Estate Master
Development Feasibility

DF

Operations Manual

ESTATEMASTER

PROPERTY SOFTWARE

www.estatemaster.net

Table of Contents

Part I

1   Introduction to Estate Master

1.1   Introduction

This operations manual is a guide for using Estate Master DF developed in Microsoft Excel and Visual Basic .NET.

Estate Master DF is a cash flow model designed for property development feasibility analysis. It calculates investment returns including residual land value, development profit, internal rate of return and net present value based on a comprehensive set of inputs.

The Program can be used to:

- Financially appraise property development and test project feasibility;

- Estimate residual land value for acquisition purposes based on hypothetical development;

- Estimate the value of land for the purpose of disposal; and

- Estimate returns to the land owner and developer in a joint venture arrangement.

Estate Master DF is also suitable, or adaptable, for:

- Full financial feasibility of multi-staged developments or single-staged developments;

- Cost Benefit analysis;

- Valuation tool to calculate a site's residual value based on a hypothetical development; and

- Post-project evaluation.

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 DF program has been originally sealed by a password 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 DF program are prohibited without the express written approval of the authors Hill PDA Land Economists.

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:

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1.3   System Requirements

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

- PC with an Intel Core 2 Duo (3GHz) or Quad (2.4Ghz) minimum processor (or equivalent).

- Microsoft Windows 98 or later operating system. The software is not compatible with Macintosh systems.

- Microsoft Internet Explorer 5.1 or higher.

- Microsoft .Net Framework 2.0 or higher.

- Microsoft Excel 2000 or later. The software may run on Excel 97, but is not recommended.

- 1Gb RAM or higher.

- CD Drive (if installing from CD).

- Printer installed.

- Modem and internet connection (for downloading files and obtaining tech support).

Part

II
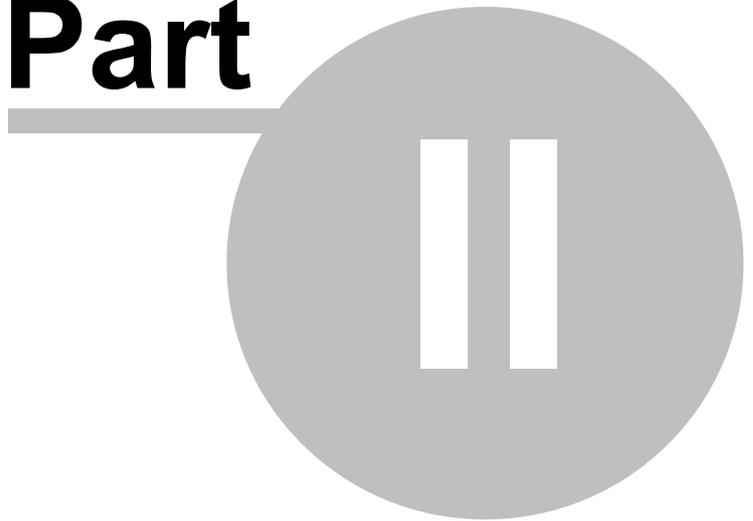
2   Installation

The program can only be installed by a person who has Administration rights for that PC. This is relevant for workstations that form part of a network.

To Install the File from CD

1. Place the Estate Master CD into the drive and wait for the installation program to automatically load.

2. Follow the prompts to install the program on the PC.

To Install the File from Download

1. After downloading the executable file from the Estate Master web site and saving it on your PC, open the file by double clicking on it with your mouse.

2. Follow the prompts to install the program on the PC.

Opening and Closing the File - New File

1. In Microsoft Windows go to the [Start] ➜ [Programs] ➜ [Estate Master] ➜ [DF4] and click on [Estate Master DF]

2. The program will begin to load. If asked, tick the box 'Always Trust Macros from this source' and ensure that macros have been 'Enabled'.

3. Once the file has opened, it is recommended that you save the file as a different filename. Be sure not to save your working file over the master file or template. If you have done so then you should re-install the master software.

4. After using the program, save the file if required, and close using the Excel File Close command.

Opening and Closing the File - Existing File

1. Go to the current Estate Master DF file you wish to open and double click with your mouse.

2. The program will begin to load. If asked, tick the box 'Always Trust Macros from this source' and ensure that macros have been 'Enabled'.

3. After using the program, save the file if required, and close using the Excel File Close command.

Part III
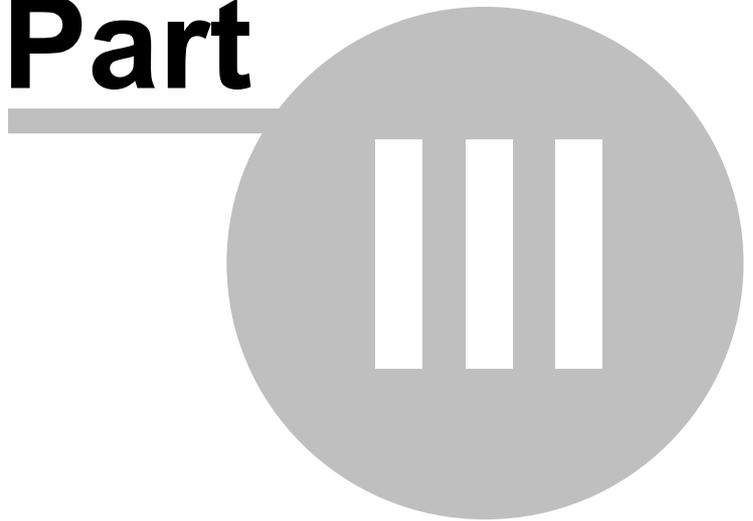
3 Introduction to Development Feasibility Analysis

3.1 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:

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

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.

3.2 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:

PV= $\dfrac{FV}{(1+i)^{\wedge}n}$

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

3.3   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.

3.4   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:

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

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:

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

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.

3.5   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.

3.6   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:

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

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)

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

$$\textbf{R}_E = R_F + ß * (R_M - R_F)$$

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.

3.7 Residual Land Values

There are two different methods of calculating Residual Land Values in Estate Master:

1. Calculated on the target development margin

2. Calculated on the target IRR (discount rate).

Given that the two methods are based on different principals and methods of calculation, they will most likely result in different values for the same development project. Sometimes the difference is minor, and a common practice would be to round the result for the indicative land value. However, the following question arises when the differences are quite significant – Which RLV do we use? The question is critical, not only for land acquisition purposes, but also for valuations.

RLV on Target Development Margin

The RLV on the Target Development Margin is the maximum price for the land that the developer would pay to make the calculated development margin equal the target hurdle rate. The target hurdle rate is essentially the developer's required return for the project, also referred to as a 'Profit and Risk Factor'. The Development Margin has been the traditional method of development feasibility analysis in the past and is beneficial for short term projects. However it does have its shortcomings – it does not account for the time value of money and its results can be misleading for projects that extended beyond two or more years. Two projects may have the same net profit, but due to differences in the timing of cash inflows and outflows, one project may be realising its profit earlier than the other. Therefore, it you take into account the old adage "a bird in the hand is worth two in the bush", then even though the projects have the same profit, a prudent developer/investor would chose the project that achieves its profit earlier.

RLV on Target IRR (Discount Rate)

The RLV on the Discount Rate (Target IRR) is the maximum price for the land that the developer would pay to make the calculated IRR equal the target hurdle rate or their Net Present Value (NPV) equal zero. Unlike the Development Margin, the IRR takes into account the dimension of time in its calculation and is used to differentiate projects of different cash flow exposures. It is more effective for longer term projects of more than 2 years, as it can be quite sensitive to small movements in time for short term projects. By adopting a suitable discount rate (Target IRR), the cash inflows and outflows are discounted to determine their present value and then added together to form a Net Present Value for ease of comparison between other projects of dissimilar timings.

Hurdle Rates

After taking into consideration the duration of the project to determine which RLV calculation to adopt, another important factor is the actual hurdle rate that is applied for the Target Development Margin and Target IRR. These targets must be accurate and realistic, in particular the Target IRR which is sensitive to not only costs and revenues, but also time. Quite simply, if a higher return is required (and thus a higher hurdle rate is adopted), the RLV function will indicate that you would have to pay less for the land to achieve that target, and vice versa. Failure to adopt the correct hurdle rate, could result in miscalculation of the land value and subsequently an incorrect land acquisition cost.

So in summary, things to consider when adopting a RLV:

- The RLV based on the Development Margin is suitable for projects of approximately 2 years or less.

- The RLV based on the IRR/NPV is suitable for longer term projects of approximately 2 years or more.

- Ensure that accurate hurdle rates are applied.

- If applying the RLV on IRR/NPV, ensure that the correct annual to rest period conversion is applied.

Part IV

4   Quick Start Guide

4.1   Quick Start

1. Open the Estate Master DF program.

2. Save your working file using the Excel - 'File' - 'Save As' command or the Estate Master Tool Bar.

3. Set Input Preferences by clicking 'Estate Master' - 'Preferences' from the workbook menu bar (or F10).

4. Navigate around the program by clicking 'Estate Master' - 'Go to Inputs' or 'Go to Reports' from the Estate Master Menu or by selecting the worksheet tabs at the bottom of the screen.

5. Enter data into input cells with a font colour of blue, purple, red 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.

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.
Red Font Cells: The red input cells are only relevant where the program is being used to model a hypothetical joint venture arrangement (between a "Developer" and a "Land Owner"). If the program is being used to model a single developing party (i.e. no joint venture), which is usually the case for valuation purposes for example, then these cells will not impact the calculations.
For JV models putting numbers in these cells apportions some of the costs and revenues to the Land Owner. If the model is not being used for a joint venture, make sure "Single Entity" is selected in the Joint Venture tab of the Estate Master Preferences. This will remove all red input cells relating to Joint Ventures.

6. Make sure all calculations are updated by pressing F9. If calculations have not been refreshed, a warning will appear on all worksheets. Check that your assumptions are correct and targets are met and if necessary return to the 'Input' sheet to add or adjust your assumptions.

7. 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 or on the Estate Master Menu.

8. When you are satisfied that the information has been entered correctly you may select the Print Report Options on the Estate Master Menu.

9. Save your changes using the Excel - 'File' - 'Save' command or the Estate Master Tool Bar.

4.2 Navigation

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

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

2. Click on the relevant sheet on the workbook sheet tabs.

Intro	Introduction page. Enter project name and other details.
Input	Primary data input sheet. This is where the majority of assumptions regarding costs and revenues are entered. The Gantt chart for viewing project timeline is also generated on this sheet.
Tenants	Tenancy Schedule input sheet: rents, leasing costs and incentives, capitalisation rates, etc.
Cash Flow	Contains the detailed cash flow outputs. This is where optional manual cash flow inputs can also be entered.
Financials	Profit and Loss and Balance Sheet reporting.
Summary	The development financial summary sheets for the developer and land owner (if a joint venture).
Chart	Project cash flow charts for the developer and land owner (if a joint venture) and charts for the Consolidation of Stages or Comparison of Options.
Consolidate	Consolidates or compares up to 8 different stages or options that have been stored.
Sensitivity	The tables and charts from the Sensitivity Analysis.
Probability	The Probability Analysis inputs and distribution profiles of the Development Margin and IRR.
Title	A title page for the financial reports. A custom disclaimer can be entered here.
S-Curve	The look-up tables for the development cost drawdown s-curves.
Stamp-Duty and Land-Tax	The adjustable stamp duty and lax tax calculation tables.

4.3   Estate Master Menu

The Estate Master Menu is automatically loaded into Excel when you open the Estate Master DF program. It provides the user with shortcuts to the various functions available in the program.
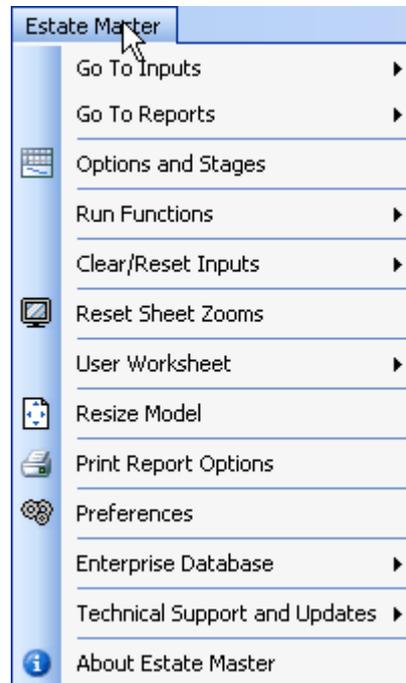
Go To Inputs	Go to any of the dedicated data input areas in the program.
Go To Reports	Go to any of the reporting worksheets, such as the Summary, Cash Flow, Sensitivity Tables, Charts, etc.
Options and Stages	Runs the Store/Recall function. Store the current set of inputs as one of the eight available 'options/stages' in the program for comparison or consolidation purposes. Recall one of the 'options/stages' in the program back into the main input sheet for editing.
Run Functions	Shortcuts to run the Residual Land Value Analysis, Sensitivity Analysis and Probability Analysis.
Clear/Reset Inputs	Clear the 'Input', 'Tenants' or 'Manual Input' areas individually or all inputs in the current option. Also allows the user to reset to default or manual variations in interest rates or loan drawdowns or repayments.
Reset Sheet Zooms	Fits the sheet zoom to the size of the users monitor/screen size.
User Worksheet	Insert and name blank worksheets with the ability to delete them.
Resize Model	Increase or decrease various aspects of the model to suit user preference. Items that can be automatically resized by the user include the number of time periods and the input rows for any of the cost or revenue sections.
Print Report Options	Loads the print form to allow the user to select the worksheets to be printed, and if required, to run the default print setup.
Preferences	Opens the form for the user to select their data Input Preferences. These should be set before any data is entered but can be changed at any time.

Enterprise Database (requires Estate Master Enterprise database to be installed)	This function allows the user to export/import all the input data in the model to or from the Estate Master Enterprise database for cash flow archiving, consolidating, comparison and reporting purposes.
Tech Support and Updates	Allows the user to:

- Send a technical support query via email/internet

- Check the latest version of the software online (requires internet connection).

- Opens the Estate Master Help program.

- Use the 'Import Data from Previous Version' function after installing new versions.

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

4.4   Estate Master Tool Bar

The Estate Master Toolbar is automatically loaded into Excel when you open the Estate Master DF program. It provides the user with shortcuts to the various functions available in the program.

Save the current Estate Master file.
Load the print report options menu.
Store/Recall on option or stage in the model.
Calculate the residual land values.
Run the sensitivity analysis function.
Resize the model (more input rows or time periods)
Load the Estate Master Preferences.
Export the file into the Estate Master Enterprise database.
Export data from the Estate Master Enterprise database.
Open the Estate Master Help utility.

Information for Excel 2007 Users
Due to the changes in the user interface in Office 2007, for Excel 2007 users, the Estate Master Tool Bar and Estate Master Menu can be found in the 'Add-Ins' menu in Excel's new 'Ribbon'.
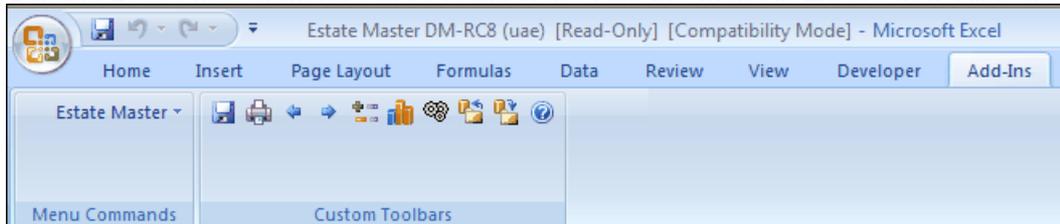
4.5   Resizing the Model

The Estate Master model can be resized in two areas:

1. Adding more time periods (45 to 150)

2. Adding more cost and revenue rows (5 to 200, depending on section).

Resize Model Function

To resize the model, one method is to use the 'Resize Model' feature in the Estate Master Menu bar.

1. Go the Estate Master Menu and click on [icon] Resize Model

2. The form will load with a series of toggle switches.
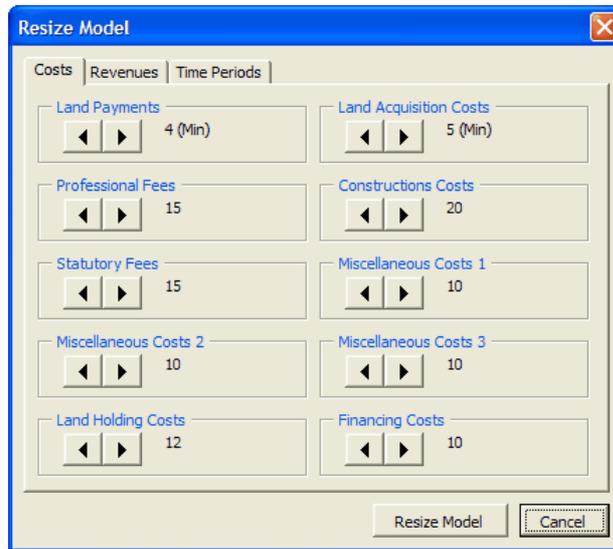
3. Adjust the parts of the model you need to expand or reduce. Only add rows and time periods when you need them as it will impact on the size of the file.

4. Click on Resize Model and it will make the appropriate changes to the file.

Insert/Delete Row Buttons

An alternative to load the 'Resize Model' function, is to use the Insert/Delete row buttons on the Input sheet. They are located on the bottom of each cost and revenue section and will insert/delete 5 rows at a time.

[—] Delete Rows

[+] Insert Rows

Before Resizing your Model
When deleting rows and/or time periods, be aware that it will delete the same rows and/or time periods in all the Options/Stages that may have been stored.
Make sure you delete time periods and/or rows when you are 100% certain that they are not being used in the other Options/Stages.

Part

V
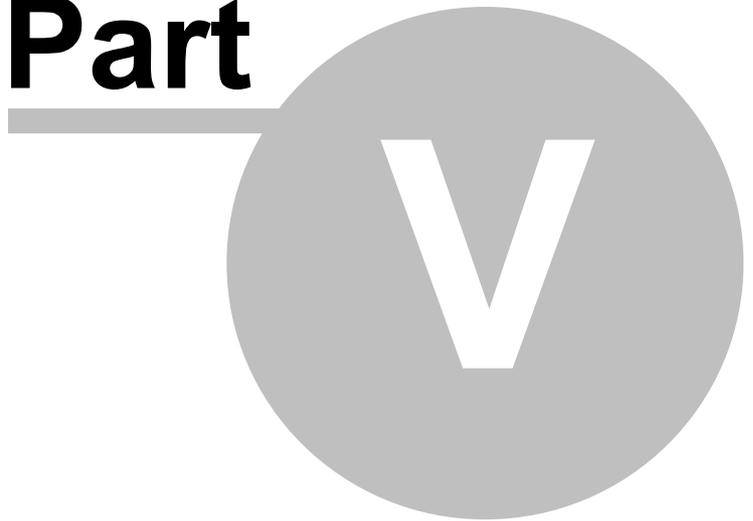
5   Estate Master Preferences

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

1. Clicking on Preferences on the Estate Master Menu,

2. Clicking on Set Preferences on the 'Input' sheet,

3. Pressing F10, or

4. Clicking on the P buttons next to the relevant section in the input areas.

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. Go to the preference and then click on the button located to the right of it.

2. It will the be shown as 'unlocked' and the selected preference can then be changed by the user.

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.

Printing an Assumptions Report
To check what preferences and settings have been defined in the model, an Assumptions Report is available to be printed, just by clicking on the 'Print Assumptions' button at the bottom of the Preference form.

5.1 General

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.

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.
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.

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.
Export to Enterprise Database	Select whether the software is to always prompt the user to store the data into the Enterprise Database when storing an option/stage.
Automatic Check for Updates	Select whether the software is to check for updates over the internet every time it is started or not.
Saving	Select whether the software is to control the saving of files. This option should only be deselected if you are using a Document Management System with your Microsoft Office Software that controls File Saving. By deselecting this option, file size may be slightly larger after saving.

5.2   Inputs

Input Number Formats	Select the number of decimal places for the input cells.

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 'Stamp Duty' sheet.

Escalation Method

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

Applied Per Annum
Applied Per Month

Escalation can either be applied on a:

- **Per Annum** 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%.

- **Per Rest Period** 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, this is then applied per month (if using monthly rest periods), and each cost/revenue occurring in each month for that year, is escalated by 5%.

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

Cashflow Period Years
Financial Years

- **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.

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.

Based on specific Months in Cash Flow
Based on Months after Date of Exchange
Disable

Code and Description Protection

This allows you to Lock the Code and Descriptions for all cost and revenue line items. This is helpful if you wish to standardise the inputs and create a template.

5.3 Taxation

Tax 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.

Cost and Revenue Input Method

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

Net of GST
Inclusive of GST

- If **Net of Tax** is selected, the model will assume that amounts entered in the input sheet do exclude tax and if a GST/VAT rate is applied to that item then it will be automatically escalated to include tax in the cash flow and reclaim tax credits or pay tax liabilities.

If 'Net of Tax' is selected for cost inputs, then an 'Add Tax' option is available for each cost line item.

Base Rate / Unit	Add GST	Total Current Costs (exc GST)	Total Current Costs (inc GST)
100,000	Y	100,000	110,000

Once the user enters in the net cost (e.g. 100,000) and nominates to Add Tax ('Y'), the total cost will then be 110,000 (assuming the tax rate is 10%)
The user can also enter 'N' if no tax is to be added.

- If **Inclusive of Tax** is selected then the model will assume that amounts entered in the input sheet already include tax and if a GST/VAT rate is applied to that item then it will only reclaim tax credits or pay tax liabilities.

If 'Inclusive of Tax' is selected for cost inputs, then an 'Tax Included' option is available for each cost line item.

Base Rate / Unit	GST Included	Total Current Costs (exc GST)	Total Current Costs (inc GST)
110,000	Y	100,000	110,000

Once the user enters in the gross cost (e.g. 110,000) and nominates that Tax is Included ('Y'), the net cost will then be 100,000 (assuming the tax rate is 10%)
The user can enter 'N' if no tax is included in the base.

Tax Liability Calculation Method

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

```
AUTO - General Tax Rule
Margin Scheme with Valuation
Margin Scheme with % Cost Completed 1-7-2000
Manual Input of Liability
```

- **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.

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).

```
Paid in the Same Month
Paid ONE Month Later
Paid TWO Months Later
Paid every 2 months from January
Paid every 2 months from February
Paid Quarterly from January
Paid Quarterly from February
Paid Quarterly from March
```
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.

```
Reclaim All After First Land Payment
Reclaim All After Final Land Settlement
Reclaim Proportionally with Land Payments
```

5.4 Financials

Financial Reporting

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

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.

  For instance: if the property is 50% sold and 50% built, the revenue recognised in the P&L would be 25% (50% x 50% = 25%)

% 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

| **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.

WIP
Expensed
Operating

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.

Project Equity Treatment   The are 2 options on how to treat project equity in the Balance Sheet:
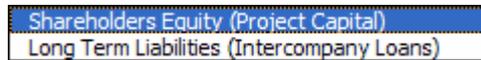
Shareholders Equity (Project Capital)
Long Term Liabilities (Intercompany Loans)

- **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.

5.5   Joint Venture

Development Type	Select whether or not the working file is to be used for a joint venture project, whereby the costs and revenues can be apportioned between two parties:

1. A Land Owner, where they may contribute the land to the project in part or in whole.

2. A Developer.

> Joint Venture (Developer and Land Owner)
> Single Entity

If a Joint Venture model is chosen:

- All red input cells will appear on the input sections.

- The Financials Report is disabled and hidden.

- Additional reports will be available to the user, such as the Land Owners Summary, Cash Flow and Charts

Tax Liability Apportionment (GST and VAT mode only)	Determine which party in a Joint Venture is liable for the GST/VAT payments on the sales revenue received.

> Paid by both parties
> All Paid by Developer
> All Paid by Land Owner

If **Paid by Both Parties** is selected, then each party pays the liability that is associated with the revenue they are entitled to. Otherwise, it can be selected that either the Developer or Land Owner pays all tax liabilities, regardless of their revenue share entitlement.

Tax Payment and Reclaim Frequency	Indicate when the Land Owner is to reclaim their GST/VAT input credits and pay their liabilities.

5.6   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)

<u>Note</u>:

- 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.

> excludes all financing costs, interest and corp tax.
> includes financing costs but excludes interest and corp tax.
> includes all financing costs and interest but excludes corp tax.
> includes all financing costs, interest and corp tax.

- **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.

on total development costs (inc selling and leasing costs).
on total development costs (inc selling costs).
on total development costs (net of selling and leasing costs).
on total revenue (net of GST).
on total sales proceeds (net of selling costs and GST).

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.

Based on Gross Development Profit (Before Profit Share)
Based on Net Development Profit (After Profit Share)

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

5.7 Display
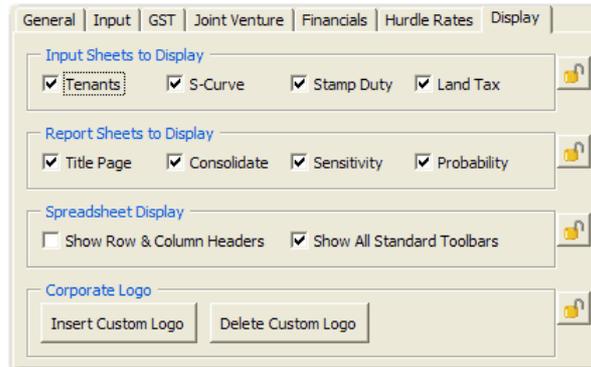
Input Sheets and Report Sheets to Display	Select the worksheets which are to be hidden. This simply allows you to hide worksheets that you are not working on or do not intend to display making navigation around the workbook a little easier. Hiding sheets does not impede in the operation of the program
Spreadsheet Display	These options allow you to hide the standard Excel toolbars (option not available in Excel 2007) or hide the worksheet row and column headers, therefore increasing the viewable area of the worksheet.
Corporate Logo	Insert your own custom corporate logo on the report sheets. The logo must not exceed 50kb in size.

Part VI

6   Input Assumptions

6.1   Open File

Depending upon whether or not the file has been installed as an Excel file or a template, to open the Master file either:

- Open the Estate Master DF program via the shortcut in the Windows Start Menu (if installed from CD);

- Go File_New from the Excel Menu (if the file has been installed as a template in your template directory);

- Go File_Open from the Excel Menu; or

- Consult your I.T. staff.

6.2   Set Preferences

It is recommended that before entering any data in the 'Input' sheet, the user set their preferences. This can be done by:

1. Clicking on 'Preferences' on the Estate Master Menu,

2. Clicking on 'Set Input Preferences' on the 'Input' sheet,

3. Pressing F10, or

4. Clicking on the P buttons next to the relevant section in the input areas.

6.3   Inputting Data

Enter data into input cells with a font colour of blue, red 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. The red font cell is only relevant if you are preparing a joint venture model to calculate returns to two parties - a Developer and a Land Owner.

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.
Red Font Cells: The red input cells are only relevant where the program is being used to model a hypothetical joint venture arrangement (between a "Developer" and a "Land Owner"). If the program is being used to model a single developing party (i.e. no joint venture), which is usually the case for valuation purposes for example, then these cells will not impact the calculations.
For JV models putting numbers in these cells apportions some of the costs and revenues to the Land Owner. If the model is not being used for a joint venture, make sure "Single Entity" is selected in the Joint Venture tab of the Estate Master Preferences. This will remove all red input cells relating to Joint Ventures.

Start and Span
For every payment and revenue 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.

6.4   Project Introduction

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	Land Owner	Enter Land Owner Name

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 (if applicable).

It may be the same as the Project Number.

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.

Land Owner (Optional)

Enter in the name of the land owner (JV models only).

6.5   Preliminary

Cash Flow Title	Cash Flow Title	Description of Option/Stage Enter Description of Option or Stage
Date of First Period:	Jan-2009	
Cash Flow Rest Period:	Monthly	
Enter Project Size (a)	-	Units
Enter Project Size (b)	-	GFA
Enter Site Area	-	SqM Floor Space Ratio 0 :1 Equated Gross Floor Area (SqM) -
	Type	Miscellaneous
	Status	Under Review

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 (Optional)

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

Status (Optional)

Nominate the status of the project to identify at what stage of the analysis it is at.

6.6 Taxation (GST,VAT,etc)

Goods and Services Tax

	A or Y	B	C	N
Goods and Services Tax Rate	10.00%	12.50%	20.00%	0.00%
Value at 1-7-2000 or Acquisition Price	0			
Percent of Cost Completed at 1 July 2000	0.0%			
		Start	Span	%Owner
GST Cost Lump Sum Amount	-	0	-	-

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.

All other options for GST/VAT are set using the Estate Master Preferences.

6.7 Land Purchase and Acquisition Costs

	% of Land Purchase Price		AND/OR		Month Start	Month Span	Cash Flow Period	Add GST on Land Price?	Y
	% paid	Amount	Lump Amount					Reclaim All After Final Land Settlement	
PV of Land Opportunity Cost (net of GST)		-							
Land Purchase Price		1,000,000							
GST Component on Purchase Price		-							
Deposit in Trust Account ¹	10.00%	100,000	-		0	1	Jan-09 - Jan-09		
Payment 1	0.00%	-	50,000		2	1	Mar-09 - Mar-09		
Payment 2	0.00%	-	-		0	-	-		
Payment 3	0.00%	-	-		0	-	-		
Payment 4	0.00%	-	-		0	-	-		
Settlement (Balance)	85.00%		850,000		5	1	May-09 - May-09		
Stamp Duty ¹	NIL		-		5	1	May-09 - May-10		
Interest on Deposit in Trust Account	3.00%		Interest from deposit shared between parties						
Profit Share to Land Owner	5.00%		Paid in full at project end.						

PV of Land Opportunity Cost (Optional)	This cell is only relevant for joint venture models to calculate returns to the Land Owner. This cell is used to benchmark the performance of the Joint venture in relation to the land contributed by the land owner.
	This is only relevant if the 'Joint Venture' option is selected in the Estate Master Preferences.
Land Purchase Price (Optional)	Input the land purchase price in the second input item. It is not necessary to input a land purchase price if you are trying to determine the residual land value of the development, you will however need to input settlement dates for the residual land value to be calculated at.
GST Component on Purchase Price (Optional)	Represents the Vendor's GST liability when using the Margin Scheme method.
	This is only relevant if the 'Joint Venture' and 'GST Margin Scheme' options are selected in the Estate Master Preferences.
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

Other Acquisition Costs (to be entered Net of GST)	% of Land Price exc Tax		AND/OR	Month Start	Month Span	Cash Flow Period	Add GST
	% paid	Amount	Lump Amount				
Valuation	1.00%	15,000	-	1	1	Jan-09 - Jan-09	Y
Legals	0.00%	-	12,500	L	-	Jan-09 - May-09	Y
.	0.00%	-	-	0	-	-	Y
.	0.00%	-	-	0	-	-	Y
.	0.00%	-	-	0	-	-	Y

% 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 and revenue 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.

6.8   Cost Escaltion 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 (Uncategori	3.00%	2.00%	3.00%	4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
SUB	Subdivision Costs	2.50%	3.50%	3.00%	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.			4.00%	4.00%	3.00%	4.00%	4.00%	4.00%	5.00%
OT1	Other	2.0%	3.00%	3.00%	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%

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 **Per Annum** basis (e.g. 5% per annum) or **Per Rest Period** basis (e.g. 5% per month).

- 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.

6.9   Project Contingency

1,000,000	And / Or	12.00%	of Construction, Professional, Statutory & Misc. Costs

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.

6.10   Professional Fees

Description	% of Construct. [1]	AND / OR No. Units	Base Rate / Unit	Escalate (E,R,N)	S-Curve	Month Start[2]	Month Span	Cash Flow Period	% Paid by Owner	Add GST
Consultants	0.00%	1	100,000	E	S	1	1	Feb-09 - Feb-09	10.0%	Y
Engineers	3.50%	-	-	R	E	C	-	Jan-09 - Sep-11	-	Y
	0.00%	-	-	-	-	0	-	-	-	Y
	0.00%	-	-	-	-	0	-	-	-	Y

% 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).

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

% Paid by Land Owner (JV mode only)

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

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. It 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.

5.00% % of Project Costs (inc land)
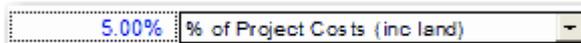
The Development Management Fee can also be spread in the cash flow in five different ways:

- 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.

6.11 Construction Costs

Description	Cost Type	Units	Base Rate / Units	Escalate (E,R,N)	S-Curve	Month Start	Month Span	Cash Flow Period	% Paid by Owner	Add GST
Subdivision	SUB	1	1,295,000	E	S	2	6	Mar-09 - Aug-09	-	Y
Construction Contract	BUI	1	35,000,000	R	E	8	14	Sep-09 - Oct-10	-	Y
-	-	-	-	-	-	0	-	-	-	Y
-	-	-	-	-	-	0	-	-	-	Y

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.

% Paid by Land Owner (JV mode only)

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

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.

| 5,000,000 | And / Or | 10.00% | of Construction Costs |

6.12 Statutory Fees and Contributions

Statutory Fees

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).

Description	Units	Base Rate / Units	Escalate (E,R,N)	S-Curve	Month Start	Month Span	Cash Flow Period	% Paid by Owner	Add GST
Developer Contributions	150	20,000	E	S	2	6	Mar-09 - Aug-09	-	Y
Statutory Fees	1	35,440	R	E	8	14	Sep-09 - Oct-10	-	Y
.	-	-	-	-	0	-	.	-	Y
.	-	-	-	-	0	-	.	-	Y

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.

% Paid by Land Owner (JV mode only)

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

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.

6.13 Miscellaneous Costs

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).

Miscellaneous Costs 1

Description	%of Construction	AND / OR No. Units	Base Rate / Unit	Escalate (E,R,N)	S-Curve	Month Start	Month Span	Cash Flow Period	% Paid by Owner	Add GST
Landscaping	0.00%	1	1,420,000	E	S	2	6	Mar-09 - Aug-09	-	Y
Admin Fees	0.50%	-	-	R	E	8	14	Sep-09 - Oct-10	-	Y
	0.00%	-	-	-	-	0	-	-	-	Y
	0.00%	-	-	-	-	0	-	-	-	Y

% 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 the drop-down list, and can be different for each Miscellaneous Cost section.

% of Construction Costs [1]
% of Construction Costs [1]
% of Gross Sale Proceeds
% of Net Sale Proceeds
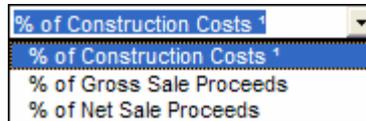
- **% of Construction**: Construction costs including contingency, but excluding GST/VAT if applicable.

- **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.

% Paid by Land Owner (JV mode only)

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

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.

6.14 Land Holding Costs

Description	No. Units	Base Rate /unit/term	Term	Escalate (E,R,N)	Month Start	Month Span	Cash Flow Period	% Paid by Owner	Add GST
Insurance	1	2,100	M	E	2	6	Mar-09 - Aug-09	-	Y
Services	1	1,240	BM	R	8	14	Sep-09 - Oct-10	-	Y
Council Rate	1	5,500	Q	-	0	DS	Feb-09 - Oct-13	-	Y
Water Rates	1	1,800	BA	-	0	DR	Feb-09 - Aug-14	-	Y
Land Tax	1	537,300	Y	-	0	-	-	-	Y

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** (Optional)

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.

% Paid by Land Owner (JV mode only)

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

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.

6.15   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 **Per Annum** basis (e.g. 5% per annum) or **Per Rest Period** basis (e.g. 5% per month).

- 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. There are 10 different property categories that can all have different escalation rates; the code for each property category is defined by the user (1-3 character length allowed). Negative escalation rates can be inputted.

6.16   Selling Costs

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%

Report Pre-sale Commission as Project 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)

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.

Other Selling Costs

Other Selling Costs	% of Gross Sales	AND / OR No. Units	Base Rate / Unit	Escalate (E,R,N)	Month Start	Month Span	Cash Flow Period	% Paid by Owner	Add GST
Marketing Suite	0.00%	1	150,000	E	2	6	Mar-09 - Aug-09	-	Y
Advertising Brochures	0.00%	1	25,000	R	8	14	Sep-09 - Oct-10	-	Y
Pre-Sale Marketing Campaign	0.00%	1	54,600	-	E	-	Jan-10 - Dec-10	-	Y
Legals on Sale	0.75%	-	-	-	S	-	Dec-10 - Dec-11	-	Y

% 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.

% Paid by Land Owner (JV mode only)

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

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.

6.17 Leasing Costs

Other Leasing Costs	% of Gross Rent	AND / OR No. Units	Base Rate / Unit	Escalate (E,R,N)	Month Start	Month Span	Cash Flow Period	% Paid by Owner	GST Included
Management Fee	2.00%	-	-	E	R	-	-	-	Y
Misc Outgoings	0.00%	1	12,000	R	5	7	Jun-09 - Dec-09	-	Y
	0.00%	-	-	-	0	-	-	-	Y
.	0.00%	-	-	-	0	-	-	-	Y

% 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 gross rents (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.

% Paid by Land Owner (JV mode only) You may elect a percentage of the cost item to be paid for by the Land Owner if you are modelling a joint venture arrangement.

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.

6.18   Sales Revenue Collection Profile

| | % Payable at Each Instalment (Based on specific Months in Cash Flow) | | | | | | | | | Balance on |
	0	2	4	8	10	14	22	28	30	Settlement
Profile 1	0.00%	10.00%	5.00%	5.00%	10.00%	5.00%	5.00%	5.00%	5.00%	50.00%
Profile 2	0.00%	10.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.00%
Profile 3	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	0.00%	0.00%	70.00%
Profile 4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Profile 5	0.00%	20.00%	5.00%	5.00%	10.00%	0.00%	0.00%	10.00%	0.00%	50.00%
Profile 6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Profile 7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Profile 8	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 are the 8 different Sales Revenue Collection Profiles that can be set. Once the profiles have been created, in the Sales input section, enter in 1 - 8 in the Revenue Collection Profile column.

| Current Sale Price | Pre-Sale Exchanges | | Settlements | | Revenue Collection Profile |
	Month Start	Month Span	Month Start	Month Span	
500,000	4	12	56	1	1
650,000	18	12	64	1	2
-	-	-	0	-	
	0		0		-

Allocate Sales items (which have pre-sale dates defined) to a specific collection profile from 1 to 8.

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 sheet.

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.

Collection Profile Examples

Say there are three a $1,000,000 sales occurring as per the following collection profile, and the user has also nominated that 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 several months.	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.
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.

6.19 Tenants

Land Use Code	Total Area	Current Rent	Outgoings and Vacancies		Pre-Commit Month	Lease Month Start	Lease Month Span	Cash Flow Period	Escalated Rent at Lease Start
	SqM	/SqM/annum	/SqM/annum	+ %Rent	Month				/SqM/annum
RET	300	350	1,050	1.50%	12	24	12	Jan-11 - Dec-11	350
-	-	-	-	0.00%	-	0	-	-	-

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 Selling Costs 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, Cash Flow (Stock Summary for Capitalised Sales) and Consolidate Reports (Yield Analysis).

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.

Rental Review Escalation Rates by Year (Commence 1 year after Lease Start)									
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10 +
2.50%	3.00%	0.00%	3.00%	2.50%	0.00%	4.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

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		Incentives			Add GST	
% of Gross Rent	% paid at PreCommit	Rent Free Months	Fit out Cost	Month Start	on Costs	on Rents
5.00%	50.00%	2	50,000	12	Y	Y
0.00%	0.00%	-	-	-	Y	Y

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.

Residual Cap. Rate	Pre-Sale Exchange Month	Settlement Month	Leasing Up Period		Purchaser's Costs	GST Included on Sales [1]
			Months Vacant	Discount Rate		
8.00%	20	-	6	6.00%	2.75%	Y
0.00%	-	-	-	0.00%	0.00%	Y

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 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 <u>later</u> 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.

Purchasers Costs (VAT mode only)

'Purchasers Costs' are calculated on the escalated end sale value and take into consideration items such as Stamp Duty, Legal and Agency Fees and Survey Fees.

This input is only activated when the VAT Taxation Format is adopted in the Estate Master Preferences.

% 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.

6.20 Sales

Description	No. Units	Total Area SqM	Current Sale Price	Sales Calc Method	Pre-Sale Exchanges Month Start	Month Span	Settlements Month Start	Month Span	Cash Flow Period	Sales Rate Units / SqM per Month	% Split to Owner	GST Included	Land Use Code	Revenue Collection Profile
Stage 1 - Townhouses	35	7,000	895,000	Per Unit	2	6	36	1	Jan-12 - Jan-12	5.83	-	Y	-	1
Stage 2 - Apartments	150	1,500	720,000	Per Unit	8	18	42	1	Jul-12 - Jul-12	8.33	-	Y	-	-
-	-	-	-	Per Unit	0	-	0	-	-	-	-	Y	-	-
-	-	-	-	Per Unit	0	-	0	-	-	-	-	Y	-	-

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, Cash Flow (Stock Summary) and Consolidate Reports (Yield Analysis).

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.

- 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 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.

% Paid by Land Owner (JV mode only)

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

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 on sales**, 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 Selling Costs 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

	Interpreting the Sales Rate

A 'Sales Rate' calculation is provided for each sale line item. It is calculated depending on how something is sold:

No. Units	Total Area SqM	Current Sale Price	Sales Calc Method	Pre-Sale Exchanges Month Start	Month Span	Settlements Month Start	Month Span	Sales Rate Units / SqM per Month
35	7,000	895,000	Per Unit	2	6	36	1	5.83
150	1,500	720,000	Per Unit	0	-	36	8	18.75

- If a sale item is pre-sold (i.e. Pre-Sale dates are defined), then the model will display the 'Sales Rate' for the pre-sale span period (i.e the rate of sale by quantity or area per period)

  In the example above, 35 units are pre-sold over a 6 month span, equating to a sales rate of 5.83 units per month (35 / 6)

- If a sale item is sold on completion (no Pre-Sale dates are defined), then the model will display the 'Sales Rate' for the settlement sale span period (i.e the rate of sale by quantity or area per period)

  In the example above, 150 units are sold on completion over an 8 month span, equating to a sales rate of 18.75 units per month (150 / 8)

6.21   Other Income

Description	Land Use Code	Units	Base Rate / Units	Month Start	Month Span	Cash Flow Period	% Split to Owner	GST Included
Rebates	-	1	20,000	36	1	Jan-12 - Jan-12	-	Y
Misc Income	RS1	1	56,800	30	10	Jul-11 - Apr-12	-	Y
	-	-	-	0	-	.	-	Y
.	-	-	-	0	-	.	-	Y

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.

% Paid by Land Owner (JV mode only)

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

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.

6.22   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.
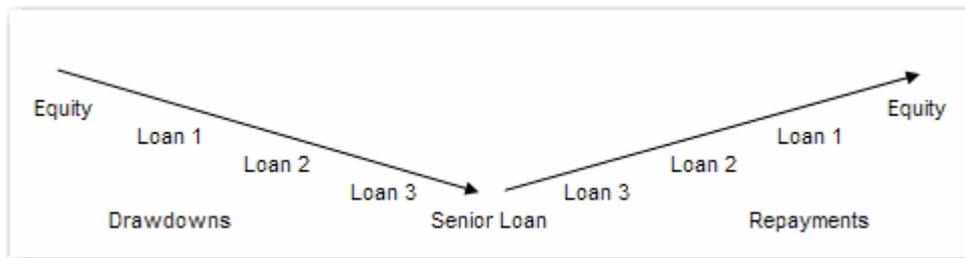
Default Funding Priority

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).	○	●	○

Global Finance Preferences

Finance Preferences are also available and can be loaded via the [P] buttons in the finance section of the Input sheet next to each finance facility.

Some of the global preferences are:
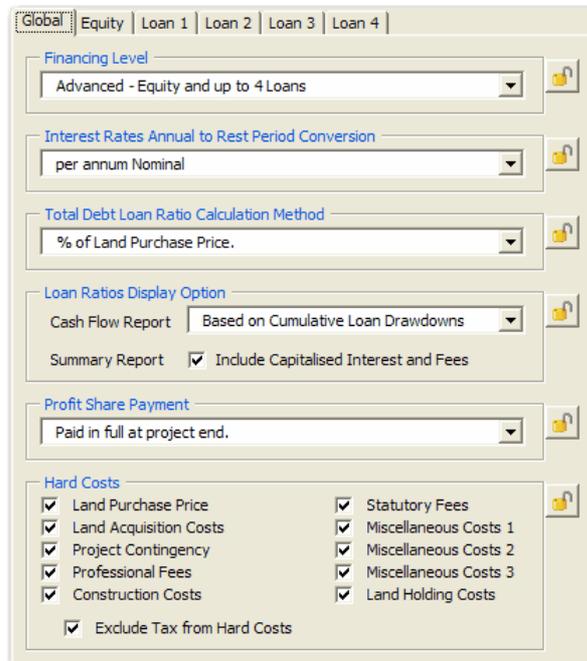
Financing Level	This options allows the user to toggle between two finance layouts:

- **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.

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.

Cash Flow Loan Ratio

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.

Paid in full at project end.
Paid progressively as project makes a profit.

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).

Global | Equity | Loan 1 | Loan 2 | Loan 3 | Loan 4

Facility Limit Calculation Method

Fixed Amount

Fixed Amount
% of Purchase Price.
% of Land Acquisition Costs.
% of Project Costs (net of Interest/Fees and GST).
% of Hard Costs.
% of Construction Costs.
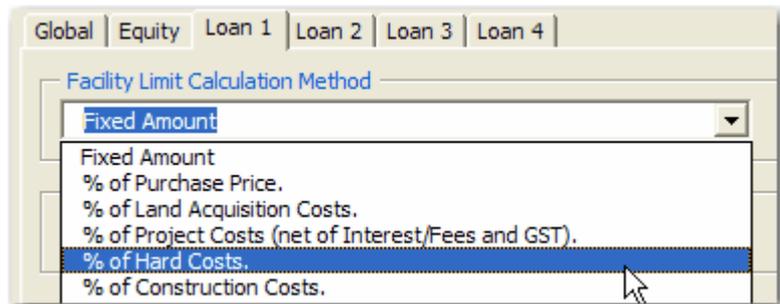
If the tax component (GST/VAT) of the selected hard costs are to be excluded from amount, then make sure the last check box is ticked.

6.23 Equity

Developer's Equity Contribution	Fixed Amount	Percentage	
Injected in total upfront.	1,000,000	0.00%	Fixed Amount
Interest Charged on Equity		5.00%	per annum Nominal - Capitalised (Compounded)
Interest received on Surplus Cash		4.00%	per annum received in arrears.
% of Available Funds to Repay Equity Before Debt	20.00%		
Land Owner's Equity Contribution		-	

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 contributing to the project (i.e. equity owner cash outflow and project cash inflow, or

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

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.

Equity Contributed by Land Owner

The program allows equity to be provided by the land owner in a joint venture model. The equity contribution by the land owner is upfront and can not be staged.

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).

Equity Preferences

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.

6.24   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.

Loan 1 - 3	Description	Lender Name			Opening Balances
Facility Limit		Fixed Amount	Percentage		
Drawn down in total at loan commencement.		1,000,000	0.00%	Fixed Amount	
Month Commencement	Auto ✔		May-09		
Maturity Month	Auto ☐	24	Jan-11	Repayments by Equity	
Interest Rate		5.00%	per annum Nominal – Principal and Interest		5,214
Fees		Amount	Percentage	Month Paid	
Application Fee		1,500	0.00%	2	344
Line Fee		-	1.00%		-
Profit Split to Lender		10.00%			

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.

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).

Loan Preferences

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:

  o The Loan Drawdown Method automatically reverts to 'Upfront'.

  o The user must set a manual 'Maturity Period', which is used to determine the term for the loan.

Facility Limit			Fixed Amount
Drawn down in total at loan commencement.			1,000,000
Month Commencement	Auto	☑	0
Maturity Month	Auto	☐	35

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.

6.25 Senior Loan

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

Loan 4	Description	Lender Name		Opening Balances
No Limit (use as overdraft facility)		-		
Interest Rate		5.00%	per annum Nominal - Capitalised (Compounded)	5,214

Fees		Amount	Percentage	Month Paid	
	Application Fee	1,500	0.00%	4	344
	Line Fee	1,200	0.00%		-

Maintain Leverage on Loan 4		30.00%	% of unsold Stock (net of selling costs and GST)
Interest Rate for Land Owner		0.00%	

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 unsold stock (net of selling costs and GST/VAT/Sales Tax).

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

Interest Rate for Land Owner

Input the interest rate for the land owner in a joint venture model. The interest is fixed through the term of the loan.

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

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).

Loan Preferences

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. It can be either:

- **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.

6.26 Other Finance Costs

Financing Costs	No. of Units	Base Rate / Unit	Escalate (E,R,N)	Month Start	Month Span	Cash Flow Period	% Paid by Owner	Add GST
Establish Fee	1	12,000	E	2	1	Mar-09 - Mar-09	-	Y
Mortgage Stamp Duty	1	3,450	R	4	1	May-09 - May-09	-	Y
.	-	-	-	0	-	.	-	Y
.	-	-	-	0	-	.	-	Y

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.

% Paid by Land Owner (JV mode only)

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

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.

6.27   Project Hurdle Rates

Project Discount Rate (target IRR)	25.00%	per annum Nominal, on cash flow that includes financing costs but excludes interest and corp tax.
Land Owner Discount Rate	10.00%	
Nominate an estimate of IRR	25.00%	per ann.
Developer's Target Dev. Margin	20.00%	on total development costs (inc selling costs).
Developer's Target Return on Equity	30.00%	

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), • Residual Land Value (based on a Zero NPV), and • 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).
Land Owner Discount Rate (JV mode only)	This is the discount rate (target IRR) for the land owners cash flow. It is only relevant for Joint Venture models.
Nominate an Estimate of IRR	This is a number that you guess is close to the result of IRR. Microsoft Excel 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 Target Margin	The Developers Target Development Margin is the required profit margin calculated on either total development costs net of selling costs or including selling costs, total sales and rental income or on total net sales proceeds. These options can be chosen on the 'Hurdle Rates' tab of the Estate Master Preferences. The target margin is used to calculate the residual land value to achieve the desired profit margin (Developer Target Development Margin); it does not take into consideration the time value of money.
Developer's Target Equity IRR	Enter in the desired return on the developer's equity. This is used to calculate the Weighted Average Cost of Capital on the Summary Report

6.28   Project Timeline (Gantt Chart)
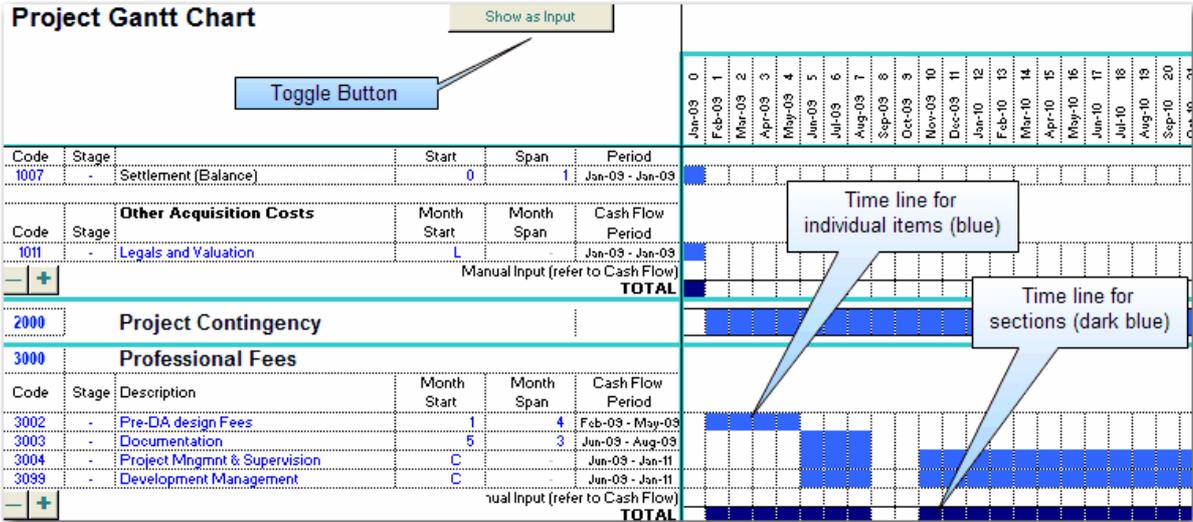
The Input sheet can be toggled between the dynamic Gantt chart and Inputs by clicking on the 'View as Gantt' button at the top of the Input sheet. It provides a project timeline based on the data in all the starts and spans. While in Gantt view mode, the user can adjust the starts and spans for costs and revenue items and instantly view the impact of the adjustments to the project time line.

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

6.29   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**

- **Financing:** Such as adjustments for equity and debt drawdowns and repayments and interest rates variations for the loan facilities.

- **Discount Rate Variations**

Project Revenues and Costs

The manual input rows for the revenues and costs can be hidden or shown via the 'View Options' utility on the Cash Flow.

Notes about Manual Inputs:

- All amounts put in the 'Manual Input' rows are added to the sub totals for that cost or revenue section.

- The manual inputs have no provision for any escalation in costs and revenues over the period prescribed.

- You may elect a percentage of the revenue/cost to be received/paid by the Land Owner if you are modelling a joint venture arrangement.

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

- The amounts in the 'Manual Input' rows are affected by variations in land cost, development cost and sale/rental values during the sensitivity testing, but does not vary according to construction period or sales span period sensitivity testing.

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.

If making manual adjustments in the Financing area, the 'Reset to Default/Manual' function in the Estate Master Menu allows the user to toggle the rows between their default inputs or manual variations.
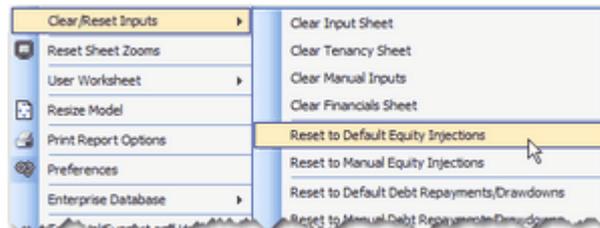
Discount Rate

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:

  o The Present Value (PV) of net cash flow for each time period.

  o 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.

6.30 Stamp Duty Tables

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:

Updating Stamp Duty

1. Click on the 'Stamp Duty' worksheet tab.

2. There will be tables for each region. Each table has the following columns:

   - **Max Land Price:** The upper value of the dutiable land value range.

   - **Lump Amount:** The fee that is payable in addition to the rate.

   - **Marginal Rate:** The percentage marginal rate on the dutiable value of land.

3. For Stamp Duty, the first row of data in each table is always left blank to indicate to duty is not payable when the land price is nil.

4. For the other rows of data, the upper value of the dutiable land value range is entered, along with the lump amount and marginal duty rate.

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

Land Value		Lump Amount	Marginal Rate
0	or under	0	0.0%
14,000	or under	0	1.25%
30,000	or under	175	1.5%
80,000	or under	415	1.75%
300,000	or under	1,290	3.5%
1,000,000	or under	8,990	4.5%
Over 1,000,000		40,490	5.5%

6.31   Land Tax Tables

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:

Updating Land Tax

1. Click on the 'Land Tax' worksheet tab.

2. There will be a summary table followed by tables for each region. Each table has the following columns:

   - **Rating Land Value:** The taxable value of the land.

   - **Amount:** The fee that is payable in addition to the rate.

   - **Rate:** The percentage land tax rate on the taxable value of land.

3. **If there is a tax free threshold** - this is indicated by entering '0''s in the first row of a land tax table. The threshold land value is entered in the second row, along with the fee and rate that is payable on land that is in excess of the threshold.

   - Example: This year a $352,000 threshold will apply to owners of liable land. The land tax rate will be $100 plus 1.7% on the combined value of all taxable land in excess of $352,000.

Land Value	Amount	Rate
0	0	0%
352,000	100	1.7%

4. **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. The taxable land values are then entered in the following rows, along with the fee and rate that is payable.

   - Example: There is no threshold for land tax this year. Taxable land is assessed at the following rates:

     o Not more than $400,000: 0.4%

     o Between $400,000 and $500,000: $1,600 plus 0.6% on the taxable value that exceeds $400,000

     o More than $500,000: $2,200 plus 1.4% on the taxable value that exceeds $500,000 Rating Land Value

Land Value	Amount	Rate
0	0	0.4%
400,000	1,600	0.6%
500,000	2,200	1.4%

6.32 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), 5% of the cumulative costs should have been drawn down (paid) in the cash flow to date. After 20% (or 2 months), 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%	32.25%
24.00%	13.50%	33.50%

Part

VII

7   Storing and Recalling Options/Stages

7.1   Using the Options/Stages Function

Using the 'Options and Stages' function 🖫 on the Estate Master Menu, you may compare up to eight different development options or amalgamate up to eight project stages using the 'Consolidate' report within the one Estate Master DF file.

Examples of how Options/Stages could be used	Option/Stage 1	Option/Stage 2, etc
Development Options	10 residential lots	20 town houses
Feasibility / Sensitivity Scenarios	no escalation on sales	5% per annum escalation
Stages of the Project	Stage 1	Stage 2
Phases	Acquisition and Holding	Development and Disposal

7.2   Storing

Once you are satisfied that all the inputs have been entered for a particular Option/Stage, you may store this by using the 'Options and Stages' function 🖫 and selecting where to store the data before clicking on the 'Store Into' button.
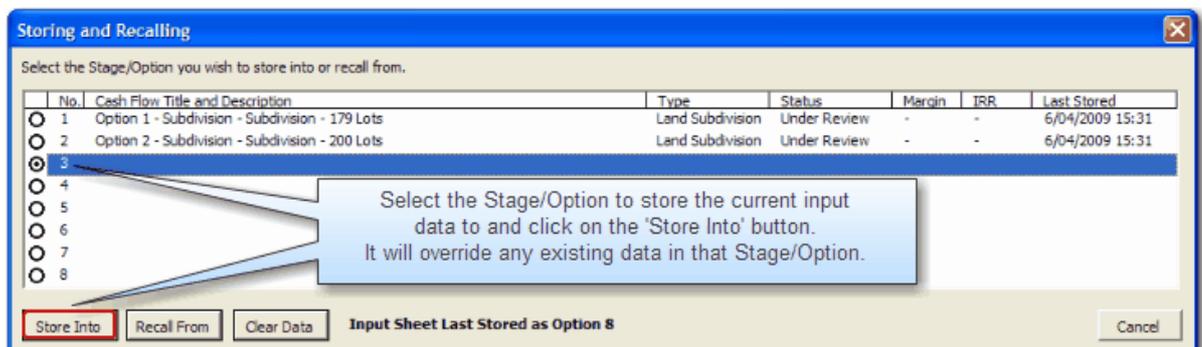
Before the storing process will begin, the program will check that the user has entered a <u>unique</u> 'Cash Flow Title' in the Preliminary input section. If it is blank, or not unique to the other Options/Stages that have been stored already, it will not proceed.

On successful execution, the following input data ranges are stored:

- 'Input' sheet data;

- 'Tenant' sheet data;

- 'Manual Input' data from the Cash Flow tables (includes manual adjustments to the financing and variable discount rates);

- S-Curve tables; and

- All Preferences.

Storing enables you to make changes to the input data while retaining the original data. Once a change is made, storing it as Option/Stage 2 can create a new option/stage. The original Option/Stage 1 can be retrieved at a later date for further analysis.

Storing Options/Stages
When using the Store and Recall feature to compare different development scenarios or to consolidate stages, it is recommended that you keep the following options in the Estate Master Preferences the same so that the performance indicators which are calculated for each scenario or stage are consistent:
1. **Gross or Net Profit Performance:** Gross (before any profit share) or Net (after any profit share) 2. **The calculation of the developer's Target IRR and target Development Margin** 3. **The Annual to Rest Period Conversion for the Discount Rate:** Nominal or Effective

As well has comparing different development options or scenarios, you can use the 'Options and Stages' facility to split large projects into stages. This is beneficial when you have a project life exceeding the maximum time periods in the model (150).

If modelling a project in stages with staggered starting dates for each stage by using the Option sheets, a consolidation can be facilitated for a project of up to 30 years on a monthly cash flow. Each stage is limited to 150 time periods, and 30 years in total for up to eight consolidated stages.

7.3 Recalling

To change data in an option/stage that has been previously stored, it is recommended that you 'Recall' the relevant data back into the input data ranges. This is achieved by using the 'Recall From' option from the 'Options and Stages' function and deciding what Option/Stage to recall.
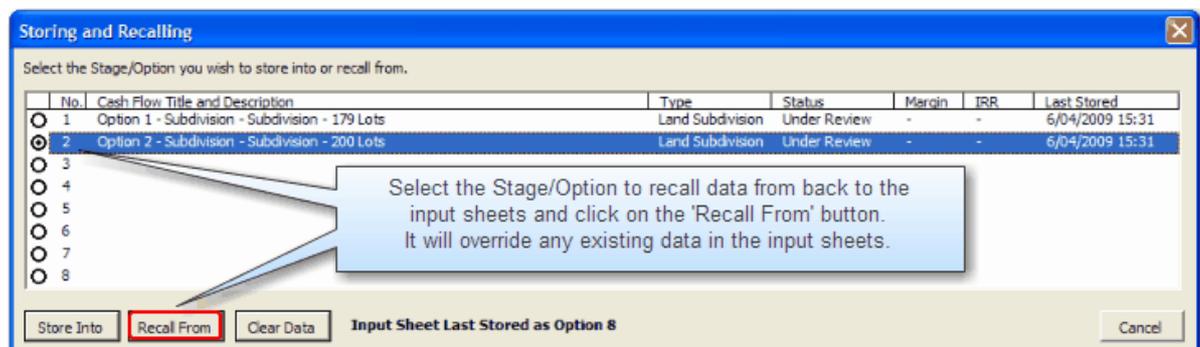
When recalling options, the model will replace the existing data in the input ranges with that of the option being restored.

Remember to store information in the input ranges to an option sheet prior to recalling an option.

7.4 Clearing Data

To delete all data for an option/stage that has been previously stored, use the 'Clear Data' option from the 'Options and Stages' function ▦ and deciding what Option/Stage to clear.
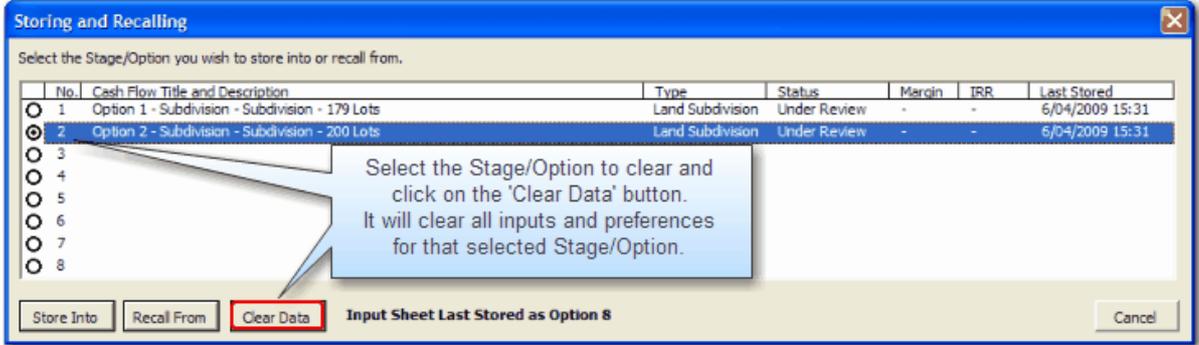
When using this function, be carefully not to accidental clear the wrong Option/Stage, as the data cannot be retrieved once it has been cleared (unless you have a backup of the file).

7.5 The Consolidate Report

Using the 'View Comparison/Consolidate' button at the top of the 'Consolidate' report, the user can change how the results are reported:

- **Comparing the 'Options'**, where up to 8 columns of reporting data is made available for each scenario, providing a summary of the performance indicators for all Options or Scenarios that where previously stored.

- **Consolidating the 'Stages'**, where an additional 'Total' column is provided to report on the consolidated performance of up to 8 individual stages. This is only relevant if the data stored are stages or precincts within the one larger project. It enables the user to model long term projects (up to 30 years using monthly rests) in smaller stages.

Toggling an Option/Stage
To hide an option/stage on the 'Consolidate' sheet when it is printed, you can use the check boxes above each option/stage in the report.
Deselecting will not delete the data stored. It will only vary the report outputs. For example, if you wanted to excluded a number of stages from the consolidated report, deselecting these will adjust the total costs, revenues and performance indicators calculated for the total project as displayed in the Consolidate report.
To restore the options/stages in the report, just tick the check box of the relevant option/stage.

Holding Discount Rate

The Consolidate report also allows the user to input a 'Holding Discount Rate' for the consolidated cash flow of all the stages stored. Since each stage may have different start dates, the NPV's for each stage cannot simply be added until they are discounted to a common date - that is the start of the consolidated project.

This is the rate that is applied to discount the NPV of each stage to present value at the start of the consolidated cash flow. Since there is little or no development risk during the holding period, a lower discount rate is usually applied (i.e. lower than the rate applied during the development period).
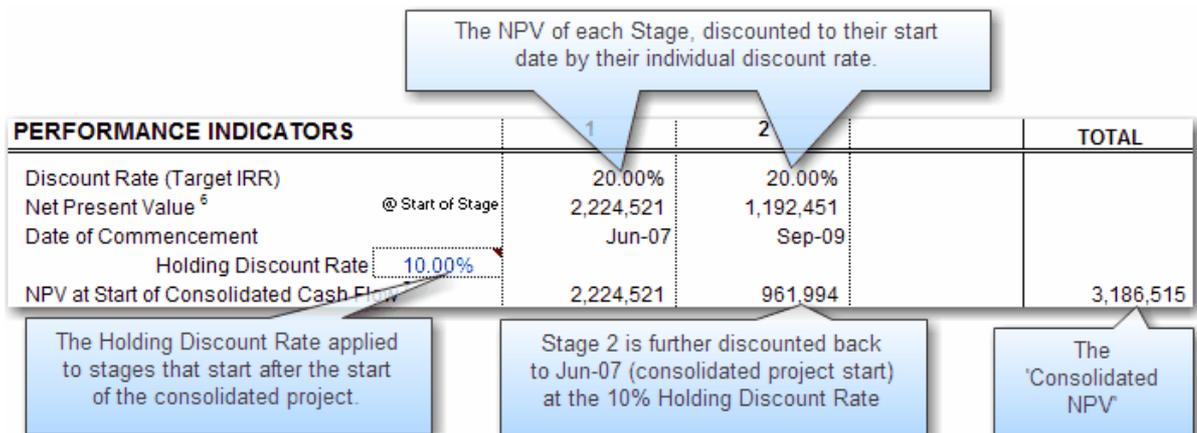

Cash Flow Charts

Depending on how the user has indicated how the Consolidate report is used, there is a cash flow chart on the Chart sheet, either displaying a:

- **Comparison Chart**, displaying the cash flows for each option stored in the Chart sheet.

- **Consolidate Chart**, displaying the cash flow for the consolidated stages that have been stored in the Chart sheet.

Part

VIII
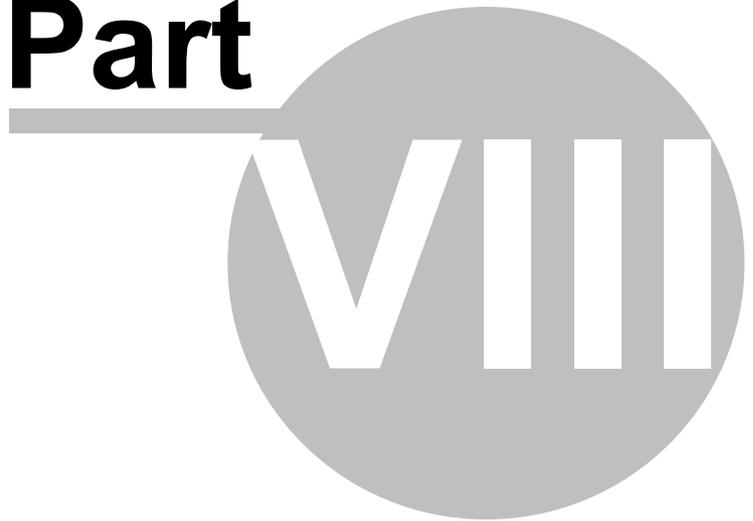
8 Summary and Cash Flow Reporting

8.1 Development Finanacial Summary

This report will display either the:

- **Project Returns**, if in Single Entity Mode,

- **Developer Returns**, if in Joint Venture Mode, with the Land Owner's returns provided on a separate report.

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.

Residual Land Value (Target Margin)
The maximum price that can be paid for the land (net of stamp duty and other acquisition costs) that will result in the development achieving the Target Development Margin.

Net Present Value
The project cash flow (excluding equity) discounted to present value at the nominated discount rate (Target IRR).

You can choose whether financing costs, interest expenses and corporate tax are included in the project cash flow to calculate the NPV on the 'Hurdle Rates' tab of the Estate Master Preferences.

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.

You can choose whether financing costs, interest expenses and corporate tax are included in the project cash flow to calculate the IRR on the 'Hurdle Rates' tab of the Estate Master Preferences.

Residual Land Value (Target IRR)
It is the maximum price to be paid for the land (excludes stamp duty and other acquisition costs) that will result in the project being feasible – i.e. when the IRR equals the discount rate and 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.

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:

$$\text{WACC} = \frac{D}{(D+E)} * R_D + \frac{E}{(D+E)} * R_E$$

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)

Breakeven Date for Cumulative Cash Flow	The date the cumulative cash flow first turns positive.
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.

Other Functions

Hide Rows	You can customise the rows that are displayed in the Summary Report:
Show Rows	• **Hide Rows:** This will hide the rows that have be deselected using the checkboxes on the left of the report.
	• **Show Rows:** This will unhide all rows on the report. Any rows that were hidden will have their checkbox still deselected.
Update RLV's	Update the Residual Land Values based on the Target Margin and Target IRR.
Print Sheet	Print the active report based on the default print setup.

8.2 Joint Venture Summary

This report will only become available when Joint Venture Mode has been selected in the Estate Master Preferences.

Performance Indicators

Profit before re-distribution	Total Project Revenue less Total Project Costs (after GST/VAT/Sales Tax paid and reclaimed and before any profit or revenue share distributed to the land owner share).
Profit after re-distribution	Total Project Revenue less Total Project Costs (after GST/VAT/Sales Tax paid and reclaimed and after any profit or revenue share distributed to the land owner share).
Development Margin (profit/risk margin)	The ratio of Development Profit to Total Project Costs (after GST/vVAT reclaimed), Total Net Sale Proceeds or Total Sales and Rental Income. These options can be chosen on the 'Hurdle Rates' tab of the Estate Master Preferences. You can also select whether or not selling costs are included as part of the total project costs. This will affect the margin slightly.
Net Present Value	The project cash flow (excluding equity) discounted to present value at the nominated discount rate (Target IRR). You can choose whether financing costs and interest expenses are included in the project cash flow to calculate the NPV on the 'Hurdle Rates' tab of the Estate Master Preferences.
NPV less Land Value	NPV of cash flow less the opportunity cost of the land. If this is positive then the land owner achieves a return (IRR) greater than the discount rate. In this instance the joint venture would be more feasible than selling the property upfront. Not this has taken into account the time value of money.
Internal Rate of Return	The return on the development (includes the opportunity cost of the land) or the discount rate at which the NPV equals zero.

Other Functions

Run Sensitivity	Updates the One-Way What-If table for the land owner's returns, located at the bottom of the Joint Venture Summary report.

8.3 Cash Flow Table

Stock Summary

This 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	100.0%	100.0%	100.0%	100.0%
SqM Sold		0.00	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	-	-	750,000	750,000	1,125,000
	% AUD Handed Over	-	-	0.0%	0.0%	60.0%

Sales Summary displays the stock that has be sold at pre-sale, or on completion

Handover Summary displays when the stock has been settled and ownership has been transferred to the purchaser

Costs and Revenues Cash Flow

This report will display a summary of all costs and revenues for either the:

- **Project Cash Flow**, if in Single Entity Mode,

- **Developer's Cash Flow**, if in Joint Venture Mode, with the Land Owner's Cash Flow provided on a separate table.

REVENUE				
Gross Sales Revenue	45,767,496	-		
Selling Costs	(1,858,606)	(16,25		
Gross Rental Income	-			
Leasing Costs	-			
Other Income	-			
Interest Received*	-	-		
GST Payments	(4,160,681)		4,621)	(114,858)
TOTAL NET REVENUE	39,748,2	(16,250)	,086	1,085,684
COSTS				
Land and Acquisition	13,753,672	3,900,000	-	-
Professional Fees	1,202,441	28,535	5 635	39,135
Manual Input	73,000		24,000	12,500
Construction Costs (inc Contingency)	7,910,000	385,000	339,375	339,375
block 1 apartments	1,750,000	218,750	-	-
block 2	1,330,000	166,250	-	-
block 3 townhouses	840,000	-	105,000	105,000
block 4 townhouses	840,000	-	105,000	105,000
block 5 houses	270,000	-	33,750	33,750
block 6 houses	360,000	-	45,000	45,000
block 7 houses	405,000	-	50,625	50,625
block 8 houses	900,000	-	-	-
block 9	540,000	-	-	-
block 10	675,000	-	-	-
Statutory Fees	8,080,000	2,600,000		
Miscellaneous Costs 1	-	-		
Miscellaneous Costs 2	-	-		
Miscellaneous Costs 3	-	-		
Project Contingency (Reserve)	-	-		
Land Holding Costs	407,497	-		
Pre-Sale Commissions	-	-		
Financing Costs (exc Fees)	90,000	-	-	-
GST Credits Reclaimed	(2,189,930)	(39,071)	(40,103)	(40,127)
TOTAL COSTS	29,253,680	6,874,463	355,277	338,382
Net Cash Flow (before Interest)	10,494,528	(6,890,713)	739,809	747,302
Cumulative Cash Flow		(20,351,267)	(19,611,458)	(18,864,156)

Each section has its own 'Manual Input' row that can be shown via the 'View Options' function

Sections can be exapnded to show detail using the 'View Options' function

Financing Cash Flow

This reports on all the sources of funding that have been employed for the project, in particular:

- The funds drawn down and any manual adjustments.

- The funds repaid back to the financier, broken up by interest and principal, and any manual adjustments.

- The interest rate for each period, and any manual adjustments.

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

- The running Loan Ratios for each source of funding, which are set up via the Finance Preferences.

IRR and NPV

This reports on the calculation of the Project IRR and NPV, as well as providing the user to have a variable discount rate.

- The first row of data displays the cash flow that is being used to calculate the IRR and NPV, set via the Hurdle Rate options in the Estate Master Preferences

- 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.

The Cash Flow that the Project IRR and NPV is based on

DEVELOPER'S IRR & NPV				
Cash Flow that includes financing costs but excludes interest and corp tax.		(861,110)	(37,879)	(247,581)
Static Discount Rate (per ann. nominal)	20.00%			
PV for each Month	1,142,994	(861,110)	(37,258)	(239,531)
NPV of Future Cash Flows		1,142,994	2,037,506	2,109,974
Variable Discount Rate (per ann. nominal)	24.99%	20.00%	20.00%	25.00%
NPV (using weighted avg discount rate)	(270,747)			

Land Owner's Cash Flow

This will report on all costs and revenues that belong to the land owner. It will only become available when Joint Venture Mode has been selected in the Estate Master Preferences.

LAND OWNER'S CASH FLOW	TOTAL	2	3	4
REVENUE				
Gross Revenue	13,000,000	-	-	-
Less Selling / Leasing Costs & GST	(1,181,818)	-	-	-
Profit Share	-	-	-	-
TOTAL NET REVENUE	11,818,182	-	-	-
COSTS				
Opportunity Cost of Land	-			
Pro. Fees and Construction	1,940,000	20,833	20,833	20,833
Statutory Fees	40,000	-	-	40,000
Other Costs	-	-	-	-
GST Input Credits Reclaimed	(176,364)	(1,894)	(1,894)	(1,894)
TOTAL COSTS	1,803,636	18,939	18,939	58,939
Net Cash Flow b/f Interest	10,014,545	(18,939)	(18,939)	(58,939)
Equity Cash Flow		(18,939)	(18,939)	(58,939)
Equity Balance	-	1,142,045	1,123,106	1,064,167
Loan Balance	-	-	-	-
Less Interest Expense	-	-	-	-
Cumulative CF After Interest**		1,142,045	1,123,106	1,064,167

View Options

This feature on the Cash Flow sheet allows the user to change the way the cash flow input sections are displayed in relation to the rows. For each cost and revenue section, the user can select from the following row views:

- **Manual Inputs:** Hide or show the separate Manual Input rows for each section.

- **All Rows:** Shows all rows (used and unused) for a particular input section.

- **Populated Rows:** Shows only used 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.
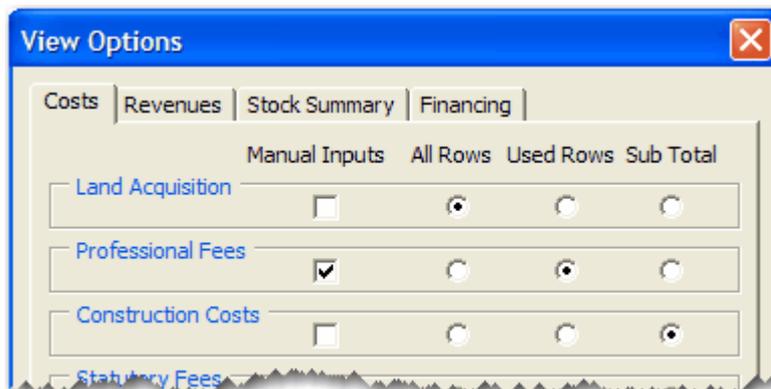
For the Stock Summary report, the user can select from the following row views:

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

Units Sold	200.00	8.13	8.13
Cumulative Units Sold		104.25	112.38
% Units Sold		52.1%	56.2%

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

SqM Sold	20,000.00	812.50	812.50
Cumulative SqM Sold		14,487.50	15,300.00
% SqM Sold		72.4%	76.5%

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

AUD Sold	45,767,496	2,194,537	2,199,058
Cumulative AUD Sold		25,427,057	27,626,115
% AUD Sold		55.6%	60.4%

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.

8.4   Cash Flow Charts

Cumulative Cash Flow

Highlighting the position of equity and debt draw downs and repayments through the project life. If the Joint Venture option is switched in, it will additionally track the cumulative cash flow position of the land owner's equity.
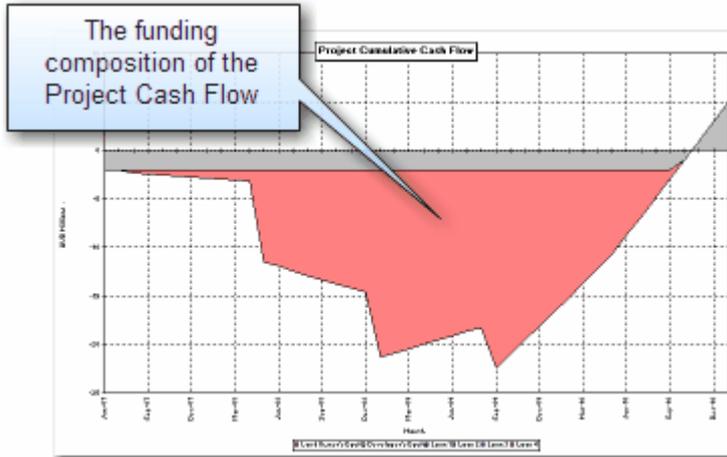

Project Cash Flow

This chart depicts the Project Overdraft, Net Cash Flow and Cumulative Net Cash Flow. If the Joint Venture option is switched in, this chart will only look at the developer's cash flow.
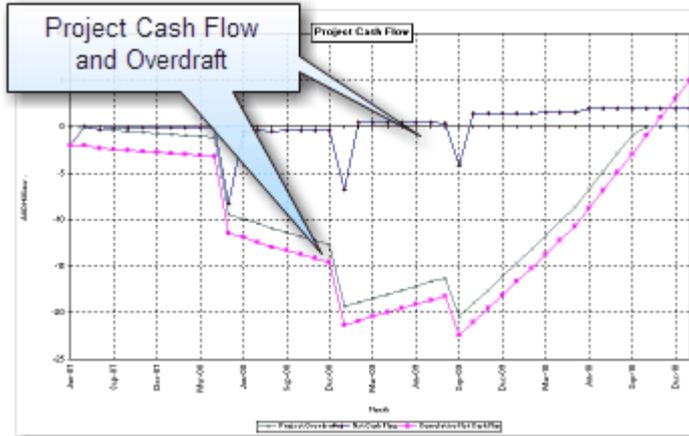
Joint Venture Chart

This chart will only appear if the Joint Venture option is switched in, and it displays the cumulative net cash flows for both the land owner and developer.
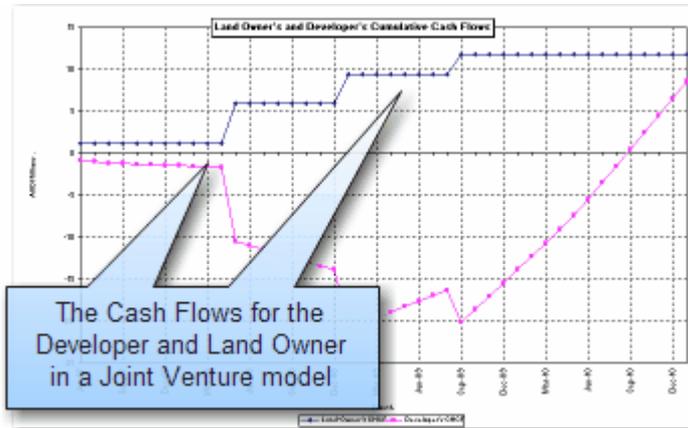

Consolidated Cash Flow or Comparison of Options

Depending on how the user has elected to report their Options/Stages in the Consolidate sheet, one of the following two charts will be displayed:

- **Comparison Chart:** Displaying the cash flows for each option stored.
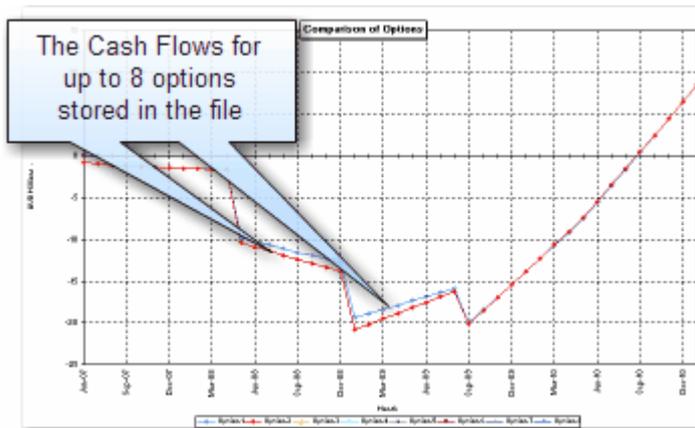
- **Consolidate Chart:** displaying the net cash flow and cumulative net cash flow for the consolidated stages that have been stored.

Part IX
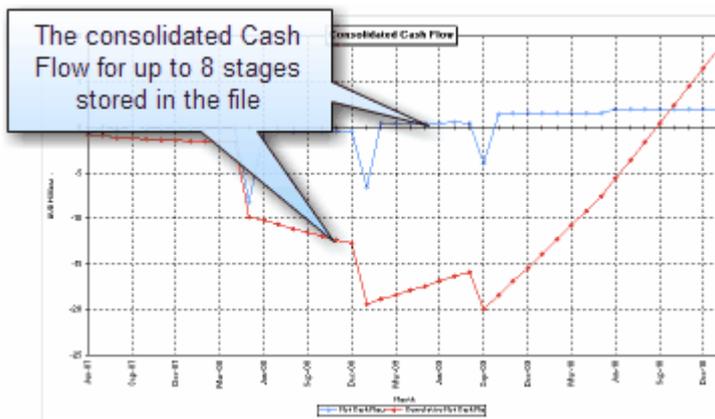
9 Financial Reporting

9.1 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'.

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 <u>cumulative</u> basis and reversed out by adjusting the cumulative amounts entered. At the end of the project all numbers in the section should be zero.

9.2   Profit Realisation

% Complete Calculations

% COMPLETE CALCULATIONS	TOTAL				
Total Development Costs Post Adjustments (Includes Land)	3,733,709	50,000	50,000	147,275	232,490
Total Expected Development Costs		3,733,709	3,733,709	3,733,709	3,733,709
% Cumulative Development Costs Incurred		1.34%	1.34%	3.94%	6.23%
Total Expected Revenue		4,688,126	4,688,126	4,688,126	4,688,126
Total Expected Area Sold		301	301	301	301
Total Sold based on Revenue Sold		4,688,126	4,688,126	4,688,126	4,688,126

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%

(Threshold Inputs)

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.

9.3   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.

PROFIT AND LOSS STATEMENT	TOTAL				
Revenue	4,462,148	3,167	3,177	2,863	56,589
Sales Revenue	4,247,846	-	-	-	-
Rental Income	97,045	-	-	-	-
Other Income	-	-	-	-	-
Interest Income	-	-	-	-	-
Interest on Surplus Cash	63,257	3,167	3,177	2,863	2,589
Profit on Sale of Fixed Assets	54,000	-	-	-	54,000
Cost of Sales		1,000	1,000	1,000	1,000
Development Costs (WIP)					
Development Costs (Expensed)		-	-	-	-
Loss on Sale of Fixed Assets	-	-	-	-	-
Depreciation Expense	4,000	1,000	1,000	1,000	1,000
Margin		2,167	2,177	1,863	55,589
Operating Expenses		-	-	-	-
Profit / (Loss)	314,026	2,167	2,177	1,863	55,589

(This line will expand to show the detail for which costs are being 'Expensed')

(This line will expand to show the detail for which costs are 'Operating Expenses')

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.

- **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

9.4 Corporate Tax

The model allows the user to calculate Corporate Tax, assumed to be paid on profits on an as realised basis (i.e. monthly). To calculate Corporate Tax, there are two inputs:

- **Corporate Tax Rate:** Enter in a single tax rate to calculate tax on profits after depreciation.

- **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.

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

9.5 Cash Flow & 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

9.6 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			950,000	952,517	857,765	774,851
Accrued Income			-	-	-	-
Work In Progress			50,000	-	55,625	145,042
Prepayments,Deposits and Other Receivables			-	-	-	-
GST Receivable			-	-	-	-
Total Current Assets			1,000,000	952,517	913,390	919,893
Long Term Assets						
Tangible Fixed Assets - Cost (Owned Assets)			-	100,000	100,000	100,000
Less - Acc.Dep (Owned Assets)			-	(1,000)	(2,000)	(3,000)
Long Term Assets Total			-	99,000	98,000	97,000
TOTAL ASSETS			1,000,000	1,051,517	1,011,390	1,016,893
LIABILITIES						
Current Liabilities						
Accounts Payables			-	-	-	-
Deferred Income			-	-	-	-
Accrued Expenses			-	50,000	8,351	12,552
GST Payable			-	-	-	-
Total Current Liabilities			-	50,000	8,351	12,552
Long Term Liabilities						
Long Term Loans			-	-	-	-
Intercompany Loans			-	-	-	-
Total Long Term Liabilities			-	-	-	-
TOTAL LIABILITIES			-	50,000	8,351	12,552
NET ASSETS			1,000,000	1,001,517	1,003,039	1,004,341
SHAREHOLDERS' EQUITY						
Project Capital			1,000,000	1,000,000	1,000,000	1,000,000
Dividends			-	-	-	-
Retained Earnings (Accumulated Deficit)			-	-	-	-
P&L - Current Year			-	1,517	3,039	4,341
TOTAL SHAREHOLDERS' EQUITY			1,000,000	1,001,517	1,003,039	1,004,341
Check Balance		-	-	-	-	-

The user should always check that the Balance Sheet balances. The totals in this row should all be zero.

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.

SHAREHOLDERS' EQUITY				
Project Capital			1,000,000	1,000,000
Dividends			-	-
Retained Earnings (Accumulated Deficit)				
P&L - Current Year				
TOTAL SHAREHOLDERS' EQUITY				

Developer's equity contributions appear here when treated as 'Project Capital'

- **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.

SHAREHOLDERS' EQUITY				
Share Capital			100	100	100
Dividends				-	-
Retained Earnings (Accumulated Deficit)				
P&L - Current Year				
TOTAL SHAREHOLDERS' EQUITY				

Enter the companies authorised Share Capital here when Project Equity is treated as a long term liability.

Part

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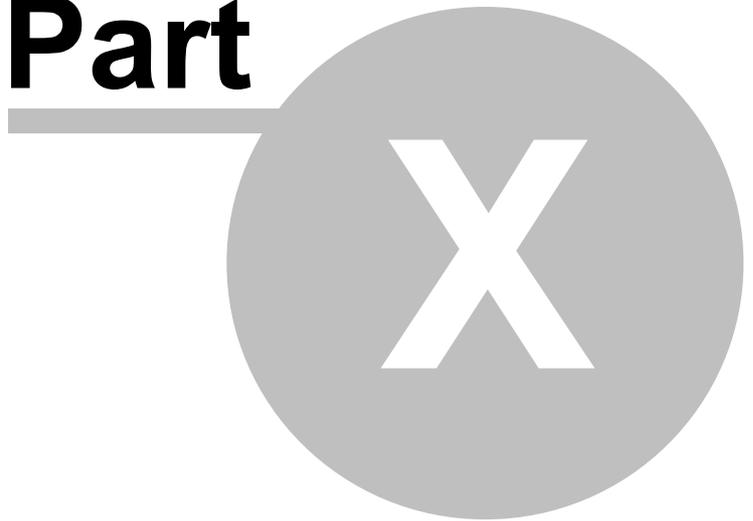
10   Risk Assessment

10.1   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 DF program:

1. Scenario Analysis

2. One-Way What-If Analysis

3. Two-Way What-If Analysis

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 hit the F9 key to recalculate the workbook 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		Performance Indicator *	Result
Land Acquisition Costs	0.0%	1,100,000		Development Profit	169,391
Construction Costs	5.0%	1,386,000		Development Margin	4.35%
Construction Period	0.0%	Months 2 to 19		Maximum Debt Exposure	1,928,449
End Sale Values	-5.0%	4,457,023		Date of Peak Exposure	Sep-2009
Capitalisation Rate	0.0%	8.00%		Breakeven Date of Cash Flow	Jan-2012
Sales Span Period '	0.0%	Months 35 to 36		Project NPV	(824,032)
Rental Levels	0.5%	105,525		Project IRR	6.87%
All Debt Interest Rates	0.0%	5.00%		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 tick boxes, select the variables you wish to test before running the sensitivity procedure.

Sensitivity to Changes in:	Enable	Warnings	Low ◄	► Mid ◄	► High
Land Acquisition Costs	✔		-5.0%	-3.0%	3.0%	5.0%
Construction Costs	✔		-10.0%	-5.0%	5.0%	10.0%
Construction Period	✔		-20.0%	-10.0%	10.0%	40.0%
End Sale Values	✔		-5.0%	-3.0%	3.0%	5.0%
Capitalisation Rate	✔		-0.5%	-0.2%	0.2%	0.5%
Sales Span Period	✔		-30.0%	-20.0%	20.0%	30.0%
Rental Levels	✔		-20.0%	-10.0%	10.0%	20.0%
All Debt Interest Rates	✔		-2.0%	-1.0%	1.0%	3.0%
Developer's Discount Rate	✔		18.0%	19.0%	20.0%	21.0%

Note that this table does not affect the cash flow - only the outputs on the Sensitivity Table, which is generated when the 'Sensitivity Analysis' function is run.

	Change %	Net Dev. Profit	NPV	Dev. Margin	Project IRR	Equity IRR
Base Case (No Variation)	**0.0%**	**477,089**	**(391,926)**	**12.83%**	**11.83%**	**13.03%**
Land Acquisition Costs	-5.0%	522,838	(348,234)	14.27%	12.61%	13.71%
	-3.0%	504,546	(365,711)	13.69%	12.29%	13.44%
	3.0%	446,466	(419,329)	11.87%	11.36%	12.41%
	5.0%	428,148	(436,803)	11.32%	11.06%	12.14%
Construction Costs	-10.0%	590,570	(313,907)	16.51%	13.43%	14.67%
	-5.0%	533,852	(352,891)	14.63%	12.63%	13.86%
	5.0%	420,300	(431,006)	11.09%	11.03%	12.18%
	10.0%	393,476	(470,124)	9.43%	10.24%	11.31%

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 Land Costs, 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 Land Costs, Construction Costs, End Sale Values or Rental Income.

These are translated into charts on the 'Sensitivity' sheet when the 'Sensitivity Analysis' function is run.
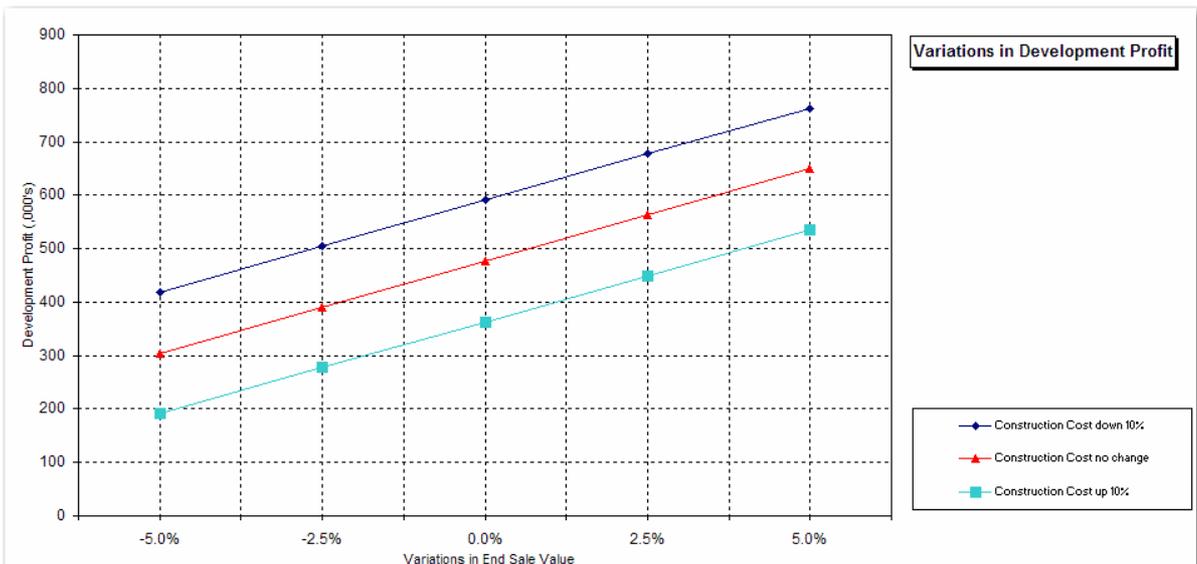
Running the Sensitivity Function

Once you have finished making all input entries, click the Run Sensitivity button on the 'Sensitivity' sheet or via the Estate Master 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

5. It recalculates the residual land value based on developer's Target Margin & IRR.

The length of the operation will be dependant on the memory and speed of your PC, and may take from 30 seconds to 5 minutes to complete. You can improve waiting time by keeping as much memory free and closing unnecessary applications.

Variations to Costs and Revenues

Note that the Land Costs, Construction Costs, End Sale Values and Rental Levels sensitivity variables vary the data in the 'Manual Input' rows of the Cash Flow sheet as well as the 'Input' sheet. However data in the 'Manual Input' rows are not varied by the period/span variations (construction period and selling span).

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
Whilst the cash flow has a maximum time periods, it can accommodate an extra 15 periods for the Sensitivity Analysis. If you should select scenarios for period/span variables in the sensitivity table that will expand the cash flow beyond these additional time periods, you will get a warning message when you try to run the sensitivity analysis. If this happens you will probably need to check your assumptions in the 'Sensitivity' sheet, adjust your variations in the One-Way What-If Analysis table, select a different rest period (eg quarters instead of months) or insert more time periods by using the "Resize Model" function.

## Land Owner's Sensitivity (Joint Venture Model Only)

When the Joint Venture model is switched on, the Land Owner's summary will appear below the developer's on the 'Summary' sheet. There is provision for the user to run a one-way what-if sensitivity analysis on the returns to the land owner, utilising the low and high variations in the 'Sensitivity' sheet.

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.

10.2   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

To run the simulations, click on the Run Monte Carlo Simulations button on the 'Probability' sheet or from the Estate Master 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 (Land Costs, 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.

Probability Profile No. 2
Construction Costs

Prob(%)	Values
3%	-15%
5%	-10%
10%	-5%
35%	0%
30%	5%
12%	10%
5%	15%
0%	
TOTAL 100%	

Custom Distribution
The Probability Profile has been customised so that there is a higher chance (12%) that the higher forecast will be achieved than the lower forecast (5%)

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%?	Random Generator		Random Value
1	Land Acquisition Costs	OK	☑	ON	2.5%
2	Construction Costs	OK	☑	ON	-5.0%
3	End Sale Values	OK	☑	ON	0.0%
4	Construction Period	OK	☑	ON	-10.0%
5	Sales Span Period	OK	☐	ON	15.0%
6	Capitalisation Rate	OK	☐	ON	-0.3%
7	Rental Income	OK	☐	ON	10.0%
8	All Debt Interest Rates	OK	☐	ON	-3.0%
9	For Advanced Excel Users	OK	☐	ON	0.0%

MyProb

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. The median can also be 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 XI
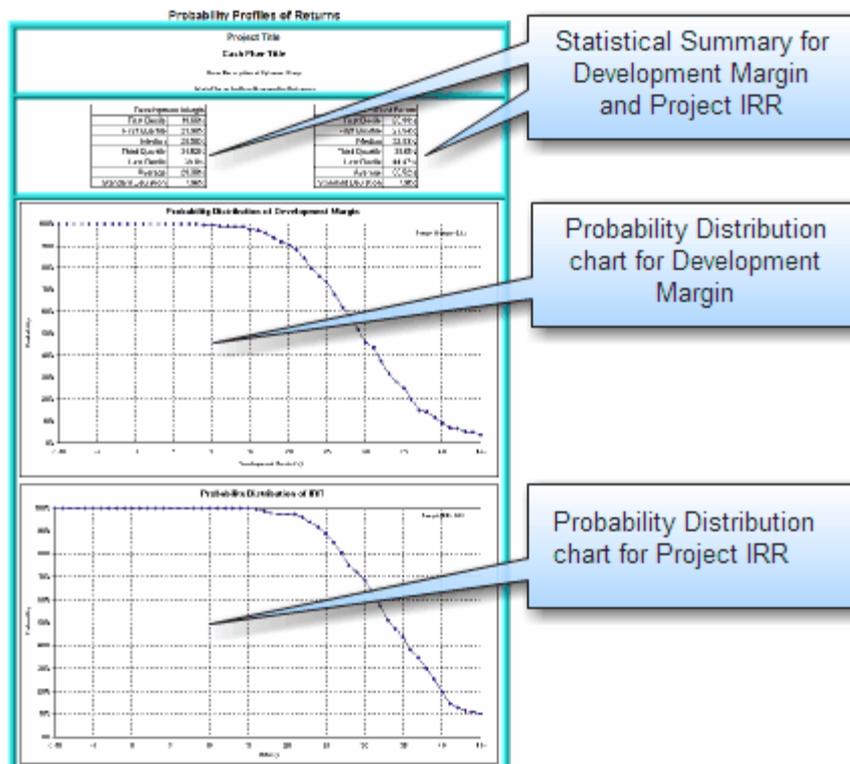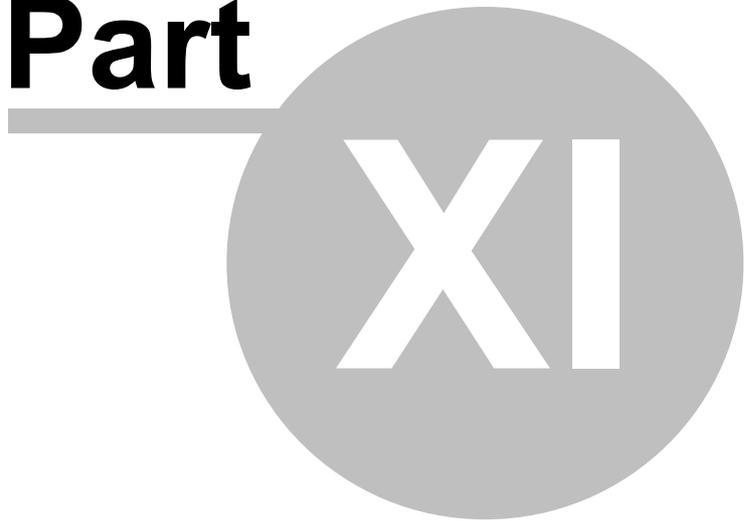
11 Printing Reports

There are two methods to print reports in the Estate Master DF program:

1. Use the 'Print Sheet' buttons on the individual sheets,

2. Click on 🖨 or 'Print Report Options' on the Estate Master Menu. That will load the following menu.
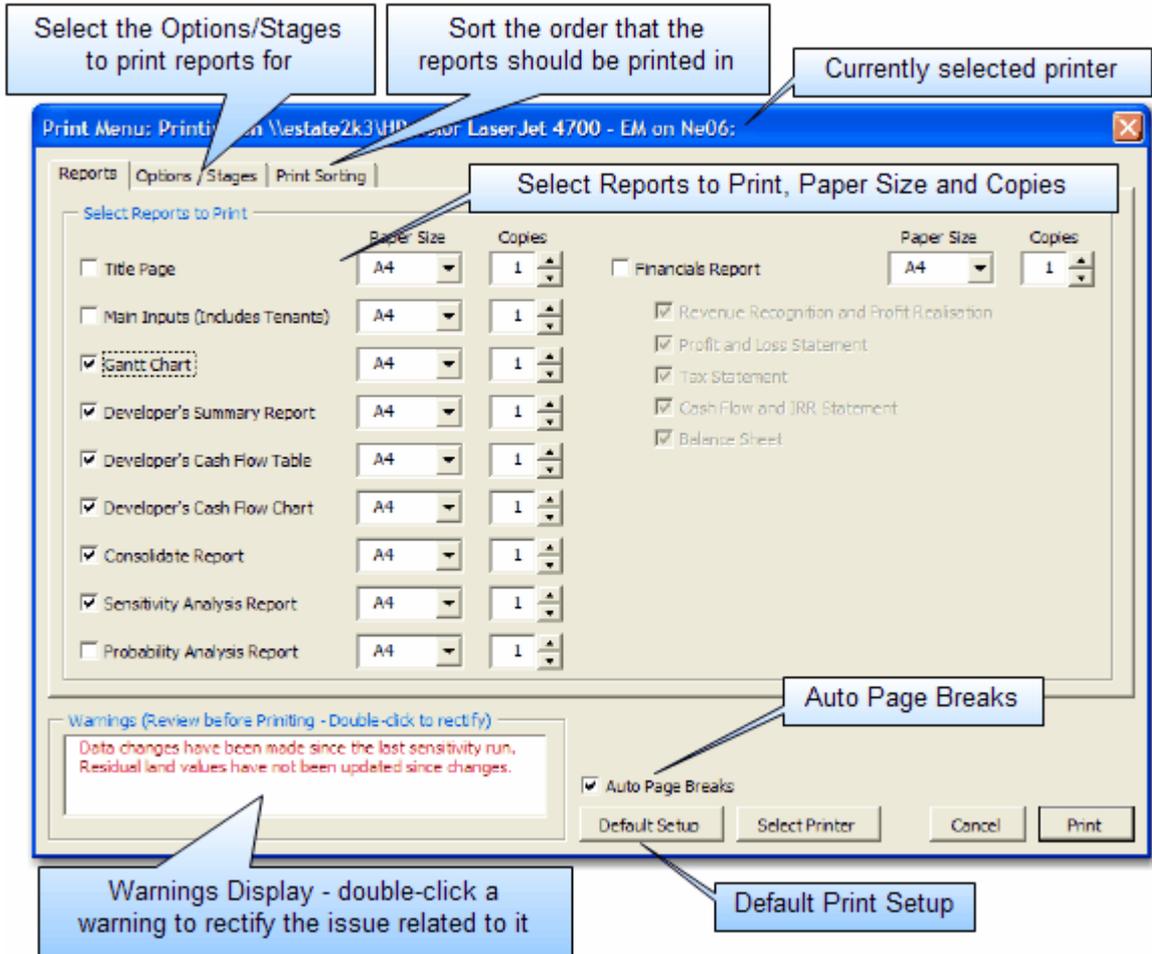
Print Menu Features

Select Reports to Print   Select the reports that you wish to print, the paper size and the number of copies, and then click 'Print'.

Options/Stages   This feature allows the user to print the selected reports for either the current inputs, or any of the stored Options/Stages.
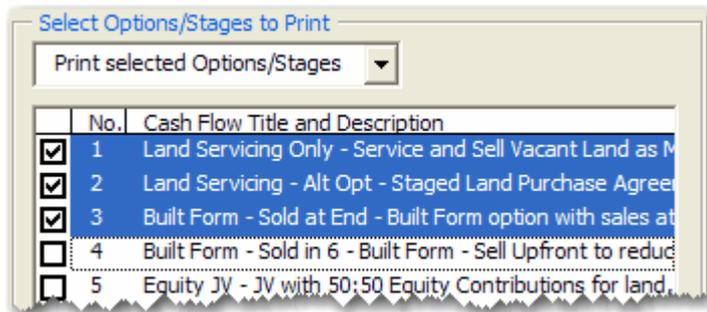
Print Sorting   Using the 'Move Up/Down' buttons, the user can sort the printing order of the selected reports.

Warnings Display   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:

- Input changes have been done since the last sensitivity run.

- 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.

- The residual land values have not been updated if changes have been made.

- The current set of inputs has not been stored and that the 'Consolidate' sheet is not up to date.

To rectify any of the issues related to the warning, just double-click the warning.

Default Print Setup   The print setup has been pre-defined in the Estate Master DF program.

If at any time you altered the print setup for the selected sheets to print, you must run the 'Default Print Setup' prior to printing to reset the settings for paper size, print area, orientation, header, footer, etc.

If no changes have been to the print setup by the user, the 'Default Print Setup' is not required.

Auto Page Breaks

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. If selected, they will be applied to the following reports:

- Main Inputs
- Cash Flow Table
- Gantt Chart

Conducting a Check Before Printing
There is numerous output report sheets in the Estate Master DF program that provide you with the performance indicators upon which the project's feasibility is assessed. You should do a reality check of these to make sure that there are no errors. For example, in the cash flow make sure the selling period follows the construction period, which follows acquisition. Check the graphs to make sure that they look reasonable and make sure there are no numbers in the cash flow or summary table, which appear to be unrealistic or wrong. If there are obvious errors, amend them in the inputs and re-run the sensitivity analysis.

Part

XII
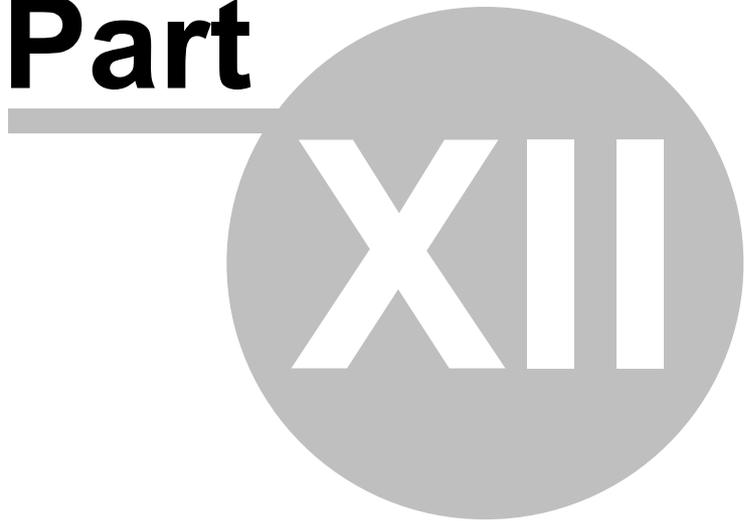
12   Using the Estate Master Enterprise Database

12.1   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) and DM (Development Management) software.

It is available to all users of Estate Master DF and DM version 3.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 and DM files (ver 3.1 or later);

- Generate comparison summary and cash flow reports for an unlimited number of development options (when used with EM CC).

- Generate consolidated summary and cash flow reports for an unlimited number of development stages (when used with EM CC).

12.2   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.

Type	Industrial
Status	Under Review

Under Review
Preferred Option
Alternate Option
Rejected
Approved
Post Completion

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	Month Start	Month Span	Date Start	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	Month Start	Month Span	Date Start	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.

12.3 Exporting to the Database

To export all the input data in your Estate Master DF 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.

2. Either through the Estate Master Menu or the Toolbar, click on the 'Export to Enterprise Database' button .

3. The program will detect if the current set of Inputs has been stored as an Option/Stage. If it hasn't, a prompt will appear, requesting the user to store the current set of data in the Input sheets before proceeding. Only stored Options/Stages can be exported to the Enterprise Database.
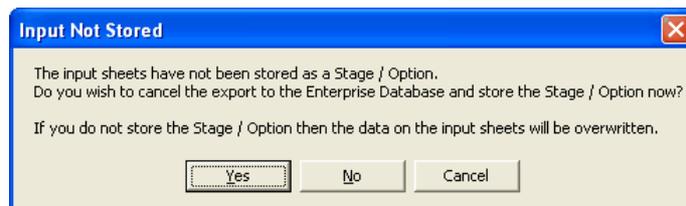
4. If the database configuration file (EMDB.ini) is not found on the system (and hence a connection to the Enterprise Database cannot be established), then the following error message will appear. It will prompt the user to run the Enterprise Database Management Utility to assist in setting up a connection. Please refer to the Enterprise Database Operations Manual for more information about configuration.

5. Once the connection is successful, an Export Wizard will appear.

Step 1 - Export Cash Flows

1. The first step of the process prompts the user to select what they would like to export:

   - **Export All:** Exports all options in the DF file, 1 through to 8.

   - **Export Individually:** Allows the user to select which specific options in the DF file to export.

2. Once selected, click 'Next'.

Step 2 - Project Allocation

1. Using the Project Name and Project Number on the Intro sheet of the DF 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 DF 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 3 - Confirm Export Details

3. 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 4 - Export Data

1. Once satisfied with the details, click 'Export' to begin the data transfer process.

12.4   Importing from the Database

To import input data in your Estate Master DF file from the Enterprise Database, follow these steps:

1. Either through the Estate Master Menu or the Toolbar, click on the 'Import from Enterprise Database' button .
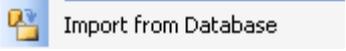
2. If the database configuration file (EMDB.ini) is not found on the system (and hence a connection to the Enterprise Database cannot be established), then the following error message will appear. It will prompt the user to run the Enterprise Database Management Utility to assist in setting up a connection. 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.
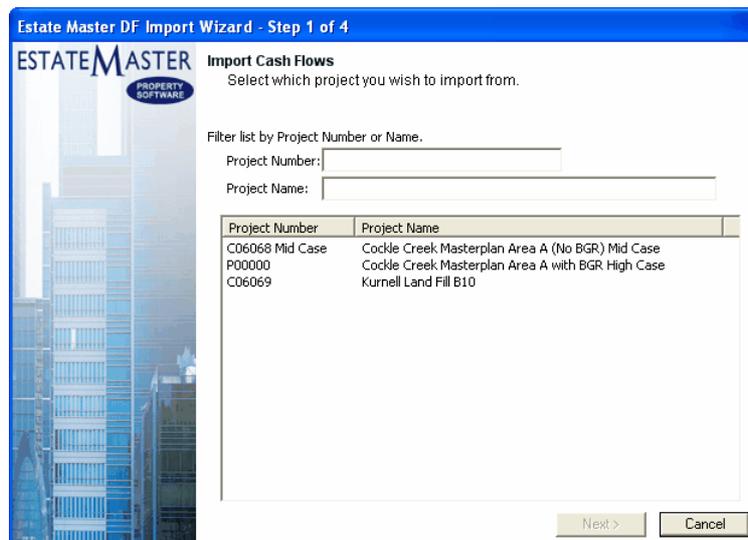
2. Select the appropriate project and click on 'Next'.

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.
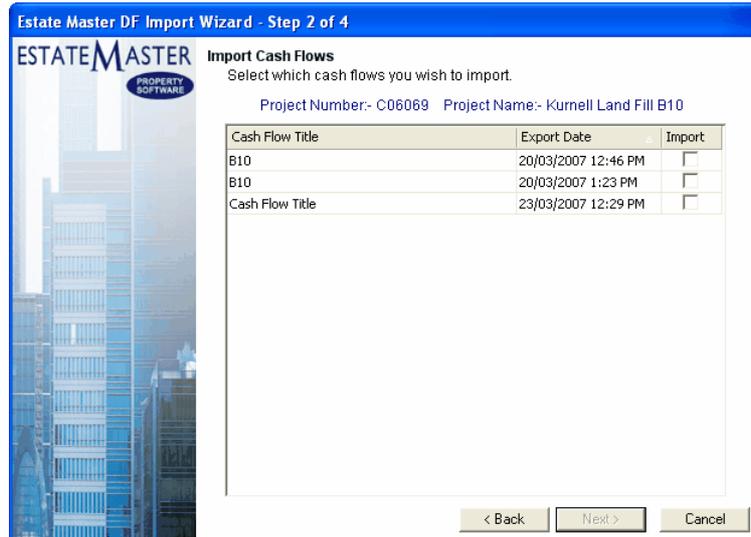
2. In the 'Import' column, select the cash flows you wish to import. There is a maximum of **8** cash flows you can import into a DF file from the database. Once selected, click 'Next'.

Step 3 - Select Stage/Option

1. The next step will allow the user to allocate the cash flows they wish to import to the relevant Stage/Option in the DF file they are importing into.
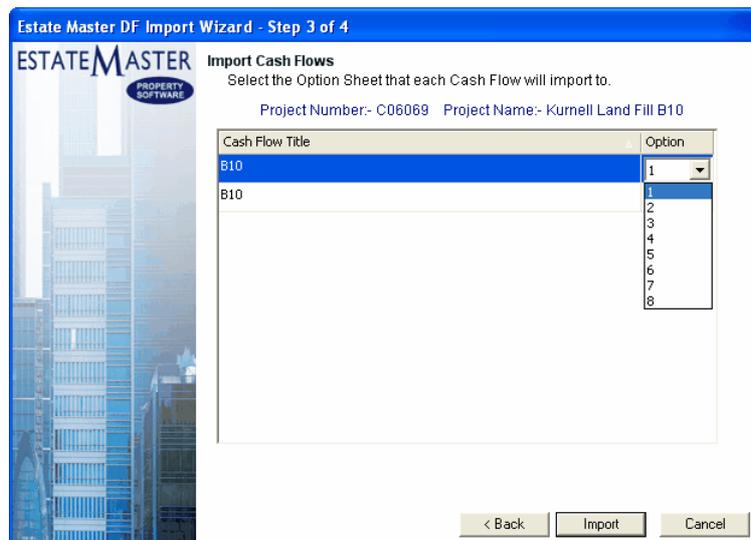
2. Clicking on the 'Option/Stage' numbers, provides the user with drop-down list from 1 to 8.

Step 4 - Import

1. Once the Options/Stages have been set, click on 'Import' to begin the file transfer process.

12.5   Exporting when Storing Options/Stages

When storing Options/Stages in a DF model, the user may be prompted each time to also store the cash flow into the Enterprise Database at that point in time.

If the user clicks 'No', then if they ever need to export to the Enterprise Database, it must be done manually through the Estate Master Menu or Toolbar.

To select whether you wish this prompt always appears when storing Options/Stages or not, go to the Estate Master Preferences in the General tab.

Part XIII
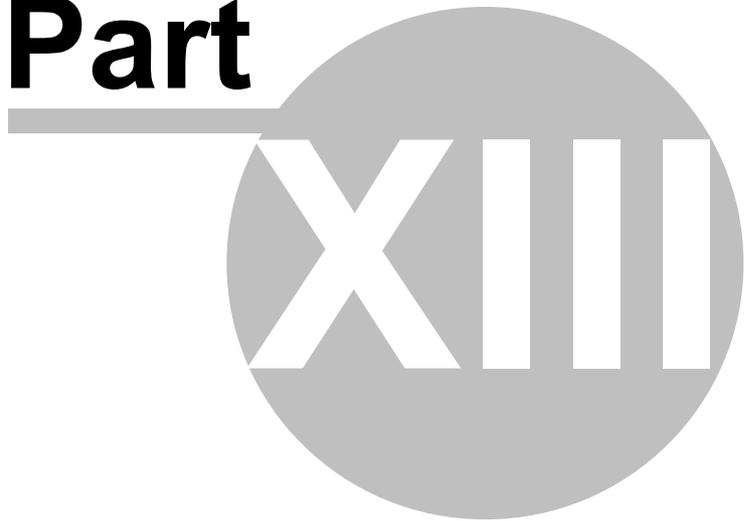
13 Troubleshooting and Support

13.1 Macros are Disabled

A macro is a series of commands and instructions that are grouped together as a single command to accomplish a task automatically. Estate Master uses these in all of its functions such as Sensitivity Analysis, Probability Analysis, Printing, etc. If a warning appears when you open the file or when you try and run a macro function in the program, stating that 'Macros are Disabled', you will have to change the macro security setting of Excel to 'Medium' by clicking on Tools - Macro - Security and reopen the program.

It is recommended that you 'Always trust macros from this source' and/or 'Enable Macros' if asked, otherwise the functions in the model will not operate.

13.2 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 using the 'Resize Model' function.

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).

13.3 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.

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.

13.4 Cut & Move Commands

Do not use the Cut or Move commands, as this will corrupt the formulae in the model. If you do cut or move cells, they will lose their white background and turn red, generally as a result of this #REF! values will appear in the financial summary sheet.

If this happens you must immediately 'Undo' before anything else using the Excel - Edit - Undo command - or click on the Undo button in the toolbar.

If you can't use the UNDO feature it is recommended that you:

1. Save the file under a different file name;

2. Print a copy of the inputs for record;

3. Open an earlier saved model without the reference errors; and

4. Re-enter all inputs into this model.

If you do not have an earlier saved file without reference errors it is recommended that you open the template and enter the information into a fresh model. It may be necessary to reinstall the template file if a user has corrupted the template file (i.e. it also has reference errors in it).

Copy and Fill Down commands are safe to use. Do not use Fill Right since different columns have different format types.

13.5 Importing Data from Previous Versions

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

1. Ensure the Microsoft Excel program is closed.

2. Open the Estate Master template file from the Programs list in the Start menu.

3. Once loaded, check the version numbers on the 'Intro' sheet to see if they are the latest versions.

4. If the Engine Version hasn't updated, you have not uninstalled the previous version and installed the new version correctly.

5. If the Sheet Versions hasn't updated, you did not open the new master file.

6. If both version numbers do not match, try installing the new version again.

7. Once the version has been verified, you are now ready to import data from previous versions.

Using the Enterprise Database Import function

1. If you have used the Enterprise Database software to store you previous DF cash flows, then use the Import function to import data to your new DF template file.

2. If you are not a Enterprise Database user, you can use the 'Import From Previous Version function (below).

Using the Automatic Import from Previous Version Feature

1. Open the latest master file that has the above version numbers and go to the 'Estate Master' menu.

2. Go to 'Technical Support and Updates' and select 'Import Data from Previous Version.

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 master file.

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 master file and any job file that was created in previous 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 (using Paste Special-Formulas only). 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: Input, Tenants, Manual-Input, Cash Flow (manual equity injections, principal repayments, rate interest variations), any user-inserted worksheets and any Option sheets used.

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. Feasibility - 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.

Part

XIV
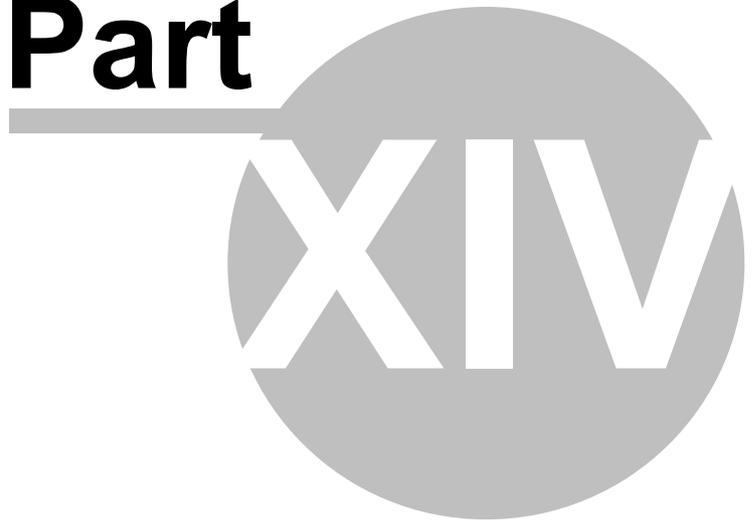
14   Licence Agreement

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. By clicking "I Accept", you accept all of the terms. If you do not wish to accept the terms, you must not click "I Accept" and you may not use the Software.

1.2   If you are using the Software on behalf of a company or an organisation, in clicking the "I Accept" button during installation you warrant that you are authorised by the company or organisation to agree the terms on its behalf.

2.   Licence

2.1   We grant you a non-exclusive, non-transferable licence to use:

(a)   the Software, on equipment owned and used by you at the Site:

(i)   on the number of computers equal to the number of User/PC Licenses that you have purchased; or

(ii)   by the number of concurrent users equal to the number of CAS Licences that you have purchased; and

(b)   the Documentation,

on the terms of this agreement.

2.2   You acknowledge that there is no transfer to you of any right in the Software or the Documentation other than the licence granted in clause 2.1.

3.   Your obligations

3.1   You must not and must not allow any other person to:

(a)   except as expressly permitted by law, 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; or

(d)   use the Software to supply hosting services or bureau services to any person.

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.

3.4   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)   your breach of your obligations under this agreement; or

(b)   your wilful, unlawful or negligent act or omission.

4.   Evaluation Period and Activation

4.1   You may use the Software for the purpose of evaluation for a period of up to 30 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 in accordance with our standard payment requirements before we will issue an activation key for the Software.

6.2 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 16. 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 rate prescribed from time to time for unpaid judgments of the Supreme Court of NSW, calculated from the original due date.

6.3 All fees, charges and other amounts referred to in this agreement are exclusive of Government Charges.

6.4 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 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, Upgrades and New Releases

8.1 Except to the extent specified in this agreement, we are not obliged to support the Software, whether by providing advice, training, error-correction, modifications, upgrades, new releases or enhancements or otherwise.

8.2 We will provide support for the Software for a period of 12 months after the date of activation. After 12 months, support is available on our standard terms on payment of the Support Charge. Our standard terms for support are available on our website.

8.3 If we offer an upgrade or new release and you accept:

(a) the charge for the upgrade or new release will be at our then current rate for existing customers;

(b) this agreement will continue to apply to the upgrade or new release; and

(c) you must return to us all copies of the original Software or otherwise deal with all copies of the original Software in accordance with our directions.

9. Software performance

9.1 We do not guarantee that the Software is or will be error free for all possible systems, combinations of software and input variations.

9.2 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.

10. Warranty

10.1 We warrant that:

(a) for the duration of the Warranty Period, the Software will operate in conformity with the Documentation in all material respects;

(b) the Software and Documentation does not infringe the Intellectual Property Rights or moral rights of any person; and

(c) we have all necessary rights to grant the licence under clause 2.1.

10.2 If, during the Warranty Period, you consider there is a defect in the Software such that the Software does not conform with, or cannot be used in accordance with, the Documentation, you must notify us. We will investigate any defects so notified and, upon verification of the existence of the defect, rectify the defect without additional charge to you.

11. Limitation of Liability

11.1 You acknowledge that:

(a) the Software or the Documentation may contain errors or inaccuracies;

(b) results produced by the Software may contain errors or inaccuracies; and

(c) you rely on your own professional skill and judgement in using the Software and in determining its suitability for any purpose.

11.2 We do not exclude or limit the application of any provision of any statute (including the *Trade Practices Act 1974*) where to do so would contravene that statute or cause any part of this agreement to be void, including any provision implying any condition, warranty or providing for an indemnity. In this clause an implied condition or warranty the exclusion of which from a contract (including a contract with a consumer as defined in the *Trade Practices Act 1974*) would contravene any statute or cause part or all of this clause to be void is called a ***Non-excludable Condition***.

11.3 Our total liability to you for a breach of any express term of this agreement, or for a breach of any Non-excludable Condition (other than one implied by section 69 of the *Trade Practices Act 1974*), is limited, at our option, to any one of supplying, replacing or repairing, or paying the cost of supplying, repairing, or replacing the goods or supplying again, or paying the cost of supplying again, the services in respect of which the breach occurred.

11.4 We exclude:

(a) from this agreement all conditions, warranties and terms implied by statute, general law or custom, except any Non-excludable Condition;

(b) except for liability in relation to a breach of a Non-excludable Condition, all liability to you in contract for consequential or indirect damages arising out of or in relation to the Software or Documentation, any delay or other failure in supplying the Software or Documentation, even if we knew they were possible or they were otherwise foreseeable, including lost profits and damage suffered as a result of claims by any third person; and

(c) all liability in negligence.

12. Confidentiality

12.1 Each party:

(a) may use Confidential Information of the other party solely for the purposes of this agreement;

(b) except as permitted under clause 12.1(c), must keep confidential all Confidential Information of the other party; and

(c) may disclose Confidential Information of the other party only:

(i) to persons who:

(A) are aware and agree that the Confidential Information of the other party must be kept confidential; and

(B) 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

(ii) as required by law or stock exchange regulation.

12.2 Even though information is the Confidential Information of a party, the other party is not obliged to comply with clause 12.1 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.

12.3 You must not make any public statement:

(a) about the performance of;

(b) about the operation of; or

(c) benchmarking,

the Software without our prior written consent.

13. Intellectual Property Rights

13.1 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. You must provide all necessary co-operation, information and assistance to us in the conduct of the defence of such proceedings.

13.2 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.

14. Term and Termination

14.1 This agreement continues until:

(a) a party terminates the agreement in accordance with clause 14.2; or

(b) you give us at least 30 days notice.

14.2 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) any event of insolvency happens to that other party (whether or not notified).

15. On Termination

15.1 On termination of this agreement other than for our breach or insolvency, the licence granted under clause 2.1 terminates and you must immediately:

(a) stop using the Software;

(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.

15.2 You acknowledge that if this agreement is terminated other than for our breach or insolvency, 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 15.1, at your cost, enter any of your premises during working hours to repossess them.

16. Dispute Resolution

16.1 Neither party may start arbitration or court proceedings (except proceedings seeking interlocutory relief) in respect of a Dispute unless it has first complied with this clause.

16.2 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.

16.3 Within 7 working days after a notice given under clause 16.2 each party must nominate in writing to the other party a representative authorised to settle the Dispute on its behalf.

16.4 During the 20 working day period after a notice is given under clause 16.2 (or if the parties agree a longer period, that longer period) each party must use his or her best efforts to resolve the Dispute.

16.5 If a Dispute is not resolved within that time, the Dispute must be referred:

(a) for mediation, in accordance with 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 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. Force Majeure

17.1 Neither party is liable for any delay or failure to perform its obligations pursuant to this agreement if such delay is due to Force Majeure.

17.2 If a delay or failure of a party to perform its obligations is caused or anticipated due to Force Majeure, the performance of that party's obligations will be suspended.

17.3 If a delay or failure by a party to perform its obligations due to Force Majeure exceeds sixty days, either party may immediately terminate the agreement on providing notice in writing to the other party.

17.4 If this agreement is terminated pursuant to clause 17.3, we will refund moneys previously paid by you for any goods or services not supplied to you.

18. Entire Agreement

This agreement, including the Invoice, constitutes the entire agreement between the parties and supersedes all prior representations, agreements, statements and understandings, whether verbal or in writing.

19. Assignment

You may not assign the benefit of this agreement without our written consent.

20. Variation

This agreement may be varied only by a document signed by both parties that states expressly that it varies this agreement.

21. Severability

If any provision of this agreement is held invalid, unenforceable or illegal for any reason, the agreement remains otherwise in full force apart from such provision, which is deemed to be deleted.

22. Governing law

22.1 This agreement is governed by the law applicable in New South Wales, Australia and each party irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts of that State.

23. Notices

23.1 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.

23.2 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, three 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.

24. Definitions

24.1 The following definitions apply unless the context requires otherwise:

CAS License means Client Access Session, being the number of users that can use the Software at any one time on a network via a terminal server. For example, 20 people might have access to use the Software via a terminal server network, but a single CAS means that only one may use it at a time.

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.

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 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.

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 received by 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.

Site means the physical address for the use of the Software specified at the time of installing the Software.

Support Charge means a charge for support in accordance with our standard rates in effect from time to time.

User/PC License means the 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 of installation of the Software.

We, including its different grammatical forms such as *our* and *us*, means Estate Master Pty Limited, ABN 76 102 232 593, of Level 6, 234 George Street, Sydney, NSW, Australia.

You means 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.

24.2 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 a*s, do not limit anything else that is included in general speech; and

(b) unless otherwise stated, monetary references are references to Australian dollars.