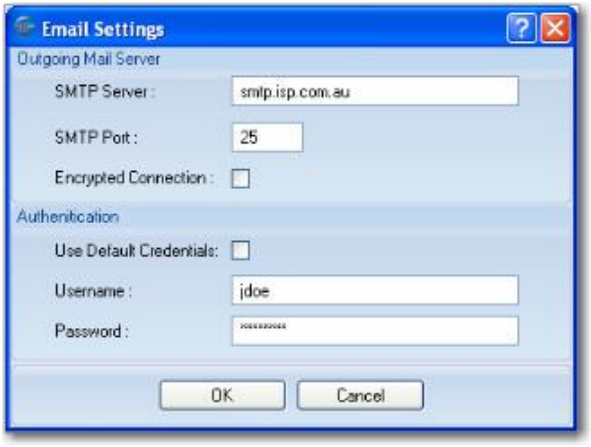
- **TO*** email address(s): You can enter multiple email address in this field, separated by by a '**;**' semi-colon (e.g john@email.com; pete@email.com)
- **FROM*** email address. Only one email address can be entered here. This is also the email address that the recipient can reply to.
- **SUBJECT*** of the email.
- **MESSAGE** text for the body of the email.

You will notice that the data file is already attached to the email message.



Before any files can be emailed through this feature, the SMTP settings must be configured. This is done by clicking on the 'Settings' button and entering in the following information:

- **SMTP Server**: Your SMTP server name (e.g. smtp.yourISP.com)
- **Port**: The TCP (Transmission Control Protocol) port that the SMTP server uses. This is usually port 25.
- **Encrypted Connection**: Select this if your SMTP server name uses a SSL (Secure Sockets Layer) connection.
- **Use Default Credentials**: Specifies whether the default user credentials should be used to access the SMTP mail server. If it is not selected, then the you must enter in a username and password.
- **Username**: The user name to use for authentication to the SMTP mail server.
- **Password**: The password to use for authentication to the SMTP mail server.



Please note:

- These settings are application and machine specific, therefore you will need to configure them for each Estate Master application installed on a PC/Server, and each PC/Server that has the software installed.
- If you do not know your SMTP settings, please consult your IT Administrators or your Internet Service Provider.

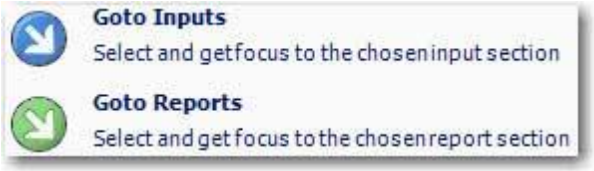
Once these settings have been configured, the software is ready to email files. When the 'Send' button is clicked, it will validate the email address(s) and the SMTP settings you have entered.

- If the email was successfully sent, a message will appear to inform you.
- If there was any error in trying to send the file, a message like this may appear: If you receive an error, please consult your IT Administrator to verify that the SMTP settings have been entered correctly or to use an alternative SMTP server.

3.5 Navigation

The Estate Master DM program is subdivided into a series of worksheets.To navigate around the Estate Master DM program, there are two methods available:

1. Use the 'Go to Inputs' and 'Go to Reports' navigation tool on the Application Menu.



2. Click on the relevant worksheet tabs (below or above workbook area).

Intro	Introduction page. Enter project name and other details.
Setup	Data input sheet for global budget parameters on escalation, GST/VAT, finance, etc
Cash Flow	Primary data input sheet. This is where costs and revenue forecasts and actuals are entered and monitored. This sheet can transform into a Gantt Chart.
Financials	Profit and Loss and Balance Sheet reporting.
Summary	The development financial summary containing the financial performance indicators for the Current, Previous, Project and Original Forecasts.
Charts	Project cash flow charts for the various forecasts.
Sensitivity	The tables and charts from the Sensitivity Analysis.
Probability	The Probability Analysis inputs and distribution profiles of the Development Margin and IRR.
S-Curve	The look-up tables for the development cost drawdown s-curves.
Taxes & Duties	The adjustable stamp duty and lax tax calculation tables.

3.6 Keyboard Shortcuts

The following are some keyboard shortcuts to assist in navigation, data entry and working with cells and worksheets.

Navigation

Page Down / Page Up	Move one screen down / one screen up in a worksheet
Tab / Shift+Tab	Move one cell to the right / to the left in a worksheet
Ctrl+Arrow Keys	Move to the edge of next data region (cells that contains data)
Home	Move to the beginning of a row in a worksheet
Ctrl+Home	Move to the beginning of a worksheet
End	Move to the end of a row in a worksheet
Ctrl+End	Move to the last cell with content on a worksheet
Ctrl+f	Display the Find and Replace dialog box
F5	Display the 'Go To' dialog box to navigate to defined range names

Working with Cells

Shift+Space	Select the entire row
Ctrl+Space	Select the entire column
Shift+Arrow Keys	Extend the selection by one cell
Ctrl+Shift+Arrow Key	Extend the selection to the last cell with content in row or column
Shift+Page Down / Shift+Page Up	Extend the selection down one screen /up one screen
Shift+Home	Extend the selection to the beginning of the row
Ctrl+Shift+Home	Extend the selection to the beginning of the worksheet
Ctrl+Shift+End	Extend the selection to the last used cell on the worksheet (lower-right corner)

Insert and Edit Data

Ctrl+z	Undo last action (on the active worksheet)
Ctrl+y	Redo last action (on the active worksheet)
Ctrl-c	Copy contents of selected cells
Ctrl+x	Cut contents of selected cells (custom worksheets only)
Ctrl-v	• On standard worksheets: Paste 'Values' from clipboard into selected cell • On custom worksheets: Paste 'Formulae and Formatting' from clipboard into selected cell
F2	Edit the active cell with cursor at end of the line
Alt+Enter	Start a new line in the same cell
Enter	Complete a cell entry and move down in the selection
Shift+Enter	Complete a cell entry and move up in the selection
Tab / Shift+Tab	Complete a cell entry and move to the right / to the left in the selection
Ctrl+d	Fill complete cell down (copy above cell)
Ctrl+r	Fill complete cell to the right (copy cell from the left)

Formatting (Custom Worksheets only)

Ctrl+b	Apply or remove bold formatting
Ctrl+i	Apply or remove italic formatting
Ctrl+u	Apply or remove an underline

Other

F1	Load the Estate Master DM Help File
F12	Load the Estate Master DM Preferences Form

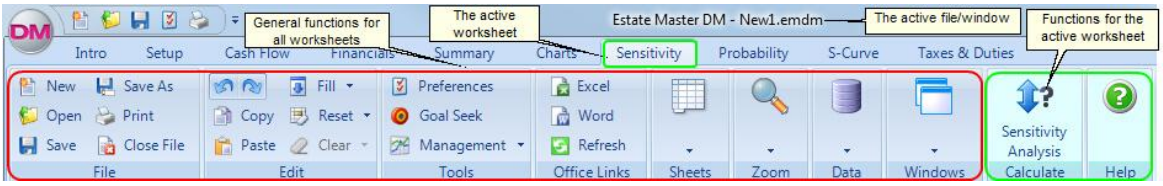
3.7 Menus and Toolbars

There are 4 main menus and toolbars in the Estate Master DM application for the user:

1. The Ribbon Menu
2. The Quick Access Toolbar
3. The Applicati on Menu
4. Sheet Context Menus

3.7.1 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, and in particular, the functions related to specific sheets.



The Ribbon Menu has 2 definable parts:

1. Functions that apply to <u>all worksheets</u>:
   - These are common functions that can be used on all worksheet and are replicated on all worksheet tabs.
   - If any of these functions are greyed-out (disabled), then they are not applicable to the active worksheet.
2. Functions that apply to the <u>currently selected worksheet</u>:
   - These appear when a different tab/worksheet is selected.
   - They are identified by an aqua coloured menu button.

File Menu

New	Opens a Estate Master DM blank workbook in a new window..
Open	Prompts the user to opens an existing Estate Master DM data file (*.emdm) in a new window.

Save	Saves the current Estate Master DM model to a data file. 'Saving' a file is different to 'exporting' it to the Estate Master Enterprise Database.
Save As	Saves the current Estate Master DM model to a data file with a new file name.
Print	Loads the Estate Master DM Print Menu to allow the user to select what reports to print.
Close File	Closes the current Estate Master DM model window.

Edit Menu

Undo	Undo the last action.
Redo	Redo the last action.
Copy	Copy the select range to the clipboard.
Paste	Pastes the contents of the clipboard into the selected range. When the active sheet is standard sheet, then only values are pasted.
Fill	There are 3 options in this menu: 1. Fill Down: Copies the top cell of a selected range downwards. 2. Fill Right: Copies the left cell of a selected range rightwards. 3. Fill Series: Fills a series in a selected range based on a particular sequence of data.
Reset	This will clear all the inputs in the standard worksheets to the default. It will not remove user-inserted worksheets. In addition, the user can also reset any of the Budgets/Forecasts that have been set in the model.
Clear *	There are 3 options in this menu: 1. Clear All: Clears cell contents and formatting from the select range of cells. 2. Clear Formats: Clears cell formatting only from the select range of cells. 3. Clear Contents: Clears cell contents only from the select range of cells.

* These options are only available in user-inserted custom w orksheets.

Tools Menu

Preferences	Opens the form for the user to select their data Preferences. These should be set before any data is entered but can be changed at any time.
Goal Seek	This is an analysis feature that finds the value for a selected cell that would produce a given result from a calculation. Refer to 'Goal Seek' section for more information.
Management	These are the main tools for managing the project cash flows such as rolling forward/back a time period, setting forecasts and updating the cash flow with accounting data.

Office Links Menu

Excel	Loads the dialog where you can create and edit links to external Excel files.
Word	Loads the dialog where you can create and edit links to external Word files.
Refresh	Updates the values for all linked Excel and Word files.

Sheets Menu

Add	Add a custom worksheet to the workbook.
Rename	Rename the currently selected custom worksheet.
Delete	Delete the currently selected custom worksheet.
Move	Rearrange the order of the custom worksheets.

Zoom Menu

Default Zoom (Active Sheet)	Resets the active sheet to the default zoom. The 'default zoom' is determined by the monitor size and resolution settings of the PC/Server running the application.
Default Zoom (All Sheets)	Resets all worksheets to their default zoom.
Custom Zoom	Allows the user to set their own zoom for the active worksheet. These settings are saved to the PC/Server that the Estate Master DM is installed on and will apply to all users running the application from that PC/Server.

Data Menu

Import Feasibility from DF — Create an Original Budget by importing a feasibility cash flow from an Estate Master DF (*.emdf) file.

Import from Database — Import Estate Master DM input data from the Estate Master Enterprise Database.

Export to Database — Export Estate Master DM input data to the Estate Master Enterprise Database. This is different to 'saving' an Estate Master DM datafile (*.emdm)

Export to Excel — Export the workbook in one of 2 ways:

1. To a standalone Excel file(*.xlsx) for use with Excel (version 2007 + only), or
2. Appending the worksheets to an existing Excel file (*xlx or *.xlsm). The user will be given the option to copy the existing file and save it is a new one (useful when working with templates), or override the file being selected.

Please Note:

- Estate Master files are exported as values only and contain no formulas (except on custom worksheets when exporting to a standalone file), so changing inputs in an exported file will not impact on the results.
- If you select the 'Append to Existing Excel File' option, some features that are not completely supported by this spreadsheet interface may be stripped from the selected Excel file after saving (including, but not limited to, items such as Form/ActiveX Controls, Pivot Charts, Cell Comments, Cell Gradients, Excel 2007-style Conditional Format options, Excel 2007-style Tables and Structured References, OLE objects (Camera, Embedded Documents, etc) and Shape fill effects and shadows).

Customising the Ribbon Menu

- **To minimise the Ribbon**: Click on the arrow icon and select [Minimize the Ribbon], or double click on any of the menu tabs.

Once the Ribbon is minimised, it will only pop up when one of the tabs is selected, then hide again when deselected.

3.7.2 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.

By default, there are 5 functions that can be operated from this toolbar:

New	Opens a Estate Master DM blank workbook in a new window.
Open	Prompts the user to opens an existing Estate Master DM data file (*.emdm) in a new window.
Save	Saves the current Estate Master DM model to a data file. 'Saving' a file is different to 'exporting' it to the Enterprise Database.
Preferences	Opens the form for the user to select their data Preferences.
Print	Loads the Estate Master DM Print Menu to allow the user to select what reports to print.

Customising the Quick Access Toolbar

- **To remove an item from the Toolbar**: Right click the icon and select [Remove from Quick Access Toolbar]

- **To add an item to the Toolbar**: Right click the icon in the Ribbon and select [Add to Quick Access Toolbar]

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

3.7.3 Application Menu

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

Most of these functions are also located within the Ribbon Menu and Quick Access Toolbar. In addition, there are:

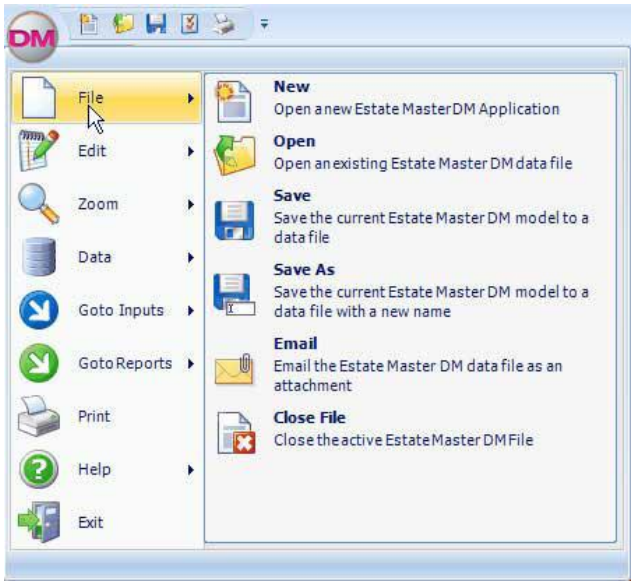
- 'Goto' menus to assist the user with navigating around the program.
- A 'Help' menu offering different ways of resolving support issue.

Goto Menus

Go To Inputs	Go to any of the dedicated data input areas in the program.
Go To Reports	Go to any of the reporting worksheets, such as the Cash Flow, Summary, Charts, etc.

Help Menu

Estate Master DM Help	Opens the Estate Master DM Help program.
Send Query	Send a technical support query via email/internet
Remote Help Desk	Allow an Estate Master Support Officer to remotely connect to your PC/Server for troubleshooting and assistance. You must contact an Estate Master Support Officer before attempting any connection (Powered by TeamViewer).
Check for Updates	Check the latest version of the software online (requires internet connection).
Import Version 3/4 File	Import data from a version 3.xx or 4.xx file (Excel-based versions)
About Estate Master DM	Allows the user to view the current licence details and re-register an existing licence. It also lists what 'Integration Modules' are enabled for the current licence.

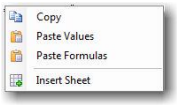


3.7.4 Sheet Context Menus

Context Menus pop up when clicking an item on the worksheet area, offering a list of options which vary depending on the item selected. These menus are invoked with a right-click of a mouse.

Standard Sheets

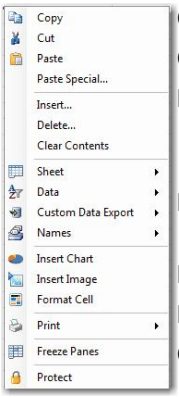
The context menu on the Standard sheets is invoked by right-clicking a cell, row or column.



Copy	Copies the currently selected range of cells to the clipboard.
Paste Values	Pastes the content of the clipboard (values only, not formulas or formatting) in the currently selected range.
Paste Formulas	Pastes the content of the clipboard (formulas only, no formatting) in the currently selected range.
Insert Sheet	Inserts an additional blank worksheet.

User Inserted Sheets

The context menu on the User Inserted sheets is invoked by right-clicking a cell, row or column.

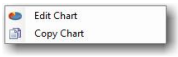


Copy	Copies the currently selected range of cells to the clipboard.
Cut	Cuts the currently selected range of cells to the clipboard.
Paste	Pastes the content of the clipboard in the currently selected range. When the active sheet is a standard sheet, then only values are pasted.
Paste Special	Allows the user to select what content from the clipboard (values, formatting, comments, etc) to paste in the currently selected range.
Insert ...	Inserts a column or row next to the currently selected range.
Delete ...	Deletes the currently selected column or row.
Clear Contents	Clears the cell contents (values or formulas) of the currently selected range
Sheet	**Insert:** Inserts an additional blank worksheet (user-inserted sheets). **Delete:** Deletes the currently selected user-inserted worksheet. **Rename:** Renames the currently selected user-inserted worksheet
Data	**Sort Ascending/Descending:** Sorts the selected cells vertically. If there are multiple columns selected in the range, the user will be prompted to select which column to sort by. **Apply Auto-Filter:** Applies an auto-filter to the selected range. If an Auto-Filter already exists on the active sheet, then a 'Remove Filter' option will be available. **Group/Ungroup:** Group selected data by rows and columns using 'outlines'. **Clear Outline:** Clears all the outlines (groupings) on the active worksheet.
Custom Data Export	**Define:** Define a local range name for the currently selected cells. **Edit:** Edit or delete existing range names on the user-inserted sheet.
Names	**Define:** Define a local range name for the currently selected cells.

	Edit: Edit or delete existing range names on the user-inserted sheet.
Insert Chart	Insert a chart on the worksheet.
Insert Image	Insert an image (*.jpg, *.jpeg or *.bmp) on the worksheet.
Format Cell	Change the format of the currently selected range, including number format, font, borders, colour, conditional formats, etc.
Print	**Set Print Area:** Define what part of the worksheet to print by setting the currently selected range as the 'Print **Page Setup:** Change the settings for how the page is to be printed, such as orientation, zoom, margins, headers, footers, etc. **Print:** Print the active user-inserted sheet.
Freeze/ Unfreeze Panes	Freeze panes at the selected row, column or cell, or unfreeze (clear) panes on the active sheet.
Protect/ Unprotect	Protect or unprotect the selected worksheet. When protecting, you will be prompted to enter in a password. If this is left blank, the the worksheet will still be protected, but with no password.).

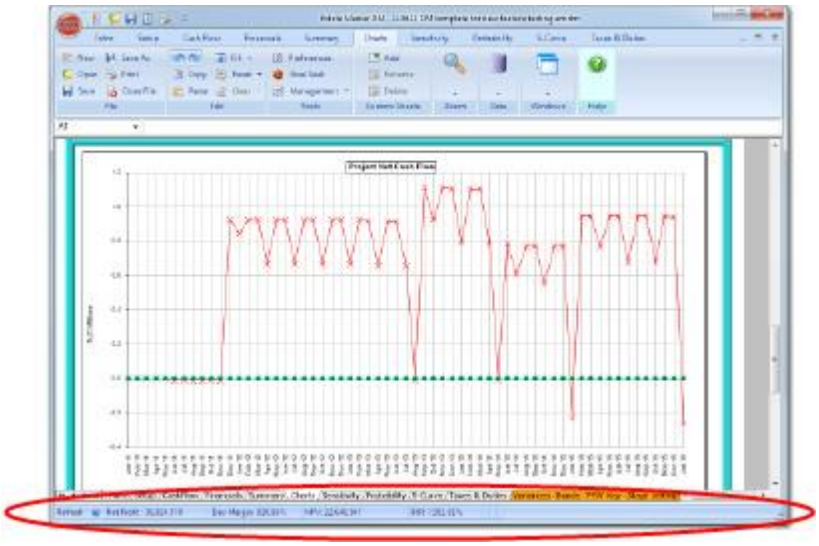
Charts

If you are right-clicking on any Chart, either or a Standard or custom sheet, you will be given the following options:

 **Edit Chart**	(Charts on custom sheets only) To edit the chart settings, including the source data, chart type, format, etc, either double click the chart or right-click on it and select 'Edit Chart' to load the Chart Explorer dialog.
Copy Chart	Copies the selected chart to the clipboard as an image, so it can be pasted in other documents.

3.8 Status Bar

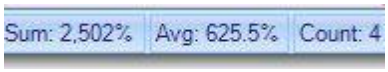
The Status Bar is located at the bottom of the application.



It has 4 definable parts:

1. **KPI Snapshot:** This part of the status bar provides a summary of the key performance indicators of the Cash Flow, including Net Profit, Development Margin, NPV and IRR. These can be updated anytime by clicking on the left 'Refresh' button.

2. **Statistics:** This part of the status bar provides a Sum, Average and Count of the currently selected cells (excludes text formatted cells). These update instantly.



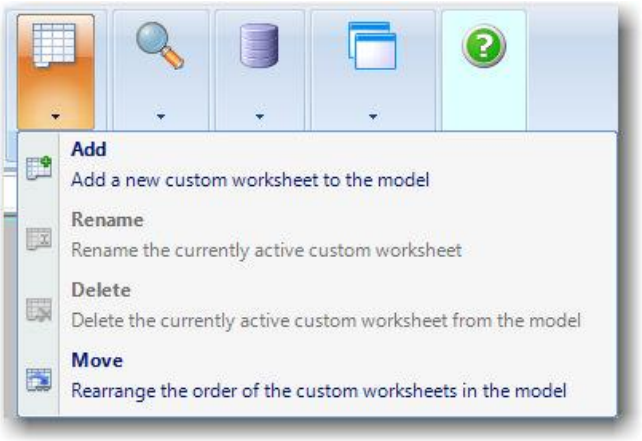
3. **Locked Cells Warning:** This part of the status bar provides a warning if any input cells on the currently active worksheet are locked via the 'Protection' Preferences. By clicking this button, it will load the Preferences so the user can see which input ranges have been locked.

4. **Linked Excel Files Warning:** This part of the status bar provides a warning if an external Excel file that has 'incoming' links has been modified since the last 'refresh'. By clicking this button, it will refresh all the links.

3.9 Custom Worksheets

The Estate Master DM program is based on a spreadsheet interface and allows you to insert additional blank worksheet into the model.

Adding custom sheets is conducted via the 'Sheets' section in the Ribbon Menu.



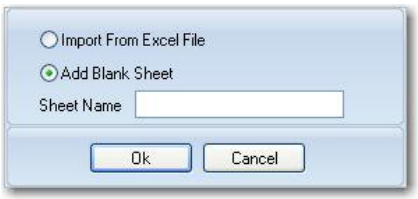
When you click on 'Add', there will be 2 options for adding a custom worksheet into the model:

1. **Importing a sheet(s) from another Excel file**: This will prompt you to browse to an Excel file and select one or more worksheets in that file to import.

   Important Notes:

- If you attempt to import a worksheet that has formula links to another worksheet, you will be required to import the other worksheet to avoid any links being broken, otherwise you will not be able to import the worksheet.
- If you attempt to import a protected worksheet that has password on it, you will be prompted to enter in the password before the worksheet can be imported. Once the worksheet is successfully imported, it will be protected again and can be unprotected using the sheet context menu.
    - Any 'Global' range names (those that are global to a workbook) that exist on the worksheet to be imported will be removed. Only 'local' range names (those that are local to a worksheet) will be imported with the worksheet. If you have a range name on the worksheet and you want it to be imported into Estate Master, you will need to ensure they 'local'. Refer to this Microsoft Article about using Global and Local range names: http://support.microsoft.com/kb/274504
    - Any 'Local' range names (that exist on the worksheet to be imported) that refer to an external Excel workbook will be removed.
    - Any 'Local' range names (that exist on the worksheet to be imported) that have the same name as a standard Estate Master Global Name will be renamed with "_RENAMED" appended to the end of the name. This means that any formulae that was referencing this name will be automatically adjusted.

2. **Adding a blank worksheet**: This will add a blank unprotected worksheet to the model.



Please Note:

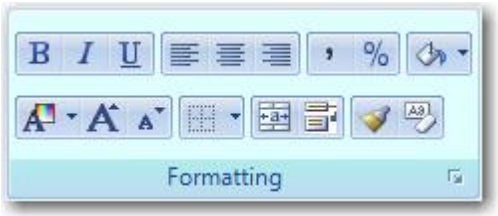
- Custom sheets are file specific.
- Custom worksheets will be saved to the data file (*.emdm), however they will not be stored in the Enterprise Database when Exporting.

Once a sheet is added, you can do the following to it:

- **Rename it**: Click on 'Rename' and a prompt will appear asking you to give the active sheet a different name.
- **Delete it**: Click on 'Delete' and it will ask you confirm to delete the active sheet.
- **Move it:** Click on 'Move' and a list of all the custom sheets in the model will appear where you can rearrange their order. You cannot rearrange the order of any of the standard worksheets.

Custom Sheets Formatting Menu

In addition to the context menu available for custom sheets, there is also a Ribbon Menu item that appears when a custom sheet is activated to assist with cell formatting.



It contains the following functions:

- Setting the font to Bold, Italics and Underlined.
- Left, centre or right aligning text.
- Changing the number format to Comma (#,###.00) or Percentage Style (#.00%).
- Setting the Fill colour of the cell.*
- Setting the Font colour.*
- Increasing or decreasing font size.
- Merge and Centre across cells and text wrapping.
- Format Painter (copies formatting of current selection and pastes it onto the next selected cell(s))
- Clearing cell formatting.

* When setting colours to fill or font, the previously selected colour will be displayed when hovering over the menu item.

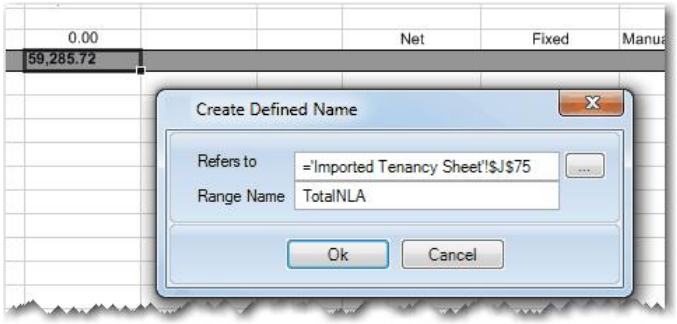
For a complete menu of all formatting available for custom sheets, click on the button at the bottom right of the menu.

3.9.1 Names

This feature allows you to create a named range or a named constant/formula to use them in other formulas. By using 'Names', you can make your formulas much easier to understand and maintain, and more importantly, make them dynamic.

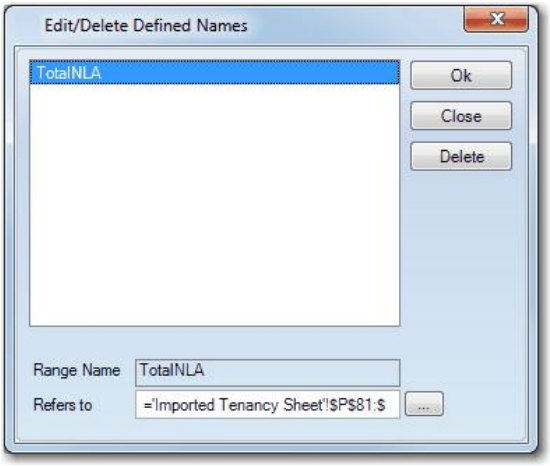
Defining a Range Name

1. On the custom sheet, select the cell(s) you want to define with a Name
2. Right-click and select 'Names > Define'
3. A form will appear with two fields:
    a. **Refers to:** This defaults to the cell address that is currently selected and that the Name is being applied to. This can be updated to a different cell address if required, or alternatively edited to be formula (e.g. to build dynamic range names) or hardcoded with value.
    b. **Range Name**: This is the actual Name applied to it. It must have no spaces in the text and not already exist.
4. Once completed, click [OK]. This will apply it as a 'Local' Name in the active worksheet.



Editing a Range Name

1. On the custom sheet, right-click and select 'Names > Edit'
2. A form will appear listing all the Names located on the active worksheet.
3. You can select an individual Name and either:
    a. Click [Delete] to remove it from the worksheet. Any formulae referencing it will then become invalid and will need to be updated.
    b. Edit the 'Refers to' details to change where the Name is pointing to or its formula/value.



Using Names

The Names that are created by this function are 'Local'; meaning that it is available by default only on the sheet where it is defined, whereas 'Global' Names are available to the whole workbook. This means that when using your custom Names in user-inserted formulae:

- If the formula is on the *same* worksheet where the Name is located, you can just type in the name in the formula (e.g. =TotalNLA)
- If the formula is on a *different* worksheet where the Name is located, you must include the sheet name (within single quotes if the sheet name has spaces) with an exclamation point (!) before the Name (e.g. ='Imported Tenancy Sheet'!TotalNLA)

Please Note: Unlike Excel, where it automatically resolves a cell address to a Name (if it has one) when you are editing a formula, Estate Master will not behave like this. You will need to manually type in the Name, whether it be a custom or standard one, in a formula to use it.

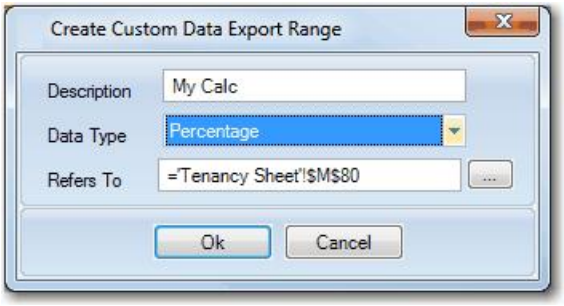
3.9.2 Exporting Data to the Enterprise Database

When exporting to the Enterprise Database, by default, only data on standard worksheets is exported. If there is any data on your custom worksheets that you want exported to the Enterprise Database for consolidated analysis, you can use this feature to a define single-cell that you wish to include in the export process.

This function is similar to creating Names on your custom worksheets, however there are some important differences.

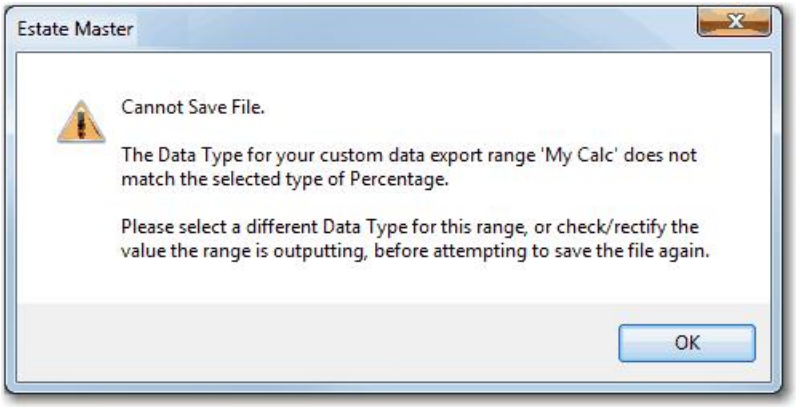
Creating a Custom Export Range

1. On the custom sheet, select the single cell you want to export to the Enterprise Database.
2. Right-click and select 'Custom Data Export > Define'
3. A form will appear with three fields:
    a. **Description:** A unique description for the data you want to export. You cannot use the same 'Description' more than once in a file, and you cannot export a file when
    b. **Data Type:** The format of the data selected. It can either be a Date, Number, Percentage (must contain a '%' sign) or Text.
    c. **Refers to:** This defaults to the cell address that is currently selected but can be updated to a different cell address if required.
4. Once completed, click [OK]. This will flag the cell so its value is included in the export process.



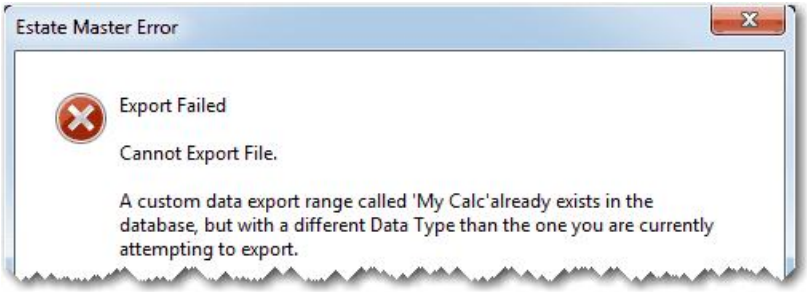
Validation Checks on File Save

Upon attempting to save a file, all custom export ranges will be validated for their data type. If it finds that there is a conflict with the Data Type selected by the user and the actual data type of the cell, a warning will appear.



Validation Checks on File Export

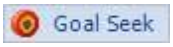
Upon attempting to export a file to the database, all custom export ranges will be validated. If data has already been exported to the database that has the same 'Description' but different 'Data Type', a warning will appear during the export process.



Editing a Custom Export Range

1. On the custom sheet, right-click and select 'Custom Data Export > Edit'
2. A form will appear listing all the Custom Data Export cells on the active worksheet.
3. You can select an individual one and either:
    a. Click [Delete] to remove it from the worksheet and stop the data from being exported to the database (any existing data in the database will not be affected)
    b. Edit the 'Description', 'Data Type' or 'Refers to' details.

3.10 Goal Seek

Goal Seek is sometimes called what-if analysis. When you know the desired result of a single formula but not the input value the formula needs to determine the result, you can use the Goal Seek feature available by clicking 

on the Ribbon Menu menu.

When goal seeking, the program varies the value in one specific cell until a formula that's dependent on that cell returns the result you want.

- **Set Cell:** The cell that contains the formula that you want to settle/resolve. That cell must always contain a formula or a function, not a value.
- **To Value:** The value you want the formula (in the Set Cell) to change to.
- **By Changing Cell:** The part of the formula that you wish to change. That cell must contain a value only, not a formula or function.

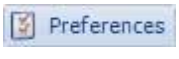
3.11 Resizing the Model

The Estate Master model can be resized in two areas:

1. Adding more time periods (45 to 480)
2. Adding more cost and revenue rows.

Resize Time Periods

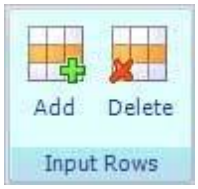
Resizing the time periods is controlled via the the Estate Master Preferences.

1. Go the Ribbon Menu and click on 

or just press F12.
2. Go to the 'Cash Flow Periods' tab.
3. Expand or reduce the number of time periods. Only add what you need as it will impact on the size of the file.
4. Click on OK and it will make the appropriate changes to the file.

Resize Cost/Revenue Rows

Resizing the input rows is controlled via the the Ribbon Menu when the Cash Flow sheet is selected.



Inserting Rows:

1. Select the row where you would like to add rows above.
2. Click on the Input Rows 'Add' button.
3. The program will then prompt how many rows you would like to insert - up to 50 at a time.
4. Click OK to the number, and the model will then resize.

Deleting Rows:

1. Highlight the rows that you would like to delete.
2. Click on the Input Rows 'Delete' button.
3. Click OK, and the model will then delete the selected rows.
4. If these rows have any budget/forecast data in them, either Original, Project, Previous or Current Forecast, it will not delete these rows.

Part

4 Estate Master Preferences

The program allows flexibility by the way of user preferences. These are operated by:

1. Clicking on [Preferences] 

on the Ribbon Menu or Quick Access Toolbar,
2. Pressing the [F12] key.

Locking Preferences

Each preference can be individually set and locked with password protection, allowing the user to standardise settings and minimise the risk of incorrectly changing them.

To Lock a Preference

1. Set the preference and then click on the  button located to the right of it.
2. It will the be shown as 'locked'  and the selected preference will then be disabled.
3. A Password field will be displayed at the bottom on the Preferences form.


4. The user must enter in a password before they can click 'OK' and save their changes.

To unlock a Preference

1. As soon as the Preferences are open, a Password field will be displayed at the bottom on the form. 

2. The user must enter in a password before they can unlock any Preference.
3. Go to the preference and then click on the  button located to the right of it.
4. It will the be shown as 'unlocked'  and the selected preference can then be changed by the user.

To Reset the Password

Once a password has been used to lock the Preferences, the same password will remain with that file and will be used for any future locking/unlocking until it is reset by the user. To reset the password:

1. As soon as the Preferences are open, if any Preferences were 'locked', then a Password field with a 'Reset' button will be displayed at the bottom on the form 

2. Enter in the current password and click on the  button.
3. The current password on the Preferences will then be cleared, and a new password must be then set.

Printing an Assumptions Report

To check what preferences and settings have been defined in the model, an Assumptions Report is available to be printed from the Print Menu

4.1 General

4.1.1 Regional Settings

Currency

Set the currency format. This is important if the Estate Master CC software is used to consolidate cash flows that are based on different currencies.

Taxation Format

Set the taxation format to be used in the model:

- **GST (Goods and Services):** A consumption (as opposed to income) tax levied on the purchases of goods and services. GST can be applied to all costs and revenues in the program
- **VAT (Value Added Tax):** Similar to GST, however there is no option to adopt the Margin Scheme when this option is applied.
- **Sales Tax:** This is a tax applied to end sales only. Not tax is applied to costs in the program when this option is selected.

If 'Nil Tax' is selected, then the tax inputs are hidden.

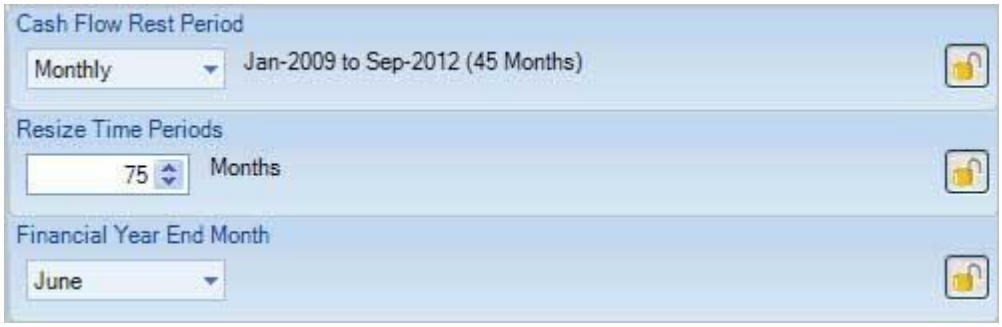
Stamp Duty

Stamp duty is automated based upon the location you select, and whether it is calculated on the land price including or excluding tax. The rates used to calculate duties can be changed in the 'Taxes & Duties' sheet.

Input Number Formats

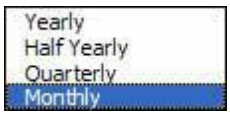
Select the number of decimal places for the input cells.

4.1.2 Cash Flow Periods



Cash Flow Rest Period

Nominate the rest periods for the cash flow. This option will determine how the Start and Span dates are to be entered and how the cash flow will be displayed.



Changing the rest period after you have started a model will not affect any existing values for Start and Span dates for individual cost and revenue items.

For example, say you change 'Monthly' rests to 'Quarterly' rests - a cost item that started Month 4 and spanned 3 months will now start Quarter 4 and span 3 quarters, so it will need to be manually updated by the user to start Quarter 1 and span 1 quarter.

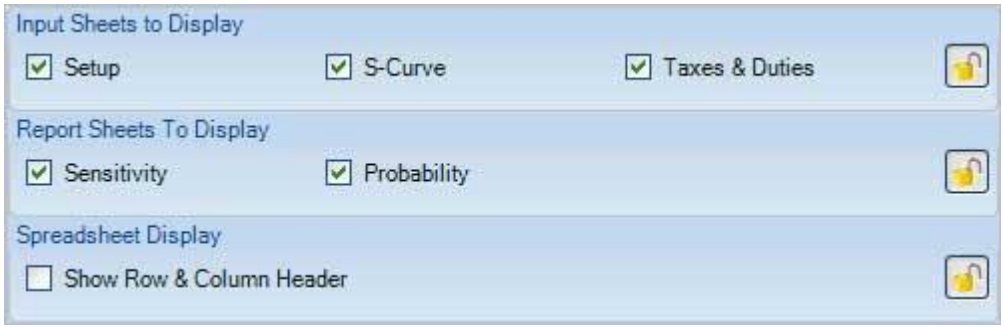
Resize Time Periods

Increase or decrease the number of timer periods in the model to suit user preference (45 to 480).

Financial Year End Month

Select what month is to represent the end of Financial Year. This is used for the setting of Escalation Tables and for Financial reporting.

4.1.3 Spreadsheet Display



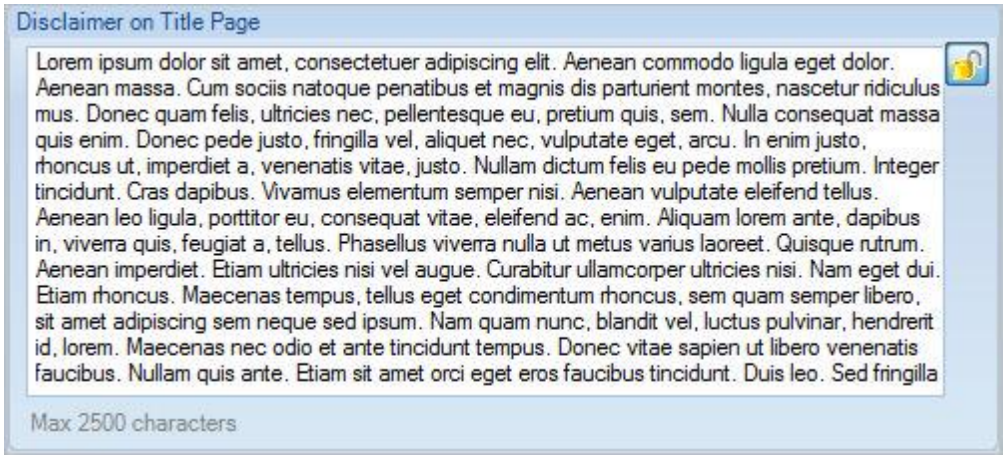
Input Sheets and Report Sheets to Display

Select the worksheets which are to be displayed. Deselect to hide worksheets that you are not working on or do not intend to display making navigation around the workbook a little easier. Hiding sheets does not impede in the operation of the program

Spreadsheet Display

Hide or show the spreadsheet row and column headers.

4.1.4 Disclaimer



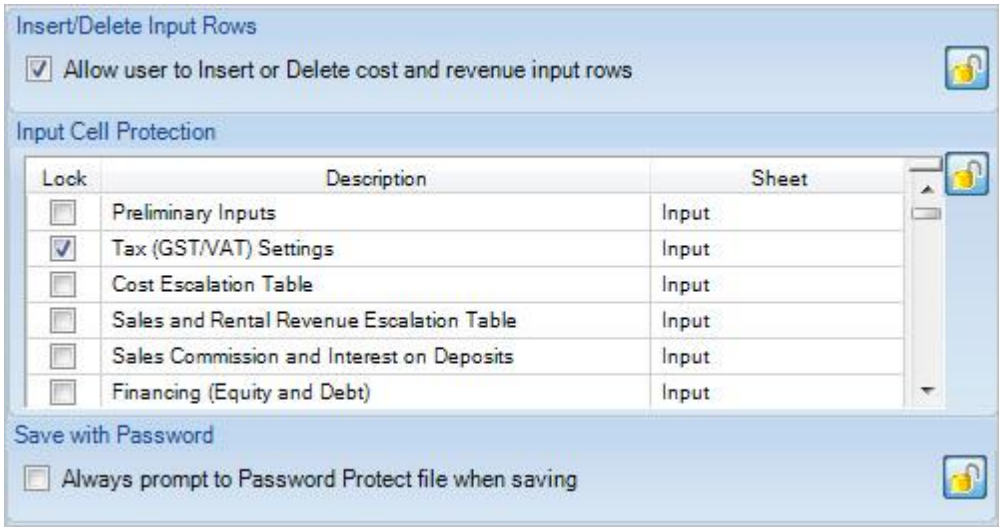
Disclaimer on Title Page Enter the text, if applicable, for any disclaimer to be displayed on the Title page. The maximum characters allowed are 2,500.

4.1.5 Logos

Corporate Logo Insert your own custom corporate logo on the report sheets.

Inserting Images			
There are restrictions on the size of the images that can be inserted into the program.			
Image	**DPI**	**Maximum Height (Pixels)**	**Maximum Width (Pixels)**
Corporate Logo	96	70	250

4.1.6 Protection



Insert/Delete Input Rows Enable the user to insert/delete rows on the Cash Flow sheet.

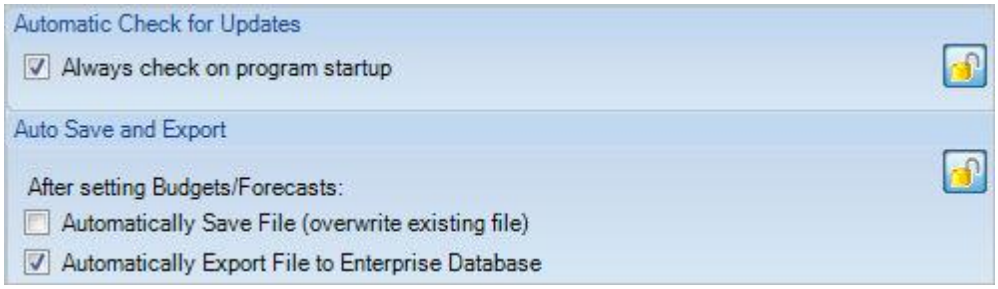
Input Cell Protection This allows you to Lock various input cells throughout the program. Once this is done, the input cell will change to a 'black' font and a warning will appear on the status bar to indicate the active sheet has locked input cells.

Warning on Status Bar - clicking this warning will load the Preferences

This is helpful if you wish to standardise the inputs and create a template.

Save with Password Select this option to always prompt the user to password protect data files when saving.

4.1.7 Other



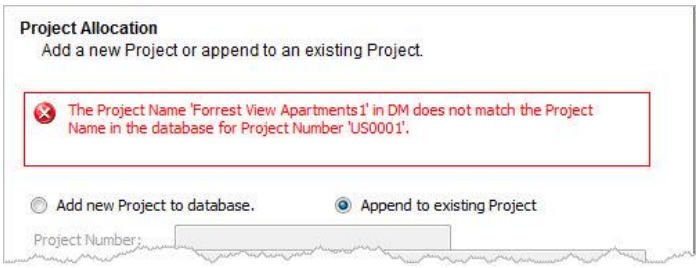
Automatic Check for Updates Set the software to automatically check for updates over the internet every time it is started or not.

Auto Save and Export When setting a budget (Original, Project or Previous), set the software to:

- Automatically Save the File (overwriting the existing file with the same filename), and/or
- Automatically Export the data into the Enterprise Database

(which requires the file to be saved).

Note: If this option is selected, during the export process the Project Name/Number associated with the file will be validated to ensure that the same Project exists in the database. If there is any inconsistency (i.e. the Project Name/Number on the file doesn't match that of a Project in the database), the user will be prompted to either append the file to another Project, or to create a new Project in the database. The option to 'Cancel' the export process will also be disabled.

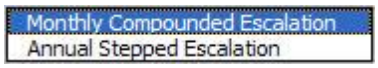


4.2 Calculations

4.2.1 Escalation

Escalation Method

Select how the escalation on Costs and Revenue (exc Rent Review Escalation) in the model operates.



Escalation can either be applied on a:

- ***Period* Compounded Escalation** basis

  For example, if 5% is entered in for a particular year in the escalation table, this then equates to approx 0.41% per month (if using monthly rest periods), and each cost/ revenue occurring in each month for that year, is escalated by 0.41% compounded.

- **Annual Stepped Escalation** basis (e.g. 5% per month if using monthly rest periods).

  For example, if 5% is entered in for a particular year in the escalation table, then each cost/revenue occurring in each period for that year, is escalated by 5%.

The Escalation tables on the Input can also be set up in one of two ways:

- **Cash Flow Period Years:** This option is where the model assumes that the annual escalation rates are defined by the Project Start Date month, and starts on that date.

  For example, if Date of First Period (Project Start) is Jan-2007, then Escalation Table starts from Jan-2007.

- **Based on Financial Years:** This option is where the model assumes that the annual escalation rates are defined by the Financial Year End month, and commences from the start of the Financial Year that the project is starting in.

  For example, if Date of First Period (Project Start) is Jan-2007 and Financial Year End is June, then Escalation Table starts from Jul-2006.

4.2.2 Project Costs

Development Management Fee

The Development Management Fee can be expressed as a percentage of:

- Total Gross Sales proceeds,
- Total Net Sales proceeds (Gross Sales *less* Selling Costs),
- Total Project Costs including Land, or
- Total Project Costs excluding Land.

Project costs exclude finance costs and GST/VAT if applicable.

Miscellaneous Costs

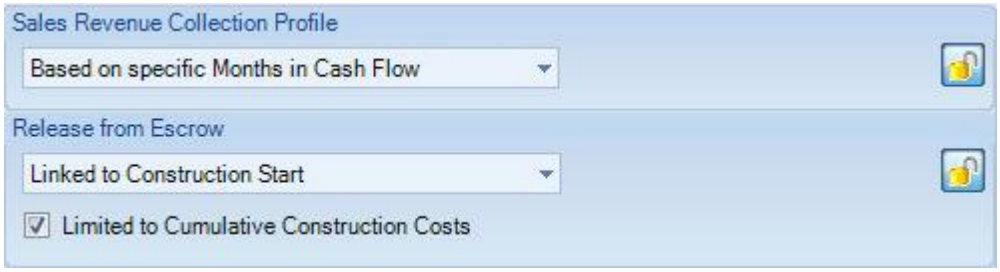
If entering any cost in the 'Miscellaneous' sections as a percentage, the percentage basis can be different for each Miscellaneous Cost section:

- **% of Construction**: Construction costs including contingency, but excluding GST/VAT if applicable.
- **Gross Sale Proceeds:** Gross sales include items included in the Sales input section and Capitalised Sales from the Tenants section. They are inclusive of any GST/VAT/Sales Tax if applicable
- **Net Sale Proceeds**: Gross Sales *less* Selling Costs.

Pre-Sale Commissions

Tick the checkbox if you wish to report all Commissions incurred at time of Exchange as a Project Costs (as opposed to a negative Revenue). This will impact how the Development Margin is reported, and where other cost items are a % of Project Costs.

4.2.3 Revenue Collection Profile

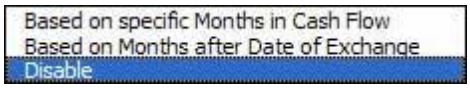


Sales Revenue Collection Profile

This option allows you to decide how the milestones for the Sales Revenue Collection Profiles are set. They can either be base on:

- Specific Time Periods in the Cash Flow, or
- A certain number of months after the Date of Exchange for each sale item.

If the Sales Collection Profile is not required, there is an option to 'disable' it.



Release from Escrow

This stipulate when to release sales revenue that is collected via the 'Revenue Collection Profile' instalments, which can either be:

- On receipt of the instalment.
- Based on the number of time periods (e.g Months) after Construction Start. If this option is selected, then you can stipulate if the release from escrow is limited to the cumulative construction costs, or is released as per the revenue instalments but no earlier than the number of periods form the Construction Start as indicated in the Sales Revenue Collection Profile inputs.

4.2.4 Hurdle Rates

Discount Rate Conversion

This enables you to select the method of conversion from the annual discount rate (that is entered by the user) to the periodic discount rate (monthly, quarterly or half yearly depending upon the rest period you selected). The difference is given in the following formulae:

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

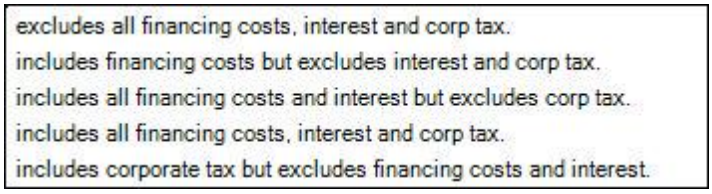
Where:
D = is the annual discount rate.
T = The number of rest periods per annum (i.e Monthly = 12, Quarterly = 4, Half Yearly = 2)

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, quarterly, half yearly basis depending on the cash flow being modelled.
- The choice between these two methods of conversion only affects the NPV and IRR calculation - not the development margin.

IRR and NPV Calculation

Nominate if Finance Costs, Interest Charges or Corporate Tax are to be included in the calculation of the Project IRR and NPV.

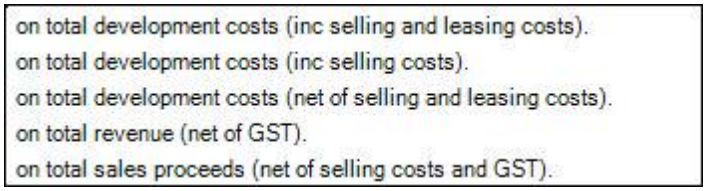


- **Financing Costs** = Cost defined in the 'Financing Costs' section and Line Fees and Application Fees associated for each loan.
- **Interest** = Interest charged on equity or the loan facilities.
- **Corp Tax** = Corporate Tax on project profit that is applied on the Financials sheet (as opposed to GST/VAT/Sales Tax)

The options that **include interest** are generally not recommended as discounting an after interest cash flow is a form of double-counting interest cost.

Development Margin Calculation

Nominate what forms the basis of calculating the Development Margin.

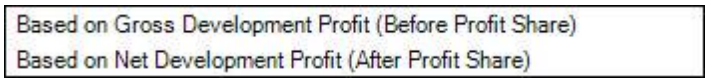


The following defines the exact components of the Summary Report that are used in the calculation of each option:

- **Development Costs (inc Selling and Leasing Costs)** = 'Total Costs' *plus* 'Selling Costs' and 'Purchasers Costs'
- **Development Costs (inc Selling Costs)** = 'Total Costs' (exc GST/VAT reclaims on any Leasing Costs) *plus* 'Selling Costs' and 'Purchasers Costs'
- **Development Costs (net of Selling and Leasing Costs)** = 'Total Costs' (exc GST/VAT reclaims on any 'Selling and Leasing Costs')
- **Total Revenue net of GST/VAT/Sales Tax** = 'Total Sales Revenue' *plus* 'Rental Income' *plus* 'Interest Received' *plus* 'Other Income' *less* 'GST/VAT/Sales Tax Paid'
- **Total Sales Proceeds (net of Selling Costs and GST/VAT/ Sales Tax)** = 'Net Sales Proceeds' *less* 'GST/VAT/Sales Tax Paid' on Sales only (not Rental or Other Income)

Gross or Net Profit Performance

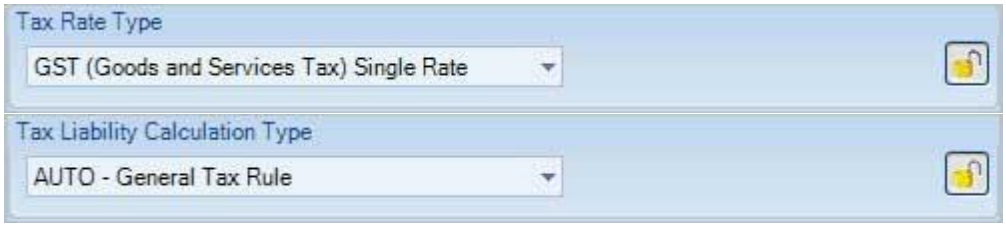
Determines how any Profit Share that is paid to other parties (Land Owner or Lenders) are treated in the calculation of various performance indicators. This is only relevant if the profit share to land owner and/or profit share to mezzanine lender.



This will impact the calculations for Development Margin, NPV, IRR, Sensitivity and Probability Analysis.

4.3 Taxation

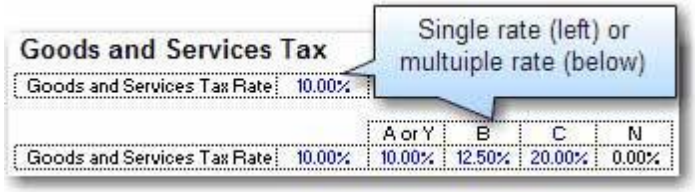
4.3.1 Tax Type



Tax Rate Type

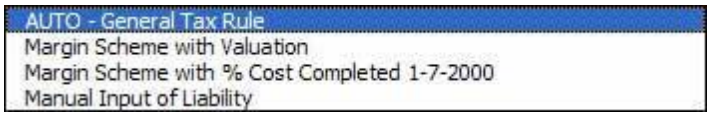
Indicate whether the GST/VAT scheme is based on a single or multiple tax rate structure.

- If **Single Rate** is selected, then the user will have the option to enter 1 tax rate in the Input sheet, and then nominate a 'Y' (Yes), or 'N' (No) for each cost and revenue item, if that tax rate is to be applied to it or not
- If **Multiple Rate** is selected, then the user will have the option to enter up to 3 different tax rates in the Input sheet, and then nominate a 'A or Y' (first rate), 'B' (second rate), 'C' (third rate) or 'N' (No) for each cost and revenue item, if that tax rate is to be applied to it or not



Tax Liability Calculation Type

Choose whether the model calculates the GST/VAT liability automatically or via a manual input by the user.



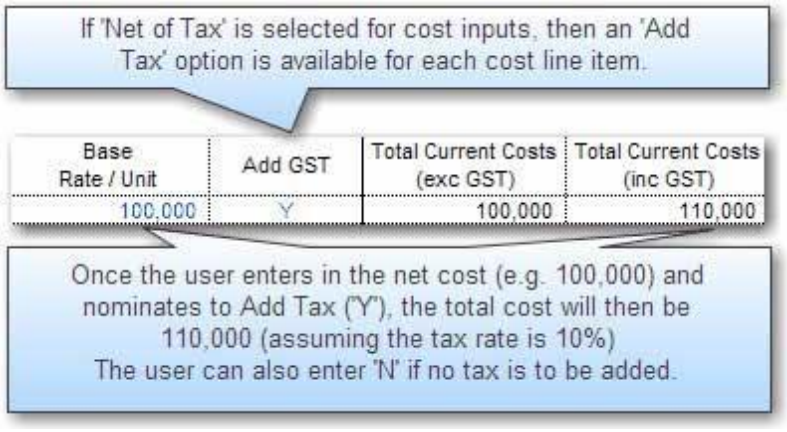
- **AUTO - General Tax Rule:** The program automatically calculates the GST/VAT liabilities and credits depending on what the user entered into the GST/VAT cell for each cost and revenue line item.
- **Margin Scheme with Valuation (GST Model Only):** The user is prompted to enter the margin value for the calculation of GST liability. The program will then automatically calculate the GST liabilities and credits depending on what the user entered into the GST cell for each cost and revenue line item.
- **Margin Scheme with % Cost Completed 1-7-2000:** Based on the user's inputs in the cost sections, the model will determine by default the % of costs that have been incurred before 1-7-2000. It then applies the Margin Scheme with Valuation calculation to determine input credits and liabilities.
- **Manual Input of Liability:** The program automatically calculates the GST/VAT credits depending on what the user entered into the GST/VAT cell for each cost line item, but the user must manually input the lump sum liability with start and span dates.

4.3.2 Cost and Revenue Inputs

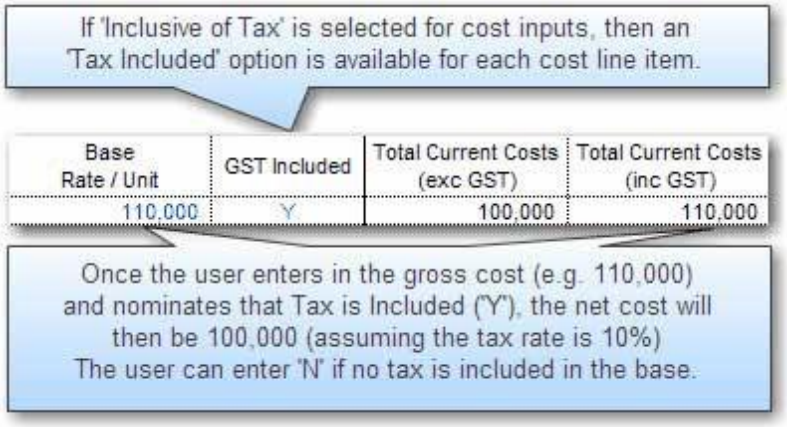
Cost and Revenue Input Method

Select how costs and revenues are to be entered in the model.

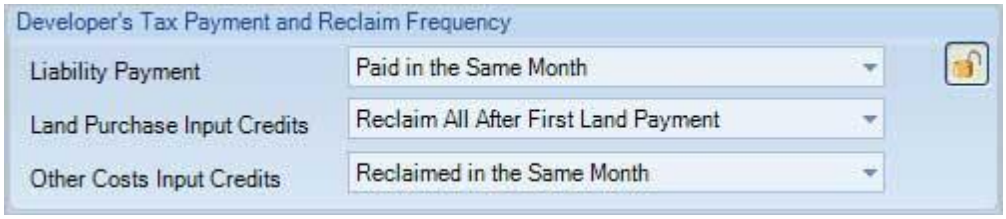
- If **Exclusive of Tax** is selected, then the model will assume that amounts entered in the inputs **exclude** tax and if a GST/ VAT rate is applied to that item then it will automatically add the tax amount to the item in the cash flow and reclaim tax credits or pay tax liabilities appropriately.



- If **Inclusive of Tax** is selected, then the model will assume that amounts entered in the inputs **exclude** tax and if a GST/ VAT rate is applied to that item then it will automatically add the tax amount to the item in the cash flow and reclaim tax credits or pay tax liabilities appropriately.



4.3.3 Liabilities and Reclaims



Tax Payment and Reclaim Frequency

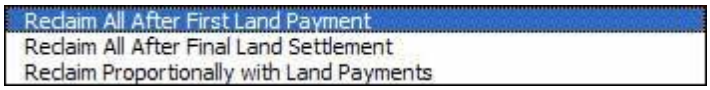
These options allow the user to nominate the delay between expenditure of costs and the reimbursement of the GST/VAT credits and the delay between receipt of revenues and the payment of the GST/VAT liabilities for the Developer and Land Owner (in a Joint Venture model).

Tax Liability Frequency

In addition to different timings (i.e monthly, quarterly, etc), the tax credit reclaims have two other distinct options:

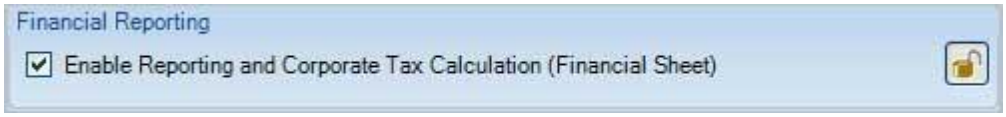
- **Offset Against Liability at Sale:** No credits are reclaimed until sales occur.
- **Calculated but not Reclaimed:** The tax paid on costs is shown on the Summary report as a separate line item, but is not effectively reclaimed by the developer.

A separate option is also available to determine the GST/VAT reclaim frequency for the land cost.



4.4 Financial Reporting

4.4.1 Financial Reporting



Financial Reporting

To enable Profit & Loss Statements, Balance Sheet and Corporate Tax reporting click the 'Enable Reporting and Corporate Tax Calculation' option.

4.4.2 Revenue Treatment

Revenue Recognition

Type

There are 2 calculation options for the Recognition of Revenue:

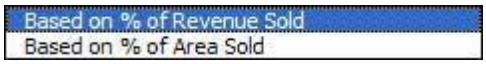
- **On Completion:** As settlements occur revenue is recognised in the Profit and Loss Statement in proportion to the % settled.
- **% Completed:** Revenue is recognised on a weighted percentage of construction completed and percentage sold. Effectively you are recognising revenue for the proportion of the building which is complete for which you have sold. E.g. If the property is 50% sold and 50% built, the revenue recognised in the P&L is 25% (50% x 50% = 25%)

Include Land

This option is used to either include or exclude Land from the Works in Progress calculations. If the 'On Completion' revenue recognition method is selected, this option is set to always include the Land, and the option to change it is disabled.

% Sold Method

There are 2 options for the method for calculating the % Sold in the Profit Realisation Analysis.



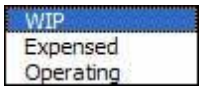
- % of Revenue Sold (by value)
- % of Area Sold

4.4.3 Cost Treatment

Work in Progress, Expensed or Operating Cost

For each of the cost and revenue sections you have the option to:

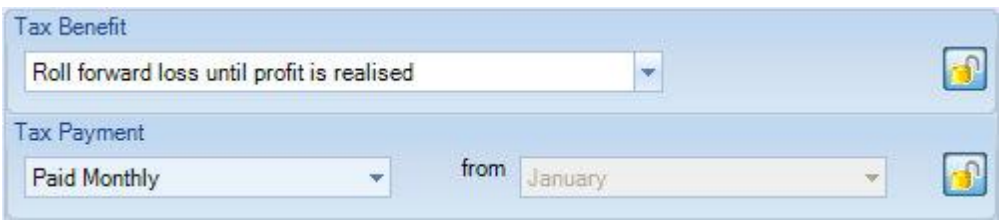
- **Expensed:** Directly expense the cost at the date it is incurred in the 'Cost of Sales' section of the Profit and Loss statement, impacting how the Project Margin is calculated.
- **WIP:** Add it to the Work in Progress. This defers the recognition of the cost in the Profit and Loss statement until such time that the defined threshold levels are reached. Until the thresholds are reached, these costs appear as a 'Current Asset' in the Balance Sheet called 'Work in Progress'.
- **Operating:** Define the cost as an Operating Cost. These are expensed to the Profit and Loss statement in the 'Operating Expenses' section. The difference between an Operating expense and a Cost of Sales expense (as defined above) is that an Operating expense is not included in the Project Margin calculation. It is however included in the overall Profit and Loss calculation.



Selecting an item as an Operating Cost will impact on where it is shown in the P&L. Operation Costs in the P&L are displayed below the Margin line.

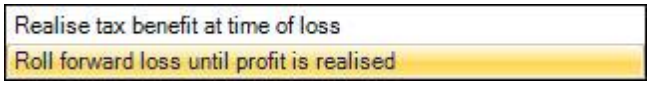
Items in Work in Progress will be expensed in accordance with selections in the Revenue Recognition settings.

4.4.4 Tax Treatment



Tax Benefit

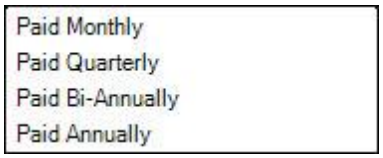
There are 2 calculation options for the treatment of a tax benefit.



- **Realise Tax Benefit at time of loss:** If the project is making a loss, a tax benefit is calculated at the time of that loss.
- **Roll forward loss until profit is realised:** If the project is making a loss,it is rolled forward until such time that the project makes a profit, and the loss is then offset against such profit to calculate the tax liability.

Tax Payment

There are 4 calculation options for the payment timing of tax liabilities.

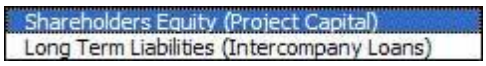


If an Paid Quarterly, Bi-Annually or Annually, is selected, then an additional option to select which month that payments start on will be enabled.

4.4.5 Equity Treatment

Project Equity Treatment

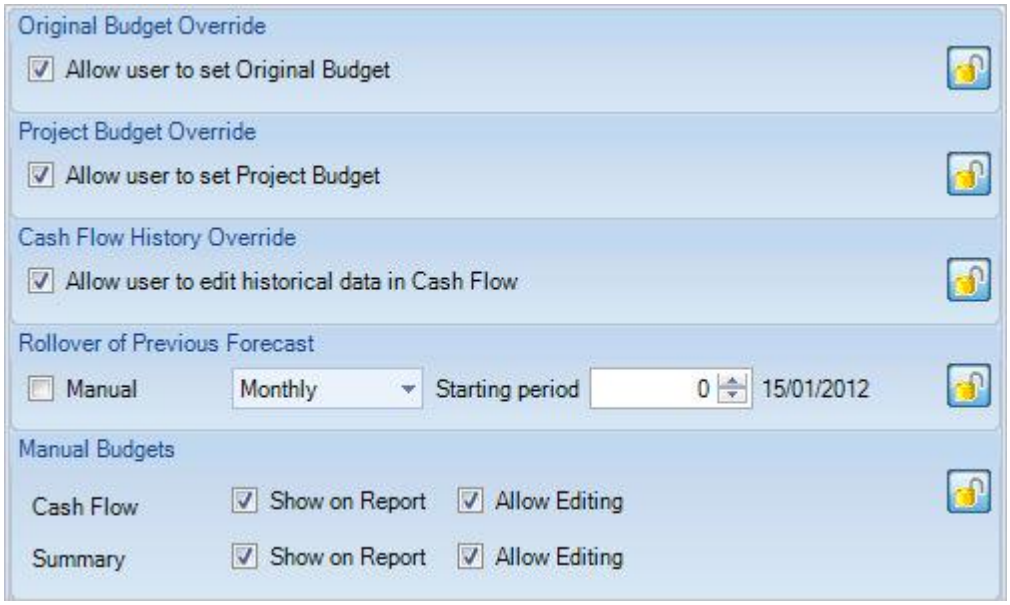
The are 2 options on how to treat project equity in the Balance Sheet:



- **Shareholders Equity (Project Capital):** Developer's equity contributions appear as 'Project Capital' in the 'Shareholders Equity' section of the Balance Sheet.
- **Long Term Liabilities (Intercompany Loan):** If using this option, the Developer's equity contributions are treated as an Intercompany Loan and appear in the Balance Sheet under the 'Long Term Liabilities' section. If this option is selected, the user will also need to input in the Balance Sheet the paid up Share Capital of the company.

4.5 Budget Management

4.5.1 Updating Budgets



Original & Project Budget Override

Elect to allow or disallow the Original and/or Project Budgets to be overridden after it has been set. Overriding includes:

- Setting a budget, or
- Clearing a budget.

Cash Flow History Override

This will allow you to choose whether you want to allow the editing of history in the cash flow. Editing history includes the ability to:

- Edit cash flow columns left to the ‘current period' (yellow column).
- Use the 'Roll Back' feature to move back to a historical period and make amendments.

Rollover of Previous Forecast

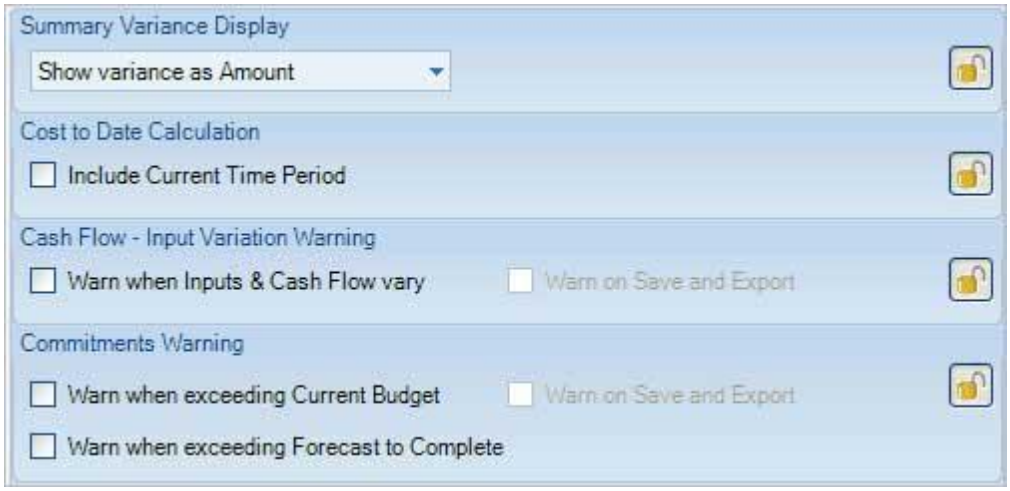
Select when the rollover of the previous forecast is to occur automatically - Monthly, Quarterly or Yearly. The model will also ask from which time period you would like to roll over the forecast from.

If the automatic feature is not preferred, the user can select the 'Manual Rollover' check box, and the Previous Forecast can be set at any time by the user 'Set as Previous Forecast' function in the 'Management Tools'.

Manual Budgets

The user can hide the Manual Budgets from either the 'Cash Flow' or 'Summary' reports, and also prevent users from editing them.

4.5.2 Reporting



Summary Variance Display — This will allow you to choose whether you want the variances to the stored budgets in the 'Summary' sheet to be reported as a percentage (%) or value ($).

Cost to Date Calculation — Select whether the current time period is to be included in the 'Cost to Date' calculations in the cash flow summary on the 'Cash Flow' sheet.

Warning Display — Select which warnings you would like to appear in the cash flow sheet (in the form of red highlighted cells), such as:

- When there are variations between the Cash Flow and Input (caused by manually overriding the cash flow table).
- When commitments exceed the Current Budget.
- When commitments exceed the Forecast to Complete.

There is also the option to warn the user of these issues when saving a file or exporting to the Enterprise Database, thus prompting them to address the issues.

4.6 Financing

4.6.1 Global Settings

Financing Level

This options allows the user to toggle between two finance layouts:

- **Simple**: Use Equity and Senior Loan only. When clicked it resets and hides the other Loans 1, 2 and 3 from the input and output sheets.
- **Advanced**: Use All funding facilities.

Interest Rate Conversion

This is to do with the method for converting all the in the model interest rates from their annual rate to the selected rest period (months, quarters, half years or years) for all interest payable and receivable.

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, Quarterly = 4, Half Yearly = 2)

Note:

- It is imperative that a universal usage for the conversion of the interest rate be adopted for all evaluations.
- The first formula simply divides the annual interest rate by 12 while the second formula is the effective conversion and takes into account the compounding on a monthly, quarterly, half yearly basis depending on the cash flow being modelled.

Total Debt Loan Ratio Calculation Method

Indicate the denominator for the loan ratio calculation for the total debt overdraft. This is only used to show the Loan Ratio on the Reports.

RETURNS ON FUNDS INVESTED	Total Debt
Loan to Value Ratio	3.72%
Loan Ratio	95.57% of Land Purchase Price

Summary Total Debt Loan Ratio

Loan Ratios Display

This options allows you to set how the Loan Ratios are displayed on the following reports:

- **Cash Flow Report:** Set the Loan Ratio to be calculated on either cumulative loan drawdowns, or on the current loan balance (which may include capitalised interest and fees)
- **Summary Report:** Set the Loan Ratio to be calculated on total funds invested, either including or excluding capitalised interest and fees.

Loan 4 - Lender Name				
Drawdown	(1,000,000)	-	-	-
Loan Interest Rate (%/ann)	5.00%	5.00%	5.00%	5.00%
Interest Charged	-	(4,167)	(4,184)	(4,201)
Application and Line Fees	-	-	-	-
Interest Paid by Equity	-	-	-	-
Loan Repayment	-	-	-	-
Interest and Fees	-	-	-	-
Principal	-	-	-	-
Loan Balance	(1,000,000)	(1,004,167)	(1,008,351)	(1,012,552)
% of Land Purchase Price.	90.91%	90.91%	90.91%	90.91%
Loan 4 Cash Flow	(1,000,000)	-	-	-

Cash Flow Loan Ratio

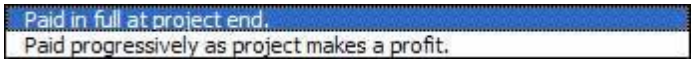
RETURNS ON FUNDS INVESTED	Loan 4 Lender Name
Funds Invested (Cash Outlay)	8,415,007
% of Total Funds Invested	100.00%
Payback Date	Jun-12
Month of Payback	Month 41
IRR on Funds Invested	5.00%
Equity to Debt Ratio	N.A.
Loan to Value Ratio	3.72%
Loan Ratio	95.57% of Land Purchase Price.

Summary Loan Ratio

Profit Share Payment

If there are any profit share payments to the Land Owner or Lenders 1, 2 or 3, then this options allows you to select when the profit share is paid out:

- **Paid in full at project end**: The model waits till the end of the project before any profit share payments are distributed.
- **Paid Progressively:** As soon as the project makes a profit (are debts are repaid), then any profit share payments will be distributed progressively. This option will only work if the option for 'Equity Repayment' is set to 'repay when available' as well, otherwise it will default to paying it at the end of the project.

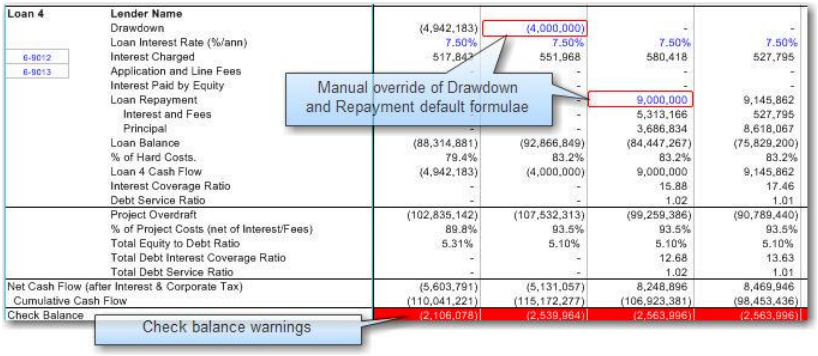


Manual Overrides

By default, the Injection/Drawdown and Repayment lines in the Financing section of the Cash Flow worksheet are locked and are calculated based on all inputs and preferences set in the model, and the financing logic. However, if there is a need to alter the Injection/ Drawdown and Repayment lines to reflect a more specific scenario that the model cannot account for, enabling this preference allows these lines to be unlocked.

Note:

- The model will not automatically recalculate Equity or Loan Injection/Drawdown and Repayments if a manual override is made.
- If the Injection/Drawdown and Repayment lines are UNLOCKED and a manual override is made, it is recommended to check any imbalances in the 'Check Balance' line. Any numbers in this row indicate that there is an bonus/shortfall for that period. For example, if the default formula for a Loan Drawdown calculated -5,000,000, and this was manually overridden to -4,000,000, then there would be a drawdown shortfall and -1,000,000 will be displayed in the 'Check Balance' line. This then requires manual adjustment of the other Loan Drawdowns to take up that shortfall until the 'Check Balance' returns to zero.



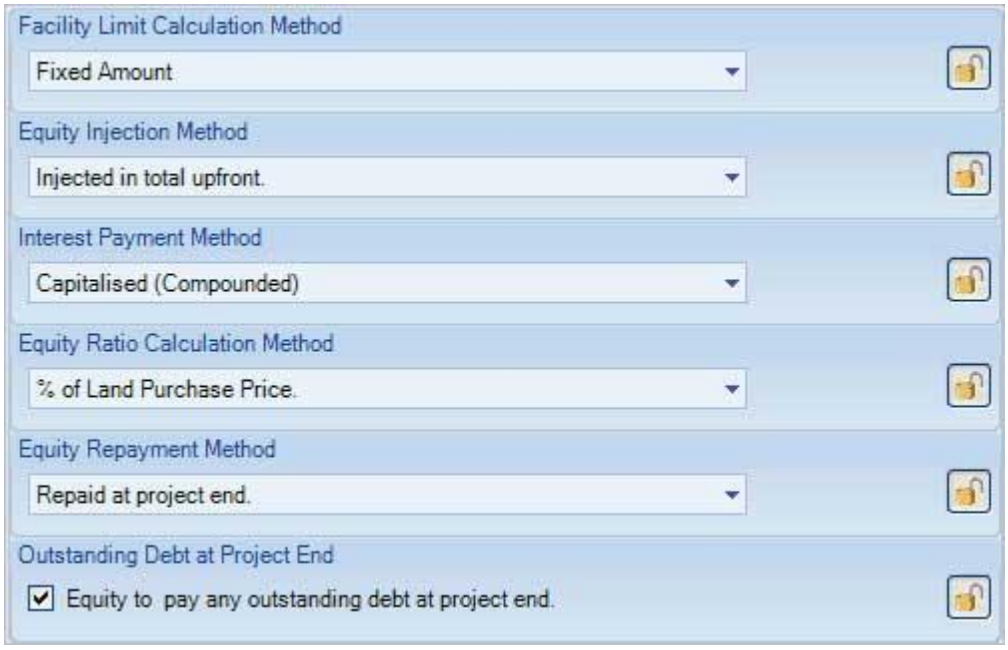
4.6.2 Hard Costs

Hard Costs

Select which project costs are classified as 'Hard Costs' for the purpose of loan ratios or facility limits that are based on 'Total Hard Costs' (as below).

If the tax component (GST/VAT) of the selected hard costs are to be excluded from amount, then make sure the last check box is ticked.

4.6.3 Equity



Facility Limit

Nominate the limit of funds injected into the cash flow. This amount excludes interest and fees. The limit can either be based on a:

- Fixed amount.
- Ratio of project costs or revenues (unless otherwise stated, these are inclusive of any tax).

Equity Injection Method

Indicate how the Equity is injected into the project:

- Fully upfront at project commencement.
- Progressively injected when required.

Interest Payment Method

Indicate how the interest charged on the funds is paid:

- **Accrued not Capitalised (Simple Interest):** Where interest is only calculated on the equity drawn down and not on any interest.
- **Capitalised (Compound Interest):** Where interest is calculated on the loan balance that includes any capitalised interest.

Equity Ratio Calculation Method

Indicate the denominator for the ratio calculation for equity cash flow. This is only used to show the Loan Ratio on the Reports.

Equity Repayment Method

Nominate when the equity is repaid back to the project:

- **At Project End:** Where any excess funds are deposited into the surplus cash account until such period.
- **When Available (retain cash for future costs):** Where equity is repaid progressively as it is realised. The cash flow

may retain funds in the surplus cash account if it identifies future costs that may need to be funded.

- **When Available (do not retain cash for future costs):** Where equity is repaid progressively as it is realised. Any future costs that may need to be funded are ignored and no cash is retained to fund these.

Any manual equity repayment adjustments in the cash flow table will override the preferences.

Outstanding Debts at Project End

You can elect to have equity pay any outstanding debts at the end of the project, rather than leave them unpaid.

4.6.4 Loans 1, 2 and 3

Loan Type

Nominate whether the Loan is a Debt or Equity facility.

- By Selecting 'Debt', the loan will impact all Debt-related performance indicators (e.g Peak Debt Exposure, etc)
- By Selecting 'Equity', the loan will impact all Equity-related performance indicators (e.g Equity IRR, etc)

Facility Limit Calculation Method

Nominate the limit of funds injected into the cash flow. This amount excludes interest and fees. The limit can either be based on a:

- Fixed amount.
- Ratio of project costs or revenues (unless otherwise stated, these are inclusive of any tax).

Loan Drawdown Method

Indicate how the loans are drawn down into the project:

- **Upfront:** Funds are drawn down in total at project

commencement (or Commencement Month if used).

- **Progressively:** Funds are drawn down as and when when required.
- **Progressively, limited to cumulative facility limit:** This option is only available if a facility limit is based on a % ratio of project costs or revenues. It will draw down funds in line with the cumulative facility limit (eg if a % of Construction Costs is chosen as the facility limit, then funds will only be drawn down during the period that construction costs are incurred).

Interest Payment Method

Indicate how the interest charged on the funds is paid:

- **Paid for by equity:** Where interest is paid by equity as soon as it is charged, either from the surplus cash account (if funds are available) or from additional equity injections (once the surplus cash account has been exhausted).
- **Accrued not Capitalised (Simple Interest):** Where interest is only calculated on the drawn downs and not on any interest.
- **Capitalised (Compound Interest):** Where interest is calculated on the loan balance that includes any capitalised interest.
- **Principal and Interest:** With this type of loan, the repayments are made up of the periodic interest on the outstanding balance plus an amount which will reduce the principal. If this option is selected:
    - The Loan Drawdown Method automatically reverts to 'Upfront'.
    - The user must set a manual 'Maturity Period', which is used to determine the term for the loan.

Using the Principal and Interest Option

Loan Ratio Calculation Method

Indicate the denominators for the loan ratio calculation for each loan. This is only used to show the Loan Ratio on the Reports.

Refinancing at Maturity or **Principal and Interest Repayments**

This option may display one of two labels:

- **Refinancing at Maturity:** This option is only applicable if you have chosen a manual Maturity Month for that loan. Nominate which other source of funding is to refinance the loan at the nominated Maturity Month.
- **Principal and Interest Repayments:** If a Principal and Interest loan is selected, then this option will prompt the user to define which loan facility is to fund the periodic repayments for the subject facility.

4.6.5 Senior Loan (Loan 4)

Loan Type

Nominate whether the Loan is a Debt or Equity facility

- By Selecting 'Debt', the loan will impact all Debt-related performance indicators (e.g Peak Debt Exposure, etc)
- By Selecting 'Equity', the loan will impact all Equity-related performance indicators (e.g Equity IRR, etc)

Facility Limit Calculation Method

Nominate the limit of funds injected into the cash flow. This amount excludes interest and fees.

- **No Limit - Use as an Overdraft Facility:** This is a line of credit facility and there is no limit on the borrowed amount. No facility limit is required and the input is disabled.
- **Set Fixed Limit - Use Equity as the Overdraft Facility:** A facility limit can be set on the Senior Loan as a fixed amount, and then any additional funding is sourced from Equity.

Interest Payment Method

Indicate how the interest charged on the funds is paid:

- **Paid for by equity:** Where interest is paid by equity as soon as it is charged, either from the surplus cash account (if funds are available) or from additional equity injections.
- **Accrued not Capitalised (Simple Interest):** Where interest is only calculated on the drawn downs and not on any interest.
- **Capitalised (Compound Interest):** Where interest is calculated on the loan balance that includes any capitalised interest.

The interest rate can be manually varied for different periods in the cash flow tables.

Loan Ratio Calculation Method

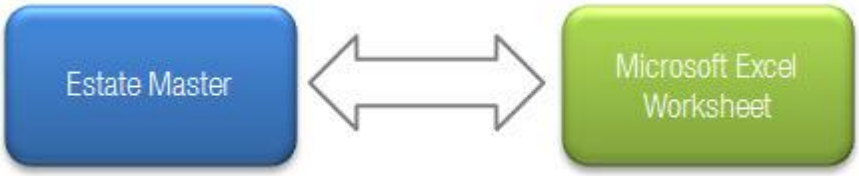
Indicate the denominators for the loan ratio calculation for each loan. This is only used to show the Loan Ratio on the Reports.

Part V

5 Integration with Microsoft Excel and Word

5.1 Linking to Excel Files

Just like in Excel, you can use this feature to either create a formula in Estate Master DM that is referencing an external Excel file (an 'Incoming' link), or you can create a formula in an external Excel file that is referencing the Estate Master file (an 'Outgoing' link).

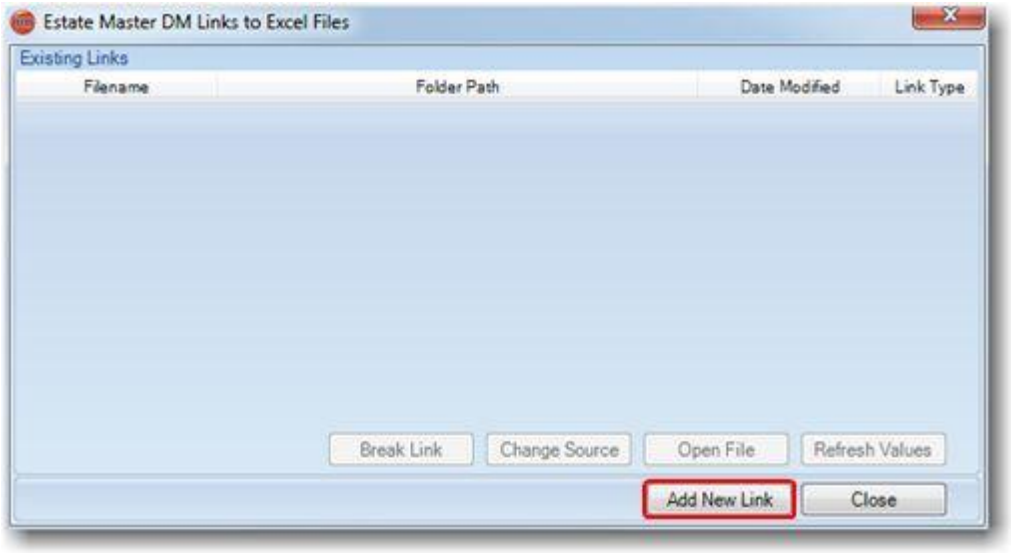


Creating an Excel Link

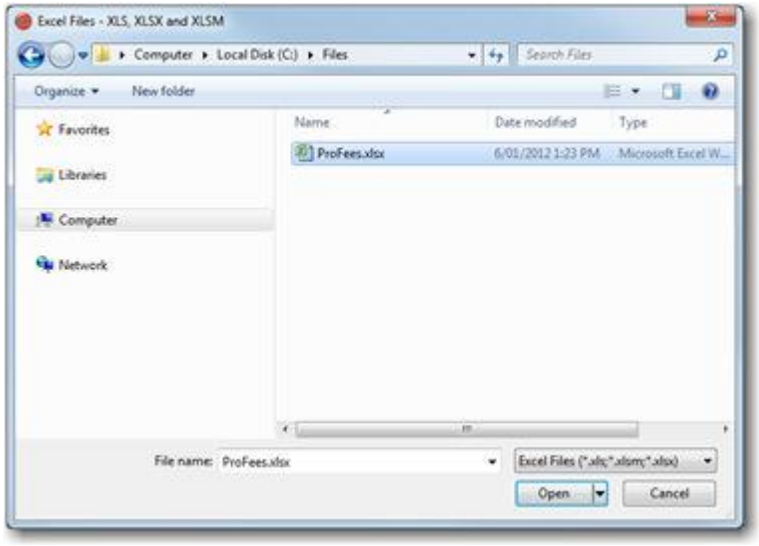
1. Click on the [Excel] button in the 'Office Links' menu.

2. A dialog will appear. Click on the [Add New Link] button.

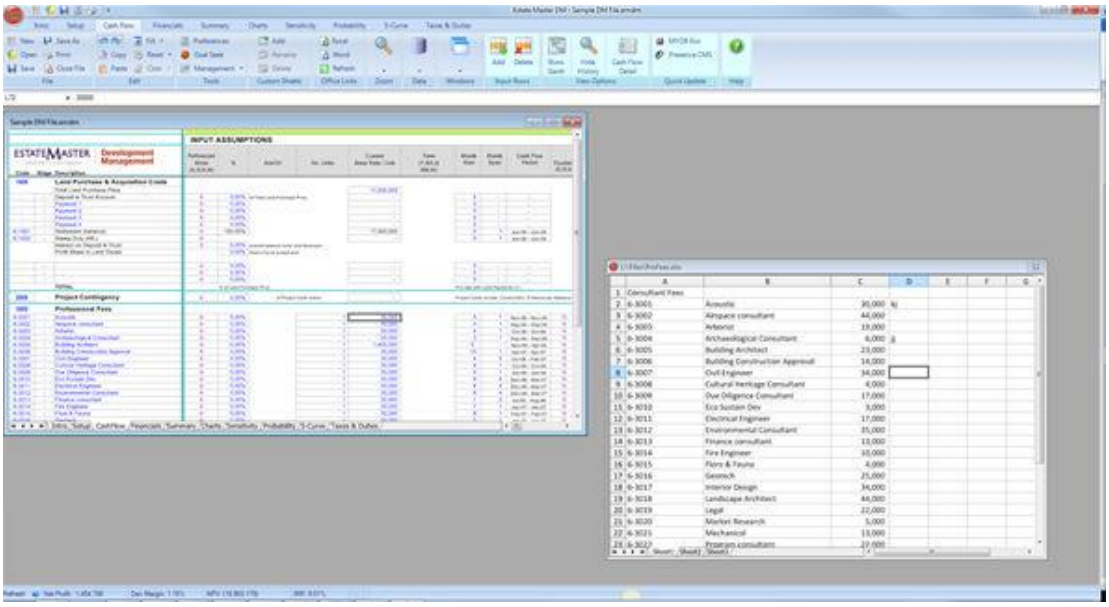
   Please Note: Only 1 Estate Master DM window (i.e file) can be open when loading an external Excel file. If there are multiple Estate Master DM windows open in the application, it will prompt you to close down the other windows before trying to add a new link.



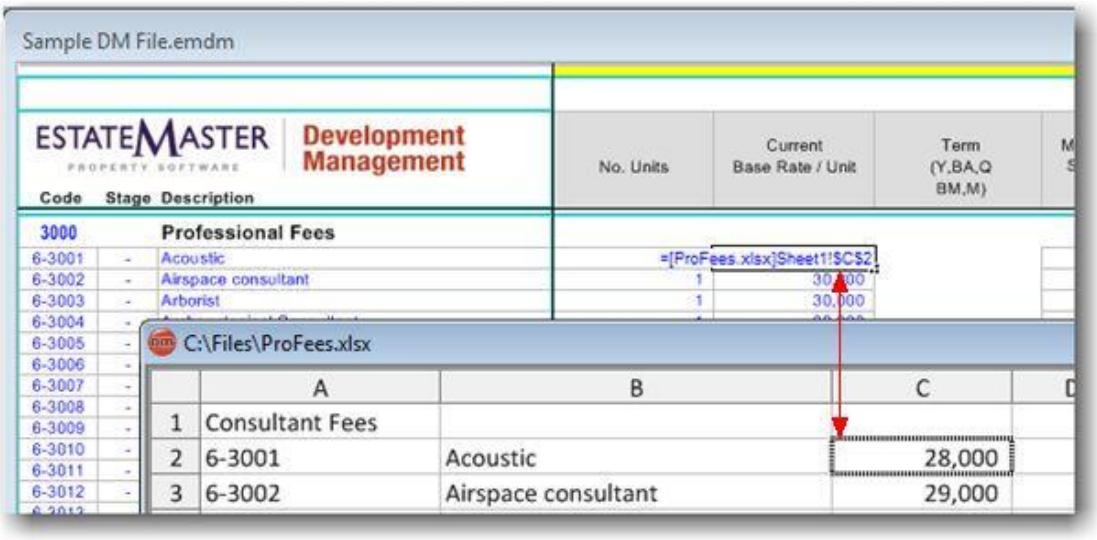
3. Browse to the Excel file you want to open and create links with. Select the file and press [Open].



4. The Estate Master DM application window will re-adjust to show the Estate Master DM file and Excel file as individual cascading windows.



5. While these windows are displayed, you can write formulae in either one that reference the other, just by selecting a cell, starting to write a formula, and then selecting the other file to select a cell/range to refer to in that formula.



6. When you are completed linking your files, you will need to close the Excel file. This can be done by clicking on the Close button (red X) on the top right of the window.

7. If any changes were made to the Excel file, it will ask you if you want to save these changes before closing the file.

   Please Note: If you save the file, some features that are not completely supported by this spreadsheet interface may be lost (including, but not limited to, items such as Form/ActiveX Controls, Pivot Charts, Cell Comments, Cell Gradients, Excel 2007-style Conditional Format options, Excel 2007-style Tables and Structured References, OLE objects (Camera, Embedded Documents, etc) and Shape fill effects and shadows).

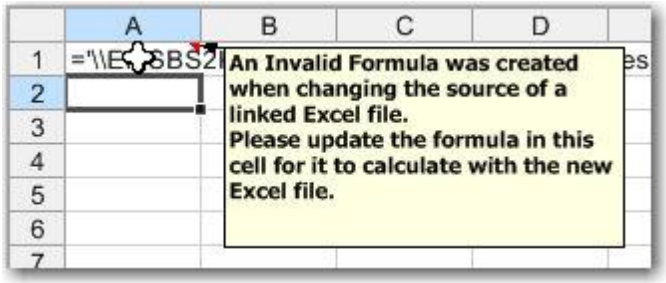
8. At any time you can click on the [Excel] button in the 'Office Links' menu to reload the dialog where you can:

   - View a list of all files linking to the Estate Master DM file, where they are located and whether they have Incoming, Outgoing or multi-directional links.
   - Click **[Break Link]**, to remove the selected Excel file from being linked to the Estate Master DM files. After the file is saved and re-opened, any formulas in the Estate Master DM file that were referencing this Excel file will be:
     - On Standard Worksheets: Loaded as its last known calculated 'value' (no formula). This will allow the model to continue calculating without issues.
     - On Custom Worksheets: Converted to text, by adding an apostrophe before the '=' in the formula. This will allow the user to check and amend the formula where necessary.
   - Click **[Change Source]**, to change the location of the selected Excel file. This will prompt you to browse to another file, and the program will search for all formulae where the old Excel

file was referenced, and replace it with the name of the newly selected Excel file. During such process, if any of the formulae becomes invalid (due to worksheet or range name that existed in the old Excel file, but not in the new one), there following will occur to such formulae:

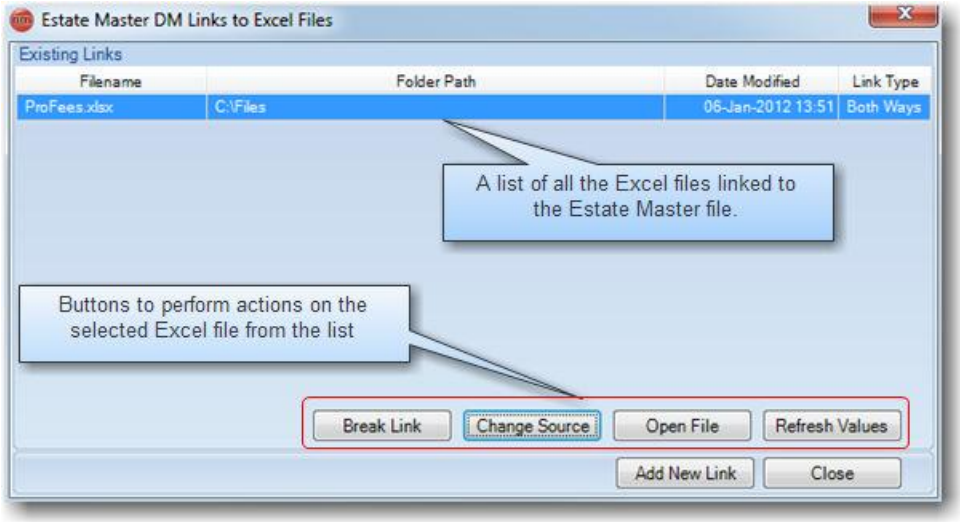
- On Standard Worksheets: Converted to its last known calculated 'value' (no formula). This will allow the model to continue calculating without issues.
- On Custom Worksheets: Converted to text, by adding an apostrophe before the '=' in the formula. This will allow the user to check and amend the formula where necessary.

In addition, a warning will appear, listing the worksheets where such invalid formulae were found after the 'Change Source' process was completed, and cell comments will be added to the actual cells where the invalid formulae were processed.



Example showing a red cell comment where an invalid formula was created as a result of a 'Change Source'

- Click **[Open File]** to open the selected Excel file again to change/add links.
- Click [**Refresh Values]** to momentarily open the selected Excel file to refresh the results.
- Click **[Add New Link]** to add a link to another Excel file.



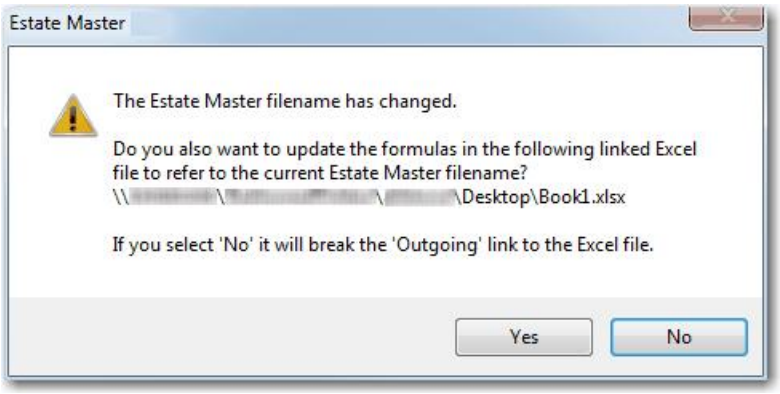
9. If there are an external Excel files that have 'Incoming' links (i.e. there is a formula in the Estate Master DM file that is referencing the Excel file), a warning will appear in the Status bar if the program has detected that the Excel file has been modified since the last refresh. Clicking this warning, will momentarily open the Excel file(s) to refresh the results.

Renaming or Moving Estate Master DM Files

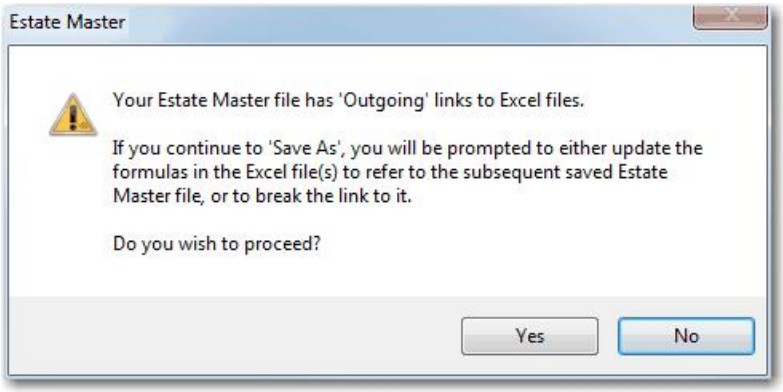
If you create a formula in an external Excel file that is referencing the Estate Master DM file (i.e. an 'Outgoing' link), the formula will contain the full path and file name of that Estate Master DM file.

Therefore if the Estate Master DM file is renamed and/or moved, either manually in Windows Explorer, or during a Save-As process, to maintain the integrity of any formulae in the external Excel file, the following will occur:

1. **During File Open:** No warning will be given to the user, as Outgoing links are not critical to the opening of the Estate Master DM file.
2. **During Office Links > Excel > 'Refresh Values' or 'Open File':** If it has detected that the Estate Master DM file has been renamed/moved (most likely via Windows Explorer) since the 'Outgoing' link was made to an Excel file, the user will be asked whether they wish to update the linked Excel files so any formulae now refer to the new one, or to break the link.



3. **During File Save:** As soon as the 'Save As' button is clicked, the user will be warned that the Estate Master DM file has 'Outgoing' links and if they continue with the 'Save As' and they change the file name and/or path, they will be prompted to either update the formulae in the linked Excel file(s) or break the link.



Using Square Brackets in File Names and Folders

Formula links reserve the use of square brackets [ ] in its syntax to enclose the source file, for example =SUM(**[**Budget.xls**]**Annual!C10:C25). Therefore you cannot use these characters in the path to that source file, or in the file name itself. This applies to the Excel files used in an 'Incoming Link' to create a formula in Estate Master DM and also in Estate Master DM files used in an 'Outgoing Link' to create a formula in an Excel file.

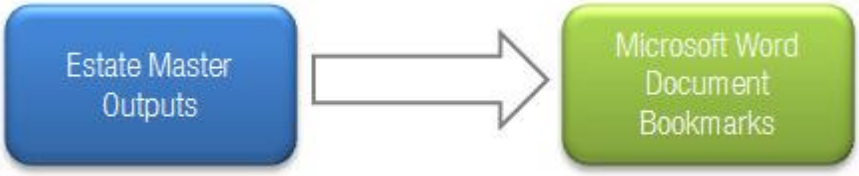
Important Notes:

- If a user opens an Estate Master DM file that already had an 'Incoming' link to an Excel file that contained [and/or] in its file name or path (applies to previous versions of Estate Master DM) , then when it is next opened only values will be loaded into the input cells, not formulae.
- If an Estate Master DM file contains [and/or] in its file name or path, then the user will not be able to create any Excel Links at all.

- If an Excel file contains [and/or] in its file name or path, then the user will not be able to create any links to it.
- If the user attempts to save an Estate Master DM file with a file name or to a file path contains [and/or], they will not be able to.

5.2 Linking to Word Files

This feature allows you to populate fields in a Word document with data from an Estate Master DM file. This is done by selecting from a list of predefined Estate Master DMoutputs and linking them to a Word document that contains the required Bookmarks. A Bookmark is a feature in Word that identifies a location or a selection of text that you name and identify for future reference.

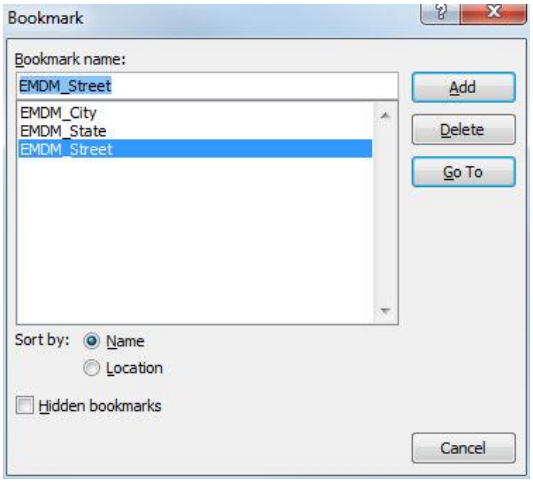


Creating Bookmarks in your Word Document

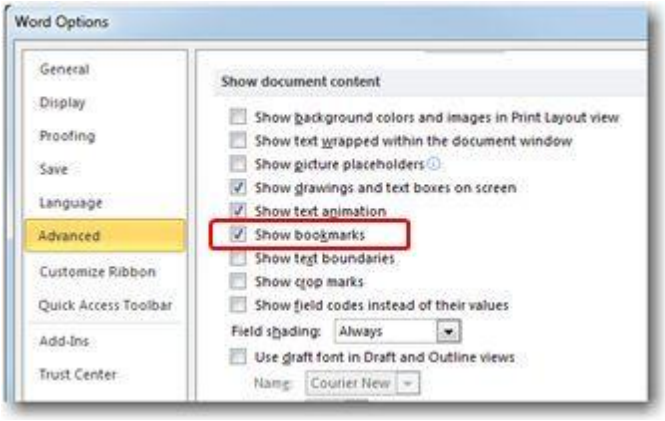
The first thing that needs to be done is to set up the Word document you wish to link to, with the required Bookmarks. Refer to the following Bookmarks Directory to see what Estate Master DM outputs are available and their corresponding Bookmark.

1. Open the document in Word.
2. Select a location, or highlight the text you wish to turn into a Bookmark.

3. Based on the Estate Master DM output that you want to appear in this location, type in the name of the Bookmark that corresponds to that output. For example, if you want to populate the selected location/text with the output of the 'Street Address' from the Estate Master DM file, the name of EMDM_Street must be given to that Bookmark. When done, press [Add].



4. If you wish to highlight the Bookmarks in a Word document so you can easily identify them, there is a setting in the Word Options, under the Advanced section called 'Show Bookmarks'

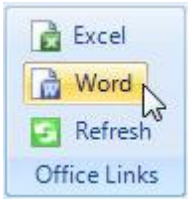


5. When selected, it will identify Bookmarks in the document with square brackets.

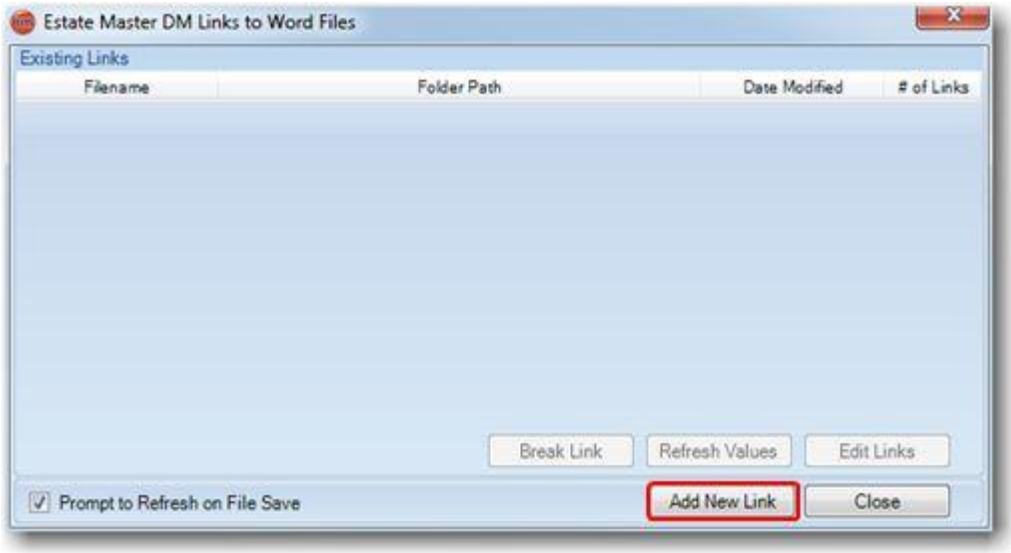
6. Once the Bookmarks have been created in the document, save and close the file.

Setting up a Link to the Word Document

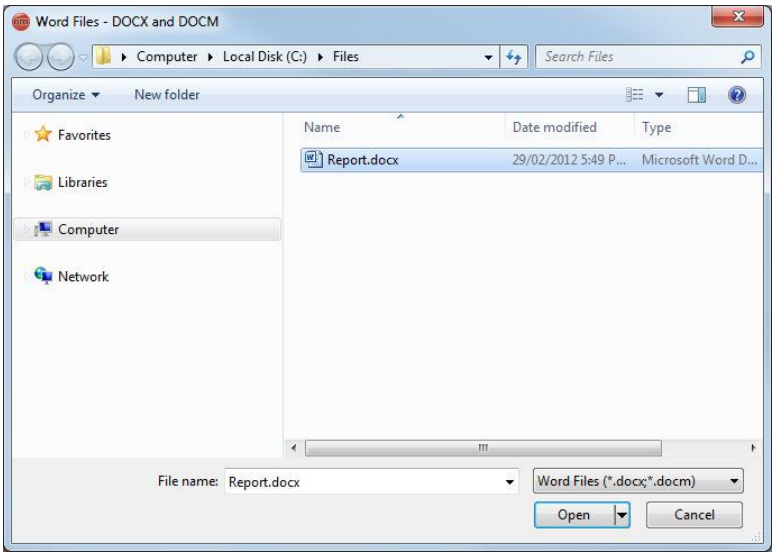
1. Click on the [Word] button in the 'Office Links' menu.



2. A dialog will appear. Click on the [Add New Link] button.



3. Browse to the Word file (*.docx, *.docm, *.dotx and *.dotm) you want to open and create links with. Select the file and press [Open].

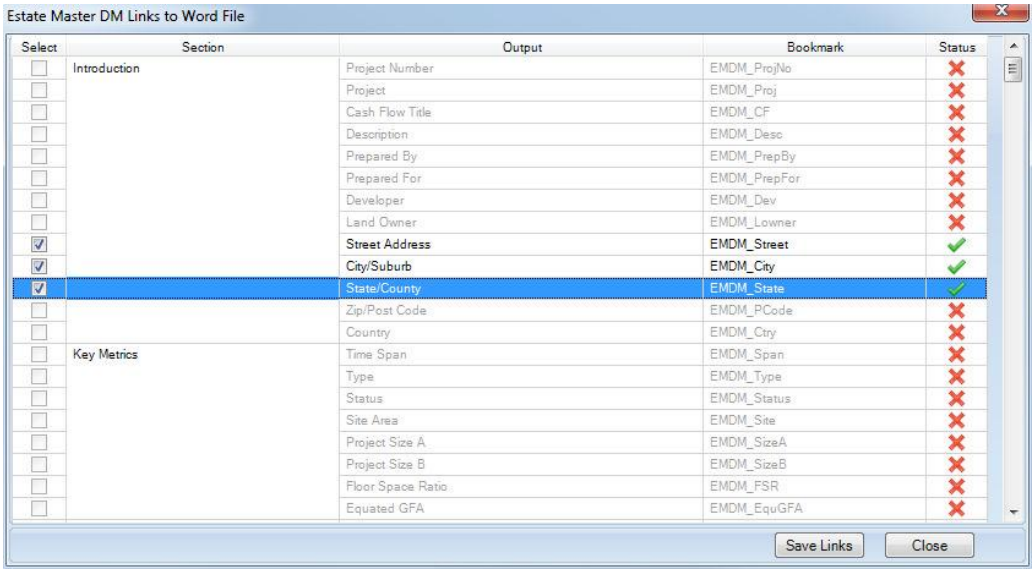


4. A new dialog will appear.

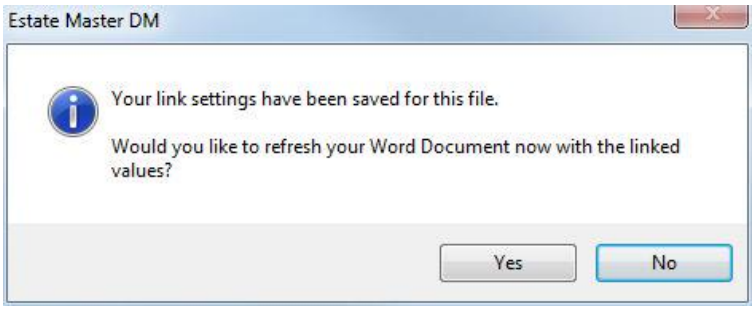
   It will list all the Estate Master DM outputs that can be linked to a Word document, what section they belong to in the Estate Master DM file, and the related Bookmark name that must be inserted into that Word document for the link to be created.

   The 'Status' will indicate if that Bookmark exists in that Word document already or not.

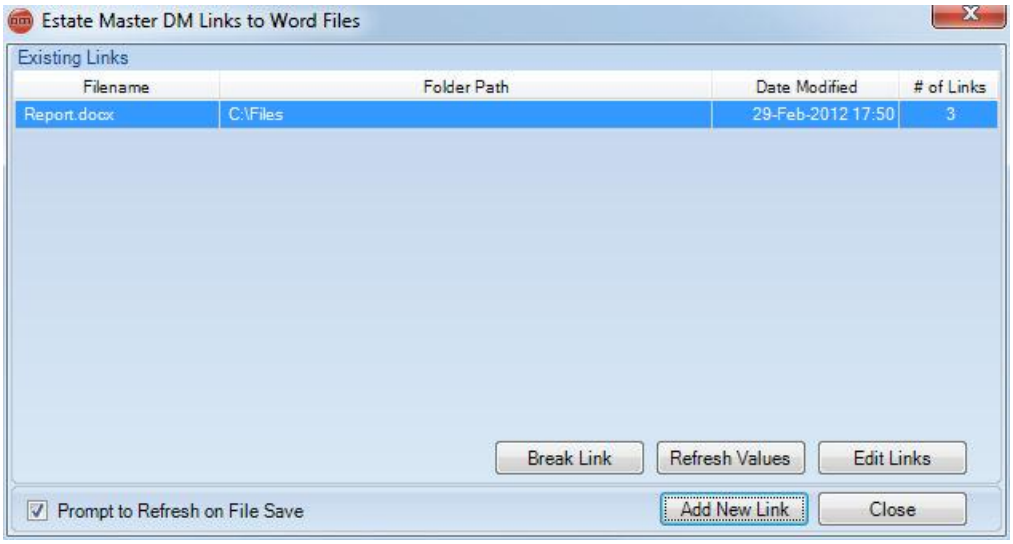
   - If it does exist (green tick ✓), you can select so the Word file is updated with that Estate Master DM output. By default, when a new Word document is linked to an Estate Master DM file, all Bookmarks that exist in such document will be automatically selected when this dialog loads.
   - If it doesn't exist (red cross ✘), but you do want to link to it, you will have to close the dialog and open the document in Word and add the bookmarks to that file before you can create the link.



5. Once you have selected the outputs you want to link, click [Save Links]. It will prompt you to refresh the Word document at that time.



6. If you click [Yes], it will programmatically update the bookmarks in that Word document with the results of the selected outputs.
7. If you open the document in Word, you can see the end result.
8. At any time you can click on the [Word] button in the 'Office Links' menu to reload the dialog where you can:
   - View a list of all files linking to the Estate Master DM file, where they are located and the number of outputs they are linked to.
   - Click [Break Link], to remove the selected Word file from being linked to the Estate Master DM files.
   - Click [Refresh Values] to momentarily refresh the Bookmarks in the selected Word file with update values.
   - Click [Edit Links] to change the Bookmarks being linked to in the selected Word file.
   - Click [Add New Link] to add a link to another Word file.
   - Select an option to prompt the user to refresh Word links when saving a file to ensure that the Word document always has the latest results.



5.2.1 Word Bookmarks Directory

This is a list of the outputs from Estate Master DM, and their relative Bookmark name, that can be used to populate Word documents.

Output Description	Bookmark
Introduction	
Project Number	EMDM_ProjNo
Project	EMDM_Proj
Cash Flow Title	EMDM_CF
Description	EMDM_Desc
Prepared By	EMDM_PrepBy
Prepared For	EMDM_PrepFor
Developer	EMDM_Dev
Street Address	EMDM_Street
City/Suburb	EMDM_City
State/County	EMDM_State
Zip/Post Code	EMDM_PCode
Country	EMDM_Ctry
Key Metrics	
Time Span	EMDM_Span
Type	EMDM_Type
Status	EMDM_Status
Site Area	EMDM_Site
Project Size A	EMDM_SizeA
Project Size B	EMDM_SizeB
FSR	EMDM_FSR
Equated GFA	EMDM_EquGFA
Current Month	EMDM_CurrentMonth
Previous Forecast Month	EMDM_PreviousMonth
Project Budget Month	EMDM_ProjectMonth
Original Budget Month	EMDM_OriginalMonth
Revenues (Current Forecast)	
Total Sales Revenue	EMDM_GrossSale
Selling Costs	EMDM_SellCost
Purchasers Costs	EMDM_PurchCost
Net Sale Proceeds	EMDM_NetSale
Rental Income	EMDM_GrossRent
Outgoings & Vacancies	EMDM_OG
Letting Fees	EMDM_LetFee
Incentives (Rent Free and Fit-out Costs)	EMDM_Incent
Other Leasing Costs	EMDM_LeaseCost
Net Rental Income	EMDM_NetRent
Interest Received	EMDM_IntRec
Other Income	EMDM_OtherInc
Total Revenue (before Tax paid)	EMDM_RevBT
Tax paid on all Revenue	EMDM_RevTax
Total Revenue (after Tax paid)	EMDM_RevAT
Revenues (Previous Forecast)	
Total Sales Revenue	EMDM_GrossSale_Prev
Selling Costs	EMDM_SellCost_Prev
Purchasers Costs	EMDM_PurchCost_Prev
Net Sale Proceeds	EMDM_NetSale_Prev
Rental Income	EMDM_GrossRent_Prev
Outgoings & Vacancies	EMDM_OG_Prev
Letting Fees	EMDM_LetFee_Prev
Incentives (Rent Free and Fit-out Costs)	EMDM_Incent_Prev
Other Leasing Costs	EMDM_LeaseCost_Prev
Net Rental Income	EMDM_NetRent_Prev
Interest Received	EMDM_IntRec_Prev
Other Income	EMDM_OtherInc_Prev
Total Revenue (before Tax paid)	EMDM_RevBT_Prev
Tax paid on all Revenue	EMDM_RevTax_Prev
Total Revenue (after Tax paid)	EMDM_RevAT_Prev
Revenues (Project Budget)	
Total Sales Revenue	EMDM_GrossSale_Proj
Selling Costs	EMDM_SellCost_Proj
Purchasers Costs	EMDM_PurchCost_Proj
Net Sale Proceeds	EMDM_NetSale_Proj
Rental Income	EMDM_GrossRent_Proj
Outgoings & Vacancies	EMDM_OG_Proj
Letting Fees	EMDM_LetFee_Proj
Incentives (Rent Free and Fit-out Costs)	EMDM_Incent_Proj

Other Leasing Costs	EMDM_LeaseCost_Proj
Net Rental Income	EMDM_NetRent_Proj
Interest Received	EMDM_IntRec_Proj
Other Income	EMDM_OtherInc_Proj
Total Revenue (before Tax paid)	EMDM_RevBT_Proj
Tax paid on all Revenue	EMDM_RevTax_Proj
Total Revenue (after Tax paid)	EMDM_RevAT_Proj
Revenues (Original Budget)	
Total Sales Revenue	EMDM_GrossSale_Orig
Selling Costs	EMDM_SellCost_Orig
Purchasers Costs	EMDM_PurchCost_Orig
Net Sale Proceeds	EMDM_NetSale_Orig
Rental Income	EMDM_GrossRent_Orig
Outgoings & Vacancies	EMDM_OG_Orig
Letting Fees	EMDM_LetFee_Orig
Incentives (Rent Free and Fit-out Costs)	EMDM_Incent_Orig
Other Leasing Costs	EMDM_LeaseCost_Orig
Net Rental Income	EMDM_NetRent_Orig
Interest Received	EMDM_IntRec_Orig
Other Income	EMDM_OtherInc_Orig
Total Revenue (before Tax paid)	EMDM_RevBT_Orig
Tax paid on all Revenue	EMDM_RevTax_Orig
Total Revenue (after Tax paid)	EMDM_RevAT_Orig
Costs (Current Forecasts)	
Land Purchase Cost	EMDM_Land
Land Transaction Costs	EMDM_OthLand
Construction (inc. Construct. Contingency)	EMDM_Construct
Contingency	EMDM_ConstCont
Professional Fees	EMDM_ProFee
Statutory Fees	EMDM_StatFee
Miscellaneous Costs 1	EMDM_Misc1
Miscellaneous Costs 2	EMDM_Misc2
Miscellaneous Costs 3	EMDM_Misc3
Project Contingency (Project Reserve)	EMDM_ProjCont
Land Holding Costs	EMDM_LandHold
Pre-Sale Commissions	EMDM_PreComm
Finance Charges (inc. Fees)	EMDM_FinChg
Interest Expense	EMDM_IntExp
Total Costs (before Tax reclaimed)	EMDM_CostBT
Tax reclaimed	EMDM_CostTax
Corporate Tax	EMDM_CorpTax
Total Costs (afterTax reclaimed)	EMDM_CostAT
Costs (Previous Forecasts)	
Land Purchase Cost	EMDM_Land_Prev
Land Transaction Costs	EMDM_OthLand_Prev
Construction (inc. Construct. Contingency)	EMDM_Construct_Prev
Contingency	EMDM_ConstCont_Prev
Professional Fees	EMDM_ProFee_Prev
Statutory Fees	EMDM_StatFee_Prev
Miscellaneous Costs 1	EMDM_Misc1_Prev
Miscellaneous Costs 2	EMDM_Misc2_Prev
Miscellaneous Costs 3	EMDM_Misc3_Prev
Project Contingency (Project Reserve)	EMDM_ProjCont_Prev
Land Holding Costs	EMDM_LandHold_Prev
Pre-Sale Commissions	EMDM_PreComm_Prev
Finance Charges (inc. Fees)	EMDM_FinChg_Prev
Interest Expense	EMDM_IntExp_Prev
Total Costs (before Tax reclaimed)	EMDM_CostBT_Prev
Tax reclaimed	EMDM_CostTax_Prev
Corporate Tax	EMDM_CorpTax_Prev
Total Costs (afterTax reclaimed)	EMDM_CostAT_Prev
Costs (Project Budget)	
Land Purchase Cost	EMDM_Land_Proj
Land Transaction Costs	EMDM_OthLand_Proj
Construction (inc. Construct. Contingency)	EMDM_Construct_Proj
Contingency	EMDM_ConstCont_Proj
Professional Fees	EMDM_ProFee_Proj
Statutory Fees	EMDM_StatFee_Proj
Miscellaneous Costs 1	EMDM_Misc1_Proj
Miscellaneous Costs 2	EMDM_Misc2_Proj
Miscellaneous Costs 3	EMDM_Misc3_Proj
Project Contingency (Project Reserve)	EMDM_ProjCont_Proj
Land Holding Costs	EMDM_LandHold_Proj
Pre-Sale Commissions	EMDM_PreComm_Proj

Finance Charges (inc. Fees)	EMDM_FinChg_Proj
Interest Expense	EMDM_IntExp_Proj
Total Costs (before Tax reclaimed)	EMDM_CostBT_Proj
Tax reclaimed	EMDM_CostTax_Proj
Corporate Tax	EMDM_CorpTax_Proj
Total Costs (afterTax reclaimed)	EMDM_CostAT_Proj
Costs (Original Budget)	
Land Purchase Cost	EMDM_Land_Orig
Land Transaction Costs	EMDM_OthLand_Orig
Construction (inc. Construct. Contingency)	EMDM_Construct_Orig
Contingency	EMDM_ConstCont_Orig
Professional Fees	EMDM_ProFee_Orig
Statutory Fees	EMDM_StatFee_Orig
Miscellaneous Costs 1	EMDM_Misc1_Orig
Miscellaneous Costs 2	EMDM_Misc2_Orig
Miscellaneous Costs 3	EMDM_Misc3_Orig
Project Contingency (Project Reserve)	EMDM_OrigCont_Orig
Land Holding Costs	EMDM_LandHold_Orig
Pre-Sale Commissions	EMDM_PreComm_Orig
Finance Charges (inc. Fees)	EMDM_FinChg_Orig
Interest Expense	EMDM_IntExp_Orig
Total Costs (before Tax reclaimed)	EMDM_CostBT_Orig
Tax reclaimed	EMDM_CostTax_Orig
Corporate Tax	EMDM_CorpTax_Orig
Total Costs (afterTax reclaimed)	EMDM_CostAT_Orig
Key Performance Indicators (Current Forecast)	
Gross Development Profit	EMDM_GrossProf
Net Development Profit	EMDM_NetProf
Development Margin	EMDM_DevMgn
Net Present Value	EMDM_NPV
NPV of Future Cash Flows	EMDM_NPVFut
Discount Rate	EMDM_DiscRate
Benefit Cost Ratio	EMDM_BCR
Project Internal Rate of Return (IRR)	EMDM_IRR
Weighted Average Cost of Capital (WACC)	EMDM_WACC
Breakeven Date for Cumulative Cash Flow	EMDM_BEDate
Yield on Cost	EMDM_YldCost
Rent Cover	EMDM_RentCvr
Profit Erosion	EMDM_ProfErn
Key Performance Indicators (Previous Forecast)	
Gross Development Profit	EMDM_GrossProf_Prev
Net Development Profit	EMDM_NetProf_Prev
Development Margin	EMDM_DevMgn_Prev
Net Present Value	EMDM_NPV_Prev
NPV of Future Cash Flows	EMDM_NPVFut_Prev
Benefit Cost Ratio	EMDM_BCR_Prev
Project Internal Rate of Return (IRR)	EMDM_IRR_Prev
Weighted Average Cost of Capital (WACC)	EMDM_WACC_Prev
Breakeven Date for Cumulative Cash Flow	EMDM_BEDate_Prev
Yield on Cost	EMDM_YldCost_Prev
Rent Cover	EMDM_RentCvr_Prev
Profit Erosion	EMDM_ProfErn_Prev
Key Performance Indicators (Project Budget)	
Gross Development Profit	EMDM_GrossProf_Proj
Net Development Profit	EMDM_NetProf_Proj
Development Margin	EMDM_DevMgn_Proj
Net Present Value	EMDM_NPV_Proj
NPV of Future Cash Flows	EMDM_NPVFut_Proj
Benefit Cost Ratio	EMDM_BCR_Proj
Project Internal Rate of Return (IRR)	EMDM_IRR_Proj
Weighted Average Cost of Capital (WACC)	EMDM_WACC_Proj
Breakeven Date for Cumulative Cash Flow	EMDM_BEDate_Proj
Yield on Cost	EMDM_YldCost_Proj
Rent Cover	EMDM_RentCvr_Proj
Profit Erosion	EMDM_ProfErn_Proj
Key Performance Indicators (Original Budget)	
Gross Development Profit	EMDM_GrossProf_Orig
Net Development Profit	EMDM_NetProf_Orig
Development Margin	EMDM_DevMgn_Orig
Net Present Value	EMDM_NPV_Orig
NPV of Future Cash Flows	EMDM_NPVFut_Orig
Benefit Cost Ratio	EMDM_BCR_Orig
Project Internal Rate of Return (IRR)	EMDM_IRR_Orig
Weighted Average Cost of Capital (WACC)	EMDM_WACC_Orig

Breakeven Date for Cumulative Cash Flow	EMDM_BEDate_Orig
Yield on Cost	EMDM_YldCost_Orig
Rent Cover	EMDM_RentCvr_Orig
Profit Erosion	EMDM_ProfErn_Orig
Returns on Funds Invested - Equity (Current Forecast)	
Funds Invested (Cash Outlay)	EMDM_Eq_Funds
Peak Exposure	EMDM_Eq_Peak
Date of Peak Exposure	EMDM_Eq_DatePk
Weighted Average Interest Rate	EMDM_Eq_AvgRte
Interest Charged	EMDM_Eq_Int
Profit	EMDM_Eq_Prof
Margin on Funds Invested	EMDM_Eq_Mgn
Payback Date	EMDM_Eq_Pback
IRR on Funds Invested	EMDM_Eq_IRR
Loan to Value Ratio	EMDM_Eq_LVR
Returns on Funds Invested – Equity (Previous Forecast)	
Funds Invested (Cash Outlay)	EMDM_Eq_Funds_Prev
Peak Exposure	EMDM_Eq_Peak_Prev
Date of Peak Exposure	EMDM_Eq_DatePk_Prev
Weighted Average Interest Rate	EMDM_Eq_AvgRte_Prev
Interest Charged	EMDM_Eq_Int_Prev
Profit	EMDM_Eq_Prof_Prev
Margin on Funds Invested	EMDM_Eq_Mgn_Prev
Payback Date	EMDM_Eq_Pback_Prev
IRR on Funds Invested	EMDM_Eq_IRR_Prev
Loan to Value Ratio	EMDM_Eq_LVR_Prev
Returns on Funds Invested – Equity (Project Budget)	
Funds Invested (Cash Outlay)	EMDM_Eq_Funds_Proj
Peak Exposure	EMDM_Eq_Peak_Proj
Date of Peak Exposure	EMDM_Eq_DatePk_Proj
Weighted Average Interest Rate	EMDM_Eq_AvgRte_Proj
Interest Charged	EMDM_Eq_Int_Proj
Profit	EMDM_Eq_Prof_Proj
Margin on Funds Invested	EMDM_Eq_Mgn_Proj
Payback Date	EMDM_Eq_Pback_Proj
IRR on Funds Invested	EMDM_Eq_IRR_Proj
Loan to Value Ratio	EMDM_Eq_LVR_Proj
Returns on Funds Invested – Equity (Original Budget)	
Funds Invested (Cash Outlay)	EMDM_Eq_Funds_Orig
Peak Exposure	EMDM_Eq_Peak_Orig
Date of Peak Exposure	EMDM_Eq_DatePk_Orig
Weighted Average Interest Rate	EMDM_Eq_AvgRte_Orig
Interest Charged	EMDM_Eq_Int_Orig
Profit	EMDM_Eq_Prof_Orig
Margin on Funds Invested	EMDM_Eq_Mgn_Orig
Payback Date	EMDM_Eq_Pback_Orig
IRR on Funds Invested	EMDM_Eq_IRR_Orig
Loan to Value Ratio	EMDM_Eq_LVR_Orig
Returns on Funds Invested - Loan 1 (Current Forecast)	
Lender Name	EMDM_L1_Name
Funds Invested (Cash Outlay)	EMDM_L1_Funds
Peak Exposure	EMDM_L1_Peak
Date of Peak Exposure	EMDM_L1_DatePk
Weighted Average Interest Rate	EMDM_L1_AvgRte
Interest Charged	EMDM_L1_Int
Line Fees Charged	EMDM_L1_Line
Application Fees Charged	EMDM_L1_App
Profit Share Received	EMDM_L1_Share
Total Profit to Funder	EMDM_L1_Prof
Margin on Funds Invested	EMDM_L1_Mgn
Payback Date	EMDM_L1_Pback
IRR on Funds Invested	EMDM_L1_IRR
Loan to Value Ratio	EMDM_L1_LVR
Returns on Funds Invested - Loan 1 (Previous Forecast)	
Funds Invested (Cash Outlay)	EMDM_L1_Funds_Prev
Peak Exposure	EMDM_L1_Peak_Prev
Date of Peak Exposure	EMDM_L1_DatePk_Prev
Weighted Average Interest Rate	EMDM_L1_AvgRte_Prev
Interest Charged	EMDM_L1_Int_Prev
Line Fees Charged	EMDM_L1_Line_Prev
Application Fees Charged	EMDM_L1_App_Prev

Profit Share Received	EMDM_L1_Share_Prev
Total Profit to Funder	EMDM_L1_Prof_Prev
Margin on Funds Invested	EMDM_L1_Mgn_Prev
Payback Date	EMDM_L1_Pback_Prev
IRR on Funds Invested	EMDM_L1_IRR_Prev
Loan to Value Ratio	EMDM_L1_LVR_Prev
Returns on Funds Invested - Loan 1 (Project Budget)	
Funds Invested (Cash Outlay)	EMDM_L1_Funds_Proj
Peak Exposure	EMDM_L1_Peak_Proj
Date of Peak Exposure	EMDM_L1_DatePk_Proj
Weighted Average Interest Rate	EMDM_L1_AvgRte_Proj
Interest Charged	EMDM_L1_Int_Proj
Line Fees Charged	EMDM_L1_Line_Proj
Application Fees Charged	EMDM_L1_App_Proj
Profit Share Received	EMDM_L1_Share_Proj
Total Profit to Funder	EMDM_L1_Prof_Proj
Margin on Funds Invested	EMDM_L1_Mgn_Proj
Payback Date	EMDM_L1_Pback_Proj
IRR on Funds Invested	EMDM_L1_IRR_Proj
Loan to Value Ratio	EMDM_L1_LVR_Proj
Returns on Funds Invested - Loan 1 (Original Budget)	
Funds Invested (Cash Outlay)	EMDM_L1_Funds_Orig
Peak Exposure	EMDM_L1_Peak_Orig
Date of Peak Exposure	EMDM_L1_DatePk_Orig
Weighted Average Interest Rate	EMDM_L1_AvgRte_Orig
Interest Charged	EMDM_L1_Int_Orig
Line Fees Charged	EMDM_L1_Line_Orig
Application Fees Charged	EMDM_L1_App_Orig
Profit Share Received	EMDM_L1_Share_Orig
Total Profit to Funder	EMDM_L1_Prof_Orig
Margin on Funds Invested	EMDM_L1_Mgn_Orig
Payback Date	EMDM_L1_Pback_Orig
IRR on Funds Invested	EMDM_L1_IRR_Orig
Loan to Value Ratio	EMDM_L1_LVR_Orig
Returns on Funds Invested - Loan 2 (Current Forecast)	
Lender Name	EMDM_L2_Name
Funds Invested (Cash Outlay)	EMDM_L2_Funds
Peak Exposure	EMDM_L2_Peak
Date of Peak Exposure	EMDM_L2_DatePk
Weighted Average Interest Rate	EMDM_L2_AvgRte
Interest Charged	EMDM_L2_Int
Line Fees Charged	EMDM_L2_Line
Application Fees Charged	EMDM_L2_App
Profit Share Received	EMDM_L2_Share
Total Profit to Funder	EMDM_L2_Prof
Margin on Funds Invested	EMDM_L2_Mgn
Payback Date	EMDM_L2_Pback
IRR on Funds Invested	EMDM_L2_IRR
Loan to Value Ratio	EMDM_L2_LVR
Returns on Funds Invested - Loan 2 (Previous Forecast)	
Funds Invested (Cash Outlay)	EMDM_L2_Funds_Prev
Peak Exposure	EMDM_L2_Peak_Prev
Date of Peak Exposure	EMDM_L2_DatePk_Prev
Weighted Average Interest Rate	EMDM_L2_AvgRte_Prev
Interest Charged	EMDM_L2_Int_Prev
Line Fees Charged	EMDM_L2_Line_Prev
Application Fees Charged	EMDM_L2_App_Prev
Profit Share Received	EMDM_L2_Share_Prev
Total Profit to Funder	EMDM_L2_Prof_Prev
Margin on Funds Invested	EMDM_L2_Mgn_Prev
Payback Date	EMDM_L2_Pback_Prev
IRR on Funds Invested	EMDM_L2_IRR_Prev
Loan to Value Ratio	EMDM_L2_LVR_Prev
Returns on Funds Invested - Loan 2 (Project Budget)	
Funds Invested (Cash Outlay)	EMDM_L2_Funds_Proj
Peak Exposure	EMDM_L2_Peak_Proj
Date of Peak Exposure	EMDM_L2_DatePk_Proj
Weighted Average Interest Rate	EMDM_L2_AvgRte_Proj
Interest Charged	EMDM_L2_Int_Proj
Line Fees Charged	EMDM_L2_Line_Proj
Application Fees Charged	EMDM_L2_App_Proj
Profit Share Received	EMDM_L2_Share_Proj
Total Profit to Funder	EMDM_L2_Prof_Proj

Margin on Funds Invested	EMDM_L2_Mgn_Proj
Payback Date	EMDM_L2_Pback_Proj
IRR on Funds Invested	EMDM_L2_IRR_Proj
Loan to Value Ratio	EMDM_L2_LVR_Proj
Returns on Funds Invested - Loan 2 (Original Budget)	
Funds Invested (Cash Outlay)	EMDM_L2_Funds_Orig
Peak Exposure	EMDM_L2_Peak_Orig
Date of Peak Exposure	EMDM_L2_DatePk_Orig
Weighted Average Interest Rate	EMDM_L2_AvgRte_Orig
Interest Charged	EMDM_L2_Int_Orig
Line Fees Charged	EMDM_L2_Line_Orig
Application Fees Charged	EMDM_L2_App_Orig
Profit Share Received	EMDM_L2_Share_Orig
Total Profit to Funder	EMDM_L2_Prof_Orig
Margin on Funds Invested	EMDM_L2_Mgn_Orig
Payback Date	EMDM_L2_Pback_Orig
IRR on Funds Invested	EMDM_L2_IRR_Orig
Loan to Value Ratio	EMDM_L2_LVR_Orig
Returns on Funds Invested - Loan 3 (Current Forecast)	
Lender Name	EMDM_L3_Name
Funds Invested (Cash Outlay)	EMDM_L3_Funds
Peak Exposure	EMDM_L3_Peak
Date of Peak Exposure	EMDM_L3_DatePk
Weighted Average Interest Rate	EMDM_L3_AvgRte
Interest Charged	EMDM_L3_Int
Line Fees Charged	EMDM_L3_Line
Application Fees Charged	EMDM_L3_App
Profit Share Received	EMDM_L3_Share
Total Profit to Funder	EMDM_L3_Prof
Margin on Funds Invested	EMDM_L3_Mgn
Payback Date	EMDM_L3_Pback
IRR on Funds Invested	EMDM_L3_IRR
Loan to Value Ratio	EMDM_L3_LVR
Returns on Funds Invested - Loan 3 (Previous Forecast)	
Funds Invested (Cash Outlay)	EMDM_L3_Funds_Prev
Peak Exposure	EMDM_L3_Peak_Prev
Date of Peak Exposure	EMDM_L3_DatePk_Prev
Weighted Average Interest Rate	EMDM_L3_AvgRte_Prev
Interest Charged	EMDM_L3_Int_Prev
Line Fees Charged	EMDM_L3_Line_Prev
Application Fees Charged	EMDM_L3_App_Prev
Profit Share Received	EMDM_L3_Share_Prev
Total Profit to Funder	EMDM_L3_Prof_Prev
Margin on Funds Invested	EMDM_L3_Mgn_Prev
Payback Date	EMDM_L3_Pback_Prev
IRR on Funds Invested	EMDM_L3_IRR_Prev
Loan to Value Ratio	EMDM_L3_LVR_Prev
Returns on Funds Invested - Loan 3 (Project Budget)	
Funds Invested (Cash Outlay)	EMDM_L3_Funds_Proj
Peak Exposure	EMDM_L3_Peak_Proj
Date of Peak Exposure	EMDM_L3_DatePk_Proj
Weighted Average Interest Rate	EMDM_L3_AvgRte_Proj
Interest Charged	EMDM_L3_Int_Proj
Line Fees Charged	EMDM_L3_Line_Proj
Application Fees Charged	EMDM_L3_App_Proj
Profit Share Received	EMDM_L3_Share_Proj
Total Profit to Funder	EMDM_L3_Prof_Proj
Margin on Funds Invested	EMDM_L3_Mgn_Proj
Payback Date	EMDM_L3_Pback_Proj
IRR on Funds Invested	EMDM_L3_IRR_Proj
Loan to Value Ratio	EMDM_L3_LVR_Proj
Returns on Funds Invested - Loan 3 (Original Budget)	
Funds Invested (Cash Outlay)	EMDM_L3_Funds_Orig
Peak Exposure	EMDM_L3_Peak_Orig
Date of Peak Exposure	EMDM_L3_DatePk_Orig
Weighted Average Interest Rate	EMDM_L3_AvgRte_Orig
Interest Charged	EMDM_L3_Int_Orig
Line Fees Charged	EMDM_L3_Line_Orig
Application Fees Charged	EMDM_L3_App_Orig
Profit Share Received	EMDM_L3_Share_Orig
Total Profit to Funder	EMDM_L3_Prof_Orig
Margin on Funds Invested	EMDM_L3_Mgn_Orig
Payback Date	EMDM_L3_Pback_Orig

IRR on Funds Invested	EMDM_L3_IRR_Orig
Loan to Value Ratio	EMDM_L3_LVR_Orig
Returns on Funds Invested - Loan 4 (Current Forecast)	
Lender Name	EMDM_Snr_Name
Funds Invested (Cash Outlay)	EMDM_Snr_Funds
Peak Exposure	EMDM_Snr_Peak
Date of Peak Exposure	EMDM_Snr_DatePk
Weighted Average Interest Rate	EMDM_Snr_AvgRte
Interest Charged	EMDM_Snr_Int
Line Fees Charged	EMDM_Snr_Line
Application Fees Charged	EMDM_Snr_App
Total Profit to Funder	EMDM_Snr_Prof
Margin on Funds Invested	EMDM_Snr_Mgn
Payback Date	EMDM_Snr_Pback
IRR on Funds Invested	EMDM_Snr_IRR
Loan to Value Ratio	EMDM_Snr_LVR
Returns on Funds Invested - Loan 4 (Previous Forecast)	
Funds Invested (Cash Outlay)	EMDM_Snr_Funds_Prev
Peak Exposure	EMDM_Snr_Peak_Prev
Date of Peak Exposure	EMDM_Snr_DatePk_Prev
Weighted Average Interest Rate	EMDM_Snr_AvgRte_Prev
Interest Charged	EMDM_Snr_Int_Prev
Line Fees Charged	EMDM_Snr_Line_Prev
Application Fees Charged	EMDM_Snr_App_Prev
Total Profit to Funder	EMDM_Snr_Prof_Prev
Margin on Funds Invested	EMDM_Snr_Mgn_Prev
Payback Date	EMDM_Snr_Pback_Prev
IRR on Funds Invested	EMDM_Snr_IRR_Prev
Loan to Value Ratio	EMDM_Snr_LVR_Prev
Returns on Funds Invested - Loan 4 (Project Budget)	
Funds Invested (Cash Outlay)	EMDM_Snr_Funds_Proj
Peak Exposure	EMDM_Snr_Peak_Proj
Date of Peak Exposure	EMDM_Snr_DatePk_Proj
Weighted Average Interest Rate	EMDM_Snr_AvgRte_Proj
Interest Charged	EMDM_Snr_Int_Proj
Line Fees Charged	EMDM_Snr_Line_Proj
Application Fees Charged	EMDM_Snr_App_Proj
Total Profit to Funder	EMDM_Snr_Prof_Proj
Margin on Funds Invested	EMDM_Snr_Mgn_Proj
Payback Date	EMDM_Snr_Pback_Proj
IRR on Funds Invested	EMDM_Snr_IRR_Proj
Loan to Value Ratio	EMDM_Snr_LVR_Proj
Returns on Funds Invested - Loan 4 (Original Budget)	
Funds Invested (Cash Outlay)	EMDM_Snr_Funds_Orig
Peak Exposure	EMDM_Snr_Peak_Orig
Date of Peak Exposure	EMDM_Snr_DatePk_Orig
Weighted Average Interest Rate	EMDM_Snr_AvgRte_Orig
Interest Charged	EMDM_Snr_Int_Orig
Line Fees Charged	EMDM_Snr_Line_Orig
Application Fees Charged	EMDM_Snr_App_Orig
Total Profit to Funder	EMDM_Snr_Prof_Orig
Margin on Funds Invested	EMDM_Snr_Mgn_Orig
Payback Date	EMDM_Snr_Pback_Orig
IRR on Funds Invested	EMDM_Snr_IRR_Orig
Loan to Value Ratio	EMDM_Snr_LVR_Orig
Returns on Funds Invested - Total Debt (Current Forecast)	
Funds Invested (Cash Outlay)	EMDM_Debt_Funds
Peak Exposure	EMDM_Debt_Peak
Date of Peak Exposure	EMDM_Debt_DatePk
Weighted Average Interest Rate	EMDM_Debt_AvgRte
Interest Charged	EMDM_Debt_Int
Line Fees Charged	EMDM_Debt_Line
Application Fees Charged	EMDM_Debt_App
Profit Share Received	EMDM_Debt_Share
Total Profit to Funder(s)	EMDM_Debt_Prof
Margin on Funds Invested	EMDM_Debt_Mgn
Payback Date	EMDM_Debt_Pback
Equity to Debt Ratio	EMDM_Debt_IRR
Loan to Value Ratio	EMDM_Debt_LVR
Returns on Funds Invested - Total Debt (Previous Forecast)	
Funds Invested (Cash Outlay)	EMDM_Debt_Funds_Prev

Peak Exposure	EMDM_Debt_Peak_Prev
Date of Peak Exposure	EMDM_Debt_DatePk_Prev
Weighted Average Interest Rate	EMDM_Debt_AvgRte_Prev
Interest Charged	EMDM_Debt_Int_Prev
Line Fees Charged	EMDM_Debt_Line_Prev
Application Fees Charged	EMDM_Debt_App_Prev
Profit Share Received	EMDM_Debt_Share_Prev
Total Profit to Funder(s)	EMDM_Debt_Prof_Prev
Margin on Funds Invested	EMDM_Debt_Mgn_Prev
Payback Date	EMDM_Debt_Pback_Prev
Equity to Debt Ratio	EMDM_Debt_IRR_Prev
Loan to Value Ratio	EMDM_Debt_LVR_Prev
Returns on Funds Invested - Total Debt (Project Budget)	
Funds Invested (Cash Outlay)	EMDM_Debt_Funds_Proj
Peak Exposure	EMDM_Debt_Peak_Proj
Date of Peak Exposure	EMDM_Debt_DatePk_Proj
Weighted Average Interest Rate	EMDM_Debt_AvgRte_Proj
Interest Charged	EMDM_Debt_Int_Proj
Line Fees Charged	EMDM_Debt_Line_Proj
Application Fees Charged	EMDM_Debt_App_Proj
Profit Share Received	EMDM_Debt_Share_Proj
Total Profit to Funder(s)	EMDM_Debt_Prof_Proj
Margin on Funds Invested	EMDM_Debt_Mgn_Proj
Payback Date	EMDM_Debt_Pback_Proj
Equity to Debt Ratio	EMDM_Debt_IRR_Proj
Loan to Value Ratio	EMDM_Debt_LVR_Proj
Returns on Funds Invested - Total Debt (Original Budget)	
Funds Invested (Cash Outlay)	EMDM_Debt_Funds_Orig
Peak Exposure	EMDM_Debt_Peak_Orig
Date of Peak Exposure	EMDM_Debt_DatePk_Orig
Weighted Average Interest Rate	EMDM_Debt_AvgRte_Orig
Interest Charged	EMDM_Debt_Int_Orig
Line Fees Charged	EMDM_Debt_Line_Orig
Application Fees Charged	EMDM_Debt_App_Orig
Profit Share Received	EMDM_Debt_Share_Orig
Total Profit to Funder(s)	EMDM_Debt_Prof_Orig
Margin on Funds Invested	EMDM_Debt_Mgn_Orig
Payback Date	EMDM_Debt_Pback_Orig
Equity to Debt Ratio	EMDM_Debt_IRR_Orig
Loan to Value Ratio	EMDM_Debt_LVR_Orig
Actuals to Date - Costs	
Land Purchase Cost	EMDM_Land_CTD
Land Transaction Costs	EMDM_OthLand_CTD
Construction (inc. Construct. Contingency)	EMDM_Construct_CTD
Contingency	EMDM_ConstCont_CTD
Professional Fees	EMDM_ProFee_CTD
Statutory Fees	EMDM_StatFee_CTD
Miscellaneous Costs 1	EMDM_Misc1_CTD
Miscellaneous Costs 2	EMDM_Misc2_CTD
Miscellaneous Costs 3	EMDM_Misc3_CTD
Project Contingency (Project Reserve)	EMDM_ProjCont_CTD
Land Holding Costs	EMDM_LandHold_CTD
Pre-Sale Commissions	EMDM_PreComm_CTD
Finance Charges (inc. Fees)	EMDM_FinChg_CTD
Interest Expense	EMDM_IntExp_CTD
Tax Reclaimed	EMDM_CostTax_CTD
Corporate Tax	EMDM_CorpTax_CTD
Actuals to Date - Revenue	
Sales Revenue	EMDM_GrossSale_CTD
Selling Costs	EMDM_SellCost_CTD
Purchasers Costs	EMDM_PurchCost_CTD
Rental Income	EMDM_GrossRent_CTD
Outgoings & Vacancies	EMDM_OG_CTD
Letting Fees	EMDM_LetFee_CTD
Incentives (Rent Free and Fit-out Costs)	EMDM_Incent_CTD
Other Leasing Costs	EMDM_LeaseCost_CTD
Interest Received	EMDM_IntRec_CTD
Other Income	EMDM_OtherInc_CTD
Tax paid on all Revenue	EMDM_RevTax_CTD
Sensitivity Analysis	
Construction Costs Hi Variation Rate	EMDM_SensConstHi
Construction Costs Lo Variation Rate	EMDM_SensConstLo
Construction Costs Hi Variation - Net Profit	EMDM_SensConstHi_Profit

Construction Costs Lo Variation - Net Profit	EMDM_SensConstLo_Profit
Construction Costs Hi Variation - NPV	EMDM_SensConstHi_NPV
Construction Costs Lo Variation - NPV	EMDM_SensConstLo_NPV
Construction Costs Hi Variation - Dev. Margin	EMDM_SensConstHi_Mgn
Construction Costs Lo Variation - Dev. Margin	EMDM_SensConstLo_Mgn
Construction Costs Hi Variation - Project IRR	EMDM_SensConstHi_IRR
Construction Costs Lo Variation - Project IRR	EMDM_SensConstLo_IRR
Construction Costs Hi Variation - Equity IRR	EMDM_SensConstHi_Equ
Construction Costs Lo Variation - Equity IRR	EMDM_SensConstLo_ Equ
Construction Period Hi Variation Rate	EMDM_SensConPeriodHi
Construction Period Lo Variation Rate	EMDM_SensConPeriodLo
Construction Period Hi Variation - Net Profit	EMDM_SensConPeriodHi_Profit
Construction Period Lo Variation - Net Profit	EMDM_SensConPeriodLo_Profit
Construction Period Hi Variation - NPV	EMDM_SensConPeriodHi_NPV
Construction Period Lo Variation - NPV	EMDM_SensConPeriodLo_NPV
Construction Period Hi Variation - Dev. Margin	EMDM_SensConPeriodHi_Mgn
Construction Period Lo Variation - Dev. Margin	EMDM_SensConPeriodLo_Mgn
Construction Period Hi Variation - Project IRR	EMDM_SensConPeriodHi_IRR
Construction Period Lo Variation - Project IRR	EMDM_SensConPeriodLo_IRR
Construction Period Hi Variation - Equity IRR	EMDM_SensConPeriodHi_Equ
Construction Period Lo Variation - Equity IRR	EMDM_SensConPeriodLo_ Equ
End Sale Values Hi Variation Rate	EMDM_SensSalesHi
End Sale Values Lo Variation Rate	EMDM_SensSalesLo
End Sale Values Hi Variation - Net Profit	EMDM_SensSalesHi_Profit
End Sale Values Lo Variation - Net Profit	EMDM_SensSalesLo_Profit
End Sale Values Hi Variation - NPV	EMDM_SensSalesHi_NPV
End Sale Values Lo Variation - NPV	EMDM_SensSalesLo_NPV
End Sale Values Hi Variation - Dev. Margin	EMDM_SensSalesHi_Mgn
End Sale Values Lo Variation - Dev. Margin	EMDM_SensSalesLo_Mgn
End Sale Values Hi Variation - Project IRR	EMDM_SensSalesHi_IRR
End Sale Values Lo Variation - Project IRR	EMDM_SensSalesLo_IRR
End Sale Values Hi Variation - Equity IRR	EMDM_SensSalesHi_Equ
End Sale Values Lo Variation - Equity IRR	EMDM_SensSalesLo_ Equ
Cap Rate Hi Variation Rate	EMDM_SensCapHi
Cap Rate Lo Variation Rate	EMDM_SensCapLo
Cap Rate Hi Variation - Net Profit	EMDM_SensCapHi_Profit
Cap Rate Lo Variation - Net Profit	EMDM_SensCapLo_Profit
Cap Rate Hi Variation - NPV	EMDM_SensCapHi_NPV
Cap Rate Lo Variation - NPV	EMDM_SensCapLo_NPV
Cap Rate Hi Variation - Dev. Margin	EMDM_SensCapHi_Mgn
Cap Rate Lo Variation - Dev. Margin	EMDM_SensCapLo_Mgn
Cap Rate Hi Variation - Project IRR	EMDM_SensCapHi_IRR
Cap Rate Lo Variation - Project IRR	EMDM_SensCapLo_IRR
Cap Rate Hi Variation - Equity IRR	EMDM_SensCapHi_Equ
Cap Rate Lo Variation - Equity IRR	EMDM_SensCapLo_ Equ
Sales Span Hi Variation Rate	EMDM_SensSpanHi
Sales Span Lo Variation Rate	EMDM_SensSpanLo
Sales Span Hi Variation - Net Profit	EMDM_SensSpanHi_Profit
Sales Span Lo Variation - Net Profit	EMDM_SensSpanLo_Profit
Sales Span Hi Variation - NPV	EMDM_SensSpanHi_NPV
Sales Span Lo Variation - NPV	EMDM_SensSpanLo_NPV
Sales Span Hi Variation - Dev. Margin	EMDM_SensSpanHi_Mgn
Sales Span Lo Variation - Dev. Margin	EMDM_SensSpanLo_Mgn
Sales Span Hi Variation - Project IRR	EMDM_SensSpanHi_IRR
Sales Span Lo Variation - Project IRR	EMDM_SensSpanLo_IRR
Sales Span Hi Variation - Equity IRR	EMDM_SensSpanHi_Equ
Sales Span Lo Variation - Equity IRR	EMDM_SensSpanLo_ Equ
Rental Income Hi Variation Rate	EMDM_SensRentHi
Rental Income Lo Variation Rate	EMDM_SensRentLo
Rental Income Hi Variation - Net Profit	EMDM_SensRentHi_Profit
Rental Income Lo Variation - Net Profit	EMDM_SensRentLo_Profit
Rental Income Hi Variation - NPV	EMDM_SensRentHi_NPV
Rental Income Lo Variation - NPV	EMDM_SensRentLo_NPV
Rental Income Hi Variation - Dev. Margin	EMDM_SensRentHi_Mgn
Rental Income Lo Variation - Dev. Margin	EMDM_SensRentLo_Mgn
Rental Income Hi Variation - Project IRR	EMDM_SensRentHi_IRR
Rental Income Lo Variation - Project IRR	EMDM_SensRentLo_IRR
Rental Income Hi Variation - Equity IRR	EMDM_SensRentHi_Equ
Rental Income Lo Variation - Equity IRR	EMDM_SensRentLo_ Equ
Debt Interest Rates Hi Variation Rate	EMDM_SensDebtHi
Debt Interest Rates Lo Variation Rate	EMDM_SensDebtLo
Debt Interest Rates Hi Variation - Net Profit	EMDM_SensDebtHi_Profit
Debt Interest Rates Lo Variation - Net Profit	EMDM_SensDebtLo_Profit
Debt Interest Rates Hi Variation - NPV	EMDM_SensDebtHi_NPV
Debt Interest Rates Lo Variation - NPV	EMDM_SensDebtLo_NPV

Debt Interest Rates Hi Variation - Dev. Margin	EMDM_SensDebtHi_Mgn
Debt Interest Rates Lo Variation - Dev. Margin	EMDM_SensDebtLo_Mgn
Debt Interest Rates Hi Variation - Project IRR	EMDM_SensDebtHi_IRR
Debt Interest Rates Lo Variation - Project IRR	EMDM_SensDebtLo_IRR
Debt Interest Rates Hi Variation - Equity IRR	EMDM_SensDebtHi_Equ
Debt Interest Rates Lo Variation - Equity IRR	EMDM_SensDebtLo_ Equ
Discount Rates Hi Variation Rate	EMDM_SensDiscHi
Discount Rates Lo Variation Rate	EMDM_SensDiscLo
Discount Rates Hi Variation - NPV	EMDM_SensDiscHi_NPV
Discount Rates Lo Variation - NPV	EMDM_SensDiscLo_NPV

Part VI

6 Creating a Project

There are three methods of creating a project in Estate Master DM:

- Importing a feasibility file from Estate Master DF
- Manually inputting a project into a new/blank Estate Master DM file
- A hybrid of the above, where a feasibility file is imported from Estate Master DF and then changes/ additions are made in Estate Master DM.

6.1 Import a Feasibility

The inbuilt import feature in Estate Master DM allows the user to automatically extract input data from a feasibility created in a compatible Estate Master DF model. This feature is accessed via the Ribbon Menu in the 'Data' section.

To import feasibility data:

1. With your Estate Master DM application open and ready for importing, go to 'Data' in the Ribbon Menu and select 'Import Feasibility from DF'.
2. You will be prompted to browse for a Estate Master DF (*.emdf) file.
3. Once the file has been selected a list with all the different option/stages in the DF model will be displayed. You will need to select *one* cash flow only from the list to import.
4. Only input values will be copied into your Estate Master DM model and not any user-inserted formulae. If you had user-inserted formulae in the Estate Master DF file and you want it retained in the Estate Master DM file you will need to re-input the formulae manually after the import process is complete.
5. If you have any user-inserted custom worksheets in the Estate Master DF model, you will be provided the option to also import those into the Estate Master DM model.

Importing JV (Joint Venture) DF Models
There is no Joint Venture functionality in Estate Master DM. Therefore, when importing a DF model that was run in JV mode, the user will have the option to still import the feasibility, but none of the JV-related inputs will be imported and the Estate Master DM model will be set up as a single-entity.

4. To proceed, click 'Yes' and the program will prompt you to select the relevant Estate Master DF file that you wish to import from (only a compatible DF file can be imported). The program will then copy the input data from the DF file and paste the values in the Estate Master DM file that is currently open.

Set Original Budget

At the end of the import process you will be asked if you would like to set the imported data as the Original Budget. You may alternatively wish to allow the data to be imported and conduct a review before you set the Original Budget. Once your satisfied that the input data and results are correct you can save your Original Budget by clicking on the 'Set as Original Budget' function in the 'Management Tools'.

This sets the current forecast, net cash flow and the performance indicators as the Original Budget on all reports.

6.2 Manually Input Data

Estate Master DM can be used without the need of feasibility data created in an Estate Master DF model. Costs and revenues can be manually inputted in the various sections of the model and updated accordingly during the development process.

6.3 Hybrid

A feasibility file imported from Estate Master DF is reviewed and amended in Estate Master DM and then set as the original budget. This would reflect any changes to the project since the feasibility was finished.

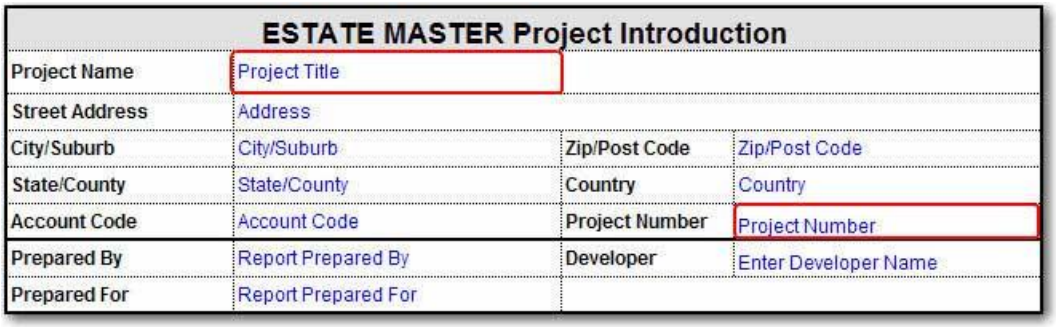
6.4 Inputting Data

Enter data into input cells with a font colour of blue or green. Fixed cells (non input) have a black font colour. Since the worksheets are protected and locked, the model will only allow you to enter into the relevant input cells.

Input Cells
Blue Font Cells: Cells with blue font are the main input cells in the program.
Green Font Cells: Cells with green font relate to presales and are not relevant if you are not taking presales into account.
Purple Font Cells: Cells with purple font relate to inputs that are entered via a list selector. When selecting the cell, a drop-down arrow will appear. Click the arrow and a list of options for that input cell will be displayed.

Start and Span
For every payment it is necessary to put a start date and span period, or else the program will not add the payment to the cash flow. The start date must be a number between zero (0) (which represents the first or current period) or an applicable letter (i.e. "L" for land costs or "C" for Professional Fees) and the span period must be greater than but not equal to zero. The start and span numbers must not add up to more than the maximum time periods in the model - or else you will exceed the program's limits.

6.5 Intro Sheet



ESTATE MASTER Project Introduction			
Project Name	Project Title		
Street Address	Address		
City/Suburb	City/Suburb	Zip/Post Code	Zip/Post Code
State/County	State/County	Country	Country
Account Code	Account Code	Project Number	Project Number
Prepared By	Report Prepared By	Developer	Enter Developer Name
Prepared For	Report Prepared For		

Mandatory Inputs are highlighted in red

Project Name (Mandatory) — Enter the name of the project that the property belongs to. 'Project' may be interpreted as a 'development project', an 'investment project, a 'valuation project', etc.

Project Number (Mandatory) — Enter the unique project number related to the project.

Account Code (Optional) — Enter in the unique reference code that this project belongs to in your accounting system.

It is used only when using the 'Update from Accounts' function.

Street Address, City/Suburb , Zip/Post Code, State/County and **Country** (Optional) — Enter the physical address of the subject property.

Prepared By (Optional) — Enter in who this report was prepared by.

Prepared For (Optional) — Enter in who this report was prepared for.

Developer (Optional) — Enter the name of the developer.

6.6 Setup Sheet

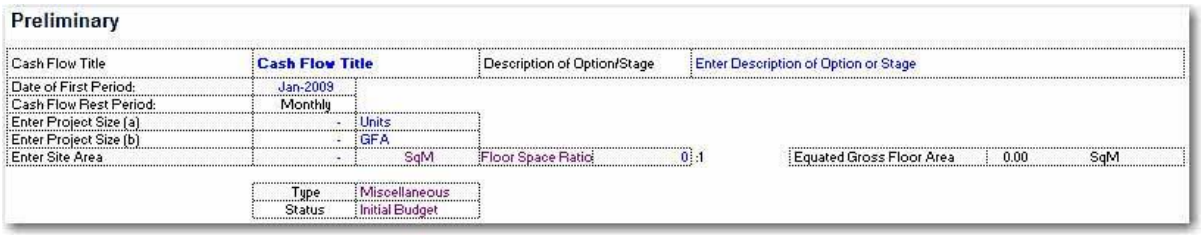
6.6.1 Set Preferences and Default Setup

It is recommended that before entering any data, the user set their default preferences and cash flow setup. This is done in two main areas:

1. Estate Master Preferences: An input form that appears when the following are clicked:
   - Clicking on [Preferences] 

on the Ribbon Menu or Quick Access Toolbar,
   - Pressing the [F12] key.
2. The 'Setup' sheet: The 'Setup' sheet contains global input parameters such as:
   - Project description and start date.
   - GST/VAT options.
   - Costs, Sales and Rental escalation rates.
   - Sales Commission rates.
   - Equity and Debt funding options.
   - Project performance hurdle rates.

6.6.2 Preliminary



Cash Flow Title (Mandatory)
Enter the name of the project that the property belongs to. 'Project' may be interpreted as a 'development project', an 'investment project, a 'valuation project', etc.

Description/Option/Scenario (Mandatory)
Enter the description of the option, scenario or stage of the development.

Date of First Period (Mandatory)
Enter the date of the first period in the cash flow. The first period is time period Zero (0).

Cash Flow Rest Period
The cash flow rest period (monthly, quarterly, half-yearly or yearly) is set using the Estate Master Preferences.

Enter Project Size (Optional)
Project size relates to the size of the developable area, land area, gross building area, net lettable area, gross floor area or number of lots, dwellings, apartments, etc. You may enter any type of measurement to summarise the development. These do not affect the cash flow and are only used for reporting purposes on the' Summary' sheet.

Enter Site Area (Optional)
Enter the land area based on the units of measurement in the list selection (purple font cell).

Floor Area Ratio (Optional)
Select from the list the appropriate terminology to be used for a floor area ratio and then enter the ratio to calculate a Gross Floor Area from the given Site Area.

Type (Mandatory)
Nominate the type of development from the list selection (purple font cell). This is useful for distinguishing different development options.

Status (Mandatory)
Nominate the status of the project to identify at what stage of the analysis it is at.

6.6.3 Taxation (GST,VAT,etc)

Tax Rate (Optional)
The program allows for up to 3 different default GST/VAT rates. In the GST/VAT cell for each line item, the user may enter:

- **A**, **B** or **C**: To correspond with the different default rates entered (if Multiple Rate option is selected in the Estate Master Preferences).
- **Y** or **N**: Y will implement the rate entered in the GST/VAT rate cell of the Input Sheet and N will be 0%.

- %: If a user requires a GST/VAT rate that is not in either A, B or C, then they may enter the rate manually as a percentage in the GST/VAT cell for any line item.

Value at 1-7-2000 or Acquisition Price (Optional)

You may enter either a valuation figure or leave the default formula in the cell, which is the maximum of land purchase price or costs spent up to the GST commencement Date (1/7/2000).

This is only relevant if the 'Margin Scheme with Valuation' option is selected in the Estate Master Preferences.

Percent of Cost Completed at 1st July 2000 (Optional)

You may enter either a percentage or leave the default formula in the cell. The default is based on the user's inputs in the cost sections and the % of costs that have been incurred before 1-7-2000. It then applies the Margin Scheme with Valuation calculation to determine input credits and liabilities.

This is only relevant if the 'Margin Scheme with % Cost Completed 1-7-2000' option is selected in the Estate Master Preferences.

Lump Sum Amount (Optional)

The program automatically calculates the GST/VAT credits depending on what the user entered into the GST/VAT cell for each cost line item, but the user must manually input the lump sum liability with start and span dates.

This is only relevant if the 'Manual Input of Liability' option is selected in the Estate Master Preferences.

6.6.4 Cost Escalation Rates

		Escalation Rates (Applied Per Annum) based on Cashflow Period Years commencing									
		Jan-09	Jan-10	Jan-11	Jan-12	Jan-13	Jan-14	Jan-15	Jan-16	Jan-17	Jan-18
	Professional Fees	5.00%	5.00%	5.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
Code	Construction Costs (Uncategoris	3.00%	2.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
SUB	Subdivision Costs	2.5			4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
STG	Stage Costs	3.2			4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
BUI	Built Form	2.1			4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
OT1	Other	2.0			4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
OT2	Other	2.00%	3.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
	Statutory Fees	3.50%	4.50%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	5.00%
	Miscellaneous Costs 1	3.00%	4.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
	Miscellaneous Costs 2	3.00%	4.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
	Miscellaneous Costs 3	3.00%	4.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
	Land Holding Costs	3.00%	4.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
	Selling and Leasing Costs	3.00%	4.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
	Finance Costs	3.00%	4.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%

Construction Cost Categories

Escalation Rates can be defined for different categories of costs in the escalation table. Escalation rates can be set up in different ways:

- Either on a **Periodic Compounded Escalation** basis (e.g. 5% per annum, which equates to 0.41% compounded monthly) or **Annual Stepped Escalation** basis (e.g. 5% per month for the year).
  - Either by **Cash Flow Period Years** or **Financial Years.**
  - As a **Positive** (inflation) or **negative** (deflation) percentage.

Please note, when entering a cost that is a percentage of another cost item, it will be a percentage of the total escalated cost. Therefore, by entering an escalation for that cost item, it will be 'double escalated'.

Please refer to the Estate Master Preferences on configuring the different escalation options.

Construction Cost Types

In the Cost Escalation table, there is provision to further classify Construction Costs into 5 separate categories. These categories can be manually defined by the user by setting a 3 character code and a short description. Apart from being able to define specific escalation rates for each category, the user can then defined each Construction Cost lines item to that category for reporting purposes.

Description	Cost Type
Subdivision	SUB
Construction Contract	BUI

Application of Escalation Rates for Costs

The method of application of escalation can vary for each cost item. Below is the method of applying escalation rates.

- **E** = Escalates the cost to its start date;
- **R** = Escalates the cost to its start date and continues the escalation through the span period; and
- **N** = Does not apply escalation (this is the default if you leave the escalation input blank).

Escalation Examples

Say there is a $60,000 cost that starts in month 4 and has a 6 month duration and escalates 5% per annum. Using the different methods of escalation, the following cash flows would be created:

Current Amount	Month Start	Month Span	Current Amount (per Month)
60,000	4	6	10,000

Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9
5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Escalation Factor Compounded Monthly (= Previous Months Escalation Factor x $(1+5\%)^{(1/12)}$)									
100.00%	100.41%	100.82%	101.23%	101.64%	102.05%	102.47%	102.89%	103.31%	103.73%

Code	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Total
N	10,000	10,000	10,000	10,000	10,000	10,000	**60,000**
E	10,164	10,164	10,164	10,164	10,164	10,164	**60,984**
R	10,164	10,205	10,247	10,289	10,331	10,373	**61,608**

- When "E" is selected, the Month 4 Escalation Factor (101.64%) is applied to the non-escalated amount per month (10,000) for the entire span.
- When "R" is selected, the Month 4 - 9 Escalation Factors are applied to the non-escalated monthly amount (10,000) for that specific month.

6.6.5 Revenue Escalation Rates

		Escalation Rates (Applied Per Annum) based on Cashflow Period Years commencing									
Code	Category	Jan-09	Jan-10	Jan-11	Jan-12	Jan-13	Jan-14	Jan-15	Jan-16	Jan-17	Jan-18
RS1	Residential - 1 Bedroom Units	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RS2	Residential - 2 Bedroom Units	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
RS3	Residential - 3 Bedroom Units	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
RDD	Detached Dwelllings Lots	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RTH	Townhouse Lots	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
COM	Commerical Office	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RET	Retail Shops	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
IND	Industrial Units	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
STW	Storage & Warehousing	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
OTH	Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Escalation Rates can be defined for different categories of sales and rental revenue in the escalation table. Escalation rates can be set up in different ways:

- Either on a **Periodic Compounded Escalation** basis (e.g. 5% per annum, which equates to 0.41% compounded monthly) or **Annual Stepped Escalation** basis (e.g. 5% per month for the year).
- Either by **Cash Flow Period Years** or **Financial Years.**
- As a **Positive** (inflation) or **negative** (deflation) percentage.

Please refer to the Estate Master Preferences on configuring the different escalation options.

Escalation Rates

For each relevant category you may enter up to 10 years of escalation rates.

- **For Sales:** Escalation rates apply to end sale values from the first escalation month. Where the user has assumed pre-sales, escalation applies up to the exchange dates, otherwise it applies up to the settlement dates.
- **For Rents (Pre Lease)**: Escalation rates apply to rental values from the first escalation month up to the lease start date. For escalation on rents during the lease period, refer to the rent review table in the Rental input section.

Where the **first escalation month** is identified as the first month in the escalation table, and may changing depending on the preference to set escalation based on Cash Flow Period Years or Financial Years.

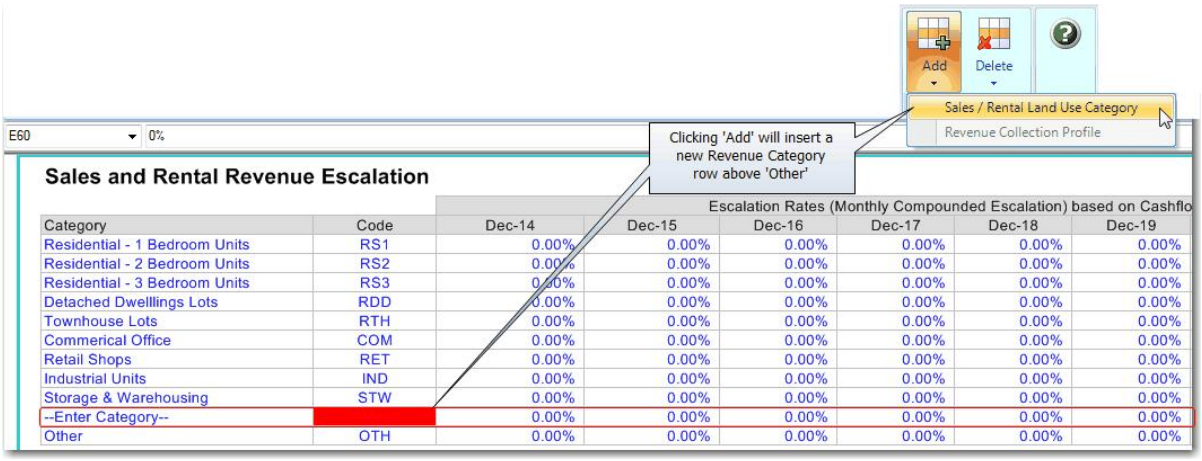
Code and Category

You have ability to define your own property categories (eg. "Residential") and codes (eg. "RS") for multiple escalation rates. The code for each property category is defined by the user (1-3 character length allowed). Negative escalation rates can be entered.

Adding / Deleting Categories

Allows the user to adjust the Revenue Categories available in the application. To add new ones (up to a maximum of 20):

1. Click on the Input Rows 'Add' button, and select 'Sales / Rental Land Use Category'
2. A new row will be added, 2nd from the bottom above 'Other' - a new category description and 3-character code must then be applied to it.



To delete a Revenue Category:

1. Click on the Input Rows 'Delete' button, and select 'Sales / Rental Land Use Category'
2. The 2nd last category row above 'Other' will be deleted.

6.6.6 Sales Commission

Selling and Leasing Costs

	Sales Commission (To be entered Net of GST)	Sales Comm[1]	% of Comm. Pre-sales[2]	Deposits (% of Price)[3]
RS1	Residential - 1 Bedroom Units	0.00%	0.00%	0.00%
RS2	Residential - 2 Bedroom Units	0.00%	0.00%	0.00%
RS3	Residential - 3 Bedroom Units	0.00%	0.00%	0.00%
RDD	Detached Dwelllings Lots	0.00%	0.00%	0.00%
RTH	Townhouse Lots	0.00%	0.00%	0.00%
COM	Commerical Office	0.00%	0.00%	0.00%
RET	Retail Shops	0.00%	0.00%	0.00%
IND	Industrial Units	0.00%	0.00%	0.00%
STW	Storage & Warehousing	0.00%	0.00%	0.00%
OTH	Other	0.00%	0.00%	0.00%

Pre-sale Comm are reported as a	+ve Cost
Interest Rate on Deposits Invested in Trust Account	0.00%
% of Interest retained by Developer upon settlement	0.00%

Sales Commission (Optional)

For each relevant category you may enter sales commission. The first input column refers to sales commission as a percentage of gross selling price (i.e sales price inclusive of any GST/VAT/Sales Tax) that can be applied to:

- Revenue items in the 'Sales' input section.
- Capitalised Sales entered in the 'Tenants' section.

% of Commission at Pre-Sale (Optional)

The second input column (green font) is only relevant for pre-sales and refers to the proportion of sales commission that is paid at exchange date (date of pre-sale). Typically selling agents require a proportion of their commission to be paid on exchange of contracts.

Deposit (Optional)

The third input column (green font) is only relevant for pre-sales and refers to the size of the deposits to be met by the end buyers. The

model assumes that all pre-sale deposits are deposited in trust until settlement.

In addition to setting the deposit amount, you can nominate:

- Any interest earned on the deposit. The interest on deposits is calculated from the middle of the exchange period to the middle of the settlement period and spread evenly through the settlement period.
- The proportional split of the interest earned between the buyers and the seller (developer). By inputting 100% the developer would retain all the interest earned on the deposit. Typically contracts specify a 50:50 split.

Report Pre-Sale Commissions as Project Cost (Optional)

Select via the Estate Master Preferences to report all Commissions incurred at time of Exchange as either a positive Project Costs or a negative Revenue. This will impact how the Development Margin is reported, and where other cost items are a % of Project Costs.

6.6.7 Sales Revenue Collection Profile

Sales Revenue Collection Profile

	% Payable at Each Instalment (Based on Months after Date of Exchange)												Balance on Settlement	Months from Construction Start Escrow is Released
	2	4	6	8	10	12	14	16	18	20	22	24		
Profile 1	5.00%	10.00%	5.00%	5.00%	5.00%	5.00%	15.00%	5.00%	5.00%	5.00%	0.00%	0.00%	35.00%	2
Profile 2	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	60.00%	4
Profile 3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	-

The Sales Revenue Collection Profile feature is enabled via the Estate Master Preferences. It allows you to set milestones for receiving multiple payment instalments from purchasers prior to project completion, either based on specific time periods in the cash flow, or on certain number of months after the Date of Exchange for each sale item.

There is a maximum of 20 Sales Revenue Collection Profiles that can be set (the default is 8). Once the profiles have been created, in the Sales input section, enter in the profile number in the Revenue Collection Profile column

There are a few rules in relation to using this feature:

- A Sales Revenue Collection Profile can only be applied to a sale item if Pre-sale Exchanges start and span dates are set for that item.
- If a Sales Revenue Collection Profile is applied to a sale item, then any Pre-Sale Exchange Deposits and Interest on Deposits are ignored for that item.
- This functionality is not available for Capitalised Sales on the Tenants section.

Timing of Instalment

The Estate Master Preferences allows you to set whether

instalments are base on:

- Specific Time Periods in the Cash Flow, or
- A certain number of months after the Date of Exchange for each sale item.

When setting the instalment timings, each subsequent instalment must be later than the previous.

Instalment %

This is the % amount of the sale value that is paid by the purchaser directly to the developer (not held in a trust account) at the nominated instalment milestone.

Balance on Settlement

This shows the outstanding amount that is payable to the developer at Settlement for each sale item that applies that specific profile. However the actual settlement dates defined in the sales section take precedence and any future collection profiles (instalments set to occur after a settlement date) are ignored.

Periods from Construction Start Escrow is Released

These inputs are only displayed if 'Linked to Construction Start' is selected for the Release from Escrow Preferences.

For each profile you can nominate the number of time periods (e.g Months) after Construction Start that the developer can start to receive instalments that have been paid via the Revenue Collection Profile. Until that time, the instalments are just accumulated kept in escrow. If this input is left blank/zero, then the revenue is released to the developer at the same time the revenue instalments are made.

Collection Profile Examples

- There are 3 x $1,000,000 sales occurring, using the collection profile set below.
- There is a 10% Deposit payable on exchange, and that deposit earns interest at 5%.

Months in Cash Flow	4	5	6	7	8	9	10	18
Instalment %	20%	10%	10%	5%	10%	10%	5%	10%

Scenario	**Pre-Sale Exchange**				**Settlement**		**Results**
	Deposit	**Interest on Deposit**	**Start**	**Span**	**Start**	**Span**	
Sale 1 Pre-Sale Exchange Start is before first instalment and Settlement is before last instalment.	10%	5%	2	4	14	6	• No 10% deposit is collected from purchaser at month 2 and placed in a trust account to earn interest. • The first payment to the developer is made in month 4 as per collection profiles. • Outstanding amounts are paid in full at settlement month 14 over a 6 month span, irrespective of the future collection profiles in month 18.
Sale 2 Pre-Sale Exchange Start occurs at the same time as the first instalment and Settlement Start occurs at the same time as the last instalment, but is spread over	10%	5%	4	4	18	6	• No 10% deposit is collected from purchaser at month 4 and placed in a trust account to earn interest. • The first payment to the developer is made in month 4 as per collection profiles. • Final payment is collected in month 18 as per collection profile irrespective of the nominated Settlement dates.

several months.							
Sale 3 Pre-Sale Exchange Start is after the first instalment and Settlement Start is after last instalment.	10%	5%	6	4	20	6	• No 10% deposit is collected from purchaser at month 6 and placed in a trust account to earn interest. • In month 6, instalments 1 (20%), 2 (10%) and 3 (10%) are collected, equating to total back-pay of 40%. • Final payment is collected in month 18 as per the collection profile irrespective of the nominated Settlements dates.

Release from Escrow Example

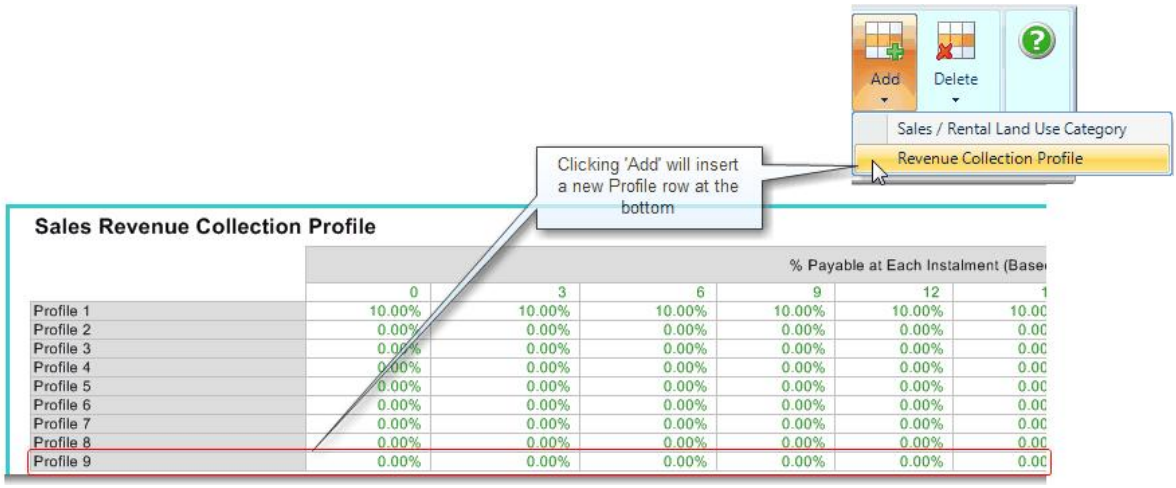
- A developer receives $50,000/mth in escrow from period 0 to period 12 (driven by the 'Sales Revenue Collection Profile' settings/inputs)
- Construction starts in month 5 and the developer wants to release funds from escrow 3 months after that date (limited to the cumulative Construction Costs)
- In month 8 the developer has cumulated $360,000 in Construction Costs, but has $450,000 in escrow. Therefore only a maximum of 360,000 can be released from escrow for that month.
- As soon as construction finishes in Month 10, the amount of money that can be released from escrow has been exhausted, so future revenue collection profile instalments stay in escrow until the Sales settlement date in the future, where the balance is released to the developer.

Month	0	1	2	3	4	5	6	7	8	9	10	11	12
Construction Cost	-	-	-	-	-	100,000	200,000	30,000	30,000	30,000	40,000	-	-
Cumulative						100,000	300,000	330,000	360,000	390,000	430,000	430,000	430,000
Collection Profile Instalments	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Released from Escrow	-	-	-	-	-	-	-	-	360,000	30,000	40,000	-	-
Balance left in Escrow	50,000	100,000	150,000	200,000	250,000	300,000	350,000	400,000	90,000	110,000	120,000	170,000	220,000

Adding / Deleting Profiles

Allows the user to adjust the Revenue Collection Profiles available in the application. To add new ones (up to a maximum of 20):

1. Click on the Input Rows 'Add' button, and select 'Revenue Collection Profile'
2. A new row will be added at the bottom of the table.



To delete a Revenue Category:

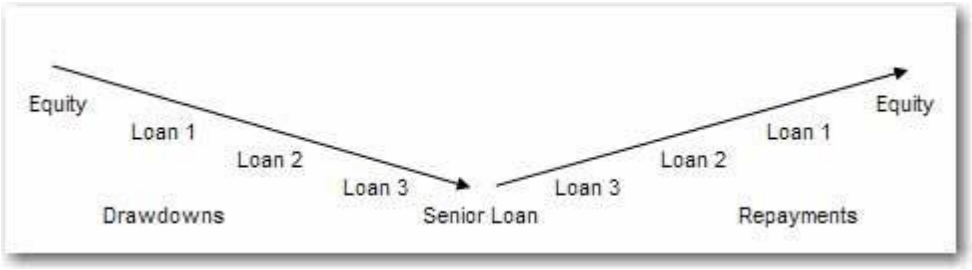
1. Click on the Input Rows 'Delete' button, and select 'Revenue Collection Profile'
2. The last profile row will be deleted.

6.6.8 Financing

Default Funding Priority

The program accommodates up to 5 sources of financing - Equity and 4 levels of debt. The program assumes the following default funding priority (this can be manually adjusted in the cash flow tables):

1. Equity is drawn down first as costs are expended.
2. Thereafter money is borrowed from Loans 1, then Loan 2 and then Loan 3 (if used), either fully upfront or drawdown progressively, until the maximum amount of these loans is borrowed.
3. Money is then borrowed from the Senior Loan (by default, acts as a Line of Credit facility).
4. As the project receives net revenue this reduces Loan 3 until the loan is fully paid.
5. Thereafter revenue pays back Loan 2, then Loan 1.
6. Thereafter revenue pays back Equity.
7. Thereafter the project pays profit shares (if applicable) and then retains the balance as profit.



Default Funding Priority

Funding Limits and Loan Ratios

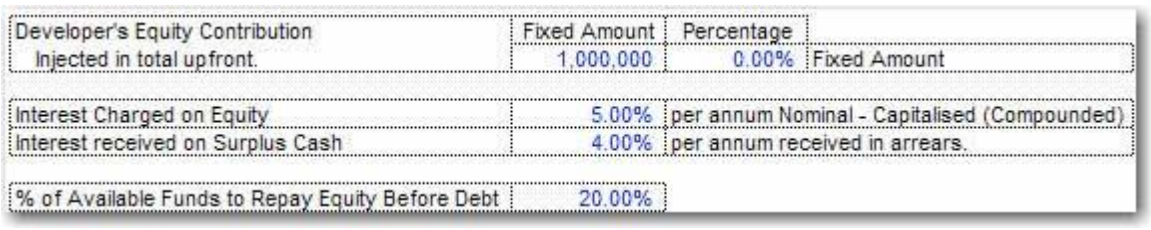
Throughout the Finance Preferences, the user will have the ability to set:

- **Loan Facility Limits:** These are the defined drawdown limits for a loan, and
- **Loan Ratios:** The denominator for working out the % that is borrowed for reporting purposes only. It may be different to the Facility Limit.

It is therefore important to understand the options that are available for these preferences:

Option	Description	Facility Limits	Equity Ratios	Debt Ratios
Fixed Amount	The loan limit is manually entered on the Finance input section.	●	○	○
% of Purchase Price	A percentage of the Land Purchase price only, inclusive of GST/VAT.	●	●	●
% of Land Acquisition Costs	A percentage of the Land Purchase price and any associated acquisitions costs (Stamp duty, Legal Fees, etc), inclusive of GST/VAT.	●	●	●
% of Project Costs	A percentage of all Project Costs (exclusive of GST/ VAT), which exclude Selling Costs, Leasing Costs, Interest Charges, Application Fees and Line Fees.	●	●	●
% of Project & Finance Costs	A percentage of all Project Costs (exclusive of GST/ VAT), which exclude Selling Costs and Leasing Costs but include Interest Charges, Application Fees and Line Fees.	○	●	●
% of Hard Costs	A percentage of costs that have defined as 'Hard Costs' as per the 'Global' section of the Finance Preferences.	●	●	●
% of Construction Costs	A percentage of total Construction Costs and Contingencies inclusive of GST/VAT.	●	●	●
% of Gross Sales	A percentage of Gross Sales Revenue (including Capitalised Sales) inclusive of GST/VAT/Sales Tax.	●	●	●
% of Sales (net of Tax)	A percentage of Sales Revenue (including Capitalised Sales) exclusive of GST/VAT/Sales Tax.	●	●	●
% of Sales (net of Selling Costs and Tax)	A percentage of Sales Revenue (including Capitalised Sales) exclusive of GST/VAT/Sales Tax and Selling Costs.	●	●	●
% of Value of Pre-Sales	A percentage of all Sales Revenue (including Capitalised Sales) that have been sold at a defined pre-sale exchange date.	●	●	●
% of Debt Funding	A percentage of total funds invested by all debt Lenders.	○	●	○
% of Net Profit	A percentage of total net development profit (after profit share has been paid out).	○	●	○

6.6.8.1 Equity



Developer's Equity Contribution

You can nominate an equity contribution by the Developer, either by a fixed amount or a on a percentage loan ratio, and can either be injected upfront or progressively when required. These options are set via the Finance Preferences.

Alternatively you can manually stage the equity injections/ repayments in the cash flow table (click on the relevant button).

You cannot manually inject equity after the last date that the cumulative cash flow turns positive. Any date before then, you can put a:

- **Negative amount (repayment)**, where the equity owner is extracting equity from the project (i.e. equity owner cash inflow and project cash outflow), or
- **Positive amount (injection)**, where the equity owner is contributing to the project (i.e. equity owner cash outflow and project cash inflow.

Interest Charged on Equity

There is provision to nominate a per annum interest rate charged on the equity loan balance. The way that interest is paid is set via Finance Preferences.

Interest received on Surplus Cash

There is provision to nominate a per annum interest rate earned on surplus cash reserves.

% of Available Funds to Repay Equity Before Debt

Enter a % of available funds (positive net cash flow) that is used to repay equity before repaying debt.

- Equity will only be repaid via this option if it has been set in the Finance Preferences that equity is 'repaid when available'. If it has been set that equity is 'repaid at project end' and the user has entered a % in this input, then rather than repay equity, the nominated % of funds will be placed in the surplus cash account.
- If the % is too high, debt may never be able to be repaid due to interest being higher than available repayments.

Opening Balances

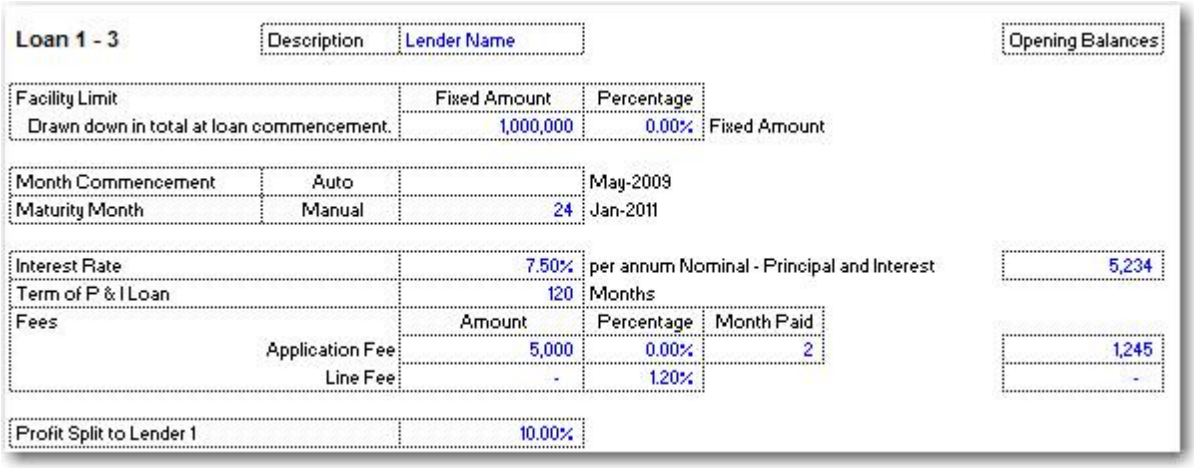
Enter in the opening balances for Interest Charged on Equity and Received on Surplus Cash.

These inputs can be used where:

- The funding facility is not solely used for this particular project, or
- The costs/revenue were incurred before the model's 'Date of First Period' (or Project Start).

6.6.8.2 Loans 1, 2 and 3

By default, Loans 1, 2 and 3 are the next lending facilities after equity has been utilised. They may be commonly a first mortgage against the land or could also represent a quasi equity partner. There are certain items that are relevant if Loans 1, 2 and 3 are used.



Facility Limit

This is the amount of debt that is borrowed, either as a fixed amount or a on a percentage loan ratio. If there is no Loan 1, 2 or 3 debt, set this to zero (0), or switch to Simple Mode. The user may also indicate whether the loan is drawn down at the loan commencement or progressively drawn down when required. These options are set via the Finance Preferences.

Alternatively you can manually stage the debt drawdowns/ repayments in the cash flow table (click on the relevant button) by entering a:

- **Negative amount (drawdown)**, where the developer is manually drawing down more funds from the lender.
- **Positive amount (repayment)**, where the developer is manually repaying funds back to the lender.

Month Commencement

The commencement date (period start) for the loan.

- If nominating a commencement period, it must be later than the maturity period.
- If left as Auto (Automatic Commencement), the loan will be drawn down according to the default funding priority.

Maturity Month

Even though the program automatically pays back the loan, the user has the ability to set a maturity date (period end) for the loan.

- If nominating a maturity period, the user may also nominate which other funding source will be refinancing that loan at maturity via the Finance Preferences.
- If left as Auto (Automatic Maturity), the loan will cease according to the default funding priority.

This input is mandatory if a Principal and Interest facility is selected for a loan.

Interest Rate

There is provision to nominate a per annum interest rate charged on the loan, and it can be manually varied for different periods in the

cash flow tables.

Term of P&I Loan

If a Principal and Interest loan is selected as the Interest Payment Type in the Preferences, then enter in the term of the loan to work out the periodic repayments. This does not determine when the loan matures - the loan will mature according to the nominated 'Maturity Month'.

Fees

There are two types of fees (entered as either an amount or a % of the facility limit) that can be paid to a lender:

- **Line Fees:** These are a per annum amount and charged and paid in arrears from the first drawdown to the final repayment.
- **Application Fees:** These are a one-off payment and paid at the nominated period.

Profit Split

A percentage rate can be inputted to split a portion of the profit to the lender as a form of 'success fee'.

By entering a percentage for profit share, it will impact your performance indicators and risk assessment, depending on what option you nominate in the Estate Master Preferences for 'Gross or Net Profit Performance'.

Opening Balances

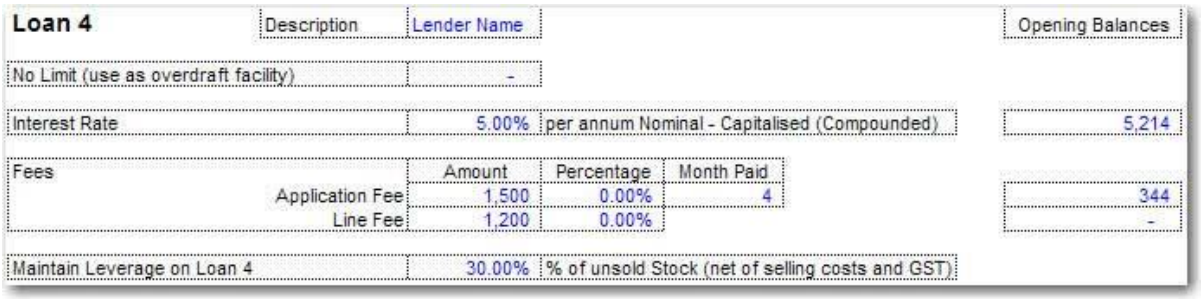
Enter in the opening Interest and Fee Balances for the Debt accounts.

These inputs can be used where:

- The funding facility is not solely used for this particular project, or
- The costs were incurred before the model's 'Date of First Period' (or Project Start).

6.6.8.3 Senior Loan

The Senior Loan is drawn down when all equity and Loans 1, 2 and 3 have been fully used.



Facility Limit

The use of the facility limit can be changed via the Finance Preferences:

- **Used as an Overdraft Facility:** By default, this is a line of credit facility and there is no limit on the borrowed amount. No facility limit is required and the input is disabled.
- **Use Equity as the Overdraft Facility:** A facility limit can be set on the Senior Loan as a fixed amount, and then any additional funding is sourced from Equity.

The funds draw down for the Senior Loan are automatically progressively drawn down as and when required. This cannot be changed by any manual inputs, unlike Loans 1, 2 and 3.

Interest Rate

There is provision to nominate a per annum interest rate charged on the loan, and it can be manually varied for different periods in the cash flow tables.

Fees

There are two types of fees that can be paid to a lender:

- **Line Fees:** These are a per annum amount and charged paid in arrears from the first drawdown to the final repayment.
- **Application Fees:** These are a one-off payment and paid in nominated period.

If the loan is setup to be used as an overdraft facility, then these fees can only be entered as an amount, otherwise if a facility limit can be set, then they can also be entered as a % of the facility limit.

Maintain Leverage on Senior Loan

To maintain a certain level of leverage on the Senior Loan, enter in a % of future positive net cashflows.

This will ensure that some leverage is maintained and enable quicker repayments to equity and hence improve the return on equity.

Opening Balances

Enter in the opening Interest and Fee Balances for the Debt accounts.

These inputs can be used where:

- The funding facility is not solely used for this particular project, or
- The costs were incurred before the model's 'Date of First Period' (or Project Start).

6.6.8.4 Other Finance Costs

Amount and **Start** and **Span** (Mandatory)

For each finance cost item such as application fees, legal fees, mortgage stamp duty, etc, it is mandatory to input:

- The number of units (e.g sqm) and base rate per unit (e.g $/sqm), and
- The start and span periods.

If any of the above are entered as zero (0), then the program will not include the cost in the cash flow.

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or
- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

6.6.9 Project Hurdle Rates

Project Discount Rate (target IRR)	25.00%	per annum Effective, on cash flow that includes financing costs but excludes interest and corp tax.
Nominate an estimate of IRR	20.00%	per ann.
Developer's Cost of Equity (for WACC)	18.00%	

Project Discount Rate (Target IRR)

The discount rate or target IRR only affects three performance indicators on the 'Summary' sheet:

- Project Net Present Value (NPV),
- Benefit Cost Ratio.

You can use the Estate Master Preferences to change the discount rate calculation method (include or exclude finance costs and interest) and also the method of conversion from the annual discount rate to the monthly discount rate (quarterly or half yearly depending upon the rest period you selected).

Nominate an Estimate of IRR

This is a number that you guess is close to the result of IRR. The model uses an iterative technique for calculating IRR. Starting with the estimate, it cycles through the calculation until the result is accurate within 0.00001 percent. If it can't find a result that works after 20 tries, the #NUM! error value is returned.

In most cases you do not need to provide the estimate for the IRR

calculation. If it is omitted, it is assumed to be 0.1 (10 percent).

If it gives the #NUM! error value, or if the result is not close to what you expected, try again with a different value for the estimate.

Developer's Cost of Equity Enter in the desired cost of the developer's equity.

This is used to calculate the Weighted Average Cost of Capital on the Summary Report

6.7 Cashflow Sheet

6.7.1 Cash Flow Components

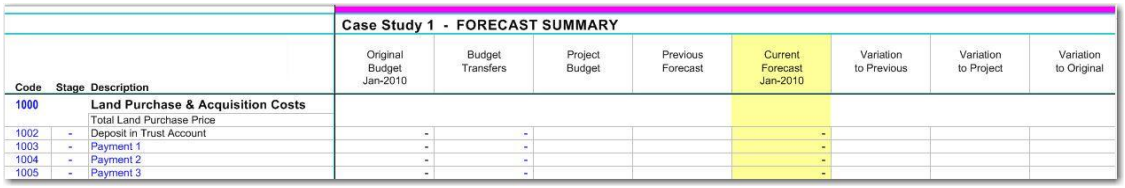
The 'Cash Flow' sheet is a large worksheet both horizontally and vertically.

Horizontally it has three sections when moving from left to right. These sections are colour coded at the top of the sheet for clarity and comprise of:

- **Yellow Section: Input Assumptions**

This section, along with the Setup Sheet, is where the input assumptions are entered, either manually or automatically if imported from an Estate Master DF file. This section also contains additional columns related to the re-forecasting modes and input assumption vs. cash flow variations.

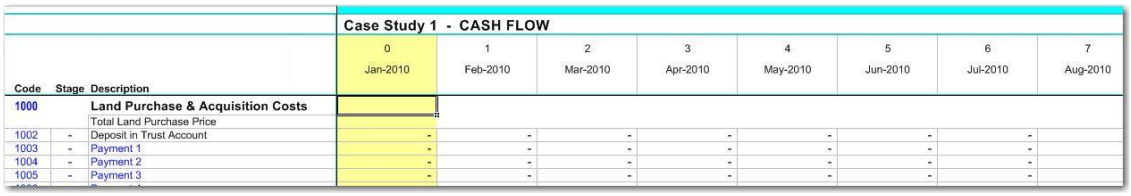
- **Purple Section: Forecast Summary**



			Case Study 1 - FORECAST SUMMARY							
Code	Stage	Description	Original Budget Jan-2010	Budget Transfers	Project Budget	Previous Forecast	Current Forecast Jan-2010	Variation to Previous	Variation to Project	Variation to Original
1000		**Land Purchase & Acquisition Costs**								
		Total Land Purchase Price								
1002	-	Deposit in Trust Account	-	-			-			
1003	-	Payment 1	-	-			-			
1004	-	Payment 2	-	-			-			
1005	-	Payment 3	-	-			-			

This section is for the tracking of a project along with some features of a more accounting nature.

- **Light Blue/Aqua Section: Cash Flow**



			Case Study 1 - CASH FLOW							
Code	Stage	Description	0 Jan-2010	1 Feb-2010	2 Mar-2010	3 Apr-2010	4 May-2010	5 Jun-2010	6 Jul-2010	7 Aug-2010
1000		**Land Purchase & Acquisition Costs**								
		Total Land Purchase Price								
1002	-	Deposit in Trust Account	-	-	-	-	-	-	-	
1003	-	Payment 1	-	-	-	-	-	-	-	
1004	-	Payment 2	-	-	-	-	-	-	-	
1005	-	Payment 3	-	-	-	-	-	-	-	

This section is the period by period cash flow where information shown in black text is pre-filled automatically from data which has been input into the yellow 'Input Assumptions' section. Data here can be manually amended/added/deleted and can be updated from accounts and automatically input.

Vertically it has four sections when moving from top to bottom. These sections comprise of:

- Cost and Revenue Inputs
- Stock Summary
- Project Summary
- Financing

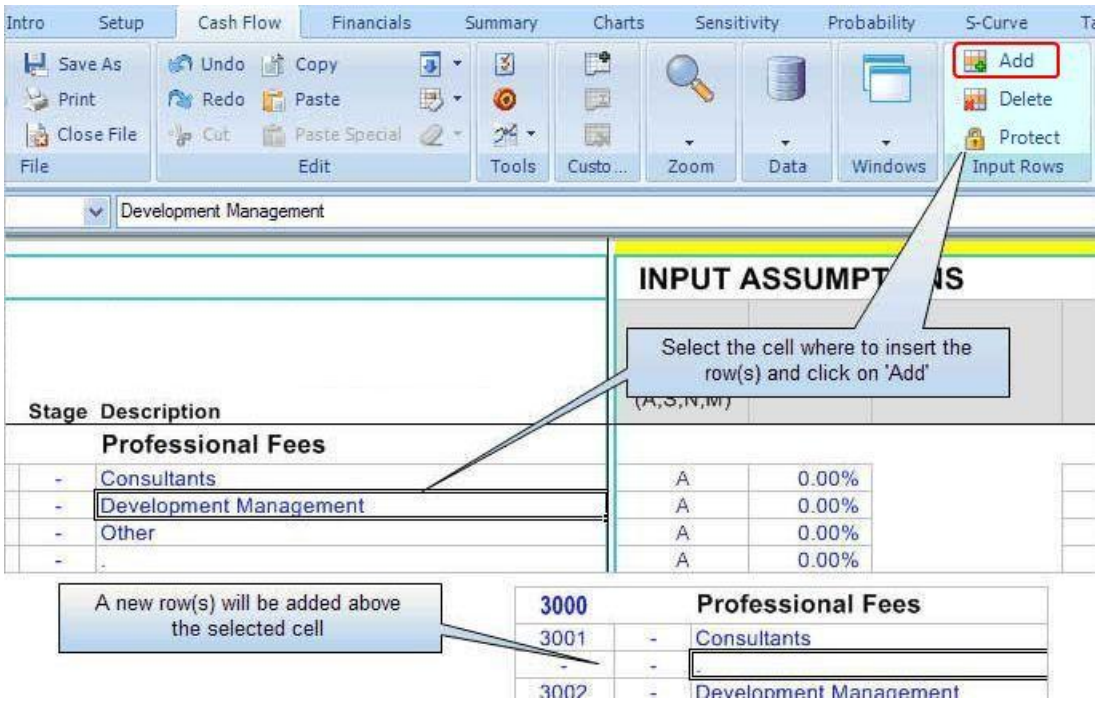
6.7.2 Cash Flow Tools

The 'Cash Flow' sheet contains several tools to increase its flexibility and functionality. These tools are located in the Ribbon Menu when the Cash Flow sheet is activated

Add Input Rows

Allows the user to insert additional input rows for any cost or revenue section. To insert more rows:

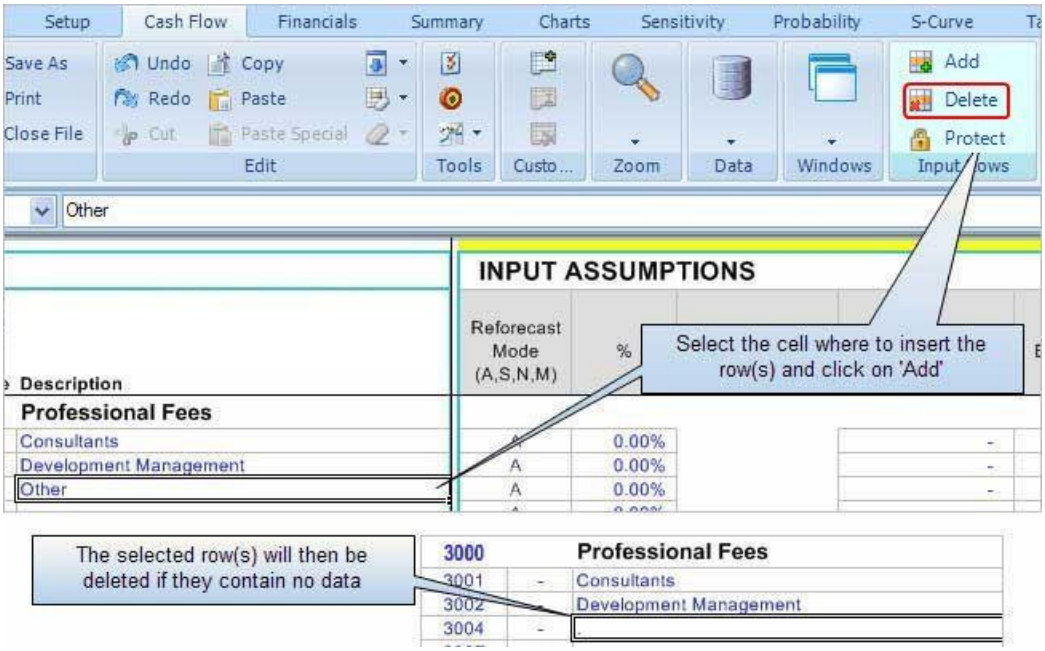
1. Select any cell along the row below where you want to insert a row (rows will be inserted above the selected cell).
2. Click on the Input Rows 'Add' button.
3. The function will prompt the user to indicate the number of additional rows required (max 50 at a time) and insert them above the selected cell.



Delete Input Rows

Allows the user to delete input rows not being used on the 'Cash Flow' sheet. To delete rows:

1. Highlight the cells for the rows you wish to delete (the entire row does not need to be highlighted).
2. Click on the Input Rows 'Delete' button.
3. The function will check to make sure that the rows are allowed deleted before doing so:
   - The first and last input row of a section can not be deleted.
   - Only one group of rows can be deleted at a time (only contiguous rows can be deleted).
   - Rows containing a description or cash flow data for any stored forecast can not be deleted.



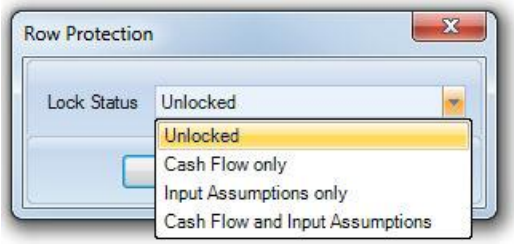
Disabling the ability to Insert or Delete Rows

In the Estate Master Preferences, there is an option to disallow the Insert/Delete Row feature. This may be helpful when creating templates and the number of rows is required to be fixed.

Protect Input Rows

Allows the user to lock a specific input row so that no additional edits can be made to it. To lock a row:

1. Select any cell on a single input row that you wish to lock (only one row at a time can be locked).
2. Click on the Input Rows 'Protect' button.
3. A pop-up will appear displaying the current Lock Status of that row. You can then change it to any of the following options:

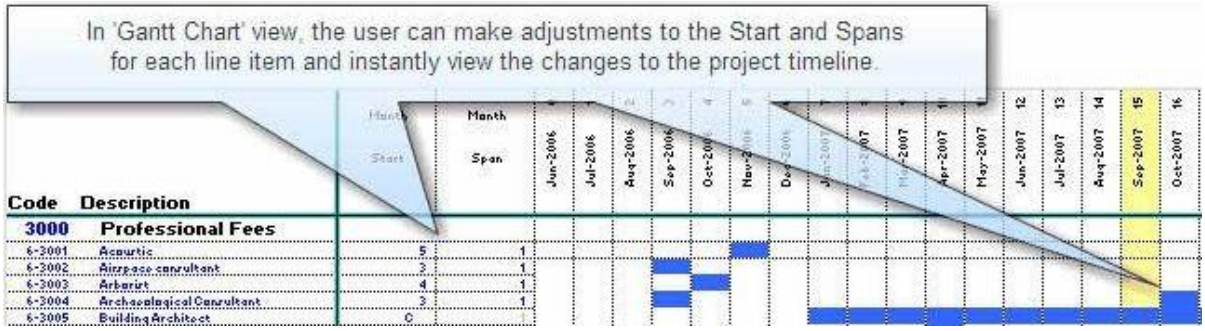


- **Unlocked:** All input cells on that row revert to their default unlocked state.
- **Cash Flow Only:** All columns in the Cash Flow section for that input row are locked.
- **Input Assumptions Only:** All columns in the Input Assumptions section (including any input cells in the Forecast Summary section) for that input row are locked.
- **Cash Flow and Input Assumptions:** All input cells on that row are locked.

Input Cell Protection Hierarchy
1. Since there are various methods of protecting/locking input cells and assumptions, a setting that locks/protects an input cell over-rules one that unlocks it. For example: If you have used the 'Protect Input Rows' function to lock the Cash Flow inputs, but in the Budget Management Preferences you have selected to 'allow user to edit historical Cash Flow' data, the 'Protect Input Rows' setting will over-rule, and the user will not be able to edit any Cash Flow' data irrespective of the Preference. 2. If the Cash Flow has been locked using the 'Protect Input Rows' function, you will still be able to use any of the 'Update Cash Flow with Accounts Data' methods to import data in the cash flow, irrespective if a row is locked.

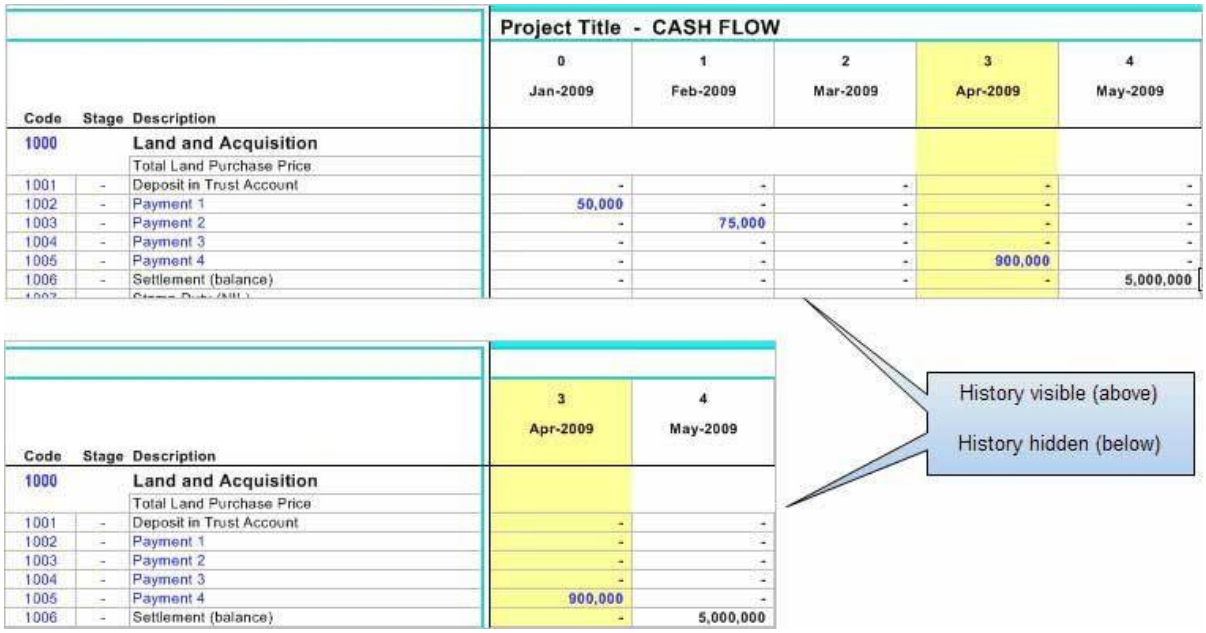
Gantt Chart

Allows the user to toggle the layout of the 'Cash Flow' sheet as a Gantt Chart (project timeline) or the standard Cash Flow input sheet.



Hide/Show History

Allows the user to toggle the visibility of the historical columns in the Cash Flow table.



		Project Title - CASH FLOW				
		0 Jan-2009	1 Feb-2009	2 Mar-2009	3 Apr-2009	4 May-2009
Code	Stage Description					
1000	Land and Acquisition					
	Total Land Purchase Price					
1001	- Deposit in Trust Account	-	-	-	-	-
1002	- Payment 1	50,000	-	-	-	-
1003	- Payment 2	-	75,000	-	-	-
1004	- Payment 3	-	-	-	-	-
1005	- Payment 4	-	-	-	900,000	-
1006	- Settlement (balance)	-	-	-	-	5,000,000

		3 Apr-2009	4 May-2009
Code	Stage Description		
1000	Land and Acquisition		
	Total Land Purchase Price		
1001	- Deposit in Trust Account	-	-
1002	- Payment 1	-	-
1003	- Payment 2	-	-
1004	- Payment 3	-	-
1005	- Payment 4	900,000	-
1006	- Settlement (balance)	-	5,000,000

Cash Flow Details

Allows the user to change the way the cash flow input sections are displayed in relation to the rows and columns.

Costs and Revenues

For each cost and revenue section, the user can select from the following row views:

- **All Rows:** Shows all rows (used and unused) for a particular input section.
- **Used Rows:** Shows only used (populated) rows for a particular input section. A row is 'used' when there is an input description evident and/or there is data in any of the stored forecasts.
- **Sub Totals:** Hides all input rows for a section and only shows the heading and sub total row.

Stock Summary

For the Stock Summary report, the user can select from the following row views:

- **Quantity Sold/Handed Over:**
  - Select to hide/show the exchanges and settlements by quantity.
  - Select to show all rows, used rows or sub-totals only.

- **Area Sold/Handed Over:**
  - Select to hide/show the exchanges and settlements by area.
  - Select to show all rows, used rows or sub-totals only.

- **Value Sold/Handed Over:** Select to hide/show the exchanges and settlements by value.

Financing

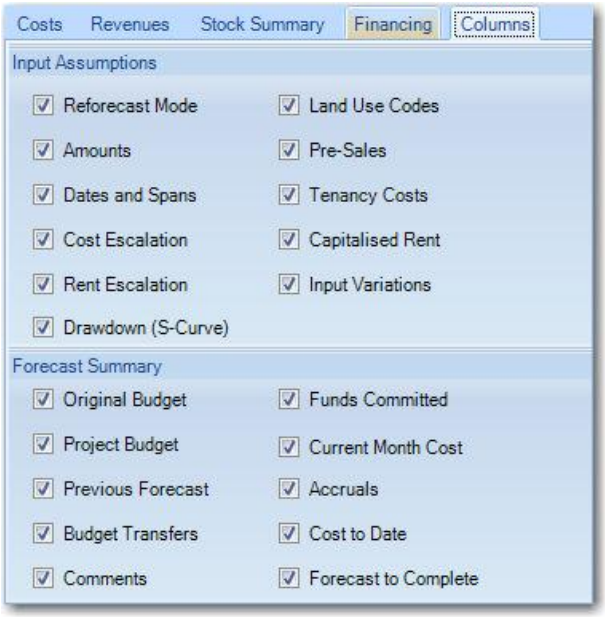
For the Financing Cash Flow, the user can select from the following row views:

- **All Sources:** All sources of funding are displayed in the Financing Cash Flow, regardless if they are used or not.
- **Used Sources:** Only sources of funding that are 'used' are displayed. A source of funding is used if there are any drawdowns, repayments, interest charges or profit share payments.

Columns

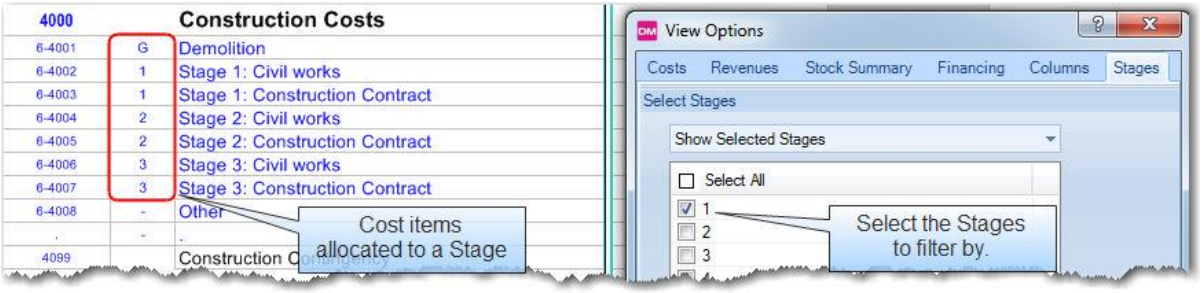
The user can use this function to hide various columns in the 'Input Assumptions' and 'Forecast Summary' sections . This is ideal if:

- The inputs in that column are not required.
- The inputs in that column have been completed and need no further adjustment.
- Budgets Transfers, Accruals or Commitments are not required.
- The Original, Project or Previous Forecasts/Budget is not used.



Stages

If the project being modelled is multi-staged, and individual cost and revenue line items have been allocated to a Stage in the Input Assumptions, then the user can filter the input rows by Stage (maximum of 150 stages at at time).



When the filter is applied:

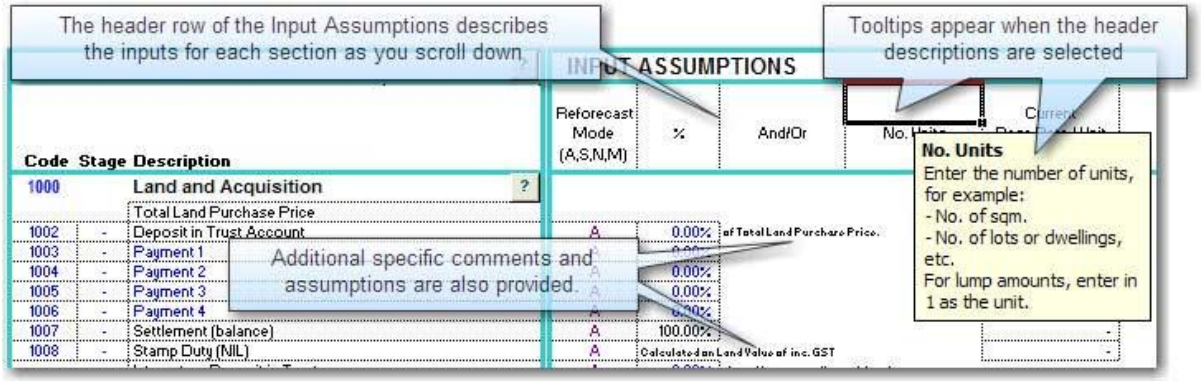
- All input rows that belong the selected stage will remain visible, while all other rows that belong to another stage, or that have 'G' ('Global' costs), '-' (the default Stage input) or are blank, will be hidden.
- All Cost and Revenue section sub-totals in the Cash Flow will be hidden.
- All other outputs on the Cash Flow, such as the Project Summary and Financing will be still calculated on a 'Whole of Project' basis.
- All other reports (e.g Summary, Chart, etc) will be still calculated on a 'Whole of Project' basis.

6.7.3 Input Assumptions

The 'Input Assumptions' section (Yellow Section) of the 'Cash Flow' sheet is where the majority of input data would have been imported to from an Estate Master DF file or where a user would have manually entered data before setting an Original Budget.

The 'Input Assumptions' has a generic header with relevant input cells appearing for each section as the user scrolls down the page.

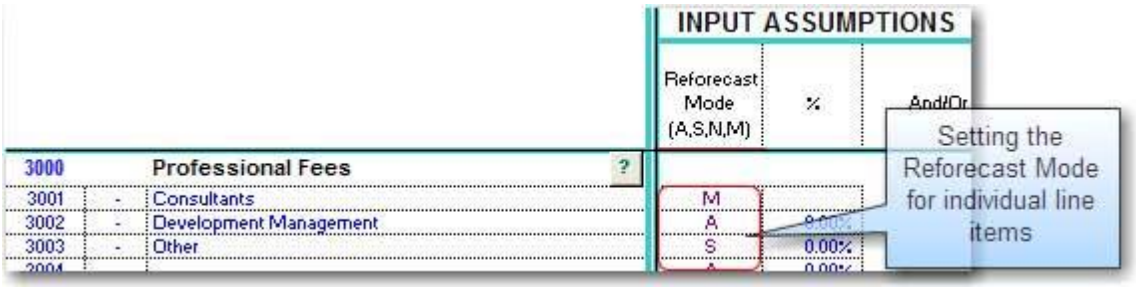
To assist in entering data, comments have been inserted that can be displayed by selecting an appropriate header description.



6.7.3.1 Reforecast Mode

This is the first column in the horizontally scrollable 'Cash Flow' sheet.

The Reforecast Mode column indicates for each cost and revenue how it will adapt in the light blue/aqua 'Cash Flow' section if entries in the 'Cash Flow' section differ from data created automatically from the yellow 'Input Assumptions' section and the related 'Setup' sheet. These changes in the 'Cash Flow' section could result from manual entry or by updating from accounts.



A = Automatic Mode: If 'A' is entered as the Reforecast Mode for a cost or revenue, then the following occurs:

- The Input Assumptions for that cost or revenue are displayed and is used to generate the detailed cash flow for that line item to the right.
- The cash flow that is generated for that line item is displayed in black font, indicating that the default formulas are being used.
- Any manual inputs made directly to the cash flow will reforecast the cash flow by reapportioning the balance over the defined span. Once the defined period (start and span) has been surpassed by a manual input, any balance is then allocated to the next month only.

S = Single Reforecasting Mode: If 'S' is entered as the Reforecast Mode for a cost or revenue, then the following occurs:

- The same as 'Automatic Mode', except any manual inputs will reforecast the cash flow by

reapportioning the balance over the next time period only.

N = No Reforecasting Mode: If 'N' is entered as the Reforecast Mode for a cost or revenue, then the following occurs:

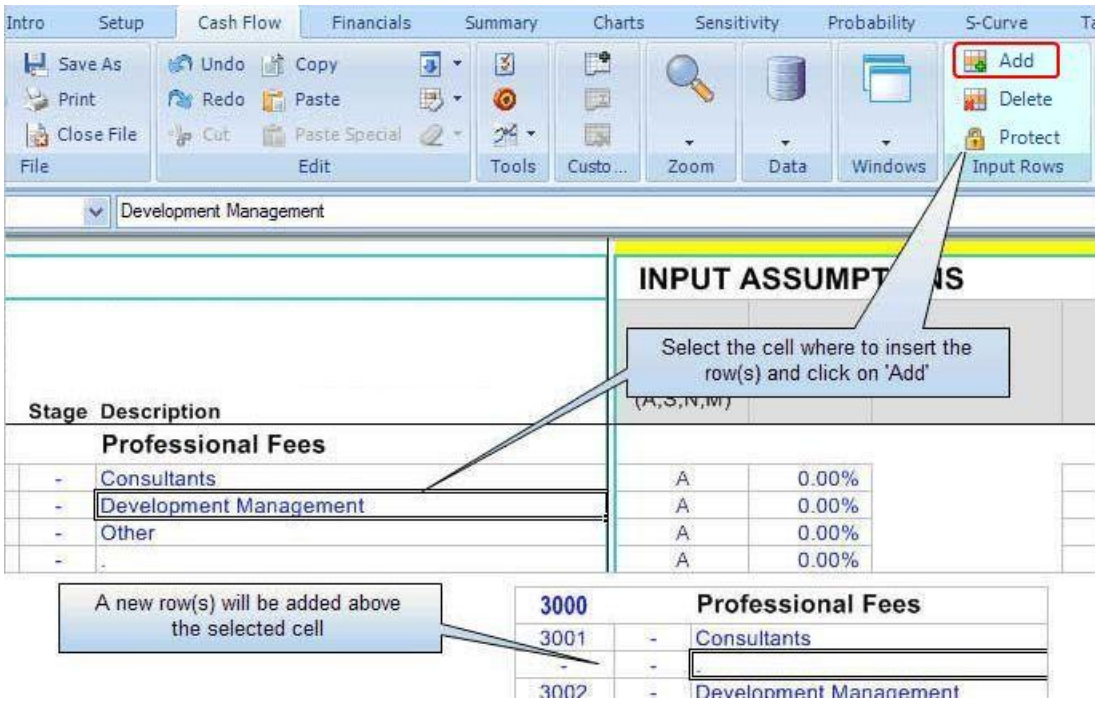
- The same as 'Automatic Mode', except any manual inputs will not reforecast the cash flow.

M = Manual Mode: If 'M' is entered as the Reforecast Mode for a cost or revenue, then the following occurs:

- The Input Assumptions for that cost or revenue are disabled and the cash flow for that item is reset.
- The cash flow for that line item is displayed in blue font, indicating that the default formulas are not being used and data must be entered directly in the cash flow by the user by way of manually overriding the cash flow cells.

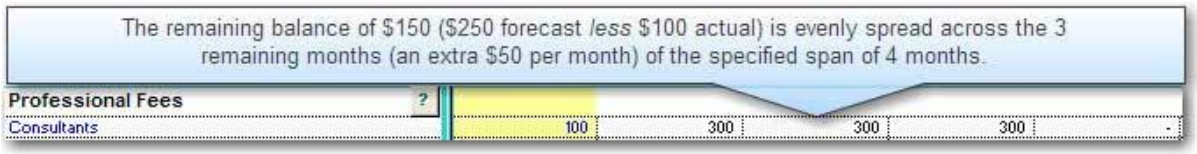
Reforecast Mode Example

Say there is a $1,000 cost that starts in month 0 and has a 4 month duration (i.e. $250 per month), it would generate the following cash flow.

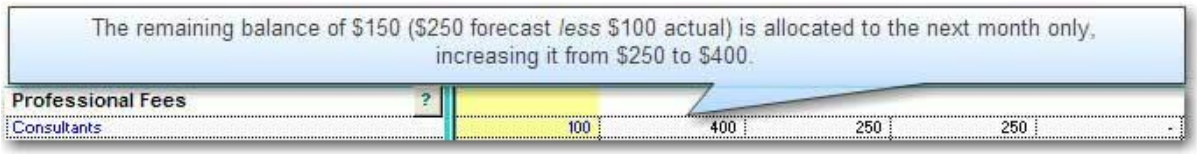


Using the different Reforecast Modes, the following scenarios would occur if the amount in month 0 is manually overridden to show an actual expenditure of $100:

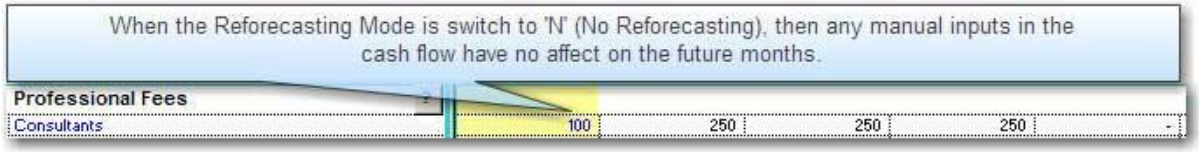
A = Automatic Mode



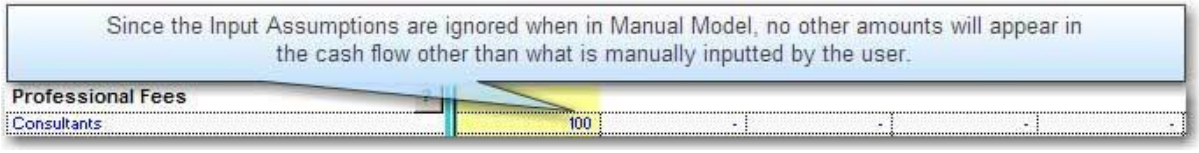
S = Single Reforecasting Mode



N = No Reforecasting Mode



M = Manual Mode



6.7.3.2 Land Purchase and Acquisition Costs

Land Purchase Price (Optional)

Input the land purchase price in the first input item.

Deposit and Payments (Optional)

You can stage your land acquisition payments - deposit plus multiple staged payments either as a percentage and/or an amount. Each payment is a transfer of funds from the Developer to the Land Owner. Note that Deposit in a trust account is different from a payment because the land owner does not receive it until settlement or the first payment date.

Stamp Duty (Optional)

The automatic stamp duty is calculated for the total purchase price. An option in the Estate Master Preferences is available to select whether stamp duty is calculated on the land including or excluding GST/VAT. You will need to input the start and span dates for the payment of stamp duty.

If several acquisitions are involved then you should set the automatic stamp duty to NIL and manually calculate each stamp duty payment and enter them in 'Other Acquisition Costs'.

Interest on Deposit in Trust Account (Optional)

Interest may be earned on that deposit during the time it sits in the trust account and the interest is divided evenly between the seller (Land Owner) and the buyer (Developer). Both the deposit percentage and interest on deposit are optional inputs.

Profit Share to Land Owner (Optional)

You can also nominate a percentage of your development profit to be paid to the land owner at the completion of the project, irrespective if you a modelling a joint venture or not. By entering a percentage for profit share, it will impact your performance indicators and risk assessment, depending on what option you nominate in the Estate Master Preferences for the calculation of Development Profit - Gross (before profit share) or Net (after profit share).

Other Acquisition Costs

% Paid and Lump Amount (Optional)

For other acquisition costs, such as legal fees, survey costs, etc, you may elect to either enter:

- A percentage of the land's purchase price, and/or
- A lump sum amount.

If entering a % of the land price and running the model in either GST or VAT mode then:

- The cost will be based on the land price excluding GST/VAT when using the General Tax Rule.
- The cost will be based on the land price including GST when using the Margin Scheme (GST Mode only).

Start and Span (Mandatory)

For each item's Start and Span, you have the following options:

- Enter a number to nominate the start and span manually, or
- Enter "**L**" as the start date to have the cost paid pro-rata with land payments. If "L" is chosen, the span date is ignored.

GST/VAT (Optional)

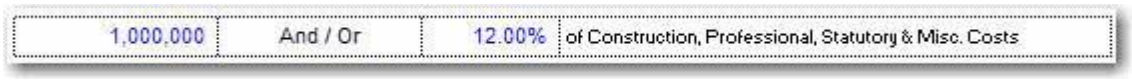
Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage

of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

Start and Span
For every payment it is necessary to put a start date and span period, or else the program will not add the payment to the cash flow. The start date must be a number between zero (0) (which represents the first or current period) or an applicable letter (i.e. "L" for land costs or "C" for Professional Fees) and the span period must be greater than but not equal to zero. The start and span numbers must not add up to more than the maximum time periods in the model - or else you will exceed the program's limits.

6.7.3.3 Project Contingency



In this item you may put in a project contingency factor (or project reserve) as an amount and/or a percentage of development costs (construction, professional fees, contributions and miscellaneous costs inclusive of any GST/VAT). This cost is automatically paid pro-rata with the aforementioned development costs.

GST/VAT on Project Contingency
There is no separate input for nominating whether GST/VAT is applied to Project Contingency - it is dependant on the costs that are a part of Project Contingency and whether they have GST/VAT on them. Since Project Contingency is based on all project costs (i.e Construction, Professional, Statutory Fees and Misc Costs1, 2 and 3), and all those costs may not necessarily always have GST/VAT on them, it gets the weighted average GST/VAT rate on all those items to forecast the GST/VAT on Project Contingency. For example, if the base GST/VAT rate was 10% and if half of the cost items excluded GST/VAT, then a background calculation will determine that the weighted average GST/VAT rate to apply to the Project Contingency is actually 5% (1/2 x 10%).

6.7.3.4 Professional Fees

% of Construction and/or Amount (Mandatory)

For each cost item it is mandatory to input:

- A percentage of total construction cost (excluding GST/VAT if applicable), and/or
- The number of units (e.g sqm) and base rate per unit (e.g $/sqm).

Start and Span (Mandatory)

For each item's Start and Span, you have the following options:

- Enter a number to nominate the start and span manually, or
- Enter "**C**" as the start date to have the cost paid pro-rata with construction costs. If "C" is chosen, the span date is ignored.

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or
- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

S-Curve (Optional)

You may elect to span the cost payments evenly through the span period or apply a cumulative S-shape curve.

- Leave blank or enter "**E**" to evenly spread the cost, or
- Enter one of the codes (**S**, **S1**, **S2**, **S3** and **S4**) for the five (5) client customisable S-Curves. You can modify the S-curve profiles in the 'S-Curve' sheet.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

Development Management Fee (Optional)

Scroll down the last professional fee item to input a percentage for Development Management. Using the Estate Master Preferences, you can change the fee to be expressed as a percentage of either:

- Total Gross Sales proceeds,
- Total Net Sales proceeds (Gross Sales *less* Selling Costs),
- Total Project Costs including Land, or
- Total Project Costs excluding Land.

Project costs exclude finance costs and GST/VAT if applicable.

The Development Management Fee can also be spread in the cash flow in five different ways:

- Enter a start and span period manually.
- Enter "**C**" as the start date to have the cost paid pro-rata with Construction Costs.
- Enter "**P1**" as the start date to have the cost paid pro-rata with Project Costs (inc Land).
- Enter "**P2**" as the start date to have the cost paid pro-rata with Project Costs (exc Land).
- Enter "**S**" as the start date to have the cost paid pro-rata with Sales Settlements.

6.7.3.5 Construction Costs

Cost Type (Optional)

Enter the relevant Code defined in the Construction Cost Type section. This will categorise the Construction Costs and report them appropriately on the Summary Report. It also allows the user to apply different escalation rates to different components of construction.

Leave blank or enter in 0 (Zero) if you do not wish to allocate this item to any specific cost type.

Amount and Start and Span (Mandatory)

For each cost item it is mandatory to input:

- The number of units (e.g sqm) and base rate per unit (e.g $/sqm), and
- The start and span periods.

If any of the above are entered as zero (0), then the program will not include the cost in the cash flow.

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or
- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

S-Curve (Optional)

You may elect to span the cost payments evenly through the span period or apply a cumulative S-shape curve.

- Leave blank or enter "**E**" to evenly spread the cost, or
- Enter one of the codes (**S**, **S1**, **S2**, **S3** and **S4**) for the five (5) client customisable S-Curves. You can modify the S-curve profiles in the 'S-Curve' sheet.

Start and Span (Mandatory)

For each item, you must enter the start and span periods. If the span periods is zero (0) then the program will not include the cost in the cash flow.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

Construction Contingency (Optional)

Scroll down the last construction cost item to input a percentage for Construction Contingency (optional) as an amount and/or a percentage of construction costs (inclusive of any GST/VAT if applicable). This cost is automatically paid pro-rata with the construction costs.

6.7.3.6 Statutory Fees and Contributions

The title to this section may be changed to suit the user's requirements. All references to this section in other areas of the program will be changed automatically (i.e. 'Summary' sheet, Cash Flow, etc).

Amount and Start and Span (Mandatory)

For each cost item it is mandatory to input:

- The number of units (e.g sqm) and base rate per unit (e.g $/sqm), and
- The start and span periods.

If any of the above are entered as zero (0), then the program will not include the cost in the cash flow.

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or
- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

S-Curve (Optional)

You may elect to span the cost payments evenly through the span period or apply a cumulative S-shape curve.

- Leave blank or enter "**E**" to evenly spread the cost, or
- Enter one of the codes (**S**, **S1**, **S2**, **S3** and **S4**) for the five (5) client customisable S-Curves. You can modify the S-curve profiles in the 'S-Curve' sheet.

Start and Span (Mandatory)

For each item, you must enter the start and span periods. If the span periods is zero (0) then the program will not include the cost in the cash flow.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

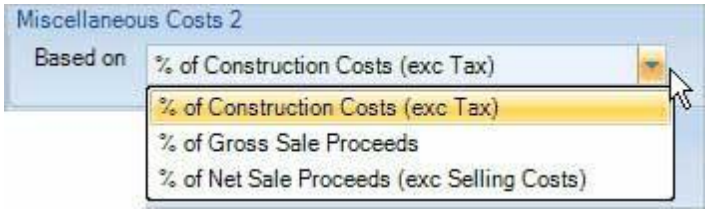
6.7.3.7 Miscellaneous Costs

% and/or Amount (Mandatory)

For each cost item it is mandatory to input:

- A percentage (based on the options below), and/or
- The number of units (e.g sqm) and base rate per unit (e.g $/sqm).

The percentage basis is selected via an option in the Estate Master Preferences, and can be different for each Miscellaneous Cost section.



- **% of Construction**: Construction costs including contingency, but excluding GST/VAT if applicable.
- **Gross Sale Proceeds:** Gross sales include items included in the Sales input section and Capitalised Sales from the Tenants section. They are inclusive of any GST/VAT/Sales Tax if applicable
- **Net Sale Proceeds**: Gross Sales *less* Selling Costs.

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or
- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

S-Curve (Optional)

You may elect to span the cost payments evenly through the span period or apply a cumulative S-shape curve.

- Leave blank or enter "**E**" to evenly spread the cost, or
- Enter one of the codes (**S**, **S1**, **S2**, **S3** and **S4**) for the five (5) client customisable S-Curves. You can modify the S-curve profiles in the 'S-Curve' sheet.

Start and Span (Mandatory)

For each item's Start and Span, you have the following options:

- Enter a number to nominate the start and span manually, or
- Enter "**C**" as the start date to have the cost paid pro-rata with construction costs, or
- Enter "**S**" to have the cost paid pro-rata with sales settlements.

If "C" or "S" is chosen, the span date is ignored.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

6.7.3.8 Land Holding Costs

Amount (Mandatory)

For each cost item it is mandatory to input:

- The number of units (e.g sqm), and
- Base rate per unit per term (e.g $/sqm/month), where the term is identified in the following input column.

If any of the above are entered as zero (0), then the program will not include the cost in the cash flow.

Term (Mandatory)

This is the payment frequency for the nominated amount:

- **M** = Monthly
- **BM** = Bi-Monthly
- **Q** = Quarterly
- **BA** = Bi-Annually
- **Y** = Yearly

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or
- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

Start and Span (Mandatory)

For each item, you must enter the start and span periods. In the case of the span period you may elect to input a number span or the letters DS or DR.

- **DS** = The span period will indicate to the model that you would like to diminish the land holding costs proportionally with sales.
- **DR** = The span period will indicate to the model that you would like to diminish the land holding costs proportionally with the take-up of leases/rental income.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

6.7.3.9 Selling Costs

% Paid and/or Amount (Mandatory)

For each selling costs item, such as marketing, advertising, legals etc, it is mandatory to input:

- A percentage of gross sales (i.e sales price inclusive of any

GST/VAT/Sales Tax), and/or

- The number of units (e.g lots) and base rate per unit (e.g $/lot).

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or
- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

Start and Span (Mandatory)

For each item, you must enter the start and span periods. In the case of the span period you may elect to input a number span or the letters S or E.

- Enter **"S"** to have the cost paid pro-rata with settlements or instalments (if using the Sales Revenue Collection Profile function), or
- Enter **"E"** to have the cost paid pro-rata with pre-sale exchanges (if used, otherwise it will be highlighted red).

If "S" or "E" is chosen, the span date is ignored.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

6.7.3.10 Sales

Units and **Area** (Mandatory)

For each sale item it is mandatory to enter:

- The total quantity (no. of lots, units, etc), and
- The total size of all sale items for that line item (sqm, sqft, ha, etc) based on the unit of measurement from the list selector (purple font), such as number of units or sqm, NLA, GFA, etc.

This information is used for further analysis on the Summary and Cash Flow (Stock Summary).

Current Sale Price (Mandatory)

This is the current non-escalated sale price. This must be based on either the Units or Area measurement (ie $/unit or $/area)

Sale Calc Method (Mandatory)

Indicate the method of calculating the total sale value. It is based on how the 'Current Sale Price' has been entered:

- If 'Current Sale Price' has been entered in as a $/sqm, then select "Per Sqm" from the list selector in the Sales Rate column. The unit of measurement (sqm, sqft, etc) is based on

the option selected in the 'Total Area' column.

- If 'Current Sale Price' has been entered in as a lump amount, then select "Per Unit" from the list selector.

Pre-Sale Exchange Start and **Span** (Optional)

You may enter an exchange start date and span period, which is relevant only for pre-sales (items sold before completion).

If you nominate a pre-sale exchange for a sales line item, the program assumes all items in that line are pre-sold. Alternatively, you can split sales into two line items if you wish - those pre-sold and those sold after completion of development (i.e pre-sale exchange is ignored).

You should be aware of the following when adopting pre-sale exchanges:

- Any revenue escalation selected for that sale item will only apply up to the date of exchange. If no pre-sale date is entered then the escalation rates apply up to the date of settlement.
- Unless the Sales Revenue Collection Profile feature is used, no revenue is actually collected by the developer until settlement. At pre-sale exchange, any deposit that is paid by the buyer is actually paid into a trust account and is not received by the developer until settlement.
- The dates entered for the pre-sale exchange will impact the 'Sales Summary' on the Stock Summary report on the Cash Flow sheet.

Settlement Start and **Span** (Mandatory)

It is mandatory to enter the settlement date and span period for each sale item, otherwise the program will not include the revenue in the cash flow.

You should be aware of the following in relation to settlements:

- If the user has adopted pre-sale exchanges for a sale item and has elected to earn interest on any deposits collected at pre-sale, the interest earned will be apportioned between the developer and purchaser at time of settlement.
- When using the Sales Revenue Collection Profile feature, the final payment/instalment to the developer is made at the earliest milestone reached between the final nominated sales collection profile instalment and the settlement date.
- The dates entered for the settlements will impact the 'Handover Summary' on the Stock Summary report on the Cash Flow sheet.

GST/VAT (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the revenue is GST/VAT inclusive and the developer or JV will pay a percentage of the revenue as a tax liability.

Land Use Code (Optional)

By detailing the land use code for a sale item, it will apply the following:

- **Escalation**, based on the rates entered for that specific land use in the Revenue Escalation table.

- **Sales Commissions**, based on the rates entered for that specific land use in the Sales Commission section.

If you neglect to enter a land use code, the sales revenue will still be calculated, however:

- It will exclude escalations and sales commissions, and
- It will be shown as 'Not Classified' on the Summary Report rather than be grouped under a specific land use type.

Revenue Collection Profile (Optional)

Enter a Profile Number defined in the Sales Revenue Collection Profile table. If this is left as Zero, then revenue is only received during the defined Settlement Start and Span dates.

This option is only available if the Sales Revenue Collection Profile feature is enabled via the Estate Master Preferences

6.7.3.11 Rental Income and Capitalised Sales

Rental Income

Land Use Code (Optional)

By detailing the land use code for a tenant, it will apply the following:

- **Escalation on rental income**, up until the lease start, based on the rates entered for that specific land use in the Revenue Escalation table.
- **Sales Commissions** for capitalised sales, based on the rates entered for that specific land use in the Sales Commission section.

If you neglect to enter a land use code, the rental and capitalised sales revenue will still be calculated, however:

- It will exclude escalations and sales commissions, and
- It will be shown as 'Not Classified' on the Summary Report rather than be grouped under a specific land use type.

Total Area (Mandatory)

Enter the size of tenancy based on the unit of measurement from the list selector (purple font) such as number sqm, sqft, etc.

This information is used for further analysis on the Summary and Cash Flow (Stock Summary for Capitalised Sales).

Current Rent (Mandatory)

Enter in the current rent based on the unit of measurement selected and either as a monthly or annual rate (chosen from the list selector).

Outgoings and Vacancies (Optional)

You may select outgoing expenses and vacancy allowances either as:

- A lump sum per annum/month, and/or
- Percentage of gross rent.

Outgoings and Vacancies are shown as a 'Leasing Cost' in the Summary and Cash Flow reports are paid during the nominated lease start and span.

Pre-Commitment (Optional)

You may enter a lease pre-commitment period that is before the

Lease Start month. When adopting a pre-commitment:

- Escalation on rental income will be applied up until the pre-commitment period only.
- A portion of the nominated Letting Fee can be paid at that point in time.

Lease Start and **Span** (Mandatory)

To calculate a rental income stream, enter a lease start date and lease span period. If the span period is zero (0) then the program will not include the rental revenue in the cash flow.

Once the Current Rent and Lease Start is entered, the 'Escalated Rent as at the Lease Start' will be displayed. It is the Current Rent that has been escalated from the Revenue Escalation rates table. To escalate rents once the leases commence, use the Rental Review Escalation table.

Rent Reviews and Leasing Costs

Rental Review Escalation (Optional)

For each tenant you may enter up to 10 years of rental review escalation rates. Escalation rates are applied on the anniversary month (Lease Start month) on a yearly basis (as opposed to cost escalation which is applied on each time period) and commence 1 year after Lease Start (ie the first 12 months of rent are calculated based on the rent value at the lease start date).

Rental Review Escalation is in addition to the Pre-Lease Rental Escalation that is calculated via the land use codes (ie RS1, COM, etc). It allows the user to enter in rent reviews during the lease period, whereas Pre-Lease Rental Escalation applies escalation to the current rent up until the lease start date.

Letting Fee (Optional)

You may enter a letting fee expressed as a percentage of the gross annual rent. It is default to be paid in full at the start of the lease, otherwise you may elect to enter in a percentage that is paid at Pre-Commitment.

Letting Fees are shown as a 'Leasing Cost' in the summary and cash flow reports.

Lease Incentives (Optional)

You may enter leasing incentives as:

- Rent Free Periods (calculated from the lease start date), or
- Fit-out Costs (calculated from the project start date to the start of the lease).

Lease Incentives are shown as a 'Leasing Cost' in the summary and cash flow reports.

GST/VAT on Costs and **Rents** (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the rents and leasing costs are GST/VAT inclusive and the developer or JV will pay/receive a percentage of the revenue/cost as a tax liability/ credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the rents and/or costs entered to include tax in the cash flow and and reclaim tax credits (costs) or pay liabilities (rents).

- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits or pay liabilities based on the rent and/or cost amount entered.

Capitalised Sales

Residual Capitalisation Rate (Optional)

Entering a capitalisation rate credits the project with a terminal or residual value (i.e. sale revenue) at the end of the rental period (lease start plus span) or at the optional Settlement date, whichever is later.

The Capitalised Value is calculated by the following formula:

Capitalised Value = Net Rental Income / Residual Capitalisation Rate

Where:
Net rental Income = Gross Rental Income less GST/VAT, Outgoings and Vacancies. Letting Fees and Incentives are not capitalised and therefore do not impact then Capitalised Value.
Residual Capitalisation Rate = A capitalisation rate (also now as 'Yield') that has been adopted from comparable evidence and research.

If there no actual rental income to be received by the developer for a specific tenancy (e.g it is not leased out or is sold on completion) and you only want to indicate a capitalised sale, the lease span should be left at ZERO and the capitalised value is calculated at the lease start (unless a Settlement date later than the lease start is entered).

Pre-Sale Exchange (Optional)

You may enter a Pre-Sale Exchange date for capitalised sales. If it is adopted, you should be aware of the following:

- Any revenue escalation selected for that sale item will only apply up to the date of exchange. If no pre-sale date is entered then the escalation rates apply up to the date of settlement (lease start plus span or at the optional Settlement date, whichever is later).
- No capitalised sales revenue is actually collected by the developer until settlement. At pre-sale exchange, any deposit that is paid by the buyer is actually paid into a trust account and is not received by the developer until settlement.
- Any deposits collected and invested in the trust account can earn interest at a user-defined rate.
- The dates entered for the pre-sale exchange will impact the 'Sales Summary' on the Stock Summary report on the Cash Flow sheet.

Settlement (Optional)

This is used to nominate a settlement date that is later than the lease start and span period. If this is left as zero, then the end of the lease start and span will be used as the settlement.

You should be aware of the following in relation to settlements:

- If the user has adopted pre-sale exchanges for a sale item and has elected to earn interest on any deposits collected at pre-sale, the interest earned will be apportioned between the developer and purchaser at time of settlement.
- The dates entered for the settlements will impact the 'Handover Summary' on the Stock Summary report on the Cash Flow sheet.

Leasing Up Period / Letting Void (Optional)

This allows the user to make an adjustment to the capitalised end sale value to take into account a known or expected vacancy period. Entering a Leasing Up Period (also known as 'Letting Void') requires two optional inputs:

- **Period Vacant:** Nominate the duration of the letting up (known/expected vacancy) period. The value of that vacancy is then determined by the following formula: Period Vacant x Forecasted Rental Income per Period
- **Discount Rate:** Given that the leasing up period may occur over more than one period, its 'present value' (as at the date of sale) can be calculated by adopting a discount rate.

The escalated end sale value will then be adjusted by the equivalent rental value (discounted by the optional discount rate).

For example: If you were to sell an office building that has a current rental of $100k per annum on a capitalised basis for say $1mil, and there is a known vacancy at the time of sale (e.g it is vacant for the next 6 months), then you can enter in '6' as the 'Months Vacant' period. The capitalised value of $1mil will actually be reduced by $50k (being 6 months rent), therefore the adjusted end sale price will be $950k. If a discount rate has been adopted (say 14%), then the present value of the $50k over 6 months will be calculated at approx $48k, therefore the adjusted capitalised value in that instance will be approx $952k.

The purchaser may request this (sort of like a 'rental guarantee') because they will argue that there is no point in them paying the full value when it will be vacant for 6 months.

Purchasers Costs (VAT mode only)

'Purchasers Costs' are calculated on the escalated gross end sale value and take into consideration items such as Stamp Duty, Legal and Agency Fees and Survey Fees. This input is mainly used in the UK property market. If it is used, Purchasers Costs should be factored into the Residual Capitalisation Rate.

% Paid by Land Owner (JV mode only)

You may elect a percentage of the costs to be paid for by the Land Owner if you are modelling a joint venture arrangement.

GST/VAT on Sale (Optional)

Select "Y" or "A", "B", or "C" in the GST/VAT column if the revenue is GST/VAT inclusive and the developer or JV will pay a percentage of the revenue as a tax liability.

6.7.3.12 Leasing Costs

% Paid and/or Amount (Mandatory)

For other leasing costs that are not entered on the Tenants sheet, it is mandatory to input:

- A percentage of Total Gross Rents collected over the nominated lease terms for each Tenant. (i.e total gross rental income received inclusive of any GST/VAT/Sales Tax), and/or
- The number of units (e.g unit) and base rate per unit (e.g $/unit).

Escalation (Optional)

You may elect to apply escalation on any cost items.

- Enter "**E**" to escalate to start, or

- Enter "**R**" to escalate to start and continue escalation through span period, or
- Leave blank or enter "**N**" to assume the cost is fixed, hence no escalation.

Start and Span (Mandatory) For each item's Start and Span, you have the following options:

- Enter a number to nominate the start and span manually, or
- Enter "**R**" as the start date to have the cost paid pro-rata with rental income. If "R" is chosen, the span date is ignored.

GST/VAT (Optional) Select "Y" or "A", "B", or "C" in the GST/VAT column if the cost is GST/VAT inclusive and the developer or JV will claim a percentage of the cost as an input credit.

- If the header shows 'Add GST/VAT' the model will automatically escalate the cost entered to include tax in the cash flow and reclaim tax credits.
- If the header shows 'GST/VAT Included', then the model will only reclaim tax credits based on the cost amount entered.

6.7.3.13 Other Income

Land Use Code (Optional) By detailing the land use code you are able to apply varying escalation rates to each revenue item. If you neglect to enter the category code (eg "RS"), escalations will not be applied. Unlike items in the 'Sales' section, the Land Use Code does not calculate commissions on items in the 'Other Income' section.

Amount and **Start** and **Span** (Mandatory) For each revenue item it is mandatory to input:

- The number of units (e.g sqm) and base rate per unit (e.g $/sqm), and
- The start and span periods.

If any of the above are entered as zero (0), then the program will not include the revenue in the cash flow.

GST/VAT (Optional) Select "Y" or "A", "B", or "C" in the GST/VAT column if the revenue is GST/VAT inclusive and the developer or JV will pay a percentage of the revenue as a tax liability.

6.7.3.14 Manual Cash Flow Inputs

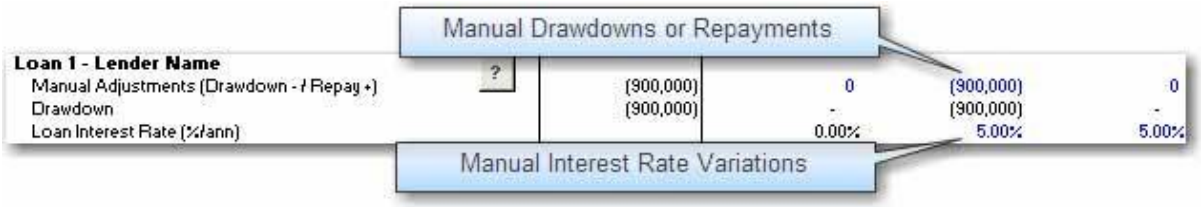
The Cash Flow sheet gives you the opportunity to manually input amounts in a cash flow table for the following items:

- **All Project Revenues and Costs:** This is covered in more detail in the Development Management section.
- **Financing:** Such as adjustments for equity and debt drawdowns and repayments and interest rates variations for the loan facilities.
- **Discount Rate Variations**

Financing

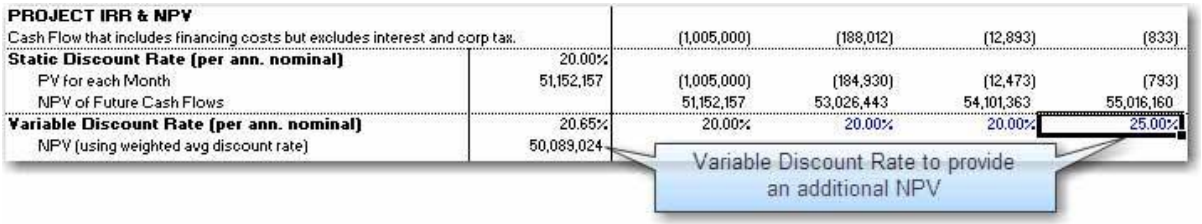
Manual input rows are readily available in the Financing component of the Cash Flow sheet to make adjustments to the following:

- Equity injections (positive) and repayments (negative).
- Debt drawdowns (negative) and repayments (positive) for Loans 1, 2 and 3.
- Periodic interest rate variations for Loans 1, 2, 3 and the Senior Loan.



Discount Rate

At the bottom of the Cash Flow sheet, there is provision to have a variable discount rate throughout the life of the cash flow.



- The discount rate that was entered in the Hurdle Rates input section is known as the **'Static Discount Rate'** and that will form the basis of all IRR and NPV calculations on other reports, such as the Summary, Sensitivity and Probability reports. In addition, it will also be used to report the following in the Cash Flow:
  - The Present Value (PV) of net cash flow for each time period.
  - The Net Present Value (NPV) of all future cash flows at each time period.
- The Static Discount Rate then forms the starting point for the **'Variable Discount Rate'** inputs, where the user can manually adjust the discount rate up or down to reflect different levels of risk at different points in time in the project. Using the Variable Discount Rates entered by the user, a weighted average discount rate is calculated, and then it is used to calculate an NPV.

6.7.3.15 Taxes & Duties

It is recommended that the user regularly checks their relevant Statutory Revenue Office for recent changes to taxes and duties. Estate Master has inbuilt Stamp Duty and Land Tax calculators based on tables for different regions that can be easily updated by the user when required.

Please Note: The software does not automatically update these table when the rates/thresholds change - this is the responsibility of the user to manually maintain.

Updating the Stamp Duty and Land Tax Tables

1. Click on the 'Taxes & Duties' worksheet tab.
2. There will be tables for each region. Each table has the following columns:
   - **Rating Land Value Thresholds:** The upper value of the dutiable land value range.

- **Tax Amount:** The fee that is payable in addition to the rate.
- **Rate:** The percentage marginal rate on the dutiable value of land.

Stamp Duty Example

Say Stamp Duty is calculated as per the following rates:

- $0 - $14,000: $1.25 for every $100 or part of the dutiable value
- $14,001 - $30,000 $175 plus $1.50 for every $100 or part , by which the dutiable value exceeds $14,000
- $30,001 - $80,000 $415 plus $1.75 for every $100 or part, by which the dutiable value exceeds $30,000
- $80,001 - $300,000 $1,290 plus $3.50 for every $100 or part, by which the dutiable value exceeds $80,000
- $300,001 - $1m $8,990 plus $4.50 for every $100 or part, by which the dutiable value exceeds $300,000
- over $1m $40,490 plus $5.50 for every $100 or part, by which the dutiable value exceeds $1,000,000

Rating Land Value Thresholds			Tax Amount	Rate
0	to	14,000	0	1.25%
14,001	to	30,000	175	1.50%
30,001	to	80,000	415	1.75%
80,001	to	300,000	1,290	3.50%
300,001	to	1,000,000	8,990	4.50%
1,000,001		and above	40,490	5.50%

Land Tax Example

If there is a tax free threshold - this is indicated by entering '0"s in the first row of a land tax table.

- Example: This year a $368,000 threshold will apply to owners of liable land. The land tax rate will be $100 plus 1.6% on the combined value of all taxable land in excess of $368,000.

Rating Land Value Thresholds			Tax Amount	Rate
0	to	368,000	0	0.00%
368,001	to	2,250,000	100	1.60%
2,250,001		and above	30,212	2.00%

If there is no tax free threshold - this is usually indicated by entering only a % rate in the first row of a land tax table.

- Example: There is no threshold for land tax this year. Taxable land is assessed at the following rates:
  - Not more than $75,000: 0.6%
  - Between $75,001 and $150,000: $450 plus 0.89% on the taxable value that exceeds $75,000
  - Between $150,001 and $275,000: $1,118 plus 1.15% on the taxable value that exceeds $150,000
  - More than $275,001: $2,555 plus 1.4% on the taxable value that exceeds $275,000 Rating Land Value

Rating Land Value Thresholds			Tax Amount	Rate
0	to	75,000	0	0.60%
75,001	to	150,000	450	0.89%
150,001	to	275,000	1,118	1.15%
275,001		and above	2,555	1.40%

6.7.3.16 S-Curves

The S-Curve tables are based on cumulative cost and cumulative time.

For example, in using the default S-Curve in the model (see S-Curve 1 below), and construction occurs over 10 months, then it would assume that after 10% of the cumulative time (or 1 month over a 10 month span), 5% of the cumulative costs should have been drawn down (paid) in the cash flow to date. After 20% (or 2 months over a 10 month span), 11% of the cumulative costs should have been drawn down, comprising of the 5% after one month and an additional 6%, and so on.

To show a cost drawdown that is skewed towards the earlier months of a span (more is paid earlier or quicker) ensure that the %'s increase earlier (see S-Curve 2 below).

Time	S-Curve 1	S-Curve 2
0.00%	0.00%	0.00%
2.00%	1.00%	1.00%
4.00%	2.00%	3.00%
6.00%	3.00%	4.00%
8.00%	4.00%	6.00%
10.00%	5.00%	10.00%
12.00%	6.10%	15.10%
14.00%	7.25%	17.25%
16.00%	8.50%	18.50%
18.00%	9.75%	19.75%
20.00%	11.00%	24.00%
22.00%	12.25%	.25%
24	13.50%	

S-Curve 1 is using the default profile in the model, while S-Curve 2 has been adjusted to increase the payment of costs earlier in the time span

6.7.3.17 Set Original Budget

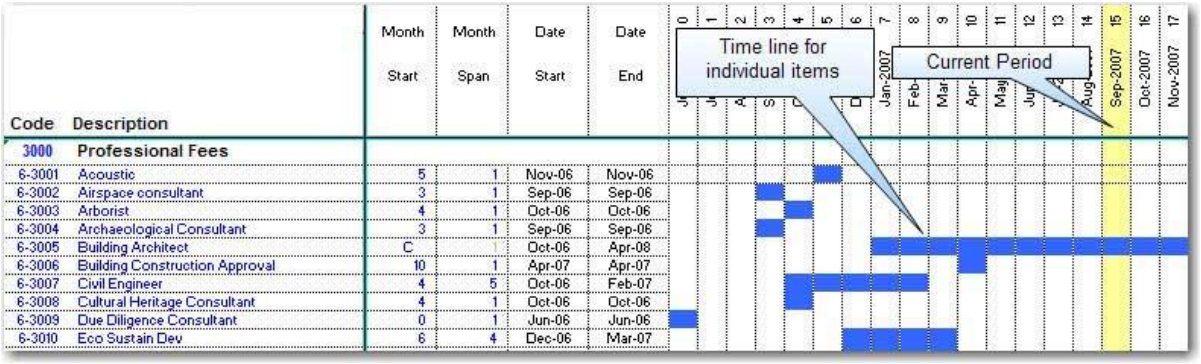
At the end of the manually inputting data you have the option to set the Original Budget. You may alternatively wish to conduct a review before you set the Original Budget. Once your satisfied that the input data and results are correct you can save your Original Budget by clicking on the 'Set as Original Budget' function in the 'Management Tools'.

This sets the current forecast, net cash flow and the performance indicators as the Original Budget.

6.7.3.18 Project Timeline (Gantt Chart)

The Cash Flow sheet can be toggled between the dynamic Gantt chart and Inputs by clicking on the 'Show Gantt'  button on the Ribbon Menu.

It provides a project timeline based on the timings in the 'Input Assumptions' and the manual inputs in the detailed cash flow. Transforming the Cash Flow into a Gantt Chart, hides all input columns, except for the period starts and spans, allowing the user to easily manipulate the timing and staging of the cash flow.



Code	Description	Month Start	Month Span	Date Start	Date End
3000	Professional Fees				
6-3001	Acoustic	5	1	Nov-06	Nov-06
6-3002	Airspace consultant	3	1	Sep-06	Sep-06
6-3003	Arborist	4	1	Oct-06	Oct-06
6-3004	Archaeological Consultant	3	1	Sep-06	Sep-06
6-3005	Building Architect	C	1	Oct-06	Apr-08
6-3006	Building Construction Approval	10	1	Apr-07	Apr-07
6-3007	Civil Engineer	4	5	Oct-06	Feb-07
6-3008	Cultural Heritage Consultant	4	1	Oct-06	Oct-06
6-3009	Due Diligence Consultant	0	1	Jun-06	Jun-06
6-3010	Eco Sustain Dev	6	4	Dec-06	Mar-07

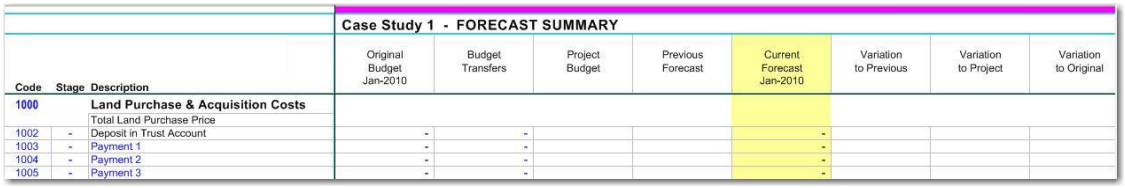
While in 'Gantt Chart' mode, the detailed cash flow section of the 'Cash Flow' sheet is locked and no manual inputs can be made other than in the period starts and spans.

Once time adjustments have been made, the user can revert back to the main Inputs by clicking on the 'Show Inputs'  button on the Ribbon Menu.

6.7.4 Forecast Summary

The 'Forecast Summary' section (Purple Section) of the 'Cash Flow' sheet details:

- All the forecasts that have been stored and their relative variations.
- The actual cost to date and what amounts are forecast to complete.
- Budget Transfers, Commitments and Accruals (all optional) inputs.



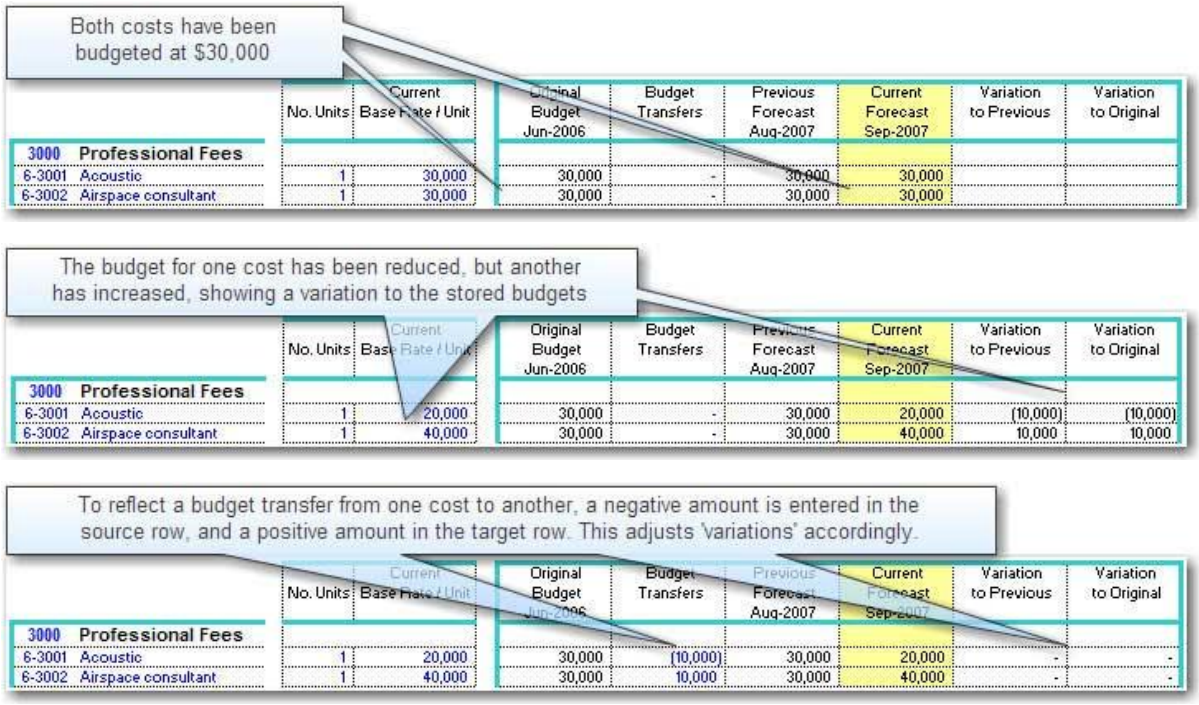
			Case Study 1 - FORECAST SUMMARY							
Code	Stage	Description	Original Budget Jan-2010	Budget Transfers	Project Budget	Previous Forecast	Current Forecast Jan-2010	Variation to Previous	Variation to Project	Variation to Original
1000		Land Purchase & Acquisition Costs								
		Total Land Purchase Price								
1002	-	Deposit in Trust Account	-	-			-			
1003	-	Payment 1	-	-			-			
1004	-	Payment 2	-	-			-			
1005	-	Payment 3	-	-			-			

Budget Transfers

This feature allows you to transfer an amount from one input section/row (by indicating a negative transfer amount) to another section/row on the 'Cash Flow' sheet (by indicating a positive transfer amount). These +/- amounts offset any variations that may deceptive.

Budget Transfer Example

Say there are two cost items that were original budgeted at $30,000, but a saving on one cost is required to be used to fund an overrun of another cost.



		No. Units	Current Base Rate / Unit	Original Budget Jun-2006	Budget Transfers	Previous Forecast Aug-2007	Current Forecast Sep-2007	Variation to Previous	Variation to Original
3000	**Professional Fees**								
6-3001	Acoustic	1	30,000	30,000	-	30,000	30,000		
6-3002	Airspace consultant	1	30,000	30,000	-	30,000	30,000		

		No. Units	Current Base Rate / Unit	Original Budget Jun-2006	Budget Transfers	Previous Forecast Aug-2007	Current Forecast Sep-2007	Variation to Previous	Variation to Original
3000	**Professional Fees**								
6-3001	Acoustic	1	20,000	30,000	-	30,000	20,000	(10,000)	(10,000)
6-3002	Airspace consultant	1	40,000	30,000	-	30,000	40,000	10,000	10,000

		No. Units	Current Base Rate / Unit	Original Budget Jun-2006	Budget Transfers	Previous Forecast Aug-2007	Current Forecast Sep-2007	Variation to Previous	Variation to Original
3000	**Professional Fees**								
6-3001	Acoustic	1	20,000	30,000	(10,000)	30,000	20,000	-	-
6-3002	Airspace consultant	1	40,000	30,000	10,000	30,000	40,000	-	-

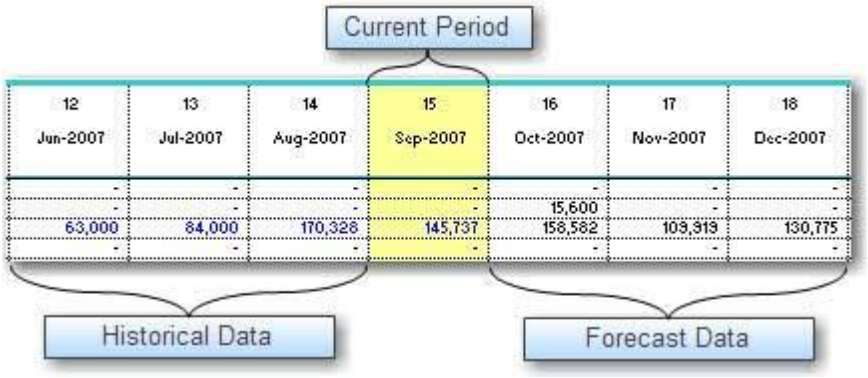
Commitments and Accruals

- **Funds Committed:** This feature allows the user to input any costs or revenues that may not have been paid or received yet but are entirely committed to. Warnings can be set via the Estate Master Preferences to alert the user if the Commitments entered by the user exceed the 'Current Forecast' or 'Forecast to Complete' amounts.
- **Accruals:** This feature allows the user to take into account accrued as well as actual expenses and revenue during the relevant accounting period. Entering an Accrual will adjust the 'Total Cost to Date' and 'Forecast to Complete' columns.

		Current Forecast Sep-2007	Funds Committed	Current Month Cost Sep-2007	Actual Cost to Date Sep-2007	Accruals	Total Costs to Date	Forecast to Complete
3000	**Professional Fees**							
6-3001	Archaeological Consultant	45,600	10,000	-	30,000	5,000	35,000	10,600
6-3002	Building Architect	1,400,000	700,000	145,737	687,064	-	687,064	712,936

6.7.5 Detailed Cash Flow

The detailed 'Cash Flow' section (Light Blue/Aqua Section) is initially generated by the data entered in the 'Input Assumptions' section.



Yellow Column

Indicates what the **current period** is.

- The current period can be manually overridden with updated actual expenditure and revenue.
- The future periods can be manually overridden with updated forecasted expenditure and revenue.
- Anything to the left of the current period is 'historical data' and can be locked from editing by setting the 'Cash Flow History Override' option to 'Disallow' in the Estate Master Preferences.
- As the user progresses through the project life using the 'Roll-Forward' feature (or 'Roll Back'), the Yellow Column will adjust accordingly to reflect the new current period.

Black Font

Indicates a cash flow cell contains the default formula and is being generated by the 'Input Assumptions'.

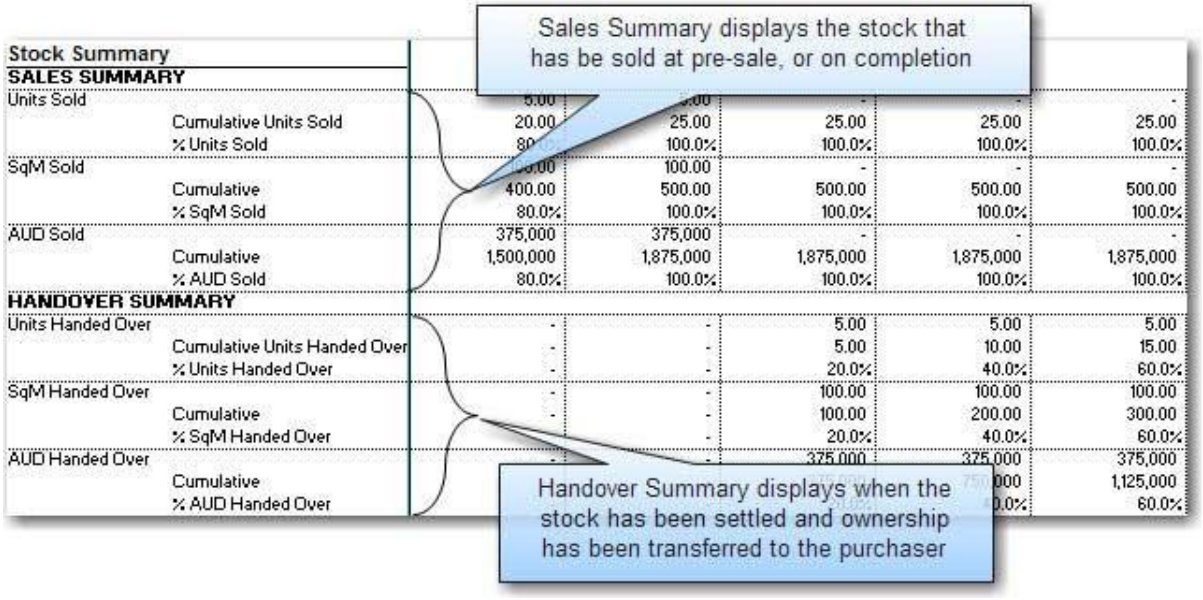
Blue Font

Indicates a cash flow cell is in 'Manual Input Mode' or that a default formula has been overridden in the cash flow. If a default formula has been overridden, then the 'Input Assumptions' for that line item become invalid for the relative cells.

6.7.6 Stock Summary

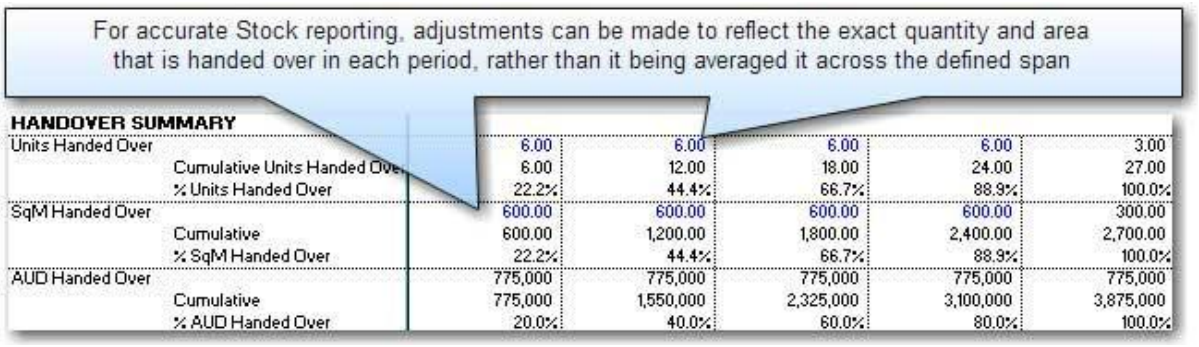
The Stock Summary is located on the Cash Flow sheet between the Detailed Cash Flow and the Cash Flow Summary. It reports on stock that has been 'Sold' and 'Handed Over' via the revenue inputs from the Sales section and the Capitalised Sales calculated from the Rental Income section.

- Stock is **'Sold'** at the defined 'Pre-Sale Exchange' date for a sale item, or if no pre-sale is nominated, then at the defined 'Settlement' date.
- Stock is **'Handed Over'** at the defined 'Settlement' date for a sale item.



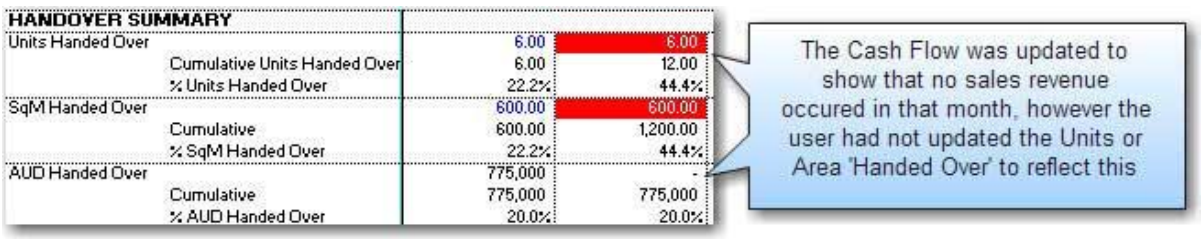
Stock Summary						
SALES SUMMARY						
Units Sold		5.00	[illegible]	-	-	-
	Cumulative Units Sold	20.00	25.00	25.00	25.00	25.00
	% Units Sold	80	100.0%	100.0%	100.0%	100.0%
SqM Sold		[illegible].00	100.00	-	-	-
	Cumulative	400.00	500.00	500.00	500.00	500.00
	% SqM Sold	80.0%	100.0%	100.0%	100.0%	100.0%
AUD Sold		375,000	375,000	-	-	-
	Cumulative	1,500,000	1,875,000	1,875,000	1,875,000	1,875,000
	% AUD Sold	80.0%	100.0%	100.0%	100.0%	100.0%
HANDOVER SUMMARY						
Units Handed Over		-	-	5.00	5.00	5.00
	Cumulative Units Handed Over	-	-	5.00	10.00	15.00
	% Units Handed Over	-	-	20.0%	40.0%	60.0%
SqM Handed Over		-	-	100.00	100.00	100.00
	Cumulative	-	-	100.00	200.00	300.00
	% SqM Handed Over	-	-	20.0%	40.0%	60.0%
AUD Handed Over		-	-	375,000	375,000	375,000
	Cumulative			[illegible]000	[illegible]000	1,125,000
	% AUD Handed Over			[illegible].0%	[illegible].0%	60.0%

In Estate Master DM, the user is able to make manual adjustments to the Units and Area Handed Over, as forecasted revenue in the Cash Flow is updated with actual revenue. When the user makes a manual adjustment in either of these two lines and the default formula is override, the font will turn blue, and the balance will be automatically apportioned over the remaining span.



HANDOVER SUMMARY						
Units Handed Over		6.00	6.00	6.00	6.00	3.00
	Cumulative Units Handed Over	6.00	12.00	18.00	24.00	27.00
	% Units Handed Over	22.2%	44.4%	66.7%	88.9%	100.0%
SqM Handed Over		600.00	600.00	600.00	600.00	300.00
	Cumulative	600.00	1,200.00	1,800.00	2,400.00	2,700.00
	% SqM Handed Over	22.2%	44.4%	66.7%	88.9%	100.0%
AUD Handed Over		775,000	775,000	775,000	775,000	775,000
	Cumulative	775,000	1,550,000	2,325,000	3,100,000	3,875,000
	% AUD Handed Over	20.0%	40.0%	60.0%	80.0%	100.0%

If the Cash Flow was updated to reflect that a forecasted sale had not occurred (i.e revenue was zeroed out in that month on the Cash Flow), then the user will need to be aware that the Handover Summary will need to be manually updated to reflect nothing was handed over (i.e Quantity and Area Handed Over should be set to zero), as highlighted by the red warnings.

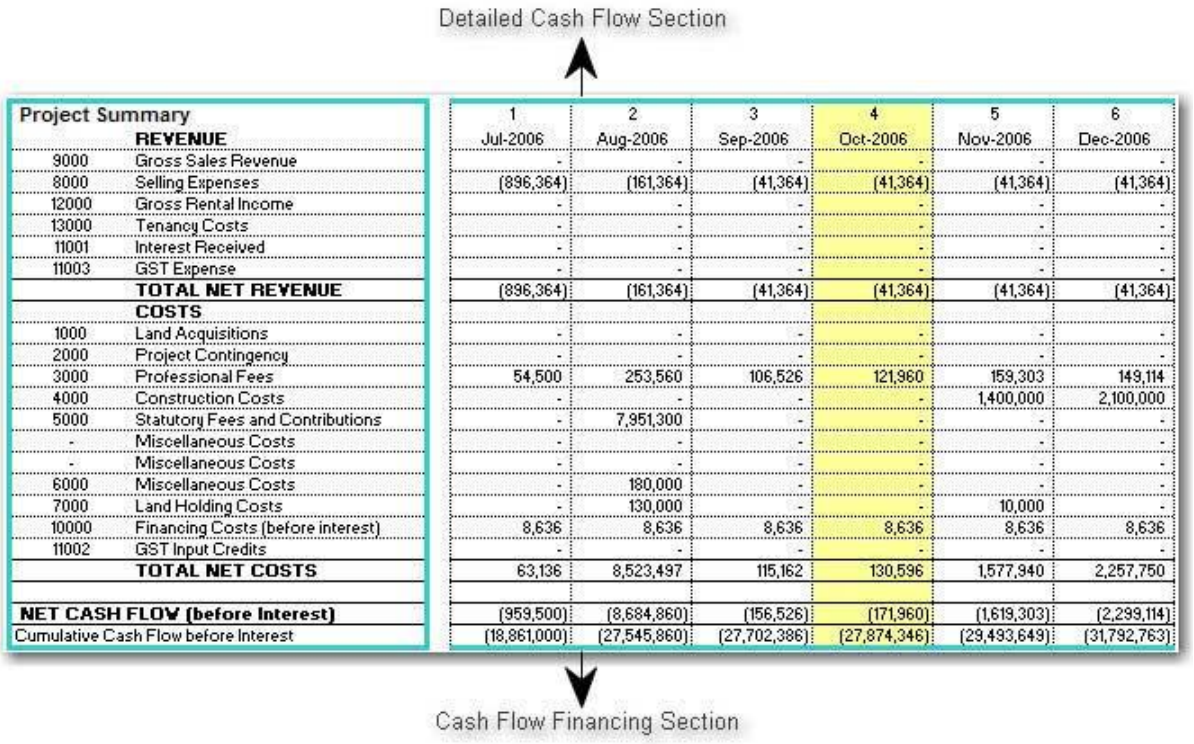


HANDOVER SUMMARY			
Units Handed Over		6.00	6.00
	Cumulative Units Handed Over	6.00	12.00
	% Units Handed Over	22.2%	44.4%
SqM Handed Over		600.00	600.00
	Cumulative	600.00	1,200.00
	% SqM Handed Over	22.2%	44.4%
AUD Handed Over		775,000	-
	Cumulative	775,000	775,000
	% AUD Handed Over	20.0%	20.0%

6.7.7 Project Cash Flow Summary

The 'Project Cash Flow Summary' section is situated at the bottom of the 'Cash Flow' and summarises the detailed project costs and revenue cash flow above (excluding interest) and provides a summary of the various forecasts stored.

No inputs are available in this section.



Project Summary		1	2	3	4	5	6
	REVENUE	Jul-2006	Aug-2006	Sep-2006	Oct-2006	Nov-2006	Dec-2006
9000	Gross Sales Revenue	-	-	-	-	-	-
8000	Selling Expenses	(896,364)	(161,364)	(41,364)	(41,364)	(41,364)	(41,364)
12000	Gross Rental Income	-	-	-	-	-	-
13000	Tenancy Costs	-	-	-	-	-	-
11001	Interest Received	-	-	-	-	-	-
11003	GST Expense	-	-	-	-	-	-
	TOTAL NET REVENUE	(896,364)	(161,364)	(41,364)	(41,364)	(41,364)	(41,364)
	COSTS						
1000	Land Acquisitions	-	-	-	-	-	-
2000	Project Contingency	-	-	-	-	-	-
3000	Professional Fees	54,500	253,560	106,526	121,960	159,303	149,114
4000	Construction Costs	-	-	-	-	1,400,000	2,100,000
5000	Statutory Fees and Contributions	-	7,951,300	-	-	-	-
-	Miscellaneous Costs	-	-	-	-	-	-
-	Miscellaneous Costs	-	-	-	-	-	-
6000	Miscellaneous Costs	-	180,000	-	-	-	-
7000	Land Holding Costs	-	130,000	-	-	10,000	-
10000	Financing Costs (before interest)	8,636	8,636	8,636	8,636	8,636	8,636
11002	GST Input Credits	-	-	-	-	-	-
	TOTAL NET COSTS	63,136	8,523,497	115,162	130,596	1,577,940	2,257,750
NET CASH FLOW (before Interest)		(959,500)	(8,684,860)	(156,526)	(171,960)	(1,619,303)	(2,299,114)
Cumulative Cash Flow before Interest		(18,861,000)	(27,545,860)	(27,702,386)	(27,874,346)	(29,493,649)	(31,792,763)

6.7.8 Financing

The 'Financing' section is located below the 'Project Summary' and is used to manage the various sources of equity and debt funding. In this section the user can:

- Manually stage equity injections.
- Make manual repayments of Loans 1, 2 and 3.
- Vary the interest rates for Loans 1, 2, 3 and the Senior Loan.
- Manually enter line fees or interest earned/paid on any of the equity or debt sources.

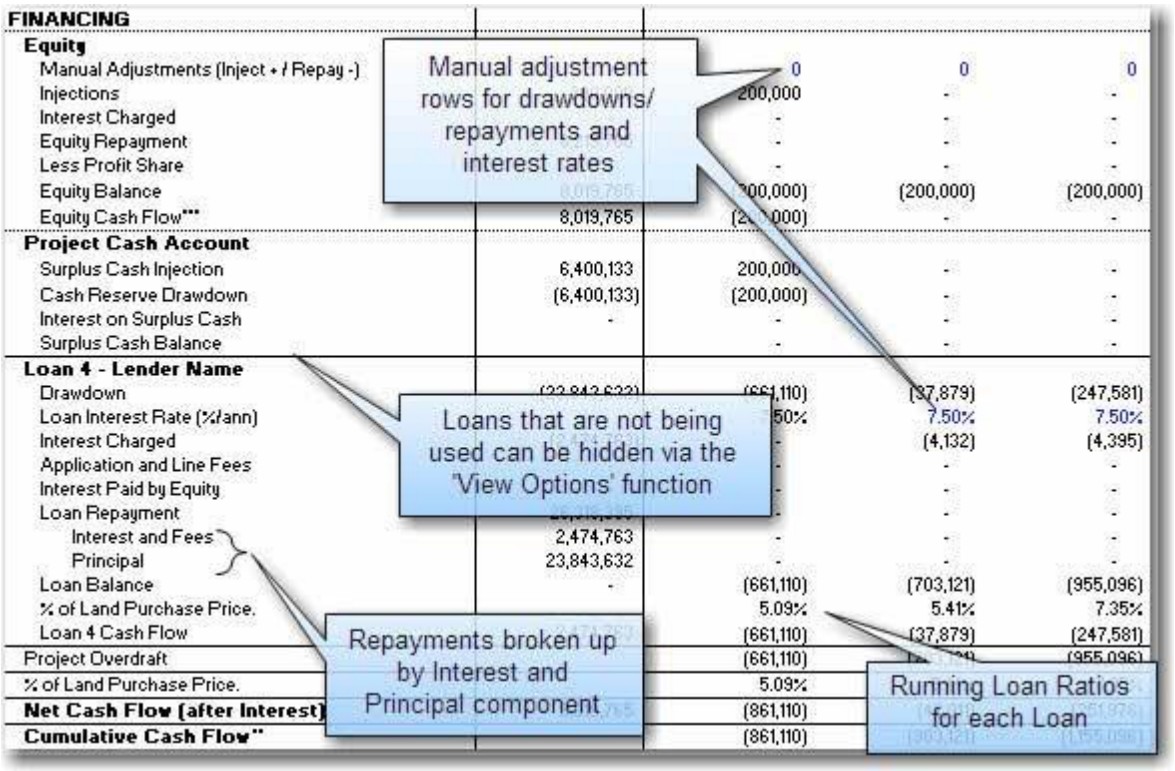
- View the cash flows for each financier, used as the basis for calculating their IRR.

  Lender Cash Flow = Drawdowns + Interest Paid by Equity + Loan Repayments + Profit Share

- View the Interest Coverage and Debt Service Ratios.

  Interest Coverage Ratio = Total Net Revenue / (Interest Charged - Interest Paid by Equity + Application and Line Fees)

  Debt Service Ratio = Total Net Revenue / Loan Repayments



Part

7 Updating Forecasts with Actuals

Once the Original Budget has been set, either through importing a feasibility from an Estate Master DF file, manual entry or a hybrid, the project can then be tracked over time. Project tracking is entering the historical costs and revenues at the end of each time period (rest period) and re-forecasting future costs and revenues.

In order to successfully track your project, it is imperative that:

1. You are familiarised with the 'Cash Flow' sheet and its components.

   Cash Flow Components:
   - Cash Flow Tools
   - Input Assumptions
   - Forecast Summary
   - Detailed Cash Flow
   - Stock Summary
   - Project Cash Flow Summary
   - Financing

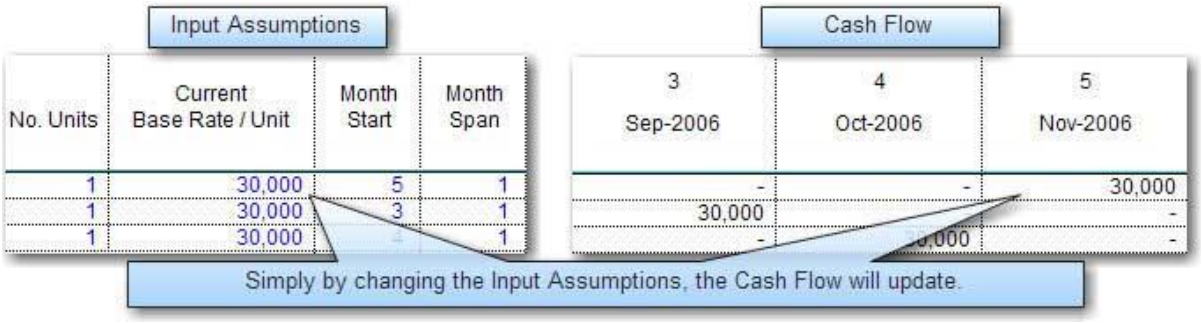
2. You understand the different methods of updating forecasts with actuals

   There are three ways to enter costs and revenues to track your project in the Cash Flow sheet. A combination of methods may be used:

   Updating Forecasts with Actuals:
   - Method 1: Updating Input Assumptions
   - Method 2: Manually override Cash Flow
   - Method 3: Import Accounts Data

7.1 Method 1 - Updating Input Assumptions

This is the basic method of managing costs and revenues and it involves adjusting the 'Input Assumptions' on the 'Cash Flow' sheet.



This method adjusts the detailed cash flow out to the right of the assumptions, as long as both of the following conditions are met:

1. That the Current Period (yellow highlighted column in Cash Flow) has not surpassed the entire nominated duration of the line item (Start plus Span).

   For example, if the Current Month is 12, and a line item has a Start of 6 and Span of 4 (starting in period 6 and ending in period 9), then adjusting the amount for that item will have no impact of the cash flow as it is deemed to be in the past. However, if the line item had a start of 10 and span of 4 (starting in period 10 and ending in period 13), then adjusting the amount will impact on the Current and future time periods that are remaining in relation to the Current Month (i.e. period 12 and 13).

2. That the cash flow period that the Input Assumptions are intending to change have not been overridden by the user.

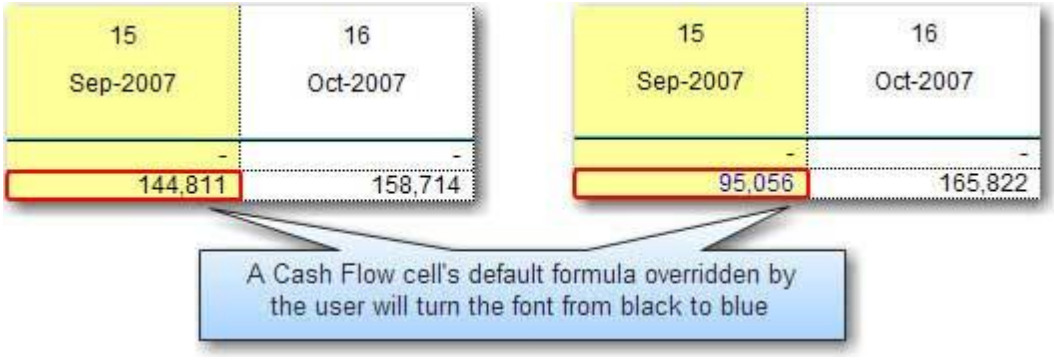
   For example, if a line item has a start of 6 and span of 4 (starting in period 6 and ending in period 9), and the user has overridden the amounts generated by the default formulae in the cash flow for period 6 and 7, then any change in the Input Assumptions will have no impact on the overridden cells.

This method can be used in conjunction with any of the following methods, for example:

- A user may be manually overriding items in the Current Period (yellow column) in the cash flow with actual costs, while utilising the 'Input Assumptions' to accurately forecast revenue in the future using $/dwelling over a desired start and span.
- A user may be manually entering sales revenue in the cash flow, however allowing the 'Setup' and 'Input Assumptions' section to calculate the sales commission and GST payable on those sales by way of default percentage inputs.

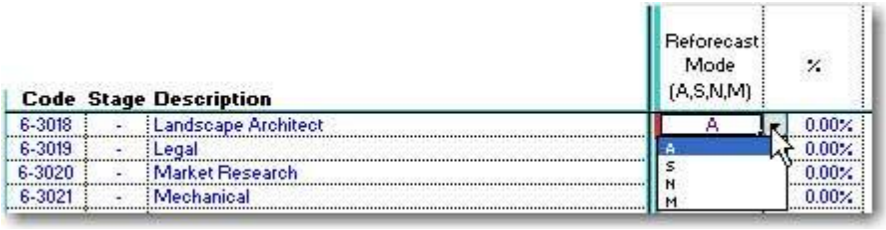
7.2 Method 2 - Manually Override Cash Flow

The detailed cash flow that is generated by the 'Input Assumptions' may be manually overridden by the user. Once a cash flow cell has been overridden, it turns from a black to blue font to differentiate it.

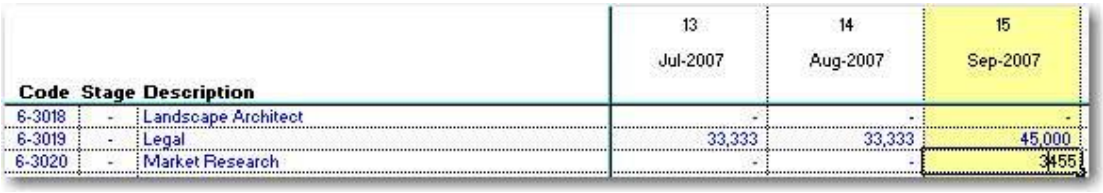


When manually overriding the Cash Flow, follow this process:

1. For each line item where necessary, set the 'Reforecast Mode' to the desired type:
   - Please Note: Enter **'M'** only if you wish to manually enter the data for an entire cost or revenue line item (thus not requiring the Input Assumptions to generate the cash flow for that item). In this instance the Input Assumptions for that cost or revenue are disabled and the cash flow for that item is reset. The cash flow for that line item is displayed in blue font, indicating that the default formulas are not being used and data must be entered directly in the cash flow by the user by way of manually overriding the cash flow cells.

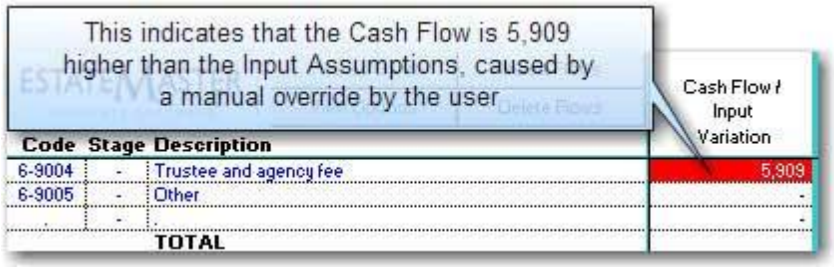


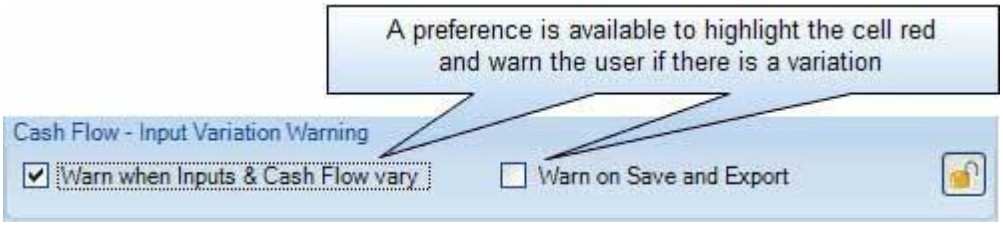
2. The yellow column in the 'Cash Flow' sheet is the Current Period. Input the actual costs and revenues for the current time period in this column.



3. Re-calculate the model if is prompted.

4. Check rows for a 'Cash Flow/Input Variation'. This happens where the manual overrides do not equate to the 'Input Assumptions'. You can go to the 'Input Assumptions' of the 'Cash Flow' sheet and readjust them, however it is not vital, because as you start to track a project, costs, revenues and timings are likely to change from their initial forecasts anyway.





5. Cells that remain with blue font indicate that the manual override is different to what was forecasted by the 'Input Assumptions', while cells that remain with black font indicate that they are equal to the 'Input Assumptions'.

Reforecast Function

When a forecast (cash flow formula) has been overridden, manual inputs may automatically re-forecast other sections of the cash flow, as summarised below:

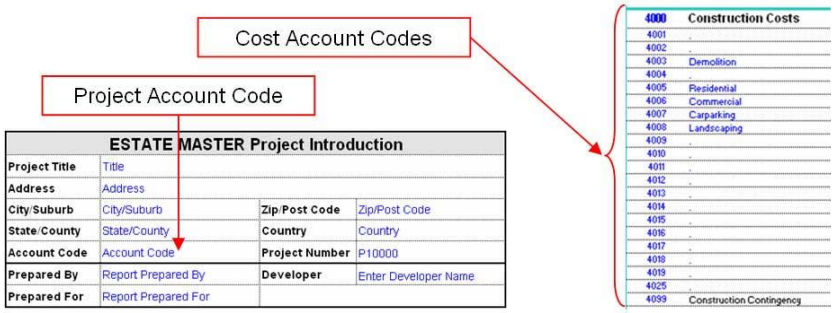
Manual Cash Flow inputs in the sections below ↓ may automatically reforecast the cash flow items to the right →.	Land Acquisition Costs	Professional Fees	Development Management Fee	Miscellaneous Costs	Project Contingency	Sales Commissions	Selling Costs	Leasing Costs	GST/VAT Reclaims	GST/VAT/Sales Tax Liabilities
Land Payments	✓	✓						✓		
Land Acquisition Costs		✓						✓		
Professional Fees		✓		✓				✓		
Development Management Fee								✓		
Construction Costs	✓	✓	✓	✓				✓		
Statutory Fees		✓		✓				✓		
Miscellaneous Costs		✓		✓				✓		
Land Holding Costs		✓						✓		
Project Contingency		✓						✓		
Sales Commissions		✓	✓					✓		
Selling Costs		✓	✓					✓		
Leasing Costs								✓		
Sales Revenue		✓	✓		✓	✓			✓	
Capitalised Sales		✓				✓			✓	
Rental Income							✓		✓	
Other Income									✓	
Finance Costs								✓		

*Only applicable if cost/revenue is a percentage of other item, ie Miscellaneous Cost entered as a % of Construction.

7.3 Method 3 - Import Accounts Data

Rather than manually typing in actual expenditure and revenue data into the Cash Flow table for each line item every month as they occur, there is the ability to automate this process by importing data from your accounts system into the cash flow table against the related cost or revenue. This is done by building a one-for-one relationship between each cash flow line item to the data from your accounting system via two sets of codes:

1. **Project Account Code** (Intro sheet): The code allocated for the entire project or stage that is modeled in the cash flow.
2. **Costs Account Codes** for each individual cost and revenue line item (Cash Flow sheet). These codes:
   - Can be alpha-numeric.
   - Must be unique (no two cash flow lines can have the same cost code allocated to it).
   - Cannot be a formula (these input cells are formatted as 'text' to allow greater flexibility of code conventions, and therefore do not allow formulas to be entered in them).

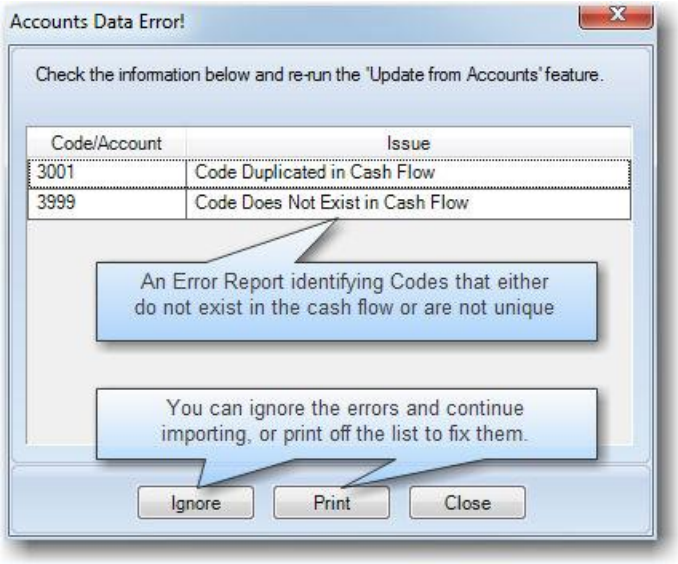


How it works

These codes must be evident in both the accounting system and the Estate Master DM model. If these codes have not been setup correctly in either system, there is no way a relationship can be made and data will not be imported into the cash flow.

If the unique 'Project Account Code' or any of the 'Cost Account Codes' in the 'Cash Flow' sheet do not match your Estate Master DM file or there are duplicate account codes in the ‘Input Assumptions’, then no data will be updated and a printable error report will be shown allowing the user to make any corrections. There is also the option to ignore these errors and continuing on importing data for all the other valid cost codes.

If all codes are compatible, the program will replace all formulas in the current time periods with the actuals derived from the accounts and the user can then print any reports for the current period, and roll forward to the next time period when ready.



If the user is updating accounts for more than one time period at any single time (more than one column of actuals) the model will sort the data to make sure it has been updated in chronological order, replace all formulas in the matching time periods and automatically roll the cash flow forward for each time period.

Important Notes

- Only data for the 'Current Month' (as highlighted yellow in the Estate Master DM cash flow table) or future months in the Estate Master DM Cash Flow table can be updated. You can not import data for a historic month (any month before the 'Current Month') in the Estate Master DM Cash Flow table
- There is a maximum of 12 accounting period columns that can be imported at any one time.

- If multiple accounting periods are imported, and they are not subsequent periods (i.e an accounting period is skipped), then it is assumed that there were no cost or revenue transactions in the skipped period, and the Cash Flow table will set to zero for all line items in that period.
- If the first accounting period in the data to import is later than the 'Current Month', it is assumed that there were no cost or revenue transactions in the skipped period(s), and the Cash Flow table will set to zero for all line items in that period(s) as it rolls forward to the first accounting period.

Importing

There are three methods to import accounting data in the Cash Flow table:

1. **From an inserted worksheet**. If the data exists on a separate sheet in the Estate Master DM working file, it will update the cash flow with the highlighted data.
2. **From an external Excel or CSV file**. If the data exists on a separate Excel file (*.xls, *.xlsm or *.xlsx) or Comma-separated Value file (*.csv), the user will be prompted to browse to that file and the data will be imported.
3. **From MYOB AccountRight**. If the user uses MYOB AccountRight for their accounting, then there is an inbuilt integration function to import data directly from the MYOB into the Estate Master DM cash flow table.
4. **From MYOB Exo**. If the user uses MYOB Exo for their accounting, then there is an inbuilt integration function to import data directly from the Exo database.

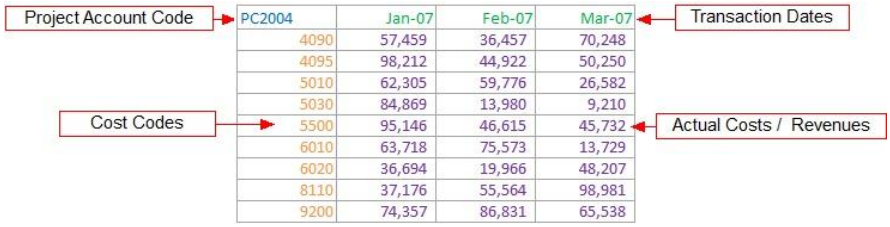
Data Import Formats

If importing data using either Method 1 (From an inserted worksheet) or Method 2 (From an external Excel or CSV file), the data must be in one of the following formats.

Pivot Table Format

- This format assumes that only data for one Project is included in that table (indicated by the single Project Account Code in the top left).
- The transaction dates must also use the same rest periods and have the same Month-Year dates as the Estate Master DM Cash Flow table.

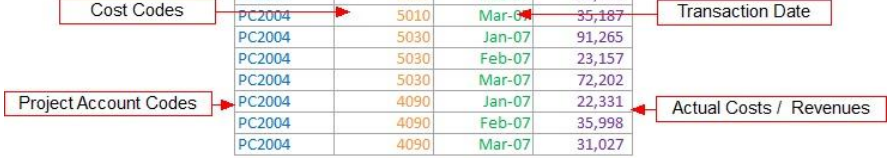
  For example, if the Estate Master DM is using 'Quarterly' rest periods and the dates on the cash flow are, 'Jan-10', 'Apr-10', 'Jul-10', etc, then the accounting data on the inserted worksheet must also be grouped in 'quarters' and have accounting periods with the same dates (i.e accounting period 'Jan-10' should contain data for Jan, Feb and Mar 2010 in the one column)



PC2004	Jan-07	Feb-07	Mar-07
4090	57,459	36,457	70,248
4095	98,212	44,922	50,250
5010	62,305	59,776	26,582
5030	84,869	13,980	9,210
5500	95,146	46,615	45,732
6010	63,718	75,573	13,729
6020	36,694	19,966	48,207
8110	37,176	55,564	98,981
9200	74,357	86,831	65,538

Standard Table Format

- This format is more flexible as data for multiple projects can exist in the table. The program will then automatically filter the data to only import data with the same Project Account Code as entered on the Intro sheet and will only import a maximum 12 months of data.
- The dates in this table can be formatted as either "DD/MM/YYYY" or "YYYYMM"
- The table must have the following columns in the order as displayed below.



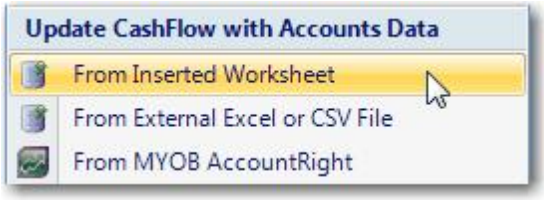
ProjectCode	CostCode	Date	Amount
PC2004	5010	Jan-07	15,951
PC2004	5010	Feb-07	80,433
PC2004	5010	Mar-07	35,187
PC2004	5030	Jan-07	91,265
PC2004	5030	Feb-07	23,157
PC2004	5030	Mar-07	72,202
PC2004	4090	Jan-07	22,331
PC2004	4090	Feb-07	35,998
PC2004	4090	Mar-07	31,027

7.3.1 Importing from an Inserted Worksheet

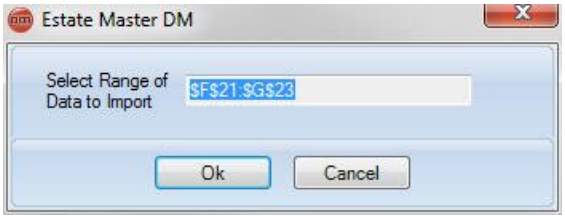
To import data from an inserted worksheet, it must be organised in one of the compatible data import formats.

To use the function:

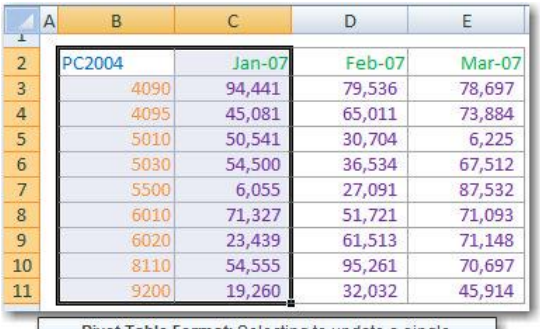
1. Go to [Management Tools] ➔ [Update Cash Flow with Accounts Data] ➔ [From Inserted Worksheet].



2. A form will appear showing the currently selected range. You can select any sheet and range of cells, and it will update to show the selected range that you intend to import.

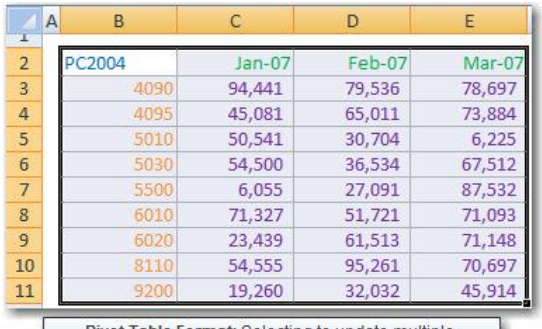


3. Go to the worksheet and highlight the cells containing the accounting data and click [OK] on the form. Up to 12 time periods of data can be imported into the Cash Flow at a time.



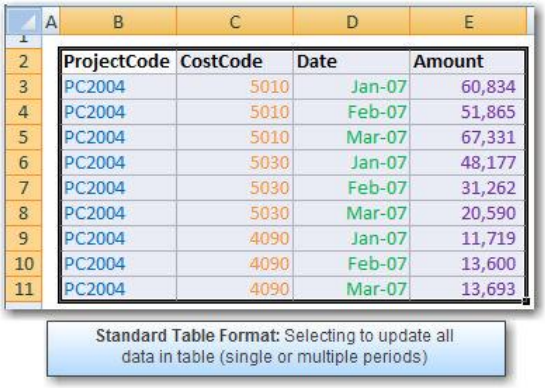
	A	B	C	D	E
2		PC2004	Jan-07	Feb-07	Mar-07
3		4090	94,441	79,536	78,697
4		4095	45,081	65,011	73,884
5		5010	50,541	30,704	6,225
6		5030	54,500	36,534	67,512
7		5500	6,055	27,091	87,532
8		6010	71,327	51,721	71,093
9		6020	23,439	61,513	71,148
10		8110	54,555	95,261	70,697
11		9200	19,260	32,032	45,914

Pivot Table Format: Selecting to update a single period of data



	A	B	C	D	E
2		PC2004	Jan-07	Feb-07	Mar-07
3		4090	94,441	79,536	78,697
4		4095	45,081	65,011	73,884
5		5010	50,541	30,704	6,225
6		5030	54,500	36,534	67,512
7		5500	6,055	27,091	87,532
8		6010	71,327	51,721	71,093
9		6020	23,439	61,513	71,148
10		8110	54,555	95,261	70,697
11		9200	19,260	32,032	45,914

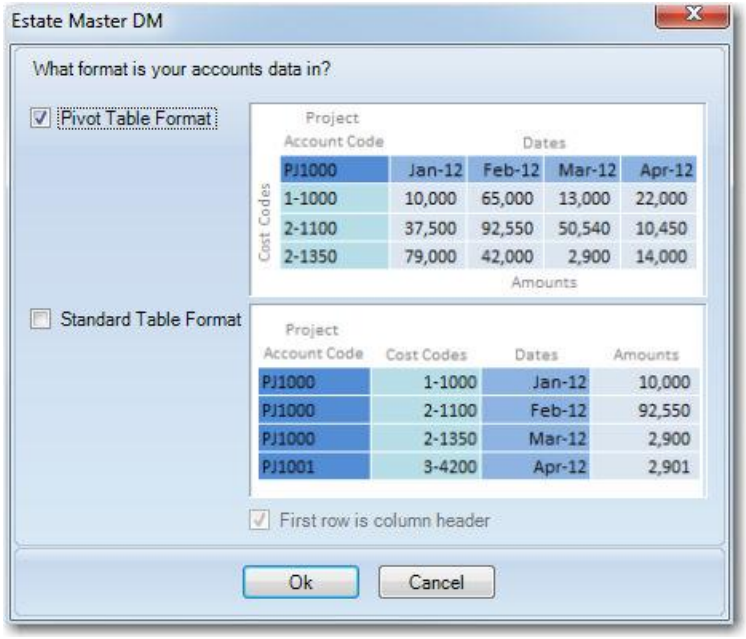
Pivot Table Format: Selecting to update multiple periods of data (max 12)



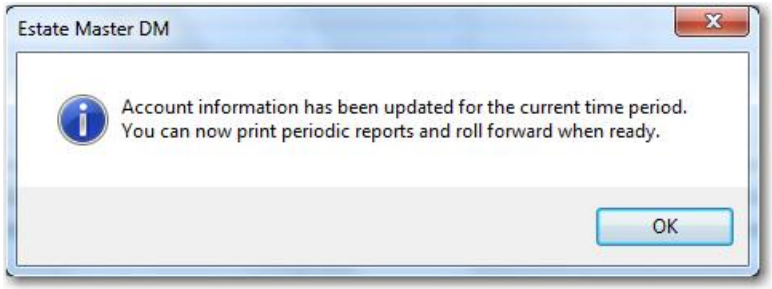
	A	B	C	D	E
2		ProjectCode	CostCode	Date	Amount
3		PC2004	5010	Jan-07	60,834
4		PC2004	5010	Feb-07	51,865
5		PC2004	5010	Mar-07	67,331
6		PC2004	5030	Jan-07	48,177
7		PC2004	5030	Feb-07	31,262
8		PC2004	5030	Mar-07	20,590
9		PC2004	4090	Jan-07	11,719
10		PC2004	4090	Feb-07	13,600
11		PC2004	4090	Mar-07	13,693

Standard Table Format: Selecting to update all data in table (single or multiple periods)

4. Select the format that the account data is in; either Pivot Table format or Standard Table format. If Standard Table format is selected, you can also indicate whether the first row of the table range you have selected are column headers (so the actual data begins in the second row) or the actual first row of data.



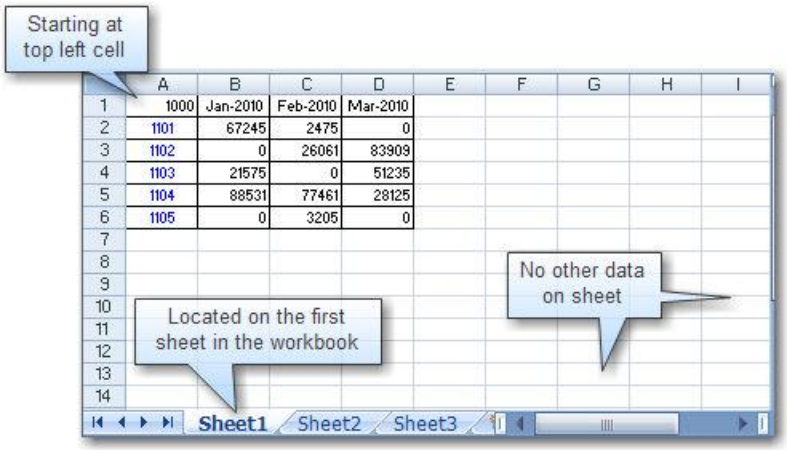
5. The data will be validated and then imported into the Cash Flow.



7.3.2 Importing from an External Excel or CSV File

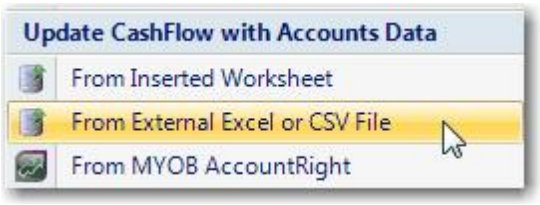
To import data from an external Excel or CSV file, it must be organised in one of the compatible data import formats, but also must follow these conditions if it is an Excel file:

1. The data must be located on the first worksheet of the Excel file starting from cell A1.
2. Only the data as per the format above must be on this worksheet – no other data can exist on this sheet, otherwise the data import will be corrupted.

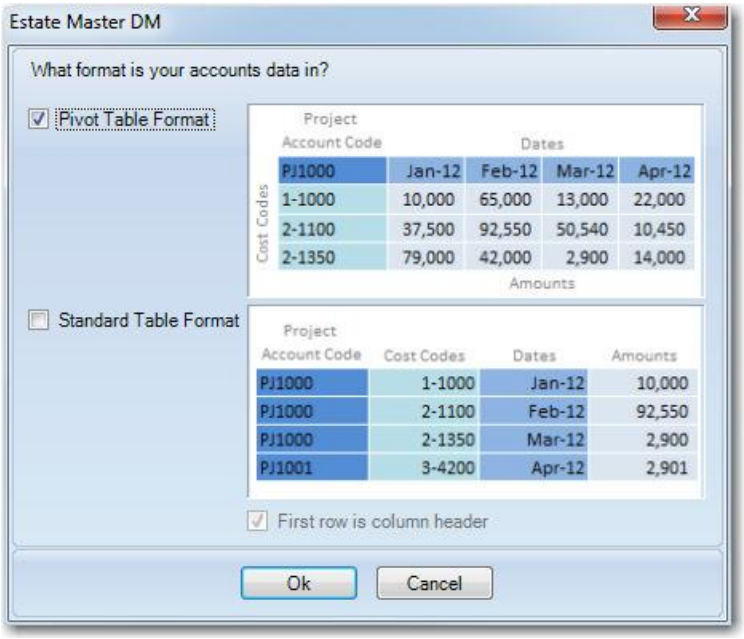


To use the function:

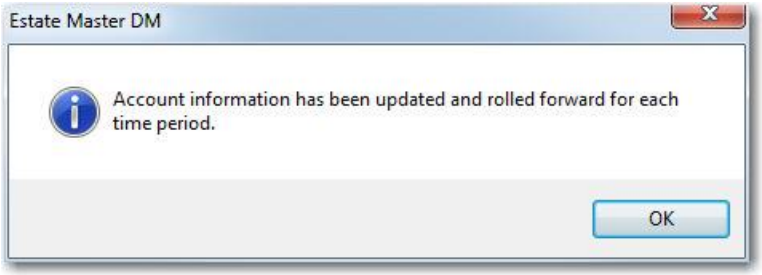
1. Go to [Management Tools] ➔ [Update Cash Flow with Accounts Data] ➔ [From External Excel or CSV File].



2. Browse to the file that contains the accounting data.
3. Select the format that the account data is in; either pivot table format or standard table format. If Standard Table format is selected, you can also indicate whether the first row of the table range you have selected are column headers (so the actual data begins in the second row) or the actual first row of data.



4. The data will be validated and then imported into the Cash Flow.



7.3.3 Importing from MYOB AccountRight

Estate Master DM is integrated with the MYOB AccountRight accounting software to allow you to import the following accounting data directly into the cash flow table:

- All 'Money Spent' and 'Money Received' transactions entered in MYOB.
- All 'Sale' (i.e Sales Invoices) and 'Purchase' (i.e. Purchase Orders) transactions entered in MYOB.

Note: Transactions entered as a General Journal type will not be imported.

Which Versions of MYOB?

The integration is compatible with the following versions of AccountRight:

- **AccountRight Classic** (ODBC-based version) up to version 19.

  Important Note: The MYOB ODBC Driver is a 32-bit Driver, and will only work with the 32-bit version of Estate Master DM. MYOB has ceased support for their ODBC driver since MYOB AccountRight 2011, as they have transitioned to their API (used by the latest versions of MYOB AccounbtRight), and therefore there is no plan by them to develop a 64-bit ODBC Driver. If you want to use the 64-bit version of Estate Master DM and integrate it with MYOB, you will need to use the latest version of AccountRight Live.

- **AccountRight Live** (Cloud API-based version).

7.3.3.1 AccountRight v19 and earlier

Earlier versions of MYOB AccountRight (v19 and earlier) relied on ODBC Drivers to allow other applications to connect to the MYOB Company Files (*.myo). If you use such version of MYOB, before being able to integrate with Estate Master DM, you will need to:

1. Register each MYOB Company File (*myo) for ODBC access. This is a requirement from MYOB, not Estate Master.
2. Ensure that the PC/Server that the Estate Master DM is installed on has the appropriate MYOB ODBC Drivers installed. The installation files for the MYOB ODBC Drivers are usually placed in the MYOB Program Files folder.
3. Ensure that all transactions need to be imported into Estate Master DM have an appropriate Job Number allocated to them in MYOB.

Registering a Company File for ODBC Access

In MYOB, information about your company's MYOB software license is held within the company data file itself. To connect Estate Master DM to your company file you must update that licence.

In order to connect Estate Master DM to MYOB, please follow the steps below:

1. Take note of the following numbers that will be required during the call:
   a. This Add-on Solution Activation Number: **3,675,725**
   b. *Your* MYOB serial number.
2. Call:

   For Australia: 1 300 555 123 or activate online at https://my.myob.com.au/Pages/ODBCActivation.aspx

   Do not enter your Serial Number into the phone when prompted by the voiceover. Select option 6 for "ODBC Direct/Premier Enterprise". You will be required to quote your MYOB

Serial Number and the Add-on Solution Activation Number

For New Zealand: 0800 60 69 62
Select the option for “Sales Assistance”. You will be required to quote the Add-on Solution Activation Number and your MYOB serial number.

For Hong Kong: 34029888
Ask the operator to connect an Add-on Solution with ODBC. You will be required to quote the Add-on Solution Activation Number and your MYOB serial number.

For Singapore: 6479 2409 **For Malaysia:** 03 8991 0166 **For areas of Asia outside the above:** +603 8991 0166
Select the option “to connect an add-on solution to MYOB”. You will be required to quote the Add-on Solution activation number and your MYOB serial number.

3. In MYOB, open the company file and login using the Administrator ID and Password. In the case of a multi-user system, you should use the ‘Single User’ option

4. Once logged in, from the ‘Setup’ menu select ‘Company Information’.

5. Choose the ‘License’ button at the bottom left of the Company Information screen.

6. Follow the onscreen instructions to update the license information held within the company file.

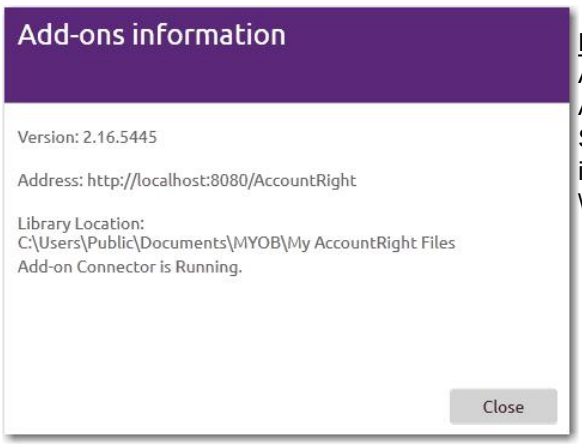
7. Once these steps have been completed, the file will be activated for your Add-on Solution and Estate Master DM will be able to integrate with your MYOB company data file.

7.3.3.2 AccountRight Live

MYOB AccountRight Live is a hybrid application, where users can operate it locally or on the cloud and relies on a common API (application programming interface) to allow other applications to connect to the MYOB Company Files, regardless where they are hosted.

If you use 'PC' or 'Server' Installation of MYOB AccountRight Live, before being able to integrate with Estate Master DM, you will need to ensure that the 'MYOB Add-On Connector' is installed and started on the machine that is hosting the Company Files. The Add-On Connector is installed with AccountRight and can be started by going to the MYOB>Add-Ons folder in the Windows Start menu. You only need to do this once - the next time you start Windows, the Add-On Connector will start automatically and appear in the Windows Taskbar

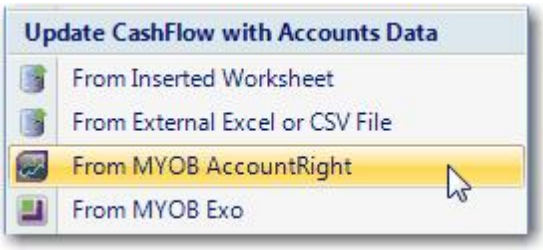
If you right-click the Add-On Connector icon and select 'Status: Running', a pop-up will appear showing the URL and the Library location where all the Company Files are hosted.



Please Note: Some of the older versions of AccountRight Live required you to manually install the Add-On Connector (previously known as the 'API Service'). To do so you can find and run the API installer executable from C:\Program Files (x86) \MYOB\AccountRight\API_Installer.

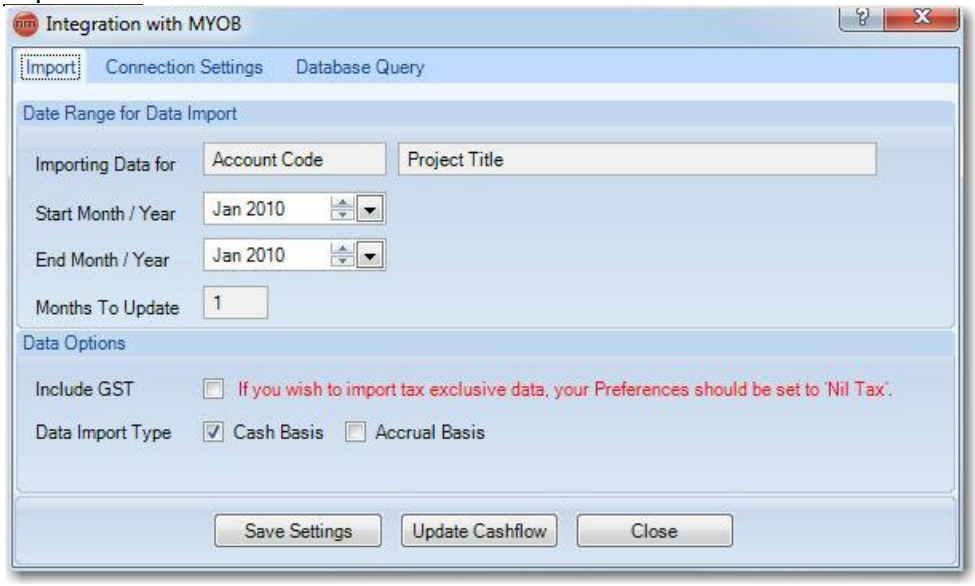
7.3.3.3 Using the Integration

1. Go to [Management Tools] ➔ [Update Cash Flow with Accounts Data] ➔ [From MYOB AccountRight].



2. The following form will then be displayed:

Import Tab



Importing Data for

Displays the Project Account Code and Project Title (as entered on the 'Intro' sheet).

The function will search the MYOB data file for all transactions between the designated start and end dates where the MYOB 'Job Number' equals the 'Project Account Code'.

Please Note: It is critical that for the function to import data successfully:

- A Job Number is assigned to all transactions in MYOB
- The Job Number in MYOB and the Project Account Code on the 'Intro' sheet match.

Start Month / Year

This is the start of the date range that you want to import transactions for from the MYO company file. By default, the 'Current Month' on the Cash Flow sheet is set as the Start Month/Year.

The start date is always the first day of the month selected (i.e. if you click on the button to select a date from the calendar popup, if you select say the 13th day of the month, that will be ignored, and the start will always be the 1st day of the month)

Please Note:

- If the rest periods in the model are set to anything other than 'Monthly', (i.e 'Quarters', 'Half-years' or 'Years'), then the 'Month' selected for the 'Start Month / Year' must correspond to one of the months displayed on the Cash Flow table. For example, if your cash flow Start Date is Nov-2010 and the rest periods are 'Quarters', then you can only select 'November', 'February', 'May' or 'August' for the 'Start Month'.

End Month / Year

This is the end of the date range that you want to import transactions for from the MYO company file. By default, the End Month/Year will be the same as Start Month/Year, indicating one months worth of data to update.

The end date is always the last day of the month selected (i.e. if you click on the  button to select a date from the calendar popup, if you select say the 13th day of the month, that will be ignored, and the end will always be the last day of the month, e.g. 30th, 31st, etc)

Please Note: The date selected for 'End Month/Year' must:

- Be equal to or greater than the date selected for 'Start Month / Year'
- Must be less than 12 'periods' after the date selected for "Start Month / Year", where periods are either 'months', 'quarters, 'half-years' or 'years', as defined in the Preferences for that model.
- If the rest periods in the model are set to anything other than 'Monthly', (i.e 'Quarters', 'Half-years' or 'Years'), then the 'Month' selected for the 'End Month / Year' must correspond to last month of each rest period. For example, if your cash flow Start Date is Nov-2010 and the rest periods are 'Quarters', the periods are 'Nov-Jan', 'Feb-Apr', May-Jul' and 'Aug-Oct', therefore you can only select 'January', 'April', 'July' or 'October' for the 'End Month'.

Periods to Update

A maximum of 12 time 'periods' can be imported at any one time, where periods are either 'months', 'quarters, 'half-years' or 'years', as defined in the Preferences for that model.

Include Tax

This checkbox allows you to decide if you want to import transactions inclusive of tax (e.g. GST, VAT or Sales Tax).

If you have selected 'Nil' as either the Taxation Format or the Tax Rate Type in the Preferences, then this option is disabled and all transactions will be imported exclusive of any tax.

Please Note:

- If you deselect this option (i.e you wish to import data excluding tax), but your Taxation Format or Tax Rate Type in Preferences are not set to 'Nil Tax', then a warning will appear for the user, as it is recommended that your model is set to 'Nil Tax' if you do not wish to import tax inclusive transactions.
- If you select this option, (i.e you wish to import data including tax), it is recommended you make sure that any tax input

credit and liability payment transactions are also imported under separate account codes so that in the Cash Flow table the tax inclusive cost and revenue will be offset by a tax input credit and liability respectively.

Data Import Type

Select if you wish to import transactions on a:

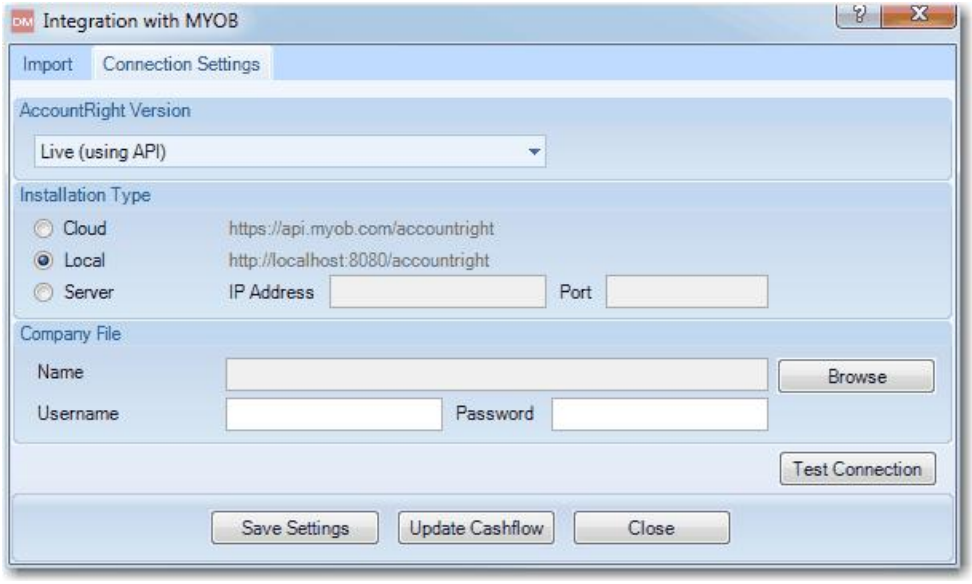
- Cash basis: Transaction basis which recognises revenue/ sales when the cash is received and costs/expenses when the cash is paid, or
- Accrual basis: Transaction basis which recognises revenue/ sales when they are invoiced to the customer (not when the cash is received) and costs/expenses when the supplier invoices are received (not when they are paid).

  ☐ This option is not recommended as Estate Master is a cash flow forecasting model. To accurately calculate funding requirements, interest expense and project performance indicators such as NPV and IRR, importing data on a cash basis is recommended.

Connection Settings Tab

This tab will change depending on what is selected for the 'AccountRight Version' option.

AccountRight Version = Live (using API)



Installation Type

MYOB AccountRight Live is a hybrid product, this means that the data can reside either on a user's computer or it can live in the MYOB Cloud, but uses a common API to connect to the data.

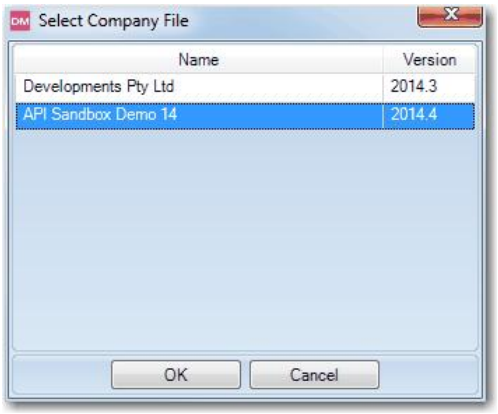
Select the type of MYOB AccountRight Live installation type you have:

- Cloud: Your Company Files reside in the MYOB Cloud.
- Local: You have a 'Client' (or PC) installation and your Company Files are stored on your local machine.
- Server: You have a 'Server' installation and host your Company

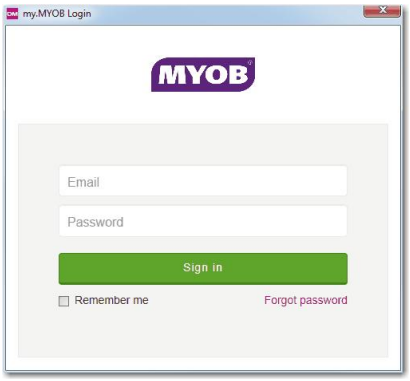
Files over a network. For this option you must indicate the IP Address of the server and Port number (default usually is 8080) for where the MYOB Server installation is located.

Company File

Click on [Browse] to browse for and select the MYOB Company File to import data from.



At this point, you also may be prompted to log onto MYOB Live to authenticate a connection.



Username

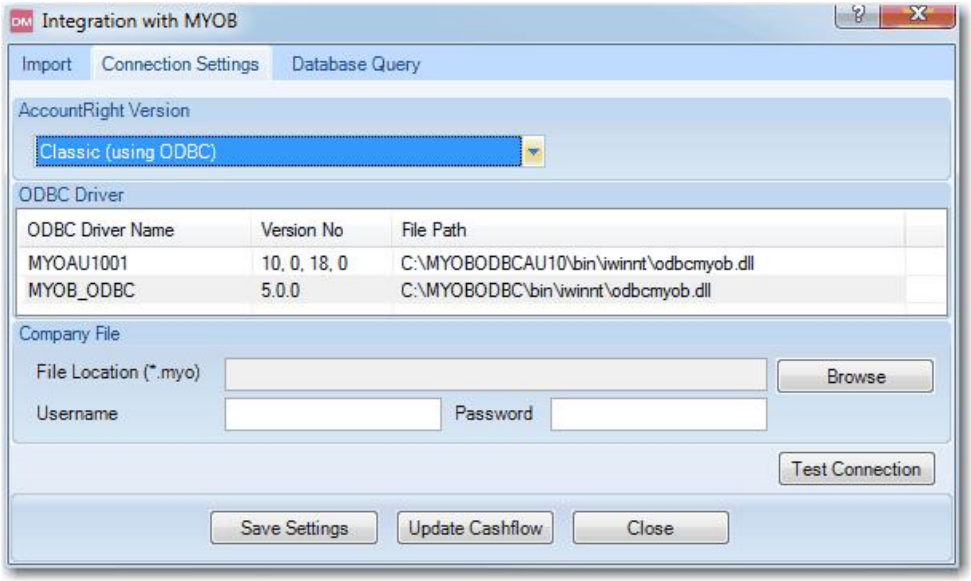
The username of the Company File

Password

The password of the Company File

The [Test Connection] button will conduct a test connection to the Company File to ensure all credentials are correct.

AccountRight Version = Classic (using ODBC)



MYOB ODBC Driver

Select the MYOB driver to use to make the connection to the MYO file. This list will display all MYOB ODBC Drivers installed on the current PC/Server.

The user must select the correct driver that matches the version of MYOB that the MYO file is compatible with.

Please Note: The version number of the ODBC driver is not necessarily the same as the MYOB Software version number.

Important Note: If this list is empty, and you are certain that the MYOB ODBC Driver has been installed, you are most likely running the 64-bit version of Estate Master DM, which is not compatible with the 32-bit MYOB ODBC Driver. MYOB has ceased support for their ODBC driver since MYOB AccountRight 2011, as they have transitioned to their API (used by the latest versions of MYOB AccounbtRight), and therefore there is no plan by them to develop a 64-bit ODBC Driver. If you want to use the 64-bit version of Estate Master DM and integrate it with MYOB, you will need to use the latest version of AccountRight Live.

File Location (*myo)

Click on [Browse] to browse for and select the MYOB Company File to import data from.

Username

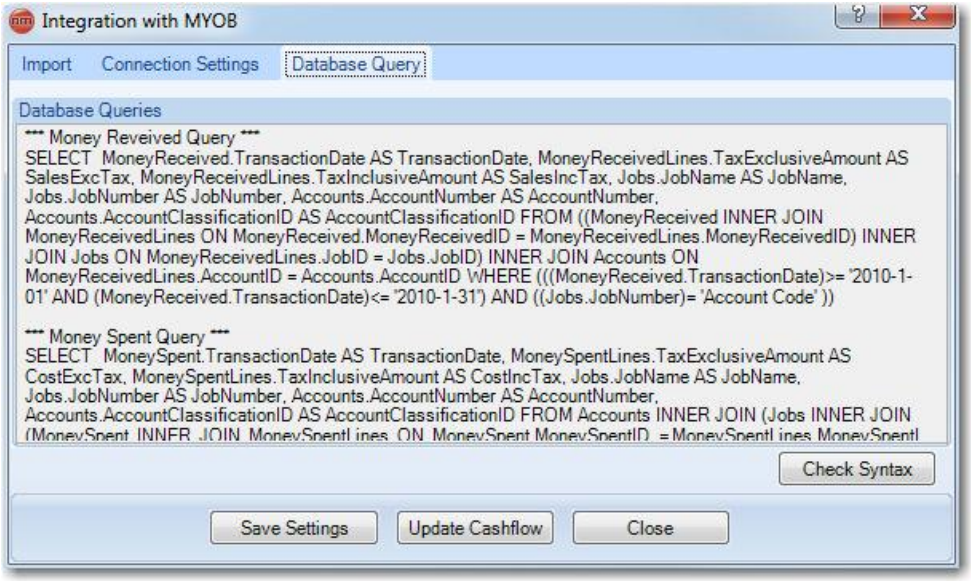
The username of the Company File

Password

The password of the Company File

The [Test Connection] button will conduct a test connection to the Company File to ensure all credentials are correct.

Database Query Tab (ODBC-based version)



This tab is only displayed if 'Classic (using ODBC)' is selected in the 'Connection Settings' tab.

Database Query

The SQL queries that are used to select the data from the MYO file.

The [Check Syntax] button will conduct a test connection to the MYO file and run the query to ensure all settings are correct.

These queries cannot be edited, but are displayed so the user can see what tables and fields in the MYOB data file are referenced. From the queries, you can see that the data is sourced from the following tables (and fields):

Table	Fields	Comments on Logic
Jobs	*JobName*	• These fields are used to ensure the selected MYO file matches the Account Number entered on the Intro sheet for the selected Project.
	JobNumber	
Accounts	*AccountNumber*	• These are essentially the cost codes that the transactions belong to. They need to match the cost codes entered in the CashFlow sheet for the selected Project.
	AccountClassificationID	• This defines what type of Account it is. Certain accounts have their transactions stored in MYOB as a negative number, so before they are imported into Estate Master DM they may need to be converted to a positive. ☐ For MoneyReceived and Sales, if the *AccountClassificationID* = "A" (Assets), "COS" (Cost of Sales) or "EXP" (Expenses) or "OEXP" (Other Expenses), the amounts need to have their polarity reversed. ☐ For MoneySpent and Purchases, if the *AccountClassificationID* = "L" (Liabilities), "I" (Income) or "OI" (Other Income), the amounts need to have their polarity reversed.
MoneyReceived	*TransactionDate*	• The *TransactionDate* value is used for both Cash and Accrual based data imports
MoneyReceivedLines	*TaxExclusiveAmount*	• The data from these two fields are used when the user has selected to either include tax on costs or revenues or not in the 'Import' tab.
	TaxInclusiveAmount	
	AccountID	• This links the transaction back to the relevant Account Number
	JobID	• This links the transaction back to the relevant Job
MoneySpent	*TransactionDate*	• The *TransactionDate* value is used for both Cash and Accrual based data imports

Table	Fields	Comments on Logic
MoneySpentLines	*TaxExclusiveAmount*	• The data from these two fields are used when the user has selected to either include tax on costs or revenues or not in the 'Import' tab.
	TaxInclusiveAmount	
	AccountID	• This links the transaction back to the relevant Account Number
	JobID	• This links the transaction back to the relevant Job
Sales	*InvoiceDate*	• The transaction date on a Cash basis is determined by the following logic: If *TotalPaid* > 0 and *OutstandingBalance* = 0 then *InvoiceDate* + *DaysTillPaid*
	DaysTillPaid	
	TotalPaid	• The transaction date on an Accrual basis is determined by the following logic: *InvoiceDate*
	OutstandingBalance	
SalesLines	*TaxExclusiveAmount*	• The data from these two fields are used when the user has selected to either include tax on costs or revenues or not in the 'Import' tab.
	TaxInclusiveAmount	
Purchases	*PurchaseDate*	• The transaction date on a Cash basis is determined by the following logic: If *TotalPaid* > 0 and *OutstandingBalance* = 0 then *PurchaseDate* + *DaysTillPaid*
	DaysTillPaid	
	TotalPaid	• The transaction date on an Accrual basis is determined by the following logic: *PurchaseDate*
	OutstandingBalance	
PurchaseLines	*TaxExclusiveAmount*	• The data from these two fields are used when the user has selected to either include tax on costs or revenues or not in the 'Import' tab.
	TaxInclusiveAmount	
JobJournalRecords	*JobID*	• This links the Sales and Purchase transactions back to the relevant Job
	AccountID	• This links the Sales and Purchase transactions back to the relevant *AccountNumber*
	SalePurchaseLineID	• This links the transaction back to the relevant SalesLines or PurcahseLines record.

7.3.4 Importing from MYOB Exo

Estate Master DM is integrated with the MYOB Exo accounting software to allow you to import the following accounting data directly into the cash flow table.

Before you can use this feature, your MYOB Exo database will need to be custom configured. Please contact Estate Master for more information about this feature.

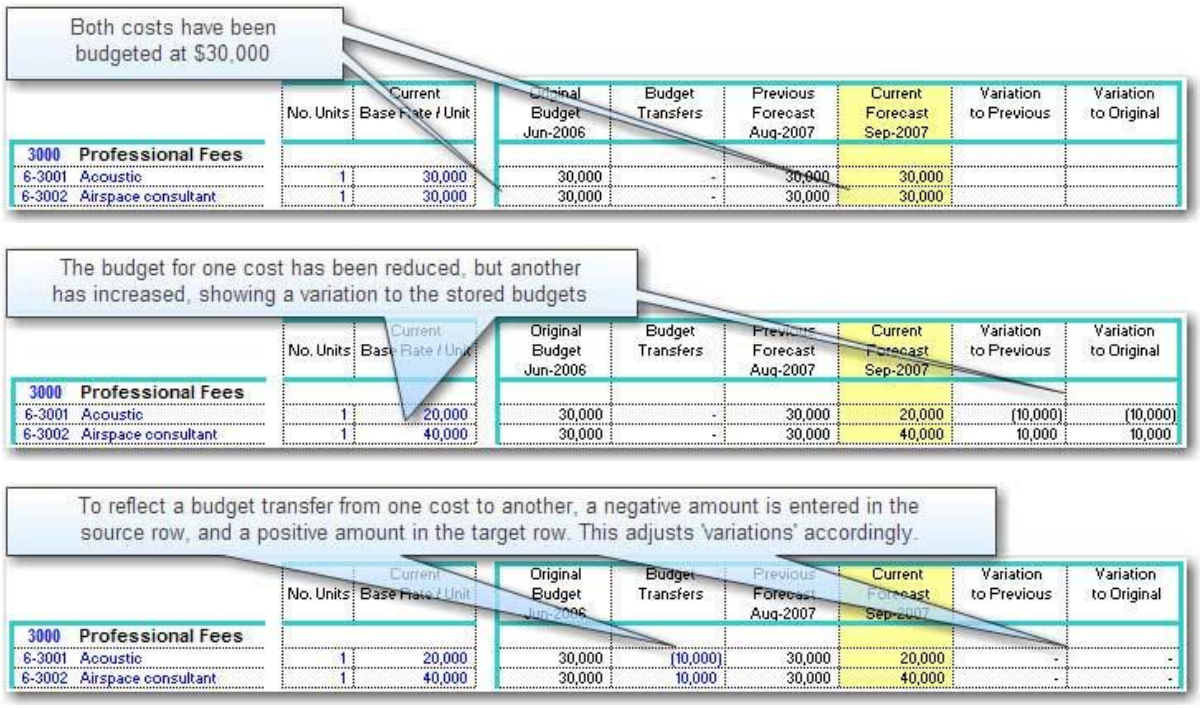
7.4 Managing Budget Transfers, Commitments and Accruals

Budget Transfers

This feature allows you to transfer an amount from one input section/row (by indicating a negative transfer amount) to another section/row on the 'Cash Flow' sheet (by indicating a positive transfer amount). These +/- amounts offset any variations that may deceptive.

Budget Transfer Example

Say there are two cost items that were original budgeted at $30,000, but a saving on one cost is required to be used to fund an overrun of another cost.



	No. Units	Current Base Rate / Unit	Original Budget Jun-2006	Budget Transfers	Previous Forecast Aug-2007	Current Forecast Sep-2007	Variation to Previous	Variation to Original
3000 Professional Fees								
6-3001 Acoustic	1	30,000	30,000	-	30,000	30,000		
6-3002 Airspace consultant	1	30,000	30,000	-	30,000	30,000		

	No. Units	Current Base Rate / Unit	Original Budget Jun-2006	Budget Transfers	Previous Forecast Aug-2007	Current Forecast Sep-2007	Variation to Previous	Variation to Original
3000 Professional Fees								
6-3001 Acoustic	1	20,000	30,000	-	30,000	20,000	(10,000)	(10,000)
6-3002 Airspace consultant	1	40,000	30,000	-	30,000	40,000	10,000	10,000

	No. Units	Current Base Rate / Unit	Original Budget Jun-2006	Budget Transfers	Previous Forecast Aug-2007	Current Forecast Sep-2007	Variation to Previous	Variation to Original
3000 Professional Fees								
6-3001 Acoustic	1	20,000	30,000	(10,000)	30,000	20,000	-	-
6-3002 Airspace consultant	1	40,000	30,000	10,000	30,000	40,000	-	-

Commitments and Accruals

- **Funds Committed:** This feature allows the user to input any costs or revenues that may not have been paid or received yet but are entirely committed to. Warnings can be set via the Estate Master Preferences to alert the user if the Commitments entered by the user exceed the 'Current Forecast' or 'Forecast to Complete' amounts.
- **Accruals:** This feature allows the user to take into account accrued as well as actual expenses and revenue during the relevant accounting period. Entering an Accrual will adjust the 'Total Cost to Date' and 'Forecast to Complete' columns.

	Current Forecast Sep-2007	Funds Committed	Current Month Cost Sep-2007	Actual Cost to Date Sep-2007	Accruals	Total Costs to Date	Forecast to Complete
3000 Professional Fees							
6-3001 Archaeological Consultant	45,600	10,000	-	30,000	5,000	35,000	10,600
6-3002 Building Architect	1,400,000	700,000	145,737	687,064	-	687,064	712,936

Part VII

8 Setting Forecasts and Progressing in Time

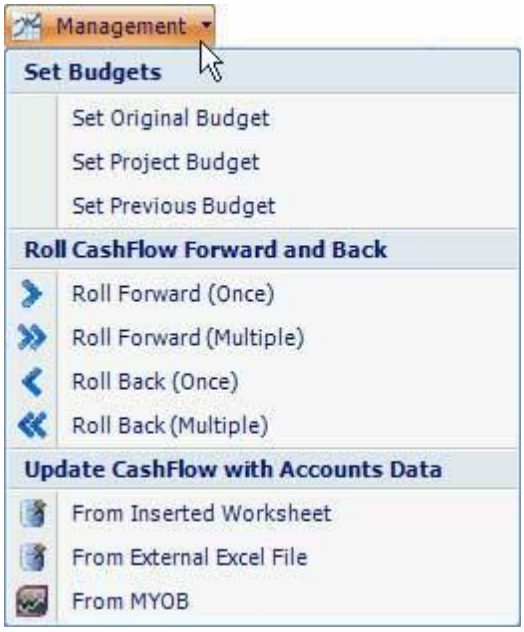
Once one of the above methods is used to update the forecast and/or actuals in the project cash flow, the user has several options in proceeding to the next time period using the 'Management Tools'

- **Setting Budgets:** The user can set the Current Forecast as either the Original, Project or Previous forecast at any time while tracking the project
- **Rolling Forward:** This is used once a user has completely entered in the actuals and updated any forecasts for the current time period and they wish to move to the next time period.
- **Rolling Back:** If an error is made when updating the cash flow with actuals and the time period in question is now historical data, then the user will have to use the 'Roll Back' feature to go back top that time period and update the data.

For more information in relation to these features, refer to the following Management Tools section.

8.1 Management Tools

The Management Tools are accessed via the Ribbon Menu. They include the following:



Original Budget

The Original Budget is the budget that is set at the beginning of the project to reflect the feasibility/ forecast that was approved to commence the project.

- **Set as Original Budget:** Store the Current Forecast as the Original Budget (eg. feasibility) on the Cash Flow, Summary and Chart reports for comparison purposes.

Project Budget

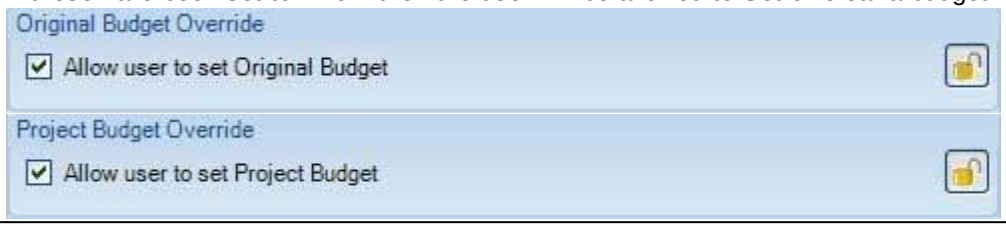
A Project Budget is a secondary budget that can be used for any purpose by the user and can be hidden if not required using the Cash Flow 'View Options'.

- **Set as Project Budget:** Store the Current Forecast as the Project Budget on the Cash Flow, Summary and Chart reports for comparison purposes.

Disabling the ability to Set or Clear Budgets

In the Estate Master Preferences, there are options to prevent the user from overriding the Original and Project Budgets.

If these have been set to 'Allow' then the user will be allowed to Set or Clear a budget.



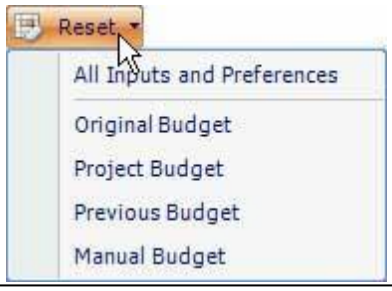
Previous Forecast

This can be set either manually in the same way as the Original Budget, or it can be set to rollover automatically via the Estate Master Preferences. The user selects the frequency of the rollover (i.e. Monthly, Quarterly, Yearly) and the time period in which it is to start. When the cash flow is then roll forward, these settings are checked to see if the storing of the Previous Forecast is triggered.

- **Set as Previous Forecast:** If 'Manual Rollover' is selected in the Estate Master Preferences, then this function allows the user to store the Current Forecast as the Previous Forecast on the Cash Flow, Summary and Chart reports for comparison purposes. If 'Manual Rollover' is not preferred, there is also an automatic feature for this tool, where the Previous Forecast is stored during the 'Roll Forward' process on a predefined basis (i.e every month, quarter, etc).

Clearing Budgets

Once a Budget has been set, it can be cleared via the Edit - Reset Inputs function in the Ribbon Menu



Roll Forward

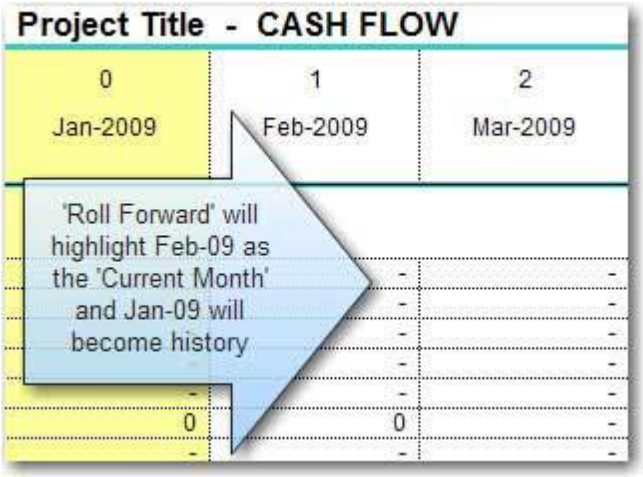
The 'Roll Forward' feature is used once a user has completely entered in the actuals and updated any forecasts for the current time period and they wish to move to the next period.

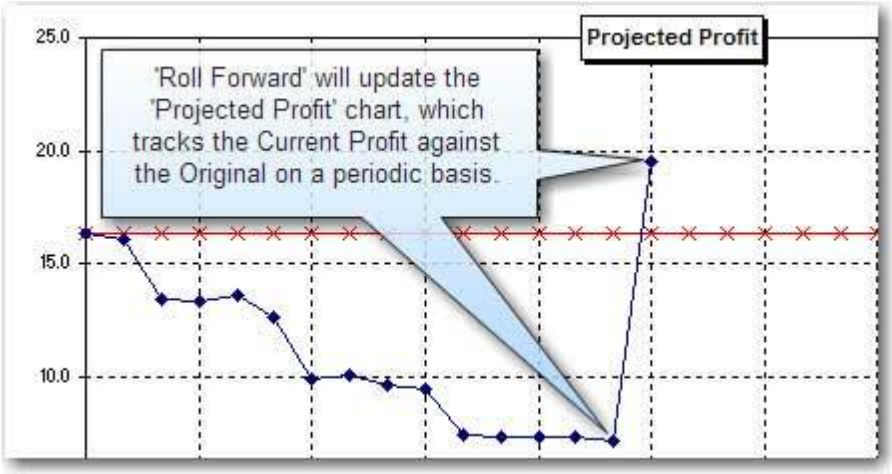
Roll Forward options in the menu include:

- **Once**: Move one time period forward.
- **Multiple:** Move multiple time periods forward.

The 'Roll Forward' procedure includes the following tasks:

- Completes a full calculation update of the model.
- Checks to see if the Previous Forecast is in 'Auto' mode and stores the Current as Previous if necessary.
- Locks the yellow column (current time period) in the detailed cash flow (if Cash Flow History Override is locked via the Estate Master Preferences).
- Moves the yellow column forward (right) one time period in the cash flow.
- Updates the 'Projected Profit' chart





Roll Back

If an error is made when updating the cash flow with actuals and the time period in question is now historical data (left of the yellow column on the detailed cash flow), then the user will have to use the 'Roll Back' feature to go back to that time period and update the data.

The 'Roll Back' funciton is basically an 'Undo' procedure for the roll forward, moving the yellow column on the cash flow one time period to the left, and also restoring any reports (such as Charts, Previous Forecast, etc) that were changed from the last Roll Forward. Roll Back is only available if Cash Flow History Override in the Estate Master Preferences is allowed.

Roll Back options in the menu include:

- **Once**: Move one time period forward.
- **Multiple:** Move multiple time periods forward.

The 'Roll Back' procedure includes the following tasks:

- Check to see if the last time period it is rolling back to has a Previous Forecast stored, and if so, reverses the procedure and rolls back to the preceding Previous Forecast.
- Prompts the user if the formulas are to be replaced in the current time period. If so, any input line that is in 'A', 'S' or 'N' 'Reforecast Mode' will have the default cash flow formula replaced in the relevant cell, while any input line that is in 'M' 'Reforecast Mode' will be left as is.
- Rolls back one time period and unlocks the previously locked cells.
- Prompts the user if the formulas are to be replaced in the new current time period.

Using the Roll Back Procedure
Please note that the 'Roll Back' feature only replaces formulas in the current and previous time period that the user is rolling back to. It does not undo any input updates or manual cash flow overrides that affected future time periods while the user was rolling forward. These stay static and the user can 'undo' them manually if they need to roll back to a time period with the cash flow exactly the way it was.

Update Cashflow with Accounts Data

This tool is used to import data into the cash flow from outputs generated by external accounting systems (see Method 3 - Import Accounts Data)

Part

9 Reviewing a Project

9.1 Tracking Performance

Tracking project performance refers to comparing the Current Forecast with Previous and Original cases. This can be achieved in various parts of the program.

Cash Flow Sheet

The 'Forecast Summary' section of the 'Cash Flow' sheet shows the Original, Previous, Project and Current Forecasts and their respective variations for each cost and revenue item. This section also indicates the actual costs to date and forecast amounts to complete.

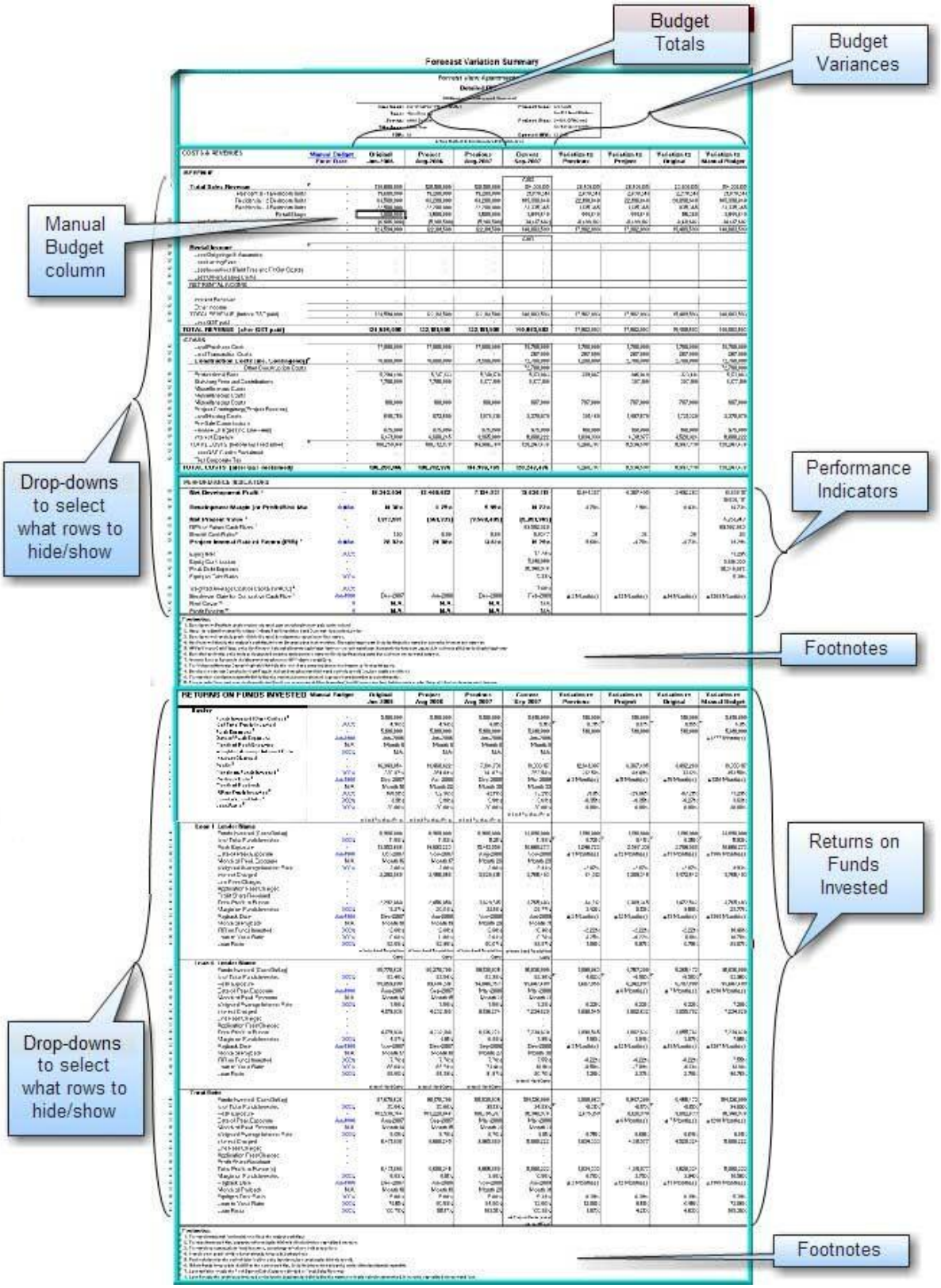
Chart Sheet

The 'Chart' sheet shows the following graphs:

- The Project Cash Flow for the Current Forecast.
- The Cumulative Net Cash Flow for all Forecasts.
- Project Profit Report, comparing the Current Margin to the Original Margin.

9.1.1 Development Finanacial Summary

The 'Summary' sheet shows a summary of costs, revenues and performance indicators.



Performance Indicators

Gross Development Profit

Total Project Revenue less Total Project Costs (after GST/VAT/ Sales Tax paid and reclaimed, but before any profit share/split has been made to either the land owner or lender at the completion of the project).

Net Development Profit

Gross Development Profit less any profit share/split to either the land owner or lenders.

Development Margin (profit/ risk margin)

The ratio of Development Profit to:

- Development Costs (inc Selling and Leasing Costs), or
- Development Costs (inc Selling Costs), or
- Development Costs (net of Selling and Leasing Costs), or
- Total Revenue net of GST/VAT/Sales Tax, or
- Total Sales Proceeds (net of Selling Costs and GST/VAT/ Sales Tax).

These options can be chosen on the 'Hurdle Rates' tab of the Estate Master Preferences.

Net Present Value

The project cash flow (excluding equity) discounted to present value at the nominated discount rate (Target IRR).

NPV of Future Cash Flows

The Net Present Value of all future cash flows from the current period (or the month the forecast was set). It excludes all historical cash flow items.

Benefit Cost Ratio

The ratio of discounted revenue to discounted costs.

Internal Rate of Return

The return on the development or the discount rate at which the NPV equals zero.

Equity IRR

The return on the developer's equity investment into the project. It is calculated from the 'Equity Cash Flow' line on the Cash Flow sheet.

It is calculated from the 'Equity Cash Flow' line on the Cash Flow sheet.

Equity Contribution

The sum of all developer equity contributions (injections) into the project.

Peak Debt Exposure

The maximum cash flow exposure after equity and including capitalised interest.

Equity to Debt Ratio

The ratio of equity funding to debt funding in the project.

Weighted Average Cost of Capital (WACC)

The rate that a company is expected to pay to finance its assets. It is based on the following formula:

$$\textbf{WACC} = \frac{D}{(D+E)} * R_D + \frac{E}{(D+E)} * R_E$$

Where:
D = Total Debt
E = Total Equity
R_D = Cost of Debt (risk free rate of return plus debt premium based on the credit rating of the company); and
R_E = Cost of Equity (required return on equity)

T_R = Corporate Tax Rate

Breakeven Date for Cumulative Cash Flow — The date the cumulative cash flow first turns positive.

Yield on Cost — Current Net Annual Rent divided by Total Costs (before GST reclaimed), including all Selling Costs.

Rent Cover — The total Net Development Profit divided by the Current Net Annual Rental expressed as a a number of years/months. It is only applicable for developments with rental income.

Profit Erosion — The period of time post practical completion that it can remain unsold (but leased out) until finance and land holding costs erodes the profit for the development to zero. It is only applicable for developments with rental income.

Return on Funds Invested

Funds Invested — The total amount of equity/debt funding injected into the project.

Peak Exposure — The maximum cash flow exposure of the equity/debt loan balance (including capitalised interest).

Weighted Average Interest Rate — The weighted average interest rate of the equity/debt facilities, weighted by the size of their loan balances.

Interest and Fees Charged — The total interest, application and line fees that have been charged by the financier to the project.

Profit Share Received — Profit share entitlements to any of the debt financiers for Loans 1, 2 and 3.

Total Profit to Funders — The total repayments less funds invested, including profit share paid or received.

Margin on Funds Invested — Margin is Total Profit to Funder divided by Funds Invested (Cash Outlay).

Payback Date — The last date when total equity/debt is repaid.

IRR on Funds Invested — The IRR of the financier's cash flow.

Refer to the Cash Flow sheet to view the cash flow data for each financier that is used to calculate their IRR.

Equity to Debt Ratio — The ratio of equity funding to debt funding in the project.

Loan to Value Ratio — Loan to Value ratio is the Peak Equity/Debt Exposure divided by Total Sales Revenue.

Loan Ratio — Loan Ratio is the total funds invested (cash outlay) divided by the nominated ratio calculation method.

Use the Finance Preferences to determine if 'funds invested' includes or excludes capitalised interest for the purposes of this calculation.

Important Notes about the calculation of IRR and NPV's

To help understand how the NPV's and IRR's are calculated, please be aware of the following:

- The 'Project' IRR is based on the project's cash flow, including inflows (revenues) and outflows (costs).
- You can choose whether financing costs, interest expenses and corporate tax are included in the project cash flow to calculate the 'Project' NPV and IRR, using the settings on the 'Hurdle Rates' tab of the Estate Master Preferences.
- It is based on the data in the 'Project IRR & NPV' section of the Cash Flow table, which summarises the cash flow lines that are included in the cash flow to calculate the Project NPV and IRR

PROJECT IRR & NPV				
Cash Flow that includes financing costs but excludes interest and corp tax.	(1,005,000)	(188,012)	(12,893)	(833)

- The 'Equity' IRR is different to the 'Project' IRR, as it looks at the return on equity contributor's cash inflows (injections) and outflows (repayments). It is based on the 'Equity Cash Flow' line in the Financing section in the Cash Flow table.

Equity Balance	(18,614,755)	(10,000,000)	(10,300,234)	(16,614,755)	(17,614,755)
Equity Cash Flow	(18,614,755)	(10,000,000)	(300,234)	(6,314,521)	(1,000,000)

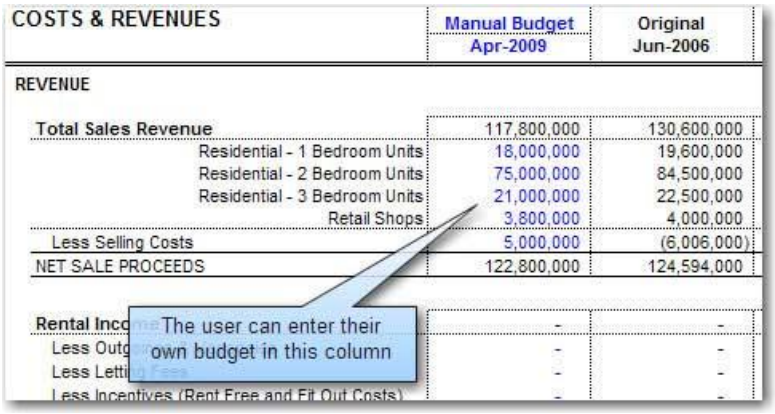
- The 'Lenders' IRR is different to the 'Project' and 'Equity' IRR, as it looks at the return on lenders cash inflows (principal and interest repayments) and outflows (drawdowns). It is based on the 'Loan x Cash Flow' line for each lender in the Financing section in the Cash Flow table.

Loan Balance	-	-	-	(7,637,835)	(8,078,131)	(8,627,104)	(12,949,192)
% of Land Purchase Price.				47.7%	50.0%	52.9%	79.4%
Profit Share	-	-	-	-	-	-	-
Loan 1 Cash Flow	8,735,158	-	-	(7,637,835)	(363,917)	(468,192)	(4,235,818)

- All these indicators use the standard 'NPV' and 'IRR' functions (not XNPV or XIRR).
- When calculating the NPV, it assumes time period zero is not discounted .
- You can choose whether all NPV's and IRR's noted above are calculated on an Effective or Nominal basis, using the settings on the 'Hurdle Rates' tab of the Estate Master Preferences.

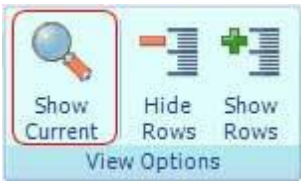
Manual Budget

In the first column of the Summary Report, there is a 'Manual Budget'. Essentially, the user can set their own name and date for the budget and enter in their own cost, revenues and performance indicators. Once a Manual Budget has been set, the 'Variance to Manual Budget' will then track the variances between the Current Forecast and this new budget.



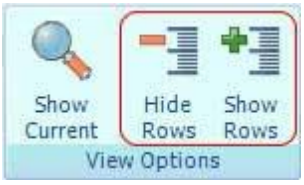
In the Estate Master Preferences, the user can hide the Manual Budget from the Summary report, and also prevent users from editing it.

Other Functions



You can change the way the Summary Report is displayed by toggling the 'Show Current/Variation' buttons:

- **Show Current:** Shows the summary and performance indicators of the Current Forecast only.
- **Show Variation:** Shows the summary and performance indicators of the Current, Previous, Project and Original cases and their variances as either as a percentage or value.



You can customise the rows that are displayed in the Summary Report:

- **Hide Rows:** This will hide the rows that have been set to 'Hide' using the dropdown lists on the left of the report.
- **Show Rows:** This will unhide all rows on the report. Any rows that were hidden will have their dropdown set back to 'Show'.

9.1.2 Cash Flow Table

Forecast Summary

This is a summary of all budgets stored in the model, and their variances to the Current Forecast. Using the 'Cash Flow Tools', you can exclude the Budget Transfers and Project Budget columns from being displayed if they are not used.

Forrest View Apartments - FORECAST SUMMARY

Original Budget Jun-2006	Budget Transfers	Project Budget Aug-2006	Previous Forecast Aug-2007	Current Forecast Sep-2007	Variation to Previous	Variation to Project	Variation to Original
2,000,000	-	2,000,000	2,215,000	2,215,000	-	215,000	215,000
900,000	-	900,000	925,000	925,000	-	25,000	25,000
1,200,000	-	1,200,000	1,150,000	1,150,000	-	(50,000)	(50,000)
100,000	-	100,000	85,670	85,670	-	(14,330)	(14,330)
100,000	-	100,000	85,630	85,630	-	(14,370)	(14,370)
100,000	-	100,000	125,800	225,800	100,000	125,800	125,800
3,000,000	-	3,000,000	3,210,000	3,210,000	-	210,000	210,000
280,000	-	280,000	280,000	280,000	-	-	-
100,000	-	100,000	100,000	-	(100,000)	(100,000)	(100,000)
-	-	-	-	-	-	-	-
7,780,000	-	7,780,000	8,177,100	8,177,100	-	397,100	397,100

In addition, the Forecast Summary displays the 'Current Period Cost', 'Costs to Date' and 'Forecast to Complete' data. Using the Estate Master Preferences, you can decide whether the current period's costs are included in the 'Cost to Date' column or remains in the 'Forecast to Complete' data.

Funds Committed	Current Month Cost Aug-2006	Actual Cost to Date Aug-2006	Accruals	Total Costs to Date	Forecast to Complete
-	738,333	738,333	-	738,333	1,476,667
-	462,500	462,500	-	462,500	462,500
-	383,333	383,333	-	383,333	766,667
-	42,835	42,835	-	42,835	42,835
-	85,630	85,630	-	85,630	-
-	-	-	-	-	225,800
-	1,605,000	1,605,000	-	1,605,000	1,605,000
-	280,000	280,000	-	280,000	-
-	-	-	-	-	-
-	-	-	-	-	-
-	3,597,632	3,597,632	-	3,597,632	4,579,468

The Forecast Summary report can be printed in either Full Detail (each cost and revenue line item) or Summary format. There are also several other reports than can be generated from data in this section using the Print Menu:

- **Original Budget Variance Report:** Prints a report that shows only line items that have an variance to the Original budget, collapsing all other line items.
- **Project Budget Variance Report:** Prints a report that shows only line items that have an variance to the Project budget, collapsing all other line items.
- **Previous Budget Variance Report:** Prints a report that shows only line items that have an variance to the Previous budget, collapsing all other line items.

Detailed Cash Flow

This is the full periodic cash flow for all costs and revenues. There are several options to chose from when printing this report via the Print Menu:

- **Full Cash Flow:** Prints this report for each cost and revenue line item.
- **Cash Flow + Current Forecast:** This is a full cash flow report, with the Current Forecast as the first column in the report.
- **Cash Flow + Forecast Summary:** This is a full cash flow report, with the Forecast Summary section as the first set of columns in the report.

Forrest View Apartments - CASH FLOW

0 Jun-2006	1 Jul-2006	2 Aug-2006	3 Sep-2006	4 Oct-2006	5 Nov-2006	6 Dec-2006
-	-	-	-	-	-	-
-	-	-	33,333	33,333	33,333	33,333
1,500	1,500	-	5,000	-	7,000	-
-	-	-	-	-	5,000	5,000
-	-	-	6,000	2,000	-	7,333
-	-	-	-	-	3,500	3,500
-	-	-	-	5,000	5,000	5,000
-	-	-	-	6,000	6,000	6,000
-	30,000	-	-	-	-	-
-	-	12,000	-	9,000	9,000	-
-	-	5,000	-	-	-	-

Cash Flow Summary

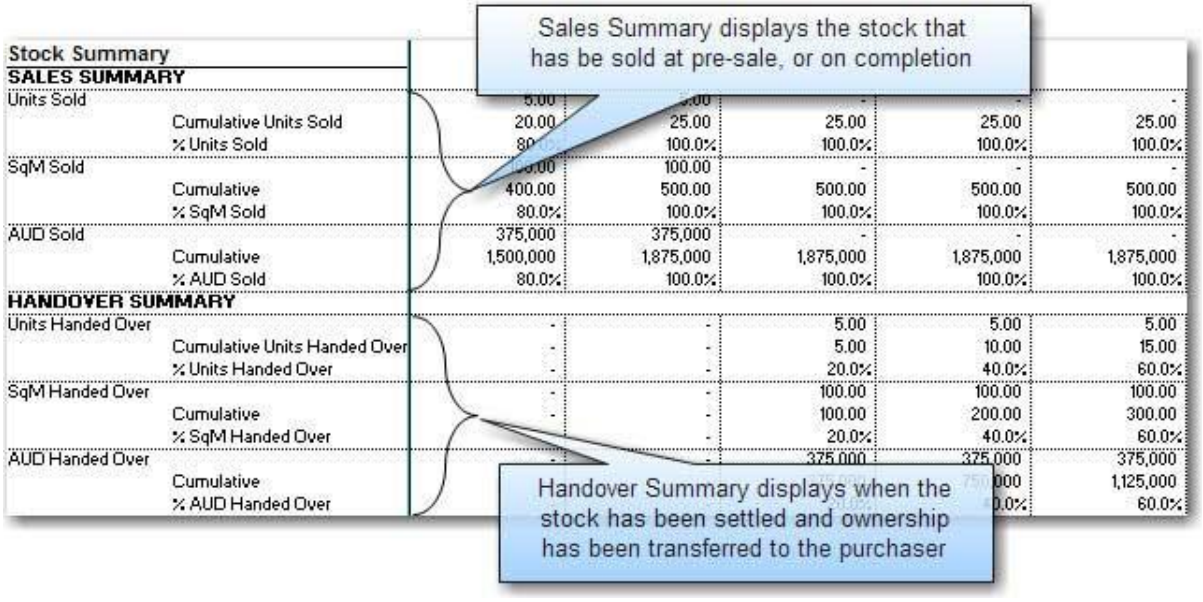
This is a summary version of the full cash flow report.

Project Summary					
REVENUE					
9000	Gross Sales Revenue	-	-	-	-
8000	Selling Costs	-	(896,364)	(161,364)	(41,364)
12000	Gross Rental Income	-	-	-	-
13000	Leasing Costs	-	-	-	-
9100	Other Income	-	-	-	-
11001	Interest Received	-	-	-	-
11003	GST Expense	-	-	-	-
	TOTAL NET REVENUE	-	(896,364)	(161,364)	(41,364)
COSTS					
1000	Land and Acquisition	17,000,000	-	-	-
2000	Project Contingency (Reserve)	-	-	-	-
3000	Professional Fees	121,500	54,500	253,560	106,526
4000	Construction Costs (inc Contingency)	-	-	-	-
5000	Statutory Fees and Contributions	-	-	7,951,300	-
-	Miscellaneous Costs	-	-	-	-
-	Miscellaneous Costs	-	-	-	-
6000	Miscellaneous Costs	-	-	180,000	-
7000	Land Holding Costs	-	-	130,000	-
10000	Financing Costs (exc Fees)	780,000	8,636	8,636	8,636
0	Pre-Sale Commissions	-	-	-	-
11002	GST Input Credits	-	-	-	-
	TOTAL NET COSTS	17,901,500	63,136	8,523,497	115,162
Net Cash Flow (before Interest & Corporate Tax)		(17,901,500)	(959,500)	(8,684,860)	(156,526)
Cumulative Cash Flow		(17,901,500)	(18,861,000)	(27,545,860)	(27,702,386)
Corporate Tax		-	-	-	-
Net Cash Flow (before Interest & after Corporate Tax)		(17,901,500)	(959,500)	(8,684,860)	(156,526)
Cumulative Cash Flow		(17,901,500)	(18,861,000)	(27,545,860)	(27,702,386)

Stock Summary

The Stock Summary is located on the Cash Flow sheet between the Detailed Cash Flow and the Cash Flow Summary. It reports on stock that has been 'Sold' and 'Handed Over' via the revenue inputs from the Sales section and the Capitalised Sales calculated from the Rental Income section.

- Stock is **'Sold'** at the defined 'Pre-Sale Exchange' date for a sale item, or if no pre-sale is nominated, then at the defined 'Settlement' date.
- Stock is **'Handed Over'** at the defined 'Settlement' date for a sale item.

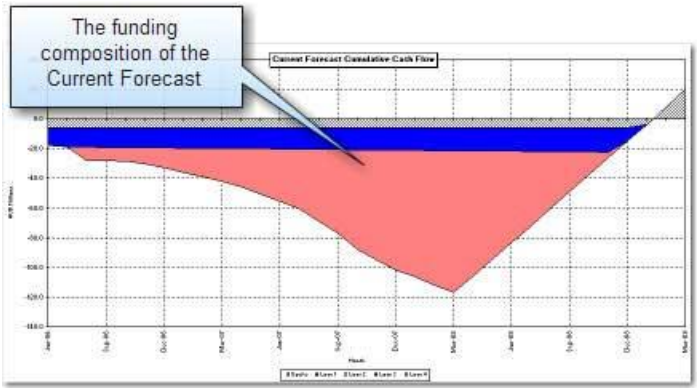


Stock Summary						
SALES SUMMARY						
Units Sold		5.00	5.00	-	-	-
	Cumulative Units Sold	20.00	25.00	25.00	25.00	25.00
	% Units Sold	80.0%	100.0%	100.0%	100.0%	100.0%
SqM Sold		100.00	100.00	-	-	-
	Cumulative	400.00	500.00	500.00	500.00	500.00
	% SqM Sold	80.0%	100.0%	100.0%	100.0%	100.0%
AUD Sold		375,000	375,000	-	-	-
	Cumulative	1,500,000	1,875,000	1,875,000	1,875,000	1,875,000
	% AUD Sold	80.0%	100.0%	100.0%	100.0%	100.0%
HANDOVER SUMMARY						
Units Handed Over		-	-	5.00	5.00	5.00
	Cumulative Units Handed Over	-	-	5.00	10.00	15.00
	% Units Handed Over	-	-	20.0%	40.0%	60.0%
SqM Handed Over		-	-	100.00	100.00	100.00
	Cumulative	-	-	100.00	200.00	300.00
	% SqM Handed Over	-	-	20.0%	40.0%	60.0%
AUD Handed Over		-	-	375,000	375,000	375,000
	Cumulative				000	1,125,000
	% AUD Handed Over				0.0%	60.0%

9.1.3 Cash Flow Charts

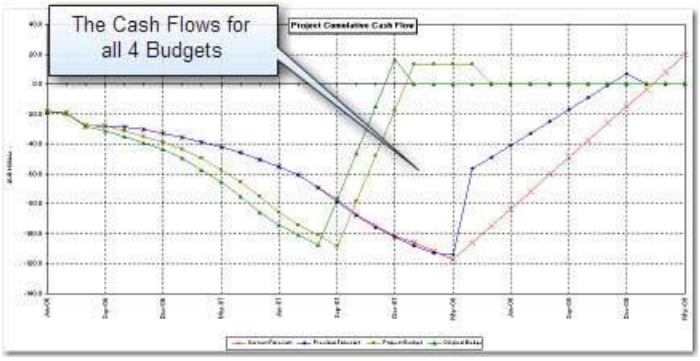
Current Forecast Cash Flow

Highlighting the position of equity and debt draw downs and repayments through the project life.



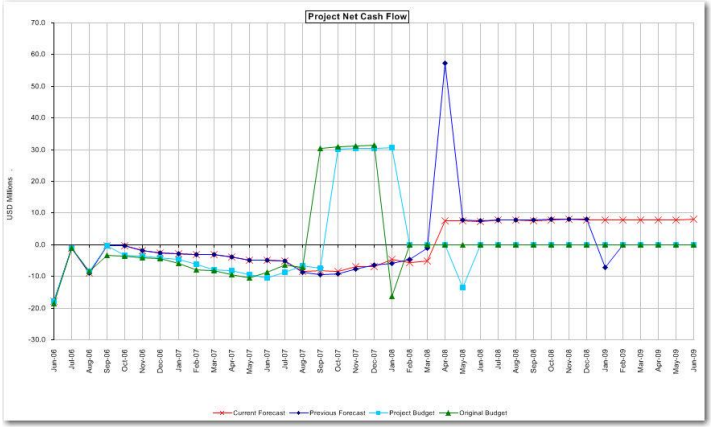
Project Cumulative Cash Flow

This chart depicts the Cumulative Net Cash Flow (after Interest) for each budget/forecast stored (e.g Orginal, Previous, etc) as well as the Current Forecast.



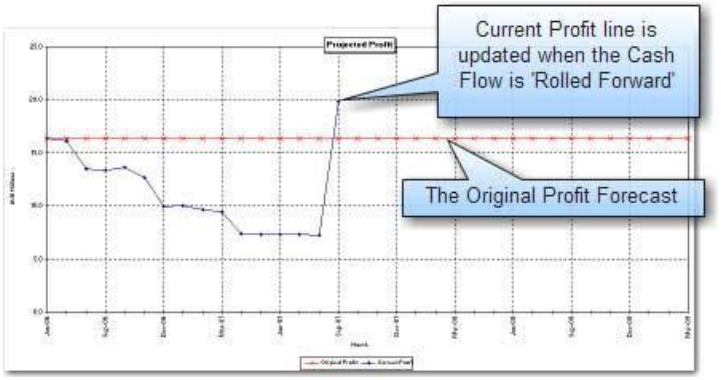
Project Net Cash Flow

This chart depicts the Net Cash Flow (after Interest) for each budget/forecast stored (e.g Orginal, Previous, etc) as as well as the Current Forecast.



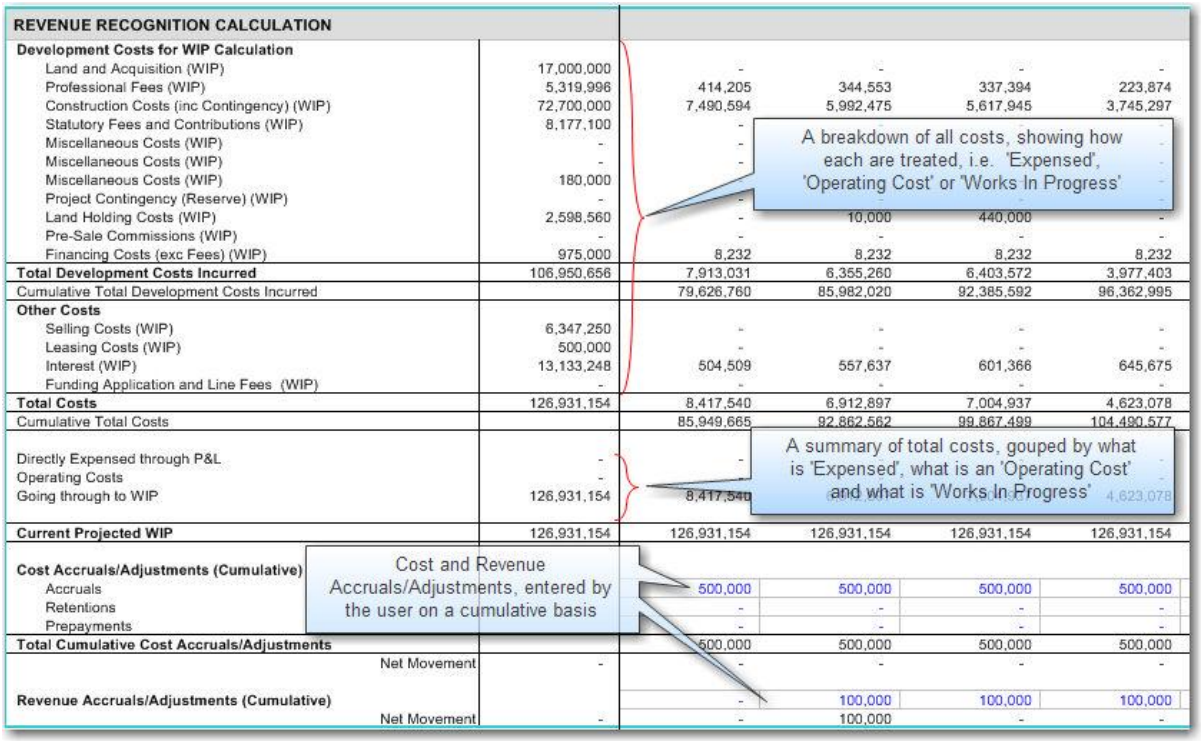
Projected Profit Report

This chart tracks the Current Forecasted profit against the profit line of the Original Budget. It is updated during the Roll Forward process.



9.2 Financial Reporting

9.2.1 Revenue Recognition



Costs for WIP Calculation

This section summarises all the costs in the development and determines if they are treated as Work In Progress, Expensed or Operating Costs, as selected in the Estate Master Preferences.

- **Expensed:** Directly expense the cost at the date it is incurred in the 'Cost of Sales' section of the Profit and Loss statement, impacting how the Project Margin is calculated.
- **WIP:** Add it to the Work in Progress. This defers the recognition of the cost in the Profit and Loss statement until such time that the defined threshold levels are reached. Until the thresholds are reached, these costs appear as a 'Current Asset' in the Balance Sheet called 'Work in Progress'.
- **Operating:** Define the cost as an Operating Cost. These are expensed to the Profit and Loss statement in the 'Operating Expenses' section. The difference between an Operating expense and a Cost of Sales expense (as defined above) is that an Operating expense is not included in the Project Margin calculation. It is however included in the overall Profit and Loss calculation.

If Land and Acquisition is included in the '% Completed' Revenue Recognition method through the Estate Master Preferences, then it will be summarised under the 'Development Costs for WIP Calculation heading, otherwise it will be under 'Other Costs'.

Cost Accrual/Adjustments

This section allows the user to manually input any Accruals, Retentions or Prepayments to adjust the '% Completed' to reflect actual work completed as opposed to cash expended.

Ultimately this will impact:

- Work in Progress, Account Payables and Prepayments in the Balance Sheet.
- Revenue Recognition will also be affected if using the '% Completed' basis.

Adjustments in this section will need to be entered on a cumulative basis and reversed out by adjusting the cumulative amounts entered. At the end of the project all numbers in the section should be zero.

Revenue Accrual/Adjustments

This section allows the user to manually adjust revenue recognition in the Profit & Loss both in advance and in arrears. For example, if you have pre-sales deposits (collected by the developer) or sales collections during the construction, you may want to delay this income in the P&L until the building construction is completed or a stage is completed.

A negative sum entered in the top line of the “Revenue Accruals/Adjustments (Cumulative) will delay the revenue recognised in the Profit & Loss. The amount is cumulative, so if you want to delay recognition for 6 months you need to copy that sum across for 6 months. The line below (Net Movement) shows the net movement for the cumulative total. If a revenue amount is negated in the P&L by the Revenue Accrual this amount is take up in the Balance Sheet by a corresponding “Deferred Income” in the Liabilities Section. For a positive revenue accrual adjustment, the reverse is true, that is you bring forward revenue recognition in the P&L and the Balance Sheets shows a accrued income amount as opposed to Deferred Income.

9.2.2 Profit Realisation

% Complete Calculations

% COMPLETE CALCULATIONS					
Total Dev Costs Post Adjust. (inc. Land and exc. Op Costs)	106,950,656	17,901,500	17,964,636	26,488,133	26,603,295
Total Expected Development Costs		106,950,656	106,950,656	106,950,656	106,950,656
% Cumulative Development Costs Incurred		16.74%	16.80%	24.77%	24.87%
Total Expected Revenue		140,350,000	140,350,000	140,350,000	140,350,000
Total Expected Area Sold		17,500	17,500	17,500	17,500
Total Sold based on Revenue Sold		140,350,000	140,350,000	140,350,000	140,350,000

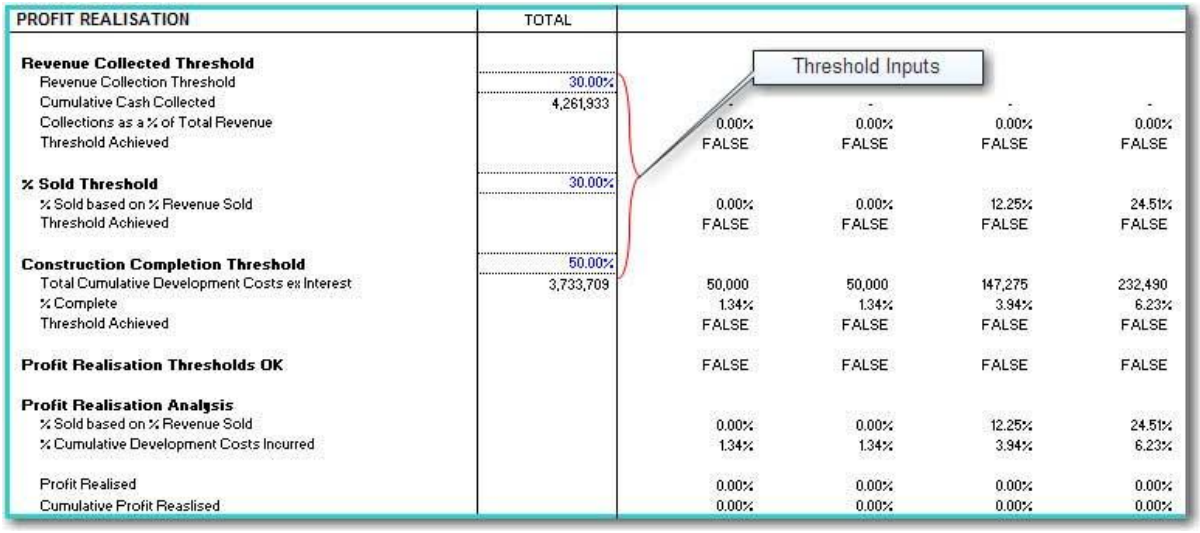
These are the calculations that are used when the '% Completed' Revenue Recognition method through the Estate Master Preferences is adopted. If the 'On Completion' method is adopted, then this section will be hidden.

- **Total Expected Development Costs:** These are the development costs as defined in the 'Revenue Recognition section.
- **Total Expected Revenue:** This is the sales revenue collected, as per the 'Handover Summary'

on the Cash Flow sheet.

- **Total Expected Area Sold:** This is the area of all sales settled, as per the 'Handover Summary' on the Cash Flow sheet.
- **Total Sold based on Area / Revenue Sold:** This line will change depending on whether the user has selected the '% Sold Method' for Revenue Recognition purposes to be based on either Revenue or Area in the Estate Master Preferences.

Thresholds



PROFIT REALISATION	TOTAL				
Revenue Collected Threshold					
Revenue Collection Threshold	30.00%				
Cumulative Cash Collected	4,261,933	-	-	-	-
Collections as a % of Total Revenue		0.00%	0.00%	0.00%	0.00%
Threshold Achieved		FALSE	FALSE	FALSE	FALSE
% Sold Threshold	30.00%				
% Sold based on % Revenue Sold		0.00%	0.00%	12.25%	24.51%
Threshold Achieved		FALSE	FALSE	FALSE	FALSE
Construction Completion Threshold	50.00%				
Total Cumulative Development Costs ex Interest	3,733,709	50,000	50,000	147,275	232,490
% Complete		1.34%	1.34%	3.94%	6.23%
Threshold Achieved		FALSE	FALSE	FALSE	FALSE
Profit Realisation Thresholds OK		FALSE	FALSE	FALSE	FALSE
Profit Realisation Analysis					
% Sold based on % Revenue Sold		0.00%	0.00%	12.25%	24.51%
% Cumulative Development Costs Incurred		1.34%	1.34%	3.94%	6.23%
Profit Realised		0.00%	0.00%	0.00%	0.00%
Cumulative Profit Reaslised		0.00%	0.00%	0.00%	0.00%

Thresholds can be set to effectively delay the recognition of revenues until the project is substantially sold or under construction.

- If a **Revenue Collection Threshold** is utilised the model will delay the recognition of revenue until the specified % of revenue is collected.
- If a **% Sold Threshold** is utilised the model will delay the recognition of revenue until the specified % of sales have been achieved.
- If a **Construction Completion Threshold** is utilised the model will delay the recognition of revenue until the specified % of construction is completed.

9.2.3 Fixed Assets

This section allows the user to manually add inputs to cater for items that are capitalised as 'Fixed Assets' (i.e. held and not sold on completion). All inputs are to be entered exclusive of GST/VAT/Sales Tax. Fixed Assets appear on the Balance Sheet.

- **Additions:** Fixed Assets are added to model (at cost) when they are completed and are ready to be used. Amounts entered in the Tangible Fixed Assets 'Additions (Cost)' line will reduce the Work in Progress by the same amount and will also impact on the Revenue Recognition calculations.
- **Disposal:** If a fixed asset item is subsequently sold, the cost of the item sold needs to be input into the Tangible Fixed Assets 'Disposal (Cost)' line and the area of the item sold into the Tangible Fixed Assets 'Disposals (Area)' line. In addition, the 'Proceeds of Sale' need to be manually input into the respective line so the model can calculate the profit or loss on the sale of the fixed asset.
- **Asset Revaluation Adjustment:** Asset revaluation adjustment is a manual adjustment line for fixed asset revaluation. For example you may have recognised out of your WIP, an asset for investment income. You recognise its cost in the Fixed Asset Register, but its value may be above or below that cost. The asset revaluation is the incremental change to that cost price. Upon sale of that asset you

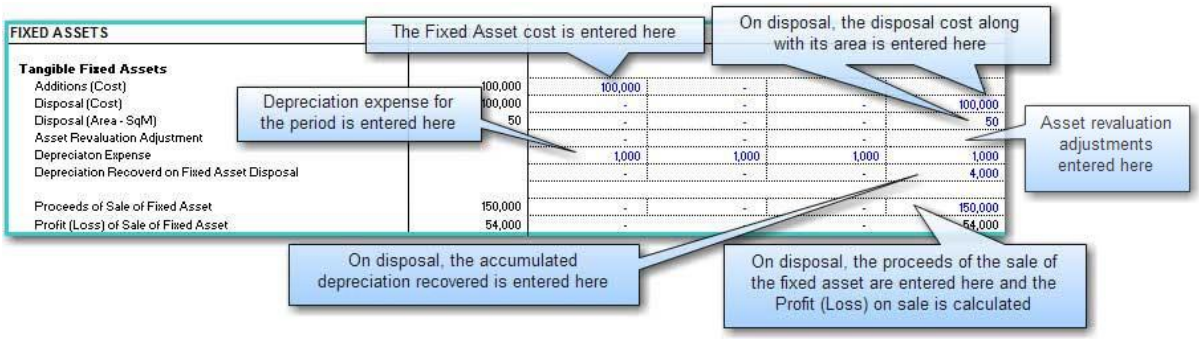
should negate out the asset revaluation for that asset.

- **Depreciation :** 'Depreciation Expense' is manually entered (we suggest that that the user adds in a depreciation schedule through the use of a user inserted worksheet to assist with these calculations) and flows directly to the Profit and Loss statement as a non-cash item. In addition, the accumulated 'Depreciation Recovered' on an item sold needs to be manually inputted into the respective line so the model can calculate the profit or loss on the sale of the fixed asset.
- **Profit (Loss):** Proceeds of Sale of Fixed Asset *less* Disposal (Cost) *plus* Depreciation Recovered on Fixed Asset Disposal

Fixed Asset Example

In the below example:

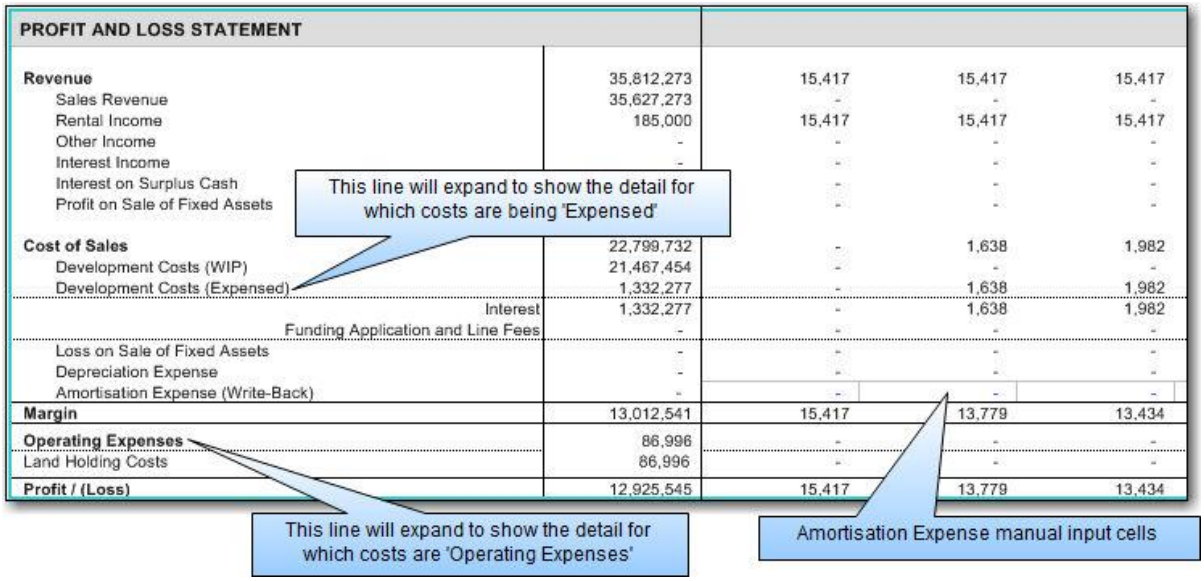
- A Fixed Asset with an area of 50sqm and a cost of $100,000 is added in Period 1.
- This is depreciated at $1,000 per month.
- In Period 4, the Asset is sold for $150,000



9.2.4 Profit and Loss Statement

The Profit and Loss Statement (P&L) is a financial statement that summarises the revenues, costs and expenses incurred during a specific period of time. The P&L statement is also known as a "statement of profit and loss", an "income statement" or an "income and expense statement".

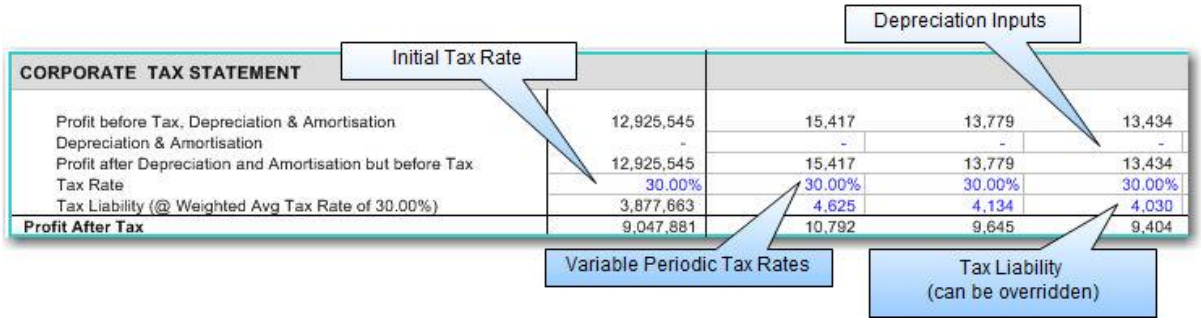
Both 'Revenue' and 'Cost of Sales' are treated in accordance with Preference settings set by the user.



Amortization Expense (Write-Back)

Amortization expense is a manual line in the P&L that allows you negate a cash flow item from the P&L and latter amortiSe (recognize) that expense/revenue according to your accounting or tax over a period of time. For example, expenditure relating to the raising of capital cannot be expensed immediately but rather for taxation purposes can be amortized at 20% per annum for years.

9.2.5 Corporate Tax



The model allows the user to calculate Corporate Tax, using the following inputs:

- **Depreciation:** In this line, the model defaults to the 'accounting' depreciation (as per the Profit and Loss statement). However if your 'tax' depreciation is different to your 'accounting' depreciation, the user can overwrite these amounts to estimate the tax.
- **Corporate Tax Rate:** Enter in a single tax rate to calculate tax on profits after depreciation. This can also be adjusted for each period. Please note, that if the Tax Rate for a period is set to zero, it will not calculate a tax loss or benefit for that period.
- **Tax Liability:** By default, the model will calculate the tax liability in this line, based on the inputs above and the various tax treatment preferences. However, there is also the option to manually override the tax liability, if a more customised calculation is required. If any manual adjustments are made, the remaining tax liability calculations will automatically re-forecast any bonus/shortfall to the next tax payment period.

Funding Tax through the Project Cash Flow

Any tax liability is calculated on the Financials sheet is carried through to the Project Cash Flow, allowing it to be funded by either Equity or a Debt facility, just like any other project cost.

Net Cash Flow (before Interest & Corporate Tax)	556,110	(85,215)	(85,215)	(85,215)
Cumulative Cash Flow		1,067,402	982,187	896,972
Corporate Tax	92,528	2,670	2,589	2,508
Net Cash Flow (before Interest & after Corporate Tax)	463,582	(87,886)	(87,804)	(87,723)
Cumulative Cash Flow		989,182	901,378	813,655

9.2.6 Cash Flow and IRR

CASH FLOW & IRR STATEMENT		TOTAL				
Project Cash Flow before Interest, Finance Costs and Tax		573,208	(50,000)	-	(84,009)	(85,215)
	IRR	11.70%				
Finance Costs		(17,098)	-	-	(13,265)	-
Interest Earned		60,769	-	3,167	3,175	2,859
Interest Paid		(305,470)	-	(4,167)	(4,184)	(4,201)
Finance Application and Line Fees		(6,200)	-	-	-	-
Project Cash Flow after Interest and before Tax		305,209	(50,000)	(1,000)	(98,284)	(86,558)
	IRR	6.17%				
Tax Calculation		(92,528)	-	(650)	(653)	(558)
Project Cash Flow after Interest and Tax		212,681	(50,000)	(1,650)	(98,936)	(87,115)
	IRR	4.32%				
Equity Cash Flow		365,919	(1,000,000)	-	-	-
	IRR	8.73%				

The Cash Flow and IRR Statement summarises the following cash flows, and calculates their respective IRR:

- Project Cash Flow before Interest, Finance Costs and Corporate Tax
- Project Cash Flow after Interest and before Corporate Tax
- Project Cash Flow after Interest and Corporate Tax
- Equity Cash Flow

9.2.7 Balance Sheet

The Balance Sheet is a financial statement that summarises a company's assets, liabilities and shareholders' equity at a specific point in time to give investors an idea as to what the company owns and owes, as well as the amount invested by the shareholders.

The balance sheet follows the following formula: Assets - Liabilities (called Net Assets) = Shareholders' Equity

BALANCE SHEET						
ASSETS						
Current Assets						
Cash and Bank		-	-	-	-	-
Accrued Income		-	-	-	-	-
Work In Progress		13,577,116	13,969,857	14,649,432	15,174,292	15,840,671
Prepayments,Deposits and Other Receivables		-	-	-	-	-
Total Current Assets		13,577,116	13,969,857	14,649,432	15,174,292	15,840,671
Long Term Assets						
Tangible Fixed Assets - Cost (Owned Assets)		-	-	-	-	-
Less - Acc.Dep (Owned Assets)		-	-	-	-	-
Long Term Assets Total		-	-	-	-	-
TOTAL ASSETS		13,577,116	13,969,857	14,649,432	15,174,292	15,840,671
LIABILITIES						
Current Liabilities						
Accounts Payables		-	-	-	-	-
Deferred Income		-	-	-	-	-
Accrued Expenses		-	-	-	-	-
Total Current Liabilities		-	-	-	-	-
Long Term Liabilities						
Long Term Loans		8,562,155	8,954,896	9,634,470	10,159,331	10,825,710
Intercompany Loans		-	-	-	-	-
Total Long Term Liabilities		8,562,155	8,954,896	9,634,470	10,159,331	10,825,710
TOTAL LIABILITIES		8,562,155	8,954,896	9,634,470	10,159,331	10,825,710
NET ASSETS		5,014,961	5,014,961	5,014,961	5,014,961	5,014,961
SHAREHOLDERS' EQUITY						
Project Capital		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Dividends		-	-	-	-	-
Retained Earnings (Accumulated Deficit)		-	-	-	-	-
P&L - Current Year		14,961	14,961	14,961	14,961	14,961
TOTAL SHAREHOLDERS' EQUITY		5,014,961	5,014,961	5,014,961	5,014,961	5,014,961
Check Balance	-	-	-	-	-	-

Shareholders' Equity

Depending on preference selected by the user for Project Equity Treatment in the Estate Master Preferences,the Shareholder's Equity section will appear in the Balance Sheet as one of the below:

- **Shareholders Equity (Project Capital):** Developer's equity contributions appear as 'Project Capital' in the 'Shareholders Equity' section of the Balance Sheet.

- **Long Term Liabilities (Intercompany Loan):** If using this option, the Developer's equity contributions are treated as an Intercompany Loan and appear in the Balance Sheet under the 'Long Term Liabilities' section. If this option is selected, the user will also need to input in the Balance Sheet the paid up Share Capital of the company.

9.3 Risk Assessment

9.3.1 Sensitivity Analysis

The Sensitivity Analysis is a risk assessment mechanism and allows the user to examine the impact on development performance indicators resulting from changes in a series of input variables.

There are 3 Sensitivity Analysis features available in the Estate Master DM program:

1. Scenario Analysis
2. One-Way What-If Analysis
3. Two-Way What-If Analysis

Rules About Sensitivity Analysis in Estate Master DM

The Sensitivity Analysis tool does not apply variations in the following areas:

- **Manual Overrides in the Cash Flow:** This includes where the default formula in the Cash Flow has been manually overwritten by the user with either a value or a custom formula.
- **Historical Data:** This is any data that is before the 'Current Month' period in the Cash Flow.

Basically, only data that is generated by the 'Input Assumptions' and has not been manually overridden in the cash flow and is either in the 'Current Month' period or in the future (past the 'Current Month'), will be tested in the analysis.

If you apply a sensitivity variation after manually overwriting a cash flow forecast driven by the input assumptions with values or custom formulae, then the sensitivity function may reforecast your cash flow automatically (based on the Reforecast mode for that line item).
For example:

- Say you have set input assumptions for a $1m Construction Cost item, starting in month 6 and spanning for 10 months.

No. Units	Current Base Rate / Unit	Term (Y,BA,Q BM,M)	Month Start	Month Span
1	1,000,000		6	10

- $500k has been spent to date (say the 'Current Month' is 10) with the remaining $500k being spread over 5 months as manually overwritten 'values' (Month 16 onwards still have the default formulae intact).

9 Mar-2007	10 Apr-2007	11 May-2007	12 Jun-2007	13 Jul-2007	14 Aug-2007	15 Sep-2007	16 Oct-2007
-	-	-	-	-	-	-	-
100,000	100,000	100,000	100,000	100,000	100,000	100,000	-

- If you then put a 10% variation for Construction Costs in the Sensitivity sheet, it will do the following
  - Looks that your input assumption of $1m and subtracts cost to date, being $500k.
  - It takes the balance of $500k and escalates that by 10%, being $50K.
  - It then places the $50K variation in month 16, so the total forecasted cost is $1.05m

10 Apr-2007	11 May-2007	12 Jun-2007	13 Jul-2007	14 Aug-2007	15 Sep-2007	16 Oct-2007
-	-	-	-	-	-	-
100,000	100,000	100,000	100,000	100,000	100,000	50,000

Scenario Analysis

On the 'Sensitivity' sheet, the 'Scenario Analysis' allow you to input variations to each of the variables listed on the table. The 'Variation' column in the 'Scenario Analysis' table affects the calculation cells in the cash flow. You can put any combination of variations and see their impact on the various performance indicators. No function is required to be run as this alters the model directly.

Variable	Variation	Base + Variation
Land Acquisition Costs	0.0%	1,100,000
Construction Costs	5.0%	1,386,000
Construction Period	0.0%	Months 2 to 19
End Sale Values	-5.0%	4,457,023
Capitalisation Rate	0.0%	8.00%
Sales Span Period '	0.0%	Months 35 to 36
Rental Levels	0.5%	105,525
All Debt Interest Rates	0.0%	5.00%

Performance Indicator *	Result
Development Profit	169,391
Development Margin	4.35%
Maximum Debt Exposure	1,928,449
Date of Peak Exposure	Sep-2009
Breakeven Date of Cash Flow	Jan-2012
Project NPV	(824,032)
Project IRR	6.87%
Equity IRR	8.08%

Before commencing with further work, the values in the variations should be set back to zero. When you run the 'Sensitivity Analysis' function, the values in the 'Variation' column will return to zero automatically.

One-Way What-If Analysis

In the One-Way What-If Analysis table, put low, mid and high forecast variations for each of the variables.

- Using the 'Enable' dropdown options to select the variables you wish to test before running the sensitivity procedure. If 'No' is selected, the inputs will be greyed out and that rows for that variable will be hidden on the Sensitivity Table.
- Check for any warnings that the variations have caused the model to exceed the maximum time periods or that the variations have resulted in negative interest or capitalisation rates.

Sensitivity to Changes in:	Enable	Warnings	Low		Mid	High
Land Acquisition Costs	Yes		-5.0%	-3.0%	3.0%	5.0%
Construction Costs	No		-10.0%	-5.0%	5.0%	10.0%
Construction Period	Yes	Model exceeds 60 periods	-20.0%	-10.0%	10.0%	40.0%
End Sale Values	Yes		-5.0%	-3.0%	3.0%	5.0%
Capitalisation Rate	Yes / No		-0.5%	-0.2%	0.2%	0.5%
Sales Span Period			-30.0%	-20.0%	20.0%	30.0%
Rental Levels	Yes		-20.0%	-10.0%	10.0%	20.0%
All Debt Interest Rates	Yes		-2.0%	-1.0%	1.0%	3.0%
Developer's Discount Rate	Yes		18.0%	19.0%	20.0%	21.0%

Note that these variations do not affect the cash flow - only the outputs on the Sensitivity Table, which is generated when the 'Sensitivity Analysis' function is run.

SENSITIVITY TABLE

	Change %	Net Dev. Profit	NPV	Dev. Margin	Project IRR	Equity IRR
Base Case (No Variation)	0.0%	380,465	347,677	46.20%	-42.83%	N.A.
Land Acquisition Costs	-5.0%	13,103,939	6,795,393	40.44%	70.64%	N.A.
	-3.0%	13,084,433	6,775,413	40.35%	70.34%	N.A.
	3.0%	13,025,524	6,715,072	40.09%	69.47%	N.A.
	5.0%	13,005,757	6,694,825	40.00%	69.18%	N.A.

Two-Way What-If Analysis

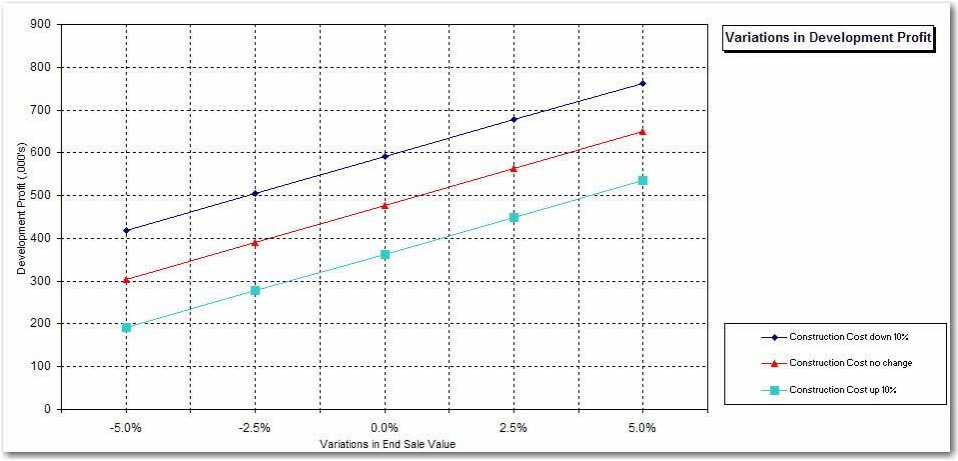
In the 'Two-Way What-if Analysis' section there are drop down boxes for setting parameters.

	CHART 1	CHART 2
Performance Indicator	Development Profit	Development Margin
Variable 1 (X-Axis)	End Sale Value	Construction Period
Variable 2	Construction Cost	End Sale Value

There are two charts each with three drop down boxes:

- **Performance Indicator:** Select either "Development Profit" or "Net Present Value" for Chart 1 and either "Project IRR", "Equity IRR" or "Development Margin" for Chart 2;
- **Variable 1:** Select either Construction Costs, End Sale Values, Construction Period, Selling Span Period, Rental Income, Debt Interest Rates, and Discount Rate (only relevant for Chart 1 if selecting net present value as your performance indicator); and
- **Variable 2:** Select either Construction Costs, End Sale Values or Rental Income.

These are translated into charts on the 'Sensitivity' sheet when the 'Sensitivity Analysis' function is run.



Running the Sensitivity Function

Once you have finished making all input entries, click the Sensitivity Analysis button on the Ribbon Menu. The sensitivity function performs four functions:

1. It resets the values in the 'Variation' column of the 'Scenario Analysis' to zero.
2. It updates the One-Way What-If sensitivity table on the developer's and land owner's (in the case of a joint venture) 'Sensitivity' sheets;
3. It generates the Two-Way What-If charts on the developer's 'Sensitivity' sheet;
4. It resizes the time scale on the developer's and land owner's (in the case of a joint venture) cash flow chart to the life of the project; and

The length of the operation will be dependant on the memory and speed of your PC, and may take from several seconds to several minutes to complete. You can improve waiting time by keeping as much memory free and closing unnecessary applications.

Variations to Time

The sensitivity analysis varies the period/span variables by adjusting the timing of the cash flow.

Varying the time for the Construction Period has the following impact on the cash flow:

- **Construction Costs, Professional Fees, Statutory Contributions and Miscellaneous Costs:** Extends their starting period (exc Construction) and extends their span time periods.
- **Land Holding Costs:** Extends their span periods.
- **Sales and Rental Income:** Delays the starting date for settlements and the lease start for rentals.
- **Land Costs and Financing Costs:** No direct changes, except for any indirect impact on interest

costs by varying debt exposure and funding requirements.

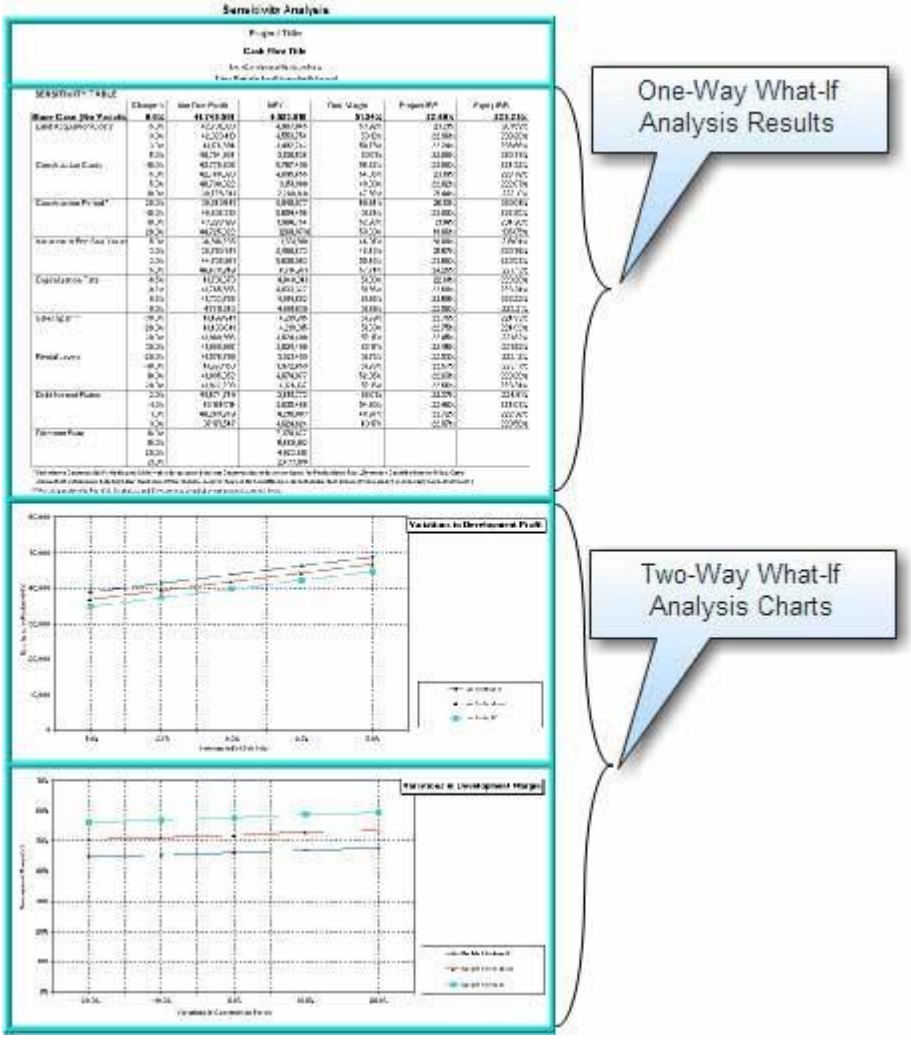
Varying the Sale Span Period only affects the span periods for pre-sale exchanges and settlements, but not the starting dates for each sale item.

Exceeding Time Periods During Sensitivity
If you put too high a variation for construction and/or sale span period you will get an error message just to the right of the input cells. This occurs where the variation causes the cash flow to exceed the maximum time periods (the maximum number for the purpose of sensitivity analysis). You will need to reduce the variation (high forecast percentage), select a longer rest period (eg quarters instead of months) or insert more time periods by using the 'Resize Model' function.

Reports

The Sensitivity Report consists of two sections:

1. **One-Way What-If Analysis Table:** The sensitivity table shows the effects on Equity IRR, Project IRR, NPV, Profit and Development Margin to the high, mid and low variations (as selected in the Sensitivity settings towards the top of the sheet) for the various variables.
2. **Two-Way What-If Charts:** The two charts below the sensitivity table illustrate the sensitivity of the performance indicators to changes in the combinations of two variables as selected by the user in the relevant drop down boxes.



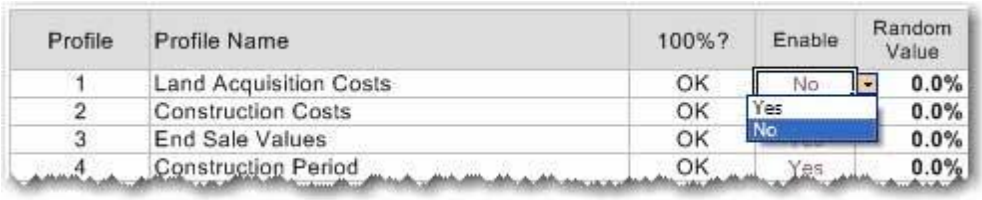
9.3.2 Monte Carlo (Probability) Analysis

The Probability Analysis provides a further tool for undertaking risk assessment and perhaps re-assessment of the hurdle rates.

Whilst the sensitivity testing provides a range of returns based on different scenarios it does not tell you the likelihood (or probability) of those returns or the effect of several scenarios occurring. The probability analysis overcomes this limitation by assigning probability profiles to the variables in the One-Way What-If table ('Sensitivity' sheet) and running multiple simulations to derive a probability range for the Development Margin and the IRR.

Running the Probability Function

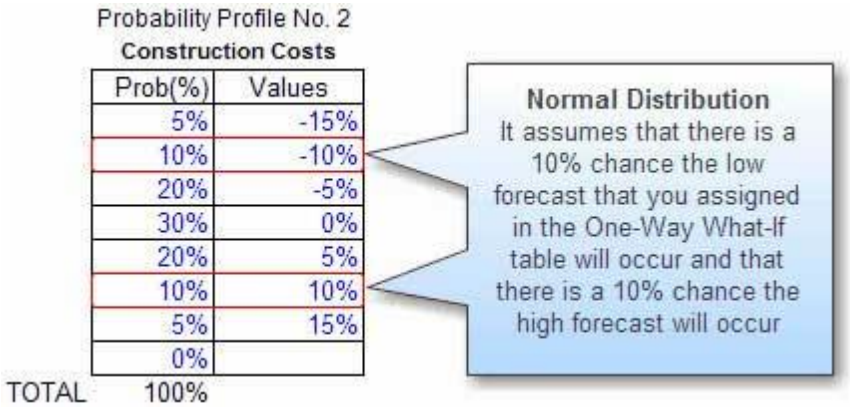
Before running the Probability function, use the 'Enable' dropdown options to select the variables you wish to test. If 'No' is selected, the profile of that variable will not be factored into the results (i.e. it assumes that those variables remain fixed).



Profile	Profile Name	100%?	Enable	Random Value
1	Land Acquisition Costs	OK	No	0.0%
2	Construction Costs	OK	Yes / No	0.0%
3	End Sale Values	OK		0.0%
4	Construction Period	OK	Yes	0.0%

To run the simulations, click on the Probability Analysis button on the Ribbon Menu. A message box appears asking you how many simulations you wish to run. The higher the number of simulations the more statistically significant the results will be. However the more simulations the longer it will take to generate the results. The length of the operation will also be dependant on the memory and speed of your PC.

When you run the analysis, the model assigns an approximate normal distribution curve for each of the variables in the 'Scenario Analysis' table (Construction Costs, End Sale Values, Construction Period, Selling Span Period, Rental Income, Debt Interest Rates, and Discount Rate). It assumes that there is a 10% chance the low forecast that you assigned in the One-Way What-If table will occur and that there is a 10% chance the high forecast will occur. You can scroll down the 'Probability' sheet to see the 'Probability Profiles of Variable Inputs'. In some cases the profiles will be skewed depending upon your inputs in the One-Way What-If table.



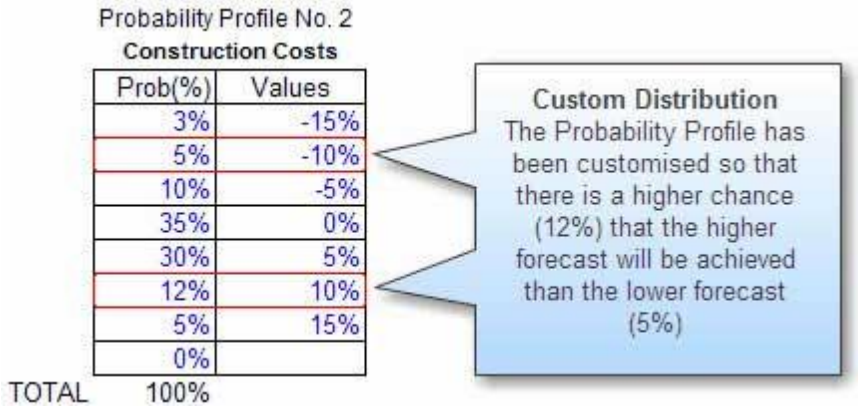
Probability Profile No. 2

Construction Costs

Prob(%)	Values
5%	-15%
10%	-10%
20%	-5%
30%	0%
20%	5%
10%	10%
5%	15%
0%	
TOTAL 100%	

Normal Distribution
It assumes that there is a 10% chance the low forecast that you assigned in the One-Way What-If table will occur and that there is a 10% chance the high forecast will occur

You can change the low and high forecasts in the One-Way What-If table on the 'Sensitivity' sheet before running the Probability Analysis. Alternatively, you can assign your own probability profile to each of the risk variables.



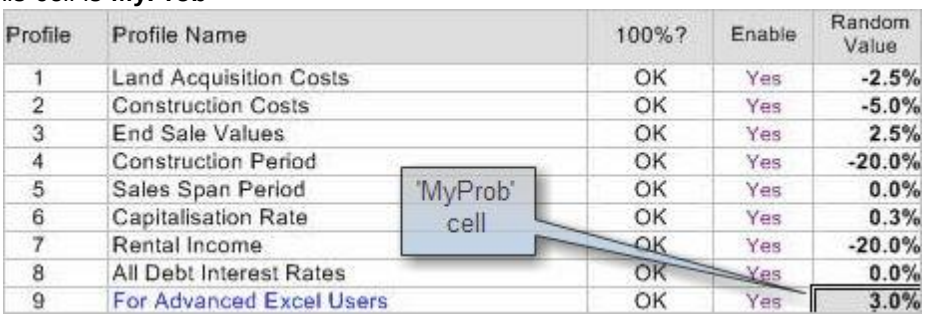
After the simulations are run you can scroll down to view the statistics and charts of the probability distribution of the Development Margin and the IRR. Note that in many cases the average Development Margin and IRR levels may be different from the development margin and IRR results on the 'Summary' Sheet.

Please note that despite its more sophisticated methodology there are limitations with the probability analysis. Firstly there is the limitation with the assigning of the probability profiles to the variables. Secondly the methodology assumes that the variables are totally independent.

Advanced Probability Users

The program provides an additional probability profile for advance users of Excel. Here the user can link input cells to each other and to the random value (MyProb) of the table in the 'Summary of Probability Variables'. Having done that you will need to provide a most likely estimate for the variable and assign a probability profile to the variable in the tables in the 'Probability Profile of Variable Inputs'. Before running the simulator you can elect to select which variables to set the random generator to.

1. Go to the 'Summary of Probability Variables' table. This will show a table for all the variables.
2. In the last row of the table it will have an item marked 'For Advanced Excel Users'. It will consist of:
    - **Profile Name:** Type in the description of the custom variable you want to add in the Probability function.
    - **Most Likely Estimate:** This allows you to enter a specific % variation, rather than randomly select a % in a specified range.
    - **Random Generator:** This allows you to select f you want to apply the random generator to the variable, and thus include it in the analysis. If the variable is not applicable or is assumed to be fixed, the check-box for that variable should be deselected.
    - **Random Value:** This is the random % variation that will be applied to the variable. It is a fixed field that is dependant on the 'Probability Profile' that is set for a variable. The name for this cell is **MyProb**



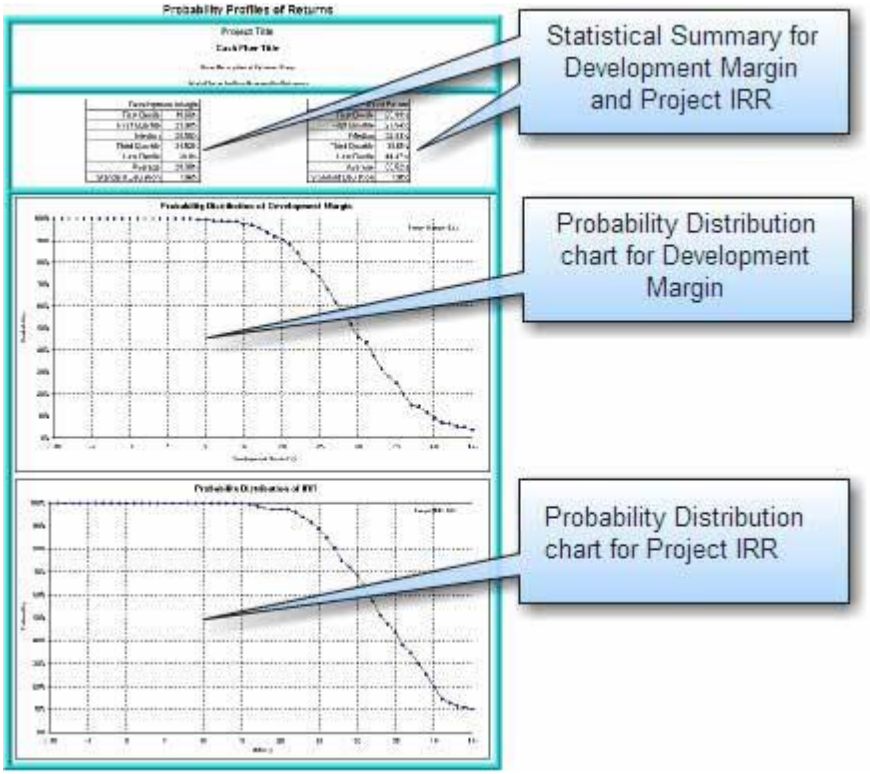
Profile	Profile Name	100%?	Enable	Random Value
1	Land Acquisition Costs	OK	Yes	-2.5%
2	Construction Costs	OK	Yes	-5.0%
3	End Sale Values	OK	Yes	2.5%
4	Construction Period	OK	Yes	-20.0%
5	Sales Span Period	OK	Yes	0.0%
6	Capitalisation Rate	OK	Yes	0.3%
7	Rental Income	OK	Yes	-20.0%
8	All Debt Interest Rates	OK	Yes	0.0%
9	For Advanced Excel Users	OK	Yes	3.0%

3. Go to the actual input variable that you want to include in the analysis.
4. If the input variable has been initially entered as a number (rather than a formula), then you will have to turn it into a formula to include the random variable value. For Example: If you have an amount of 1,000,000 entered in the Construction Cost section for a particular input, you would edit the cell so it would read: =1000000*(1+MyProb)
5. This shows that the 1,000,000 input would vary according to the random value being applied. So if in one probability scenario, -5% was the Random Value for that variable, then by editing the cell to include the formula as above, then it would affectively reduce the 1,000,000 by 5% for that scenario.
6. Once the input cell is linked to the Random Value, you can then edit the probability profile for that variable. Each variable has its own probability profile and includes the following fields:
    - **Prob(%):** This is the probability of the certain % variation being applied (indicated by the 'Values' column) to that variable when it runs a simulation.
    - **Values:** This is the Random Value that is being applied to the variable. The probability of this % value being applied is based on the first column (Prob(%)).
7. When amending the probability profiles, you must ensure that the % in the Prob(%) total to 100.
8. Once the profiles have been set, scroll down to the 'Run Monte Carlo Simulations' button, and click it and it will perform the probability analysis function with your custom variable included in the analysis.

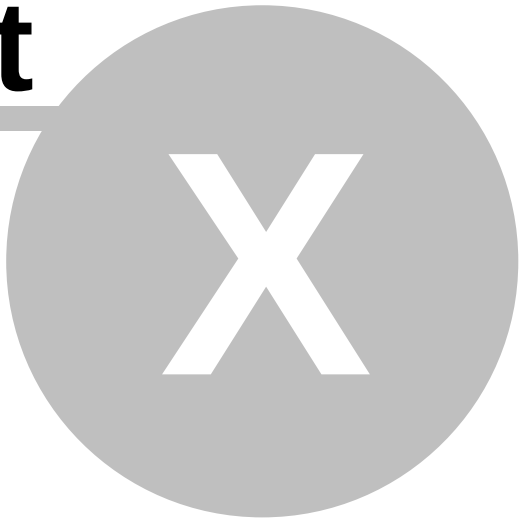
Reports

The Probability Report consists of three sections:

1. **Statistics Tables:** For both the Development Margin and Project IRR, the following is summarised:
    - **First Decile:** This is the result where the lowest 10% of data in the simulation results gathered is cut-off. Also known as the the 10th percentile.
    - **First Quartile:** This is the result where the lowest 25% of data in the simulation results gathered is cut-off.
    - **Median:** The median is the value that has just as many values above it as below it. If there are an even number of values, the median is the average of the two middle values. The median is a measure of central tendency. Also defined as the 50th percentile.
    - **Third Quartile:** This is the result where the lowest 75% of data in the simulation results gathered is cut-off.
    - **Last Decile:** This is the result where the lowest 90% of data in the simulation results gathered is cut-off. Also known as the the 90th percentile.
    - **Average**: This is quite simply the average of the probability distribution results.
    - **Standard Deviation:** This is a measure of the variability or dispersion of the probability distribution. A low standard deviation indicates that the data points tend to be very close to the same value (the mean), while high standard deviation indicates that the data are “spread out” over a large range of values.
2. **Probability Distribution for Development Margin:** This shows the probability of achieving a certain Development Margin, based on the results from the simulations performed.
3. **Probability Distribution for Project IRR:** This shows the probability of achieving a certain Project IRR, based on the results from the simulations performed.



Part



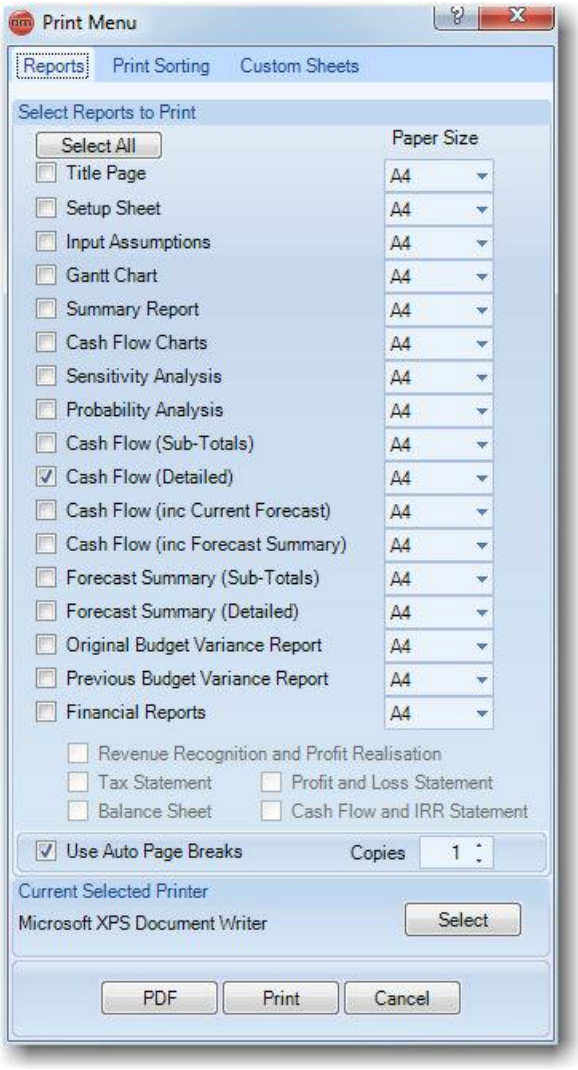
10 Printing Reports

Conducting a Final Check

There are numerous output report sheets in the Estate Master DM program that provide you with the performance indicators upon which the property's feasibility is assessed. You should do a reality check of these to make sure that there are no errors. Check the graphs to make sure that they look reasonable and make sure there are no numbers in the cash flow or summary reports, which appear to be unrealistic or wrong. If there are obvious errors, amend them accordingly and update the model if necessary.

Printing

- To print the reports, load the Print Menu by clicking on one of the Print buttons on the toolbars.
- When the Print Menu is activated, a series of check boxes will appear for each report.
- Select the reports that you wish to print, the paper size and the number of copies and then click [Print].
- If any results need to be updated, such as the Sensitivity, Probability or Residual Land Value analysis, the software will run these functions automatically before printing their respective reports.



Auto Page Breaks

On the Inputs, Gantt Cart, Cash Flow and Financials reports, 'Auto Page Breaks' can be set to apply page breaks at the start of certain cash flow sections so they start on a new page rather than have a continuous flow. Using Auto Page Breaks will provide neater report layouts, but may print out on more pages.

Selecting your Printer

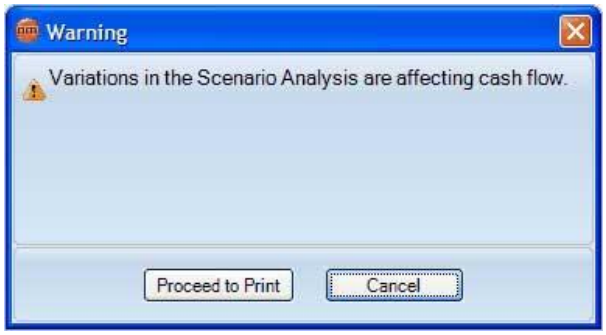
Before printing any reports, check that the printer you wish to print to is the currently active printer (ie 'Currently Printing on.....'). If you need to select a different printer, then click on the [Select Printer] button.

PDF

Estate Master DM has its own built-in PDF writer. When you initially installed the software, a printer would have been added to your list if Printers called "Estate Master PDF Printer". This is used to generate PDF files of the selected reports. When [PDF] is clicked:

- If multiple reports are selected, a single PDF file will generated containing all those reports in the orders as selected in the 'Print Sorting' tab.

Warnings



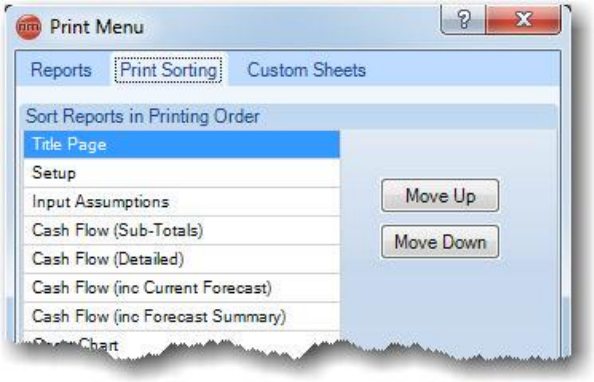
A warning may appear if it relates to data that needs to be updated on any of the selected reports. The program will provide a warning in the following circumstances:

- Variations in the Scenario Analysis are affecting the cash flow.
- The cash flow exceeds the maximum time periods or if the variations in the sensitivity test will extend the cash flow beyond the maximum time periods.

If you wish to ignore the warnings, click on the 'Proceed to Print' button, otherwise select 'Cancel' to rectify any of the issues before attempting to print again.

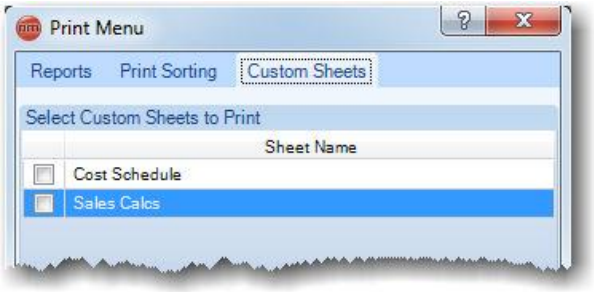
Print Sorting

Using the 'Move Up/Down' buttons, the user can sort the printing order of the selected reports.



Custom Sheets

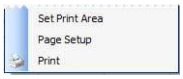
If there are any custom worksheets in the model, the user can select to print them here. They will be printed in the order they appear, after the standard reports are printed. If once of the custom worksheets are greyed out in this list, it indicates there is nothing to print on that sheet.



Before printing custom worksheets, it is advised that the Print Area and Page Setup be set for them via the options in the context menu of each custom sheet.

10.1 Custom Worksheets

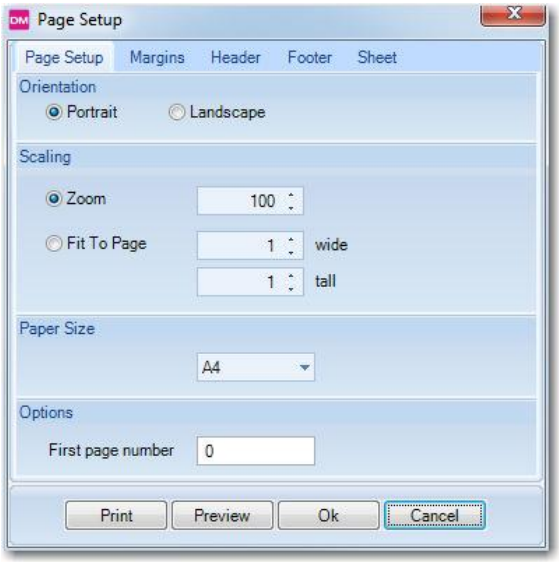
If using User-Inserted Worksheets, printing functionality is provided to customise how these worksheets are printed. This is available via the Sheet Context Menus. When right-clicking on a User-Inserted Worksheet, the following options are provided:



Set Print Area Define what part of the worksheet to print by setting the currently selected range as the 'Print Area'.

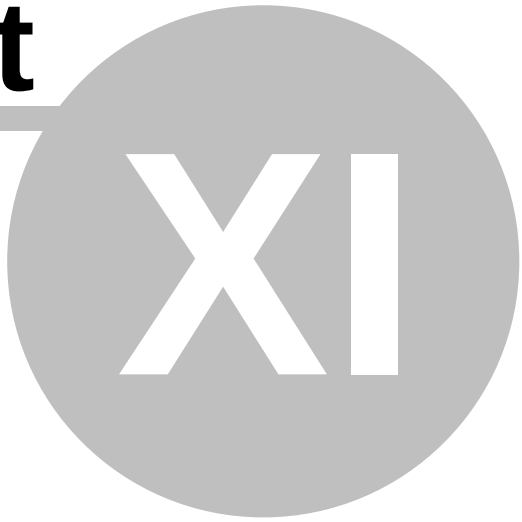
Page Setup Change the settings for how the page is to be printed, such as:

- Orientation (portrait or landscape)
- Zoom (percentage or 'Fit to Page')
- Paper Size
- Margins and Page Centring
- Headers and Footers
- Print Area
- Title Rows and Columns to repeat
- Page Order.



Print Print the active User Inserted sheet.

Part



11 Using the Estate Master Enterprise Database

11.1 Introduction to the Enterprise Database

The Estate Master Enterprise Database is a central data management tool that allows the user to archive development cash flows created in the Estate Master DF (Development Feasibility), DM (Development Management) and IA (Investment Appraisal) software.

It is available to all users of Estate Master DF and DM version 3.xx and above, and Estate Master IA 2.xx and above.

When using it in conjunction with Estate Master CC (Corporate Consolidation), it allows users to generate consolidate or comparison reports for selected cash flows, projects or portfolios to calculate forecasted and actual investment returns including, development profit, internal rate of return and net present value.

The Estate Master Enterprise Database can be used to:

- Archive all input and cash flow data from Estate Master DF, DM and IA files.
- Generate comparison summary and cash flow reports for unlimited number of development options (when used with EM CC).
- Generate consolidated summary and cash flow reports for unlimited number of development stages (when used with EM CC).

11.2 Preparing Data for Exporting

The Estate Master Enterprise Database is a powerful data repository and a robust framework for high level reporting. It is therefore recommended that the data that is exported to it is accurate and meaningful.

Before exporting your DF or DM project into the Enterprise Database, please ensure that the following key areas are set:

Intro Sheet

1. Project Introduction

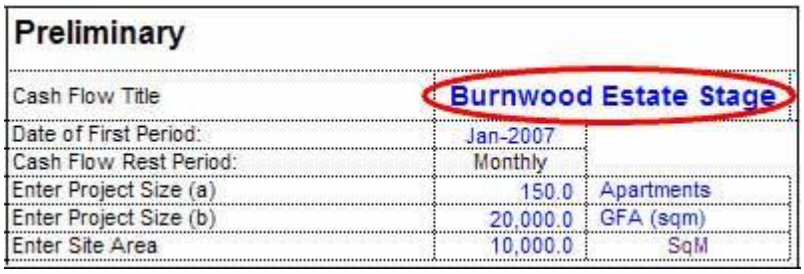
This is information that will be used in the Enterprise Database to identify your Project, please insure it is completed. The 'Project Number' and 'Project Title' are distinctive: This will be the most unique identifier of this Project that the cash flow belongs to. Any cash flows with the same Project Number and Project Name will grouped together in the Enterprise Database.

ESTATE MASTER Project Introduction			
Project Title	Burnwood Estates		
Address	1060 West Addison		
City/Suburb	Jannali	Zip/Post Code	226
State/County	NSW	Country	Australia
Account Code	255-060	Project Number	J1200
Prepared By	Bill Hill	Developer	Mike White
Prepared For	Phil Gill	Land Owner	ABC Pty Ltd

Input/Setup Sheets

1. Options/Stages (DF Only)

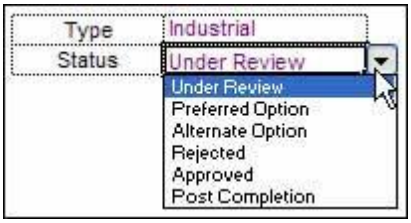
In DF, you can only export cash flows that have been stored as Options/Stages. You will note, DF will not allow you to store any cash flows as Options/Stages if they have the same Cash Flow Title in the Input/Setup Sheet. The Cash Flow Title is what distinguishes the cash flows within the same project, so please ensure that this is unique compared to other cash flows (e.g. options, stages, etc) in that project.



Preliminary		
Cash Flow Title	Burnwood Estate Stage	
Date of First Period:	Jan-2007	
Cash Flow Rest Period:	Monthly	
Enter Project Size (a)	150.0	Apartments
Enter Project Size (b)	20,000.0	GFA (sqm)
Enter Site Area	10,000.0	SqM

2. 'Type' and 'Status' Fields

The Type and Status fields will also be referenced in the Enterprise Database and used as search filters, so please take note of your choices and update them accordingly.



3. Revenue Data

For more feature-rich and detailed reporting, it is advised that revenue data is entered in detail and categorised using the 'Land Use Codes'.

9000 Sales

Sales Revenue to be entered Inclusive of GST

Code	Description	No. Units	Total Area SqKm	Current Sale Price	Settlements Month Start	Settlements Month Span	Settlements Date Start	Settlements Date Finish	GST Included	Land Use Code	Sale Rate
9001	.	-	-	-	0	-	-	-	Y	-	Per Unit
9002	Sale of Units	1.00	-	10,000,000.00	24	12	Jan-09	Dec-09	Y	RS1	Per Unit
9003	.	-	-	-	0	-	-	-	Y	-	Per Unit

Easier data entry, but lacks detail !

9000 Sales

Sales Revenue to be entered Inclusive of GST

Code	Description	No. Units	Total Area SqM	Current Sale Price	Settlements Month Start	Settlements Month Span	Settlements Date Start	Settlements Date Finish	GST Included	Land Use Code	Sale Rate
9001	.	-	-	-	0	-	-	-	Y	-	Per Unit
9002	1 Bedroom Units	3.00	195.00	515,000.00	24	12	Jan-09	Dec-09	Y	RS1	Per Unit
9003	2 Bedroom Units	7.00	665.00	715,000.00	24	12	Jan-09	Dec-09	Y	RS2	Per Unit
9004	3 Bedroom Units	3.00	450.00	1,150,000.00	24	12	Jan-09	Dec-09	Y	RS3	Per Unit
9005	.	-	-	-	0	-	-	-	Y	-	Per Unit

Recommended Option: More input detail leads to more meaningful and effective reporting.

11.2.1 Exporting to the Database

To export all the input data in your Estate Master DM file to the Enterprise Database, follow these steps:

1. Ensure that a Project Tile and Project Number is entered in the Intro sheet of the DF or DM file.

ESTATE MASTER Project Introduction			
Project Title	Project Title		
Address	Address		
City/Suburb	City/Suburb	Zip/Post Code	Zip/Post Code
State/County	State/County	Country	Country
Account Code	Account Code	Project Number	P100000
Prepared By	Report Prepared By	Developer	Enter Developer Name
Prepared For	Report Prepared For	Land Owner	Enter Land Owner Name

2. Go to 'Data' in the Ribbon Menu and select 'Export to Database'

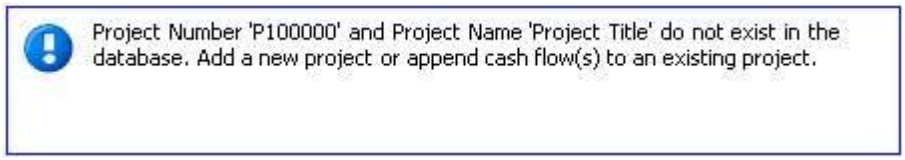
3. If the database configuration file (EMDB.ini) is not found on the system (and hence a connection to the Enterprise Database cannot be established), then the following error message will appear. It will prompt the user to run the Enterprise Database Management Utility to assist in setting up a connection. Please refer to the Enterprise Database Operations Manual for more information about configuration.

4. Once the connection is successful, an Export Wizard will appear.

Step 1 - Project Allocation

1. Using the Project Name and Project Number on the Intro sheet of the DM file, it will attempt to find any records of that Project Name or Number in the database. If the project is already in the database, it will skip Step 2 and continue to Step 3. Otherwise, the following messages may appear on the wizard:

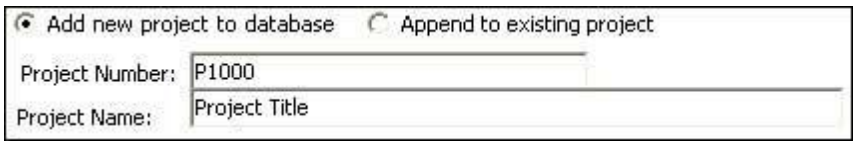
- **Project Number and Name Doesn't Exist**



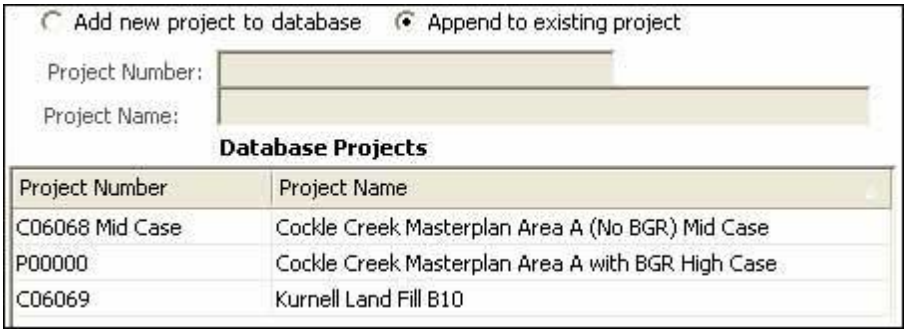
- **There is a mismatch between the details on the file and in the database**

2. If any of these messages appear, two options are available to the user:

   - **Add New Project to Database:** If this option is selected, by default, it will use the details on the Intro sheet of the DM file as the Project Number and Name. The user can edit this if necessary directly in the wizard, and the Intro sheet will be automatically updated.



   - **Append to Existing Project:** If this option is chosen, the Project Number and Name fields are disabled, and the user is required to select a project that is already in the database. Once selected, the Intro sheet will be automatically updated.



Step 2 - Confirm Export Details

1. If the project is already in the database, it will go then the following messages may appear. The user has the ability to change the project the cash flow is being exported to if required. It will also inform the user if this is a new cash flow being exported, or if the cash flow already exists in the database.

Step 3 - Export Data

1. Once satisfied with the details, click 'Export' to begin the data transfer process.

11.3 Exporting when Setting Budgets

When setting the Original, Project or Previous Budgets in a DM model, the user may be prompted each time to also store the budget into the Enterprise Database at that point in time.

If the user decides to export and clicks 'Yes', then data export wizard will appear, and once all data is exported into the database, the cash flow will be mark it accordingly in the database with the budget type (ie Previous Budget, Original Budget, etc).

If the user clicks 'No', then if they ever export to the Enterprise Database manually through the 'Management Tools', then the cash flow will be marked as 'Current Budget' in the cash flow.

To select whether you wish this prompt always appears when setting budgets or not, go to the Estate Master Preferences.

11.4 Importing from the Database

To import input data in your Estate Master DM file from the Enterprise Database, follow these steps:

1. Go to 'Data' in the Ribbon Menu and select 'Import from Database'
   

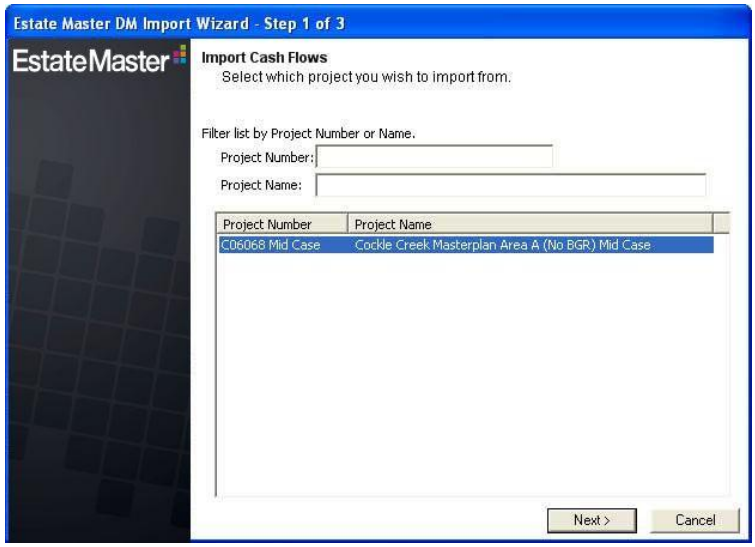
   .
2. If the database configuration file (EMDB.ini) is not found on the system (and hence a connection to the Enterprise Database cannot be established), then the following error message will appear. It will prompt the user to run the Enterprise Database Management Utility to assist in setting up a connection. Please refer to the Enterprise Database Operations Manual for more information about configuration.

3. Once the connection is successful, an Import Wizard will appear.

Step 1 - Select Project

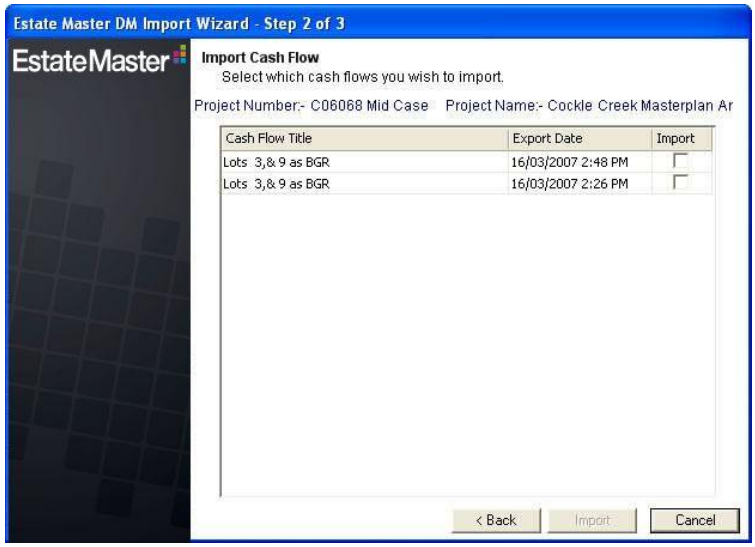
1. The first step will display a list of the Projects that exist in the Enterprise Database. If their is an extensive list, you can filter it either by Project Number or Name.



2. Select the appropriate project and click on 'Next'.

Step 2 - Select Cashlow

1. The next step will display all the cash flows that exist in the selected Project in the database. You can sort the list by clicking on the column headers.



2. In the 'Import' column, select the cash flows you wish to import. There is a maximum of **1** cash flows you can import into a DM file from the database.

Step 3 - Import

1. Once the Options/Stages have been set, click on 'Import' to begin the file transfer process.

Part

12 Troubleshooting

12.1 Maximum Cash Flow Periods

For every payment and revenue item it is necessary to put a start date and span period else the program will not add the payment to the cash flow. The start date must be a number between zero (0) (which represents the first or current period) and the maximum time periods as shown on the bottom of the 'Setup' sheet. The span period must be one (1) or more.

The start and span numbers must not add up to more than the maximum time periods. If you exceed the maximum time periods a warning will be displayed.

If you find that the number of time periods are not enough for the project, re-examine the interval period nominated and adjust it to a greater interval period eg from months to quarters or insert more time periods by changing the 'Resize Time Periods' preference.

If you put too high variation for construction and/or sale span period in the sensitivity input table you will get an error message just to the right of the input cells. This occurs where the variation causes the cash flow to exceed the maximum number for the purpose of sensitivity analysis (15 more time periods than the cash flow depicts). You will need to either reduce the variation (high forecast percentage) or else select a longer interval period (eg quarters instead of months).

12.2 Entering the Correct Data

If you find that once all data has been entered and calculated, the performance indicators in the financial summary are returning a #VALUE or #NUM value. The reasons for this could be either of the following:

1. Incorrect data entered in the input cells. There is a safeguard built into the program against entering text in a cell that requires a numerical entry. If this is the case the cell will return 'Error Input' in red font or the cell will have a red background. The contents of the cell should be examined and edited appropriately.

   Examples of User Input Error Warnings

Description	% of Construct. '
Management Fees	Error Input
-	0.00%

   Text entered in a numerical cell

GST Included	Land Use Code
Y	RS1
Y	-

   Incorrect code entered

Total Area	Current Sale Price	Sales Calc Method
SqFt		
5,000	1,000,000	Per SqM
-	-	Per Unit

   Incorrect unit of measurement used

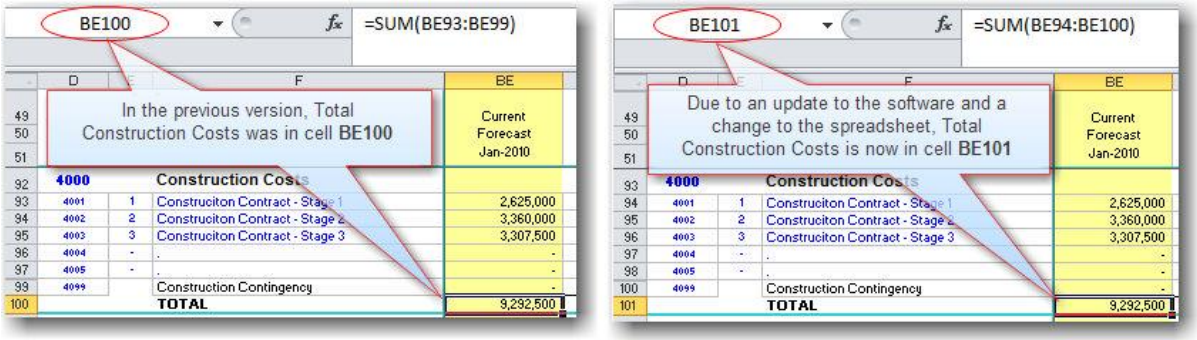
2. The estimate of IRR in the 'Hurdle Rates' section of the 'Setup' sheet may be too far off and should be adjusted to a rate closer to the expected IRR.

12.3 Opening a Previous Version

If the structure of any of the standard worksheets in Estate Master DM change between versions, then any custom formulas that users enter in the input cells in the previous version, *may* not reference the same intended row/column when they open it in the new version. This is only an issue in certain circumstance, not every time an update is released. If an update is released and there are no structural changes to the standard worksheets, then the integrity of custom formulas in input cells will remain intact.

For example:

- If the user had a custom formula in an input cell that was referring to cell BE100 on the 'CashFlow' sheet, say it was the Total Construction Cost cell, then the formula "=BE100", as well as the value that it calculates, is then saved to the Estate Master DM data file.
- If a new version of Estate Master DM is released, and say 1 row was entered *above* the Total Construction Cost row in the spreadsheet interface template (possibly due to a new feature or update), then the Total Construction Cost cell/row is now BE101, instead of BE100.
- When we load the custom formula "=BE100" that was saved in the previous version data file into the input cell of the newer version, then the formula would be wrong and the value it calculates wrong also.
- Unfortunately, given that our user input interface is spreadsheet-based and we allow the user to enter in custom formulas anywhere in the model, there is no easy solution for this.



Example showing how a cell reference to an item can change between versions of the software

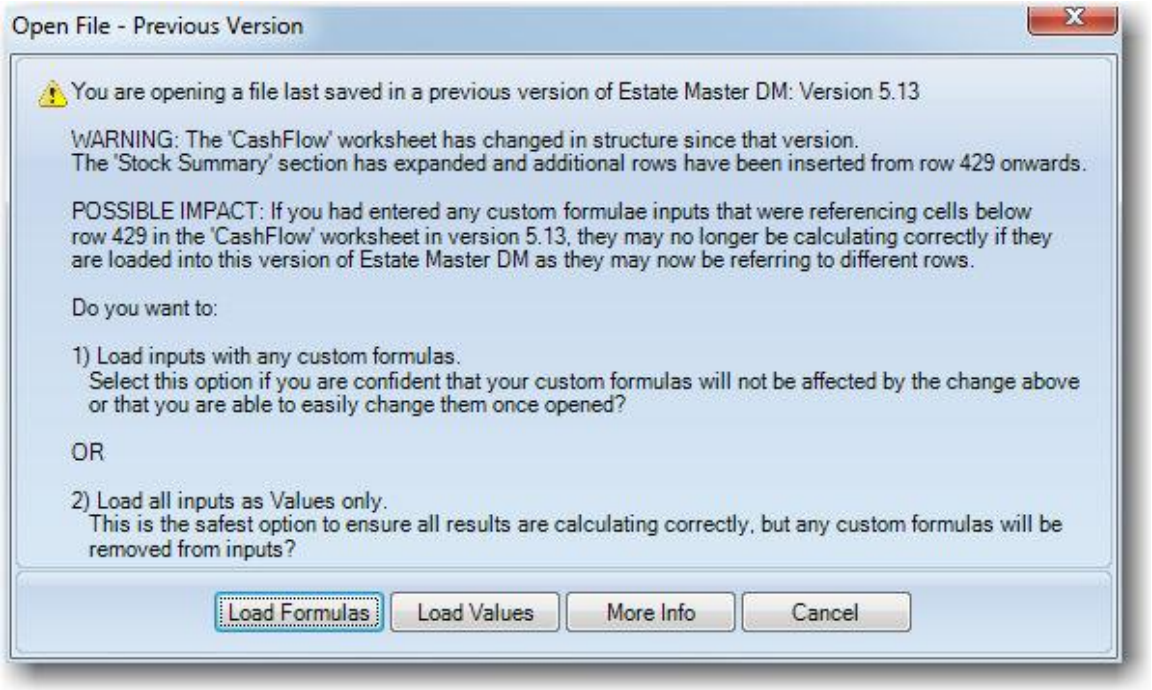
Option to Load Formulas or Values

When the software detects the user is opening a file saved in a previous version *and* a structural change has been made to a standard worksheet, It will then give the user the following options:

1. **Load Formulas:** Open the file with any custom formulas used in the inputs. This option should only be selected if the user is confident that their custom formulas used in inputs will not be affected by the structural change or that they are able to easily adjust them to their correct cell referencing once the file is opened. The downside to this option is that their is a risk that the user is unaware of where all their custom formula inputs are, and forgets to adjust all of them correctly.

   Since the message shows a description of *what* the structural change is and *where* it is located, the user is aware and can decide if or how it will impact their custom formulas. If the user does decide to open the file with formulas, there is no guarantee that the integrity of these formulas will be intact (as per the example demonstrated above), so it is recommended that the user check these formulas and amend them if necessary. The user at least knows what to look for when auditing their custom formula inputs to see if the structural change has affected them. In some cases the structural change may have no impact on the user's custom formulas, but nevertheless, it is still recommended to check them.

2. **Load Values:** Open the file with inputs as 'values' only. This is the **safest option** to ensure that all results are calculating correctly when the file is opened. The downside to this option is all custom formulas used in inputs will be lost, and the user will have to reset them if required.



Part XII

13 Licence Agreement

1. Acceptance of Terms

1.1 Permission to use this Software is conditional upon you reading and accepting all the terms of this licence agreement. You agree to the terms of this agreement when you agree to purchase a licence relating to the Software or purchase Support Services or training services, or when you pay our Invoice, or by clicking "I Accept" on the relevant part of our website or during installation of the Software. If you do not wish to accept the terms, you must not install or use the Software or Documentation.

1.2 If you are using the Software on behalf of a company or an organisation, by clicking the "I Accept" button you warrant that you are authorised by the company or organisation to enter into a binding agreement on these terms on its behalf.

2. Licence

2.1 We grant you a non-exclusive, non-transferable, perpetual licence to use the Software on the terms of this agreement:

(a) on a number of computers controlled and used by you up to or equal to the number of User/PC Licenses that you have purchased; or

(b) by a number of concurrent users up to or equal to the number of CAS Licences that you have purchased.

2.2 We grant you a non-exclusive, non-transferable licence to use the Documentation on the terms of this agreement.

2.3 You acknowledge that there is no transfer to you of any right in respect of the Software or the Documentation other than the licences granted in clauses 2.1 and 2.2.

2.4 In addition to the licensing conditions pursuant to clause 2.1, you will ensure that the Software is used only by named users (which may specified on our Invoice). For that purpose, you will:

(a) provide us with the names of the named users of the Software, and provide us with updated names as necessary from time to time;

(b) ensure that each named user is your employee; and

(c) ensure that the Software is used only by the named users.

3. Your Obligations

3.1 You must not and must not allow any other person to:

(a) except as expressly permitted by non-excludable laws, copy, alter, modify, tamper with, decompile, reverse engineer or attempt to reverse engineer, the Software, or use the Software to develop other software;

(b) copy the Documentation;

(c) permit the Software to be combined with or incorporated in other software;

(d) use the Software to supply hosting services or bureau services to any person; or

(e) infringe any of our Intellectual Property Rights in respect of the Software or otherwise.

3.2 You must:

(a) use the Software only in accordance with the Documentation;

(b) ensure that the Software is used only by people trained to use it;

(c) establish and carry out reasonable backup procedures for the Software;

(d) comply with our support and operating procedures current from time to time; and

(e) comply with all reasonable directions issued by us regarding use of the Software.

3.3 You must keep records in sufficient detail to enable compliance with your obligations under this agreement to be verified. We, or our auditors, after giving you at least 48 hours notice may examine your records during your usual business hours to verify that you have complied, and are complying, with those obligations. This clause will survive the termination of this agreement for a period of 18 months after the date of termination.

4. Evaluation Period and Activation

4.1 You may use the Software for the purpose of evaluation for a period of up to 14 days from the date of installation of the Software. After the evaluation period has expired, you must either:

(a) input an activation key and register the Software in accordance with the installation and registration instructions provided with the Software; or

(b) stop using the Software and uninstall it so that it is deleted from all computer equipment.

4.2 If, after evaluation, the Software is not registered in accordance with clause 4.1(a):

(a) the licence granted in clause 2.1 terminates; and

(b) the Software will disable itself and become unusable.

4.3 The Software is matched to the computer equipment on which the Software is first activated for use and the Software will disable itself and become unusable if you attempt to use it on another computer. However, on request we will issue a further activation key to you to allow you to install the Software on another computer, provided that you satisfy us that you have uninstalled the Software from the original computer.

5. Documentation

You acknowledge that the Documentation contains sufficient information for the adequate use of the Software, except to the extent we have notified you of any omission or deficiency or of any variation that we consider necessary for the proper use of the Software.

6. Initial and Ongoing Fees

6.1 You must pay the Licence Fee and the Support Fee for the first 12 months after the Commencement Date in accordance with our standard payment requirements before we will issue an activation key for the Software.

6.2 If you wish us to provide the Support Services to you at any time after the expiry of the initial period of the Support Services, you must pay us the Support Fees and any additional fees notified to you by us in accordance with our standard payment requirements. The Support Fees and additional fees are non-refundable.

6.3 If you wish us to provide training services to you at any time you must pay us the applicable training fees in accordance with our standard payment requirements.

6.4 If you dispute any Invoice, you must pay any undisputed amount and must notify us in writing within seven days after receipt of the Invoice of the reason for the dispute. The dispute will then be dealt with under clause 17. If the outcome of the dispute resolution process is that some or all of the disputed amount should properly have been paid, you must pay that amount together with interest at the cash target rate specified by the Reserve Bank of Australia on the day that the payment was due, plus 3%, calculated at daily rests from the original due date.

6.5 The Support Fee and any additional fees payable under this agreement are subject to annual adjustment on and from the beginning of the anniversary of the Commencement Date, by us giving you written notice. Any increase in the Support Fee or any additional fees payable under this agreement will be either:

(a) based upon the percentage increase in the CPI between the relevant anniversary of the Commencement Date on which the fees are being increased and the date on which the fees were last set or varied, in each case using the CPI figure last published before the relevant date; or

(b) by such other amount as we notify you in writing.

6.6 All fees, charges and other amounts referred to in this agreement are exclusive of Government Charges.

6.7 If any supply under this agreement is a taxable supply or results in Government Charges, the party making the supply:

(a) may, in addition to any payment for the supply, recover from the recipient the amount of the Government Charges applicable to the supply; and

(b) must issue a tax invoice to the recipient within 28 days after making the taxable supply.

7. Security

You are responsible for the use, supervision, management and control of the Software and Documentation. You must ensure that the Software is protected at all times from misuse or any form of Unauthorised Use.

8. Support Services (Annual Support and Software Assurance - ASSA)

8.1 We will provide the following Support Services to you in respect of the Software in accordance with the provisions of this clause 8:

(a) telephone, email and internet support in respect of technical issues and software usage through our Help Desk;

(b) upgrades and updates of the Software;

(c) access to an online knowledge base including case studies and research resources;

(d) free transfers of licences from computer to computer and between named users where applicable; and

(e) remote desktop assistance where practicable.

8.2 The Licence Fee for the period of 12 months from the Commencement Date includes the Support Fees for the Support Services during that period. We refer to supported licensed Software as a "**Supported Licence**".

8.3 Unless you give us written notice to the contrary, we will continue to provide the Support Services after that first 12 month period and you must continue to pay us the Support Fees. We will send you an Invoice for the Support Fees before the commencement of each successive Support Service period. If you do not wish to continue receiving the Support Services you must give us written notice at least 40 days prior to the expiry of the then-current period of Support Services.

8.4 If you give us written notice that you do not wish to receive the Support Services pursuant to clause 8.3, your use of the Software will be unsupported. During any period in which your use of the Software is unsupported we may, in our sole discretion, provide certain minor updates to the version of the Software then currently used by you. We refer to unsupported licensed Software as an "**Unsupported Licence**".

8.5 If your subscription to the Support Services lapses because you have not paid the Support Fees (with the result that you have an Unsupported Licence), you may re-establish your subscription to the Support Services by paying a re-establishment fee. The re-establishment fee will be based on the period during which you were not subscribed to the Support Services. Unless you and we agree in writing to the contrary, upon your payment of the re-establishment fee we will provide the Support Services for 12 months and, after the expiry of that period, we will continue to provide the Support Services and you must continue to pay us the Support Fees unless you give us written notice pursuant to clause 8.3.

8.6 If you purchase multiple licences of the Software, all licences must be Supported Licences in order for every named user to benefit from the Support Services.

8.7 If you maintain a mixture of Supported Licences and Unsupported Licences, the Support Services will be provided only:

(a) in the case of User/PC Licences – in respect of the named users of the Supported Licences; or

(b) in the case of CAS Licences – in respect of up to 3 named users of the Supported Licences.

8.8 If your Software licence is a Terminal Server CAS Licence and you wish to maintain a mixture of Supported Licences and Unsupported Licences, then you must separate the Unsupported Licences from the Supported Licences so that the relevant copies of the Software are on different terminal servers in a manner that ensures that the named users of the Unsupported Licences are not permitted to access the Supported Licences. You acknowledge and agree that you will not receive the Support Services in respect of the Unsupported Licences.

8.9 If your Software licence is a Client Server (Floating) CAS Licence and you wish to maintain a mixture of Supported Licences and Unsupported Licences, then you must:

(a) convert the Unsupported Licences to either an User/PC licence or a Terminal Server CAS Licence;

(b) pay us any Licence Fees which may apply to that conversion; and

(c) separate the Unsupported Licences from the Supported Licences so that the Unsupported Licences are installed on PCs or terminal servers (as applicable) in a manner that ensures that the named users of the Unsupported Licences are not permitted to access the Supported Licences. You acknowledge and agree that you will not receive the Support Services in respect of the Unsupported Licences.

8.10 You will not, and you will ensure that your employees and other staff do not, seek to obtain Support

Services in respect of Unsupported Licences or on behalf of users of Unsupported Licences.

8.11 The Support Services are provided only in respect of the Software and related Microsoft Excel/.Net issues. The Support Services do not include support, advice or assistance relating to general property development, finance, evaluation or other non-Software issues, or issues arising from computer hardware, operating systems, other software, data migration or conversion or telecommunications systems.

8.12 After the end of the period for which you have paid the Support Fees we may discontinue the Support Services at any time without notice to you.

8.13 Despite the other provisions of this clause 8, the Support Services will be withdrawn and will cease to be available in respect of Software that we have made available commercially for more than 5 years. However, we will not withdraw Support Services in respect of that Software until the expiry of the period for which you have paid the Support Fees.

8.14 The operational hours of the Help Desk are as stated on our website. We reserve the right to alter the operational hours of the Help Desk from time to time.

8.15 To ensure that the periods of the Support Services begin and end on the same date in respect of all your Supported Licences, if you purchase additional Software licences, the Support Fees in respect of those licences will be calculated on a pro-rata basis to extend to the end date of the current Support Services period.

8.16 You may convert the type of your Software licence between User/PC Licences and CAS Licences by giving us written notice and paying us any applicable additional Licence Fees. Additional Licence Fees may be applicable if the new type of Software licence has a higher Licence Fee than your current type of Software licence. No refunds will be payable if you convert from a type of Software licence that has a higher licence fee than the Software licence to which you intend to convert.

8.17 You may exchange a licence for one Software product for another Software product (for example, DF in substitution for one of DM, CC, IA or HF) on the condition that:

(a) you have not activated the Software product that you wish to exchange; and

(b) you pay any difference in the applicable Licence Fee if the new Software product has a higher Licence Fee than the Software product that you wish to exchange. No refunds will be payable if you exchange a Software product that has a higher licence fee for a Software product that has a lower Licence Fee.

8.18 You may transfer Supported Licences between named users provided that all relevant named users are your employees.

8.19 You may transfer Unsupported Licences between named users provided that at all relevant named users are your employees and that you pay us a fee as specified by us from time to time in respect of each change of a named user.

8.20 You must promptly notify us of any transfers between named users and provide us with details of the names and the Software in respect of which the names are named users.

8.21 We may vary the terms of this clause 8 from time to time by notice to you. Any variations will become effective at the end of your then-current period of Support Services, unless you and we agree otherwise.

9. Training Services

9.1 We will provide the training services to you as agreed between you and us including in relation to the type and content of the training to be provided, the duration of each training session, the number of participants to be trained, the date, time and venue for the training and the applicable fees for the training.

9.2 We do not warrant or represent that the training services or participation in the training services will result in particular level of competence or any other particular result.

9.3 You acknowledge that you rely on your own skill and judgment in determining the suitability of the training services for any purpose and in determining the suitability of particular trainees for receiving the training services.

10. Warranty

10.1 We warrant that:

(a) for the duration of the Warranty Period, the Software will operate in accordance with the Documentation in all material respects;

(b) use of the Software and Documentation in accordance with this agreement does not infringe the Intellectual Property Rights or moral rights of any person; and

(c) we have all necessary rights to grant the licences under clauses 2.1 and 2.2.

10.2 If, during the Warranty Period, you consider there is a defect in the Software that has the effect that the Software does not operate in accordance with the Documentation in a material respect, you must notify us within the Warranty Period. We will investigate any defects so notified and, upon verification of the existence of the defect, use reasonable endeavours to rectify the defect without additional charge to you.

10.3 The warranties in clause 10.1 do not apply to the extent that breach of those warranties and representations is caused by:

(a) Unauthorised Use; or

(b) your breach of this agreement.

11. Liability

11.1 You acknowledge that:

(a) the Software or the Documentation may contain errors or inaccuracies;

(b) the results produced by the Software are for information purposes only and do not constitute advice or take into account your particular circumstances (see clause 12);

(c) the results produced by the Software may contain errors or inaccuracies; and

(d) you rely on your own professional skill and judgement in using the Software and in determining its suitability for any purpose.

11.2 Subject to this clause 11, we are not liable to you or to any other person for:

(a) any loss or damage of any kind that is directly or indirectly caused by or results from any wrongful, wilful or negligent act or omission by you or any of your officers, employees, agents or contractors; or

(b) any indirect, incidental, special or consequential loss or damage, loss of profits or anticipated profits, economic loss, loss of business opportunity, loss of data or loss or damage resulting from wasted management time irrespective of whether:

(i) the loss or damage is caused by or relates to breach of contract, statute, tort (including negligence) or otherwise;

(ii) the loss or damage is caused by or relates to Unauthorised Use; or

(iii) we or any other person were previously notified of the possibility of the loss or damage.

11.3 Our maximum aggregate liability for all proven losses, damages and claims arising out of this agreement, including liability for breach, in negligence or in tort or for any other common law or statutory action, is limited to the amount of the Licence Fee paid by you to us under this agreement.

11.4 Any representation, warranty, condition, guarantee or undertaking that would be implied in this agreement by legislation, common law, equity, trade, custom or usage is excluded to the maximum extent permitted by law.

11.5 Nothing in this agreement excludes, restricts or modifies any consumer guarantee, right or remedy conferred on you by the Australian Consumer Law, Schedule 2 of the Competition and Consumer Act 2010 (Cth) or any other applicable law that cannot be excluded, restricted or modified by agreement.

11.6 To the fullest extent permitted by law, our liability for a breach of a non-excludable guarantee referred to in clause 11.5 is limited, at our option, to:

(a) in the case of goods: the replacement of the goods or the supply of equivalent goods, the repair of the goods, payment of the cost of replacing the goods or of acquiring equivalent goods, or payment of the cost of having the goods repaired; and

(b) in the case of services: the supplying of the services again or payment of the cost of having the services supplied again.

11.7 You indemnify us and our officers, employees and agents from and against any loss (including reasonable legal costs and expenses) or liability reasonably incurred or suffered by any of those indemnified where such loss or liability was caused by:

(a) Unauthorised Use of the Software;

(b) your breach of your obligations under this agreement; or

(c) your wilful, unlawful or negligent act or omission.

12. Software Performance and Results

12.1 You acknowledge that the results produced by the Software involve an analysis of data input by you and do not take into account your particular objectives or financial circumstances. Accordingly, you acknowledge that before acting on any results produced by the Software, you must consider whether it is appropriate to do so in light of your particular financial circumstances and objectives.

12.2 We do not guarantee that the Software is or will be error free for all possible systems, combinations of software and input variations.

12.3 You acknowledge that software in general is not error-free and agree that the existence of such errors will not constitute a breach of this agreement. We do not warrant that the Software will be free from all known computer viruses and you are solely responsible for scanning the Software for computer viruses.

12.4 It is a condition of this agreement that you test the Software for compatibility with your systems, existing software and input permutations. You must audit the output results of the Software on a regular basis to ensure the ongoing suitability and integrity of the Software.

12.5 You agree that we do not warrant or represent that the Software or your use of the Software will result in particular level of profitability, return on investment or any other particular financial or non-financial result.

13. Confidentiality

13.1 Each party:

(a) may use Confidential Information of the other party solely for the purposes of this agreement;

(b) except as permitted under clause 13.1(c), must keep confidential all Confidential Information of the other party; and

(c) may disclose Confidential Information of the other party only to persons who:

(i) are aware and agree that the Confidential Information of the other party must be kept confidential; and

(ii) either have a need to know (and only to the extent that each has a need to know), or have been specifically approved by the other party; or

(d) may disclose Confidential Information of the other party as required by law or stock exchange regulation;

(e) must take all reasonable steps to secure and keep secure all of the other party's Confidential Information coming into its possession or control; and

(f) must not memorise, use, modify, reverse engineer or make copies, notes or records of the other party's Confidential Information for any purpose other than in connection with the performance of its obligations under this agreement.

13.2 Even though information is the Confidential Information of a party, the other party is not obliged to comply with clause 13.1 in relation to that Confidential Information if:

(a) the Confidential Information has become public knowledge; or

(b) the other party became aware of that Confidential Information from a third person,

in circumstances where there was no breach of any obligation of confidence.

13.3 You must not make any public statement about:

(a) the performance of;

(b) the operation of; or

(c) benchmarking,

the Software without our prior written consent.

14. Intellectual Property Rights

14.1 In the event that proceedings are brought or threatened by a third party against you alleging that your use of the Software constitutes an infringement of Intellectual Property Rights, we may at our option and own expense conduct the defence of such proceedings and you must:

(a) notify us in writing as soon as practicable of any infringement or alleged infringement;

(b) not make any admissions in relation to any infringement or alleged infringement;

(c) give us or our nominee the right to conduct the defence of such a claim, including negotiations for settlement or compromise prior to and after the institution of legal proceedings; and

(d) provide all necessary co-operation, information and assistance to us in the conduct of the defence of such proceedings.

14.2 If the Software is found to infringe a third party's Intellectual Property Rights, we may at our option:

(a) procure for you the right to continue using the Software;

(b) modify the Software so that it becomes non-infringing; or

(c) replace the Software with other software with similar functionality.

15. Term and Termination

15.1 This agreement commences on the Commencement Date and continues until:

(a) a party terminates the agreement in accordance with clause 15.2; or

(b) you give us at least 40 days written notice

15.2 A party may terminate this agreement with immediate effect by giving notice to the other party if:

(a) that other party breaches any material term of this agreement not capable of remedy;

(b) that other party breaches any material term of this agreement capable of remedy and fails to remedy the breach within 30 days after receiving notice requiring it to do so; or

(c) an Insolvency Event happens in relation to that other party (whether or not notified).

16. On Termination

16.1 On termination of this agreement (other than by you under clause 15.2), the licences granted under clauses 2.1 and 2.2 terminate and you must immediately:

(a) stop using the Software and the Documentation;

(b) return to us all copies of the Software and Documentation in your possession or control; and

(c) ensure that all of the Software has been deleted or permanently removed from any equipment on which it is stored.

16.2 You acknowledge that if this agreement is terminated other than by you under clause 15.2, in addition to any other remedies we may have, we may:

(a) retain all fees paid under this agreement;

(b) charge a reasonable sum for work performed in respect of which work no sum has been previously charged; and

(c) if you do not return to us all Software and Documentation in your possession or control in accordance with clause 16.1, at your cost, enter any of your premises during working hours to repossess them.

16.3 Clauses 11, 13, 14, 16 and 17 will survive the termination of this agreement.

17. Dispute Resolution

17.1 Neither party may start arbitration or court proceedings (except proceedings seeking interlocutory relief) in respect of a dispute relating to or arising out of this agreement ("**Dispute**") unless it has first complied with this clause 17.

17.2 A party claiming that a Dispute has arisen must notify the other party within 10 working days after the event occurring that has given rise to the Dispute.

17.3 Within 7 working days after a notice given under clause 17.2 each party must nominate in writing to the other party a representative authorised to settle the Dispute on its behalf.

17.4 During the 20 working day period after a notice is given under clause 17.2 (or if the parties agree a longer period, that longer period) each party must use its best efforts to resolve the Dispute.

17.5 If a Dispute is not resolved within that time, the Dispute must be referred:

(a) for mediation, in accordance with the then-current version of the Australian Commercial Disputes Centre (**ACDC**) Mediation Guidelines; and

(b) to a mediator agreed by the parties, or if the parties do not agree on a mediator, a mediator nominated by the then current Chief Executive Officer of the ACDC or the CEO's nominee (or if no such person is available or willing to nominate a mediator, by the then President of the Law Society of New South Wales).

17.6 The ACDC Mediation Guidelines set out the procedures to be adopted, the process of selection of the mediator and the costs involved. The terms of the ACDC Mediation Guidelines are hereby deemed to be incorporated into this Agreement.

17.7 If the Dispute is not resolved under clause 17.5 within 60 days after referral (or any longer period agreed between the parties) either party may commence proceedings in a court.

17.8 Nothing in this clause 17 prevents a party from seeking urgent interlocutory relief in a court.

18. Force Majeure

18.1 Neither party is liable for any delay or failure to perform its obligations pursuant to this agreement (other than an obligation to pay money) if that delay or failure is due to Force Majeure.

18.2 If a delay or failure of a party to perform its obligations is caused by Force Majeure, the performance of that party's obligations will be suspended.

18.3 If a delay or failure by a party to perform its obligations due to Force Majeure exceeds 60 days, either party may immediately terminate the agreement on providing notice in writing to the other party.

18.4 If this agreement is terminated pursuant to clause 18.3, we will refund moneys previously paid by you for any goods or services not supplied to you.

19. Entire agreement

This agreement, including the Invoices, constitutes the entire agreement between the parties and supersedes all prior representations, agreements, statements and understandings, whether verbal or in writing. No terms, requirements or specifications in order forms or other documents provided by you form part of this agreement.

20. Assignment

You may not assign or otherwise transfer the benefit of this agreement without our written consent.

21. Variation

This agreement may be varied only by a document signed by both parties that states expressly that it varies this agreement.

22. Severability

Any provision of this agreement which is invalid in any jurisdiction must, in relation to that jurisdiction:

(a) be read down to the minimum extent necessary to achieve its validity, if applicable; and

(b) be severed from this agreement in any other case,

without invalidating or affecting the remaining provisions of this agreement or the validity of that provision in any other jurisdiction.

23. Governing law

23.1 This agreement is governed by the law applicable in New South Wales, Australia and each party irrevocably and unconditionally submits to the exclusive jurisdiction of the courts of that State and the Commonwealth of Australia.

24. Notices

24.1 Notices under this agreement must be in writing and may be delivered by hand, by mail or by facsimile to the addresses specified on the Invoice.

24.2 Notice will be deemed given:

(a) in the case of hand delivery, upon written acknowledgment of receipt by an officer or other duly authorised employee, agent or representative of the receiving party;

(b) in the case of posting, 3 days after dispatch;

(c) in the case of facsimile, upon receipt of transmission if received on a business day or otherwise at the commencement of the first business day following transmission.

25. Definitions

25.1 The following definitions apply unless the context requires otherwise:

CAS Licence means a Concurrent Access Session licence, being the number of users who are permitted to use the Software at any one time on a network. For example, 20 people might have access to the Software, but a single CAS means that only one user may use the Software at a time. If you have a CAS Licence, it will be specified to be one of two types of CAS Licence: a Client Server (Floating) CAS Licence or a Terminal Server CAS Licence.

Client Server (Floating) CAS Licence means a type of CAS Licence which permits you to install the Software only on individual computers. You must ensure that a licence server application is installed on another machine on the same network to control access to the Software on the individual computers in accordance with the number of CAS Licences you have purchased.

Commencement Date means the earlier of the date we provide the Software to you or the date of the Invoice in respect of the Software.

Confidential Information of a party means all confidential information (including trade secrets and confidential know how) relating to that party or a corporation related (as that term is used in the Corporations Act 2001 (Cth)) to that party from time to time, of which the other party becomes aware.

CPI means the Consumer Price Index, Australia, All Groups, Weighted Average of Eight Capital Cities, published by the Australian Bureau of Statistics and, if that index ceases to be published, an alternative consumer price index nominated by us.

Documentation means any operating manuals and other printed materials including users' manuals, programming manuals, modification manuals, flow charts, drawings and software listings that are designed and provided by us to assist or supplement the understanding or application of the Software.

Force Majeure means a circumstance beyond the reasonable control of the parties which results in a party being unable to observe or perform on time an obligation under this agreement. Such circumstances include:

(a) acts of God, lightning strikes, earthquakes, floods, storms, explosions, fires and any natural disaster;

(b) acts of war, acts of public enemies, terrorism, riots, civil commotion, malicious damage, sabotage and revolution; and

(c) strikes.

Government Charges means any taxes, duties or government charges arising out of or in connection with entering into this agreement or making a supply under it, including GST.

Insolvency Event means, in respect of a party, any one or more of the following events or circumstances:

(a) a winding up, dissolution, liquidation, provisional liquidation, administration or bankruptcy;

(b) having a controller (as defined in the Corporations Act 2001 (Cth)), receiver, receiver and manager, administrator, liquidator (whether provisional or otherwise) of that party or that party's property or any other person (however described) holding or appointed to an analogous office or acting or purporting to act in an analogous capacity;

(c) being unable to pay any of its debts as and when due and payable or being deemed to be insolvent under any provision of the Corporations Act 2001 (Cth) or any other law;

(d) seeking protection from its creditors under any law, entering into a compromise, moratorium, assignment, composition or arrangement with, or for the benefit of, any of its members or creditors; or

(e) any analogous event or circumstance to those described in paragraphs (a) to (d) under any law or in any jurisdiction,

unless such event or circumstance occurs as part of a solvent reconstruction, amalgamation, compromise, arrangement, merger or consolidation approved by the other party (which approval is not to be unreasonably withheld or delayed).

Intellectual Property Rights means all intellectual property rights, including:

(a) patents, copyright, rights in circuit layouts, registered designs, trade marks and the right to have confidential information kept confidential; and

(b) any application or right to apply for registration of any of those rights.

Invoice means our invoice to you in relation to this agreement.

Licence Fee means the fee specified on the Invoice, payable to us for the use of the Software.

Software means the software specified on the Invoice that you are licensed to use under this agreement, including any enhancement, modification, upgrade or new release of that software.

Supported Licence has the meaning given in clause 8.2.

Support Fee means a fee for the Support Service as specified in our Invoice or otherwise in accordance with the rates notified to you from time to time.

Support Services means the support services described in clause 8.1.

Terminal Server CAS Licence means a type of CAS Licence which permits you to install the Software only on a terminal server (eg Microsoft Terminal Server, Citrix Server, etc) and the users are permitted to access the Software via a remote desktop connection. You must ensure that the server limits access to the Software in accordance with the number of CAS Licences you have purchased. Under this type of CAS Licence you must not install the Software on a server running a workstation operating system.

Unauthorised Use means:

(a) an alteration or modification to the Software or Documentation that has not been authorised in writing by us;

(b) use of the Software other than in accordance with the Documentation or for a purpose not reasonably contemplated by us or under this agreement; or

(c) use of the Software in combination with equipment, computer programs or services not set out in the Documentation or otherwise authorised in writing by us.

Unsupported Licence has the meaning given in clause 8.4.

User/PC Licence means a licence for a single person to install, register and operate the Software on a single computer.

Warranty Period is the period of 90 days from the date on which the Software is first installed on your computer or server.

We, including its different grammatical forms such as **our** and **us**, means Estate Master Pty Limited, ABN 76 102 232 593, of Level 3, 234 George Street, Sydney, NSW, Australia.

You and **your** means the person specified in the Invoice or, if there is no Invoice, the person installing the Software or, where it has been installed on behalf of a company or organisation under clause 1.2, that company or organisation.

25.2 The following rules of interpretation apply unless the context requires otherwise:

(a) any use of the verb "includes", or of words such as "for example" or "such as", do not limit anything else that is included in general speech;

(b) the singular includes the plural and vice versa; and

(c) unless otherwise stated, monetary references are references to Australian dollars.